Université Panthéon - Assas

Ecole doctorale de EGIC (ED 455)

Thèse de doctorat en Sciences Économiques

soutenue le 26 Novembre 2021

Thèse de doctorat Novembre/ 2021

Audience de la télévision et performances publicitaires : impacts de la météorologie, de la régulation et des interactions familiales.

UNIVERSITÉ PARIS II
PANTHÉON-ASSAS

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Remerciements

Je tiens à remercier les professeurs Damien Gaumont et Alain Pirotte d'avoir accepté de diriger cette thèse. Mes remerciements s'adressent tout particulièrement au Professeur Damien Gaumont qui a participé à l'écriture du quatrième chapitre de cette thèse. Il a été d'un très grand soutien moral et m'a donné de nombreux conseils. Cela fait plusieurs années que je travaille avec lui, notamment dans le cadre du développement du Master 2 Stratégies des Entreprises et Economie des Organisations en ma qualité de Président de l'Association des Anciens. J'ai pu constater que travailler avec lui est un vrai bonheur, et je pense qu'il est le directeur de thèse dont rêveraient beaucoup de doctorants à l'heure actuelle. Il a été un vrai mentor, et je lui dois beaucoup.

J'adresse toute ma reconnaissance aux membres du jury pour le temps qu'ils ont consacré à la lecture de cette thèse et tout particulièrement au Professeur Rabah Amir et à Monsieur Michael Visser, Directeur de Recherche au CNRS, d'avoir accepté d'être les rapporteurs de ma thèse. De plus, je suis très honoré que le Professeur Michel Dimou, le Professeur Corina Paraschiv et Julien Rosanvallon aient accepté de faire partie de mon jury.

Cette thèse n'aurait pas été possible sans l'aide et la participation de Philippe Tassi, ancien directeur général adjoint de la société Médiamétrie. C'est grâce à lui que j'ai pu, tout au long de ma thèse, avoir un poste de travail dans la société et que j'ai pu obtenir les données exceptionnelles dans le cadre d'une thèse (26 millions d'observations quotidiennes entre janvier 2011 et février 2019 portant sur plus de 24 000 panélistes). Philippe a été là pour me conseiller tout au long de cette thèse, ce qui représente plusieurs dizaines d'heures de réunion. Il m'a donné accès à son réseau de professionnels et de chercheurs avec qui j'ai pu m'entretenir. Il a lui aussi été un vrai mentor, et je lui dois tout.

Une mention spéciale doit être attribuée à Monsieur Julien Rosanvallon, actuel directeur général adjoint de Médiamétrie qui a été mon responsable au sein de la société. Il a été d'un grand soutien, et toujours de bons conseils pour l'avancée de cette thèse. En évoquant Julien, je pense à son assistante, Aurélie Roge-Delahaye qui était dans le bureau en face du mien. C'était un réel plaisir de travailler au quotidien avec elle, et je la remercie pour son soutien logistique et moral.

Je souhaite adresser mes remerciements à Jean-Pierre Panzani qui a consacré énormément de temps pour m'aider dans les exports de données. Il m'a fait découvrir toutes les subtilités que cachent les audiences télés. C'est une personne avec qui il est très agréable de travailler, et je lui dois beaucoup dans l'écriture de cette thèse. Avec lui, j'associe toutes les équipes que Jean-Pierre dirige, à commencer par Awa Beurnier qui m'a aidé considérablement dans la résolution de problèmes concernant la construction de ma base de données, Alain Ongenyi pour ses conseils sur l'écriture du troisième chapitre de cette thèse, ainsi que Constance Segard Nordmann, Audrey Dubois et Lauranne Jean. Je n'oublie pas la direction TV-Internet dirigée par Laurence Delechapt, en particulier Laurence David, Isabelle Maurice, Edwige Barberis Negra Penin, Morgane Guyon, Alexandra Simpelaere et Thomas

Briand. Je pense également à la direction Internet dirigée par Bertrand Krug, avec Olivia Brunet et Julie Chevallier. La direction scientifique de Médiamétrie a été également d'un grand soutien au début de cette thèse. Je remercie particulièrement sa directrice Aurélie Vanheuverzwyn, Lorie Dudoignon et Nicolas Goncalves qui ont énormément apporté dans les données utilisées.

Je dois également beaucoup à Michel Bensimhon qui a été mon professeur de finance en Master 2. Nous avons gardé contact durant ma thèse pendant laquelle il a été très présent pour m'encourager, mais également pour m'ouvrir son réseau professionnel. Je le considère également comme un mentor.

L'ambiance de travail est un facteur important dans le cadre d'une thèse. Je souhaiterais ici nommer tous les membres du Centre de Recherche en Economie et Droit (CRED) qui ont contribué à ce que mon travail doctoral s'effectue dans les meilleures conditions, à commencer par son directeur, le Professeur Bruno Deffains, ainsi qu'aux Professeurs Claudine Desrieux, Etienne Lehmann et Chloé Le Coq pour leurs nombreux conseils, sans oublier Fathi Fakhfakh qui était membre de mon comité de suivi. Je remercie également mes collègues (ainsi que les anciens) du CRED, en particulier Marie-Noelle Lefebvre, Noé Ciet, Philémon Poux, Eddy Zanoutene, Oguzhan Akgun, Yann Aouidef, Jun Hu, Charlie Noujarret, Hadi Salameh, Issa Sanou, Téa Toutounji, Illan Barriola, Luc Fortin, et Nicolas Dumas. Un très grand merci aux chargés de TD que j'ai eu quand j'étais étudiant, en particulier Farah Hachicha qui m'a fait découvrir l'économétrie, Inaam Chaabane, Jihan Ghrairi Bouhajeb, Stéphanie Saba et Aguibou Tall.

J'exprime toute mon affection à mon "frère" de thèse, Yassine Badra avec qui j'ai eu le plaisir de co-écrire le quatrième chapitre de ce manuscrit.

Tout au long de cette thèse, j'ai eu l'honneur d'être représentant des doctorants de mon laboratoire au sein de l'école doctorale ED 455. Il est rare qu'un doctorant puisse remercier chaleureusement le Président de son université. Pourtant c'est mon cas. En effet, le Professeur Stéphane Braconnier, actuel Président de l'université Paris 2 Panthéon-Assas, s'est impliqué pour les doctorants de l'université, s'est rendu disponible pour échanger sur tous les sujets et a été d'une grande générosité à mon égard. Il en est de même pour son directeur de cabinet, Monsieur Charlie Roullet. J'ai une pensée pour l'ancien directeur de notre école doctorale, le Professeur Frédéric Lambert, notamment pour la confiance qu'il a su me témoigner ainsi que pour la nouvelle directrice de cette école, le Professeur Mathilde Gollety, pour sa disponibilité et ses conseils précieux. Je tiens à témoigner ma reconnaissance à Benoît Cassaigne, ancien directeur général adjoint de Médiamétrie d'une part pour ses conseils, d'autre part d'avoir accepté de venir au séminaire sur les communautés en ligne que j'ai co-organisé avec les autres représentants de l'école doctorale, Pierre Buffaz, Jaercio Da Silva et Marine Mallet que je tiens à remercier également. En évoquant Benoît, je veux associer son ancienne assistante, Kheira Aïssa-Trevisan, qui m'a beaucoup aidé. Je n'oublie pas mes collègues juristes représentants des autres écoles doctorales, en particulier Grégoire Lemarchand, Maxime Cormier, Loïc Burgun, Mathilde Gheeraert, avec qui j'ai beaucoup travaillé pour l'intérêt des doctorants de notre université.

Etre doctorant consiste non seulement à écrire une thèse, mais aussi à enseigner. C'est pourquoi je souhaite remercier Valérie Sacriste, directrice du Master CESSA à l'université de Paris pour m'avoir confié le cours de Méthodologies Statistiques dans son Master 1 et avec elle tous les enseignants de l'université Panthéon-Assas qui m'ont confié des TD. Je pense tout d'abord au Professeur Lucie Ménager pour la confiance qu'elle m'a accordée en acceptant que j'assure des TD dans le cadre de son cours de Microéconomie en L1. Je pense aussi au Professeur Vassili Vergopolous et Lisa Morhaim, Maître de conférences en Mathématiques, qui m'ont confié les TD de Mathématiques/Statistiques en L1. Plus généralement, je souhaite remercier l'ensemble des étudiants que j'ai pu avoir dans le cadre de ces enseignements. Echanger avec eux représente une richesse inestimable ainsi qu'une stimulation intellectuelle.

Je tiens à mentionner que tous les services administratifs de l'université Paris 2 Panthéon-Assas ont été d'un grand soutien grâce à leurs implications et plus particulièrement Madame Naima Baba-Aïssa, la secrétaire du CRJ et du CRED, qui a su être là à chaque instant. Je veux dire ici que Naima est une personne exceptionnelle, dévouée et impliquée. C'est grâce à des personnes comme elle que l'université peut fonctionner aujourd'hui. Je n'oublie pas Cindy Ripert, Valérie Ly, Corinne Le Duc, et Amira Sbai.

L'écriture de ce manuscrit n'aurait pas été possible sans les conseils de quelques personnes. Je veux témoigner de ma reconnaissance au Professeur Nicolas Sirven qui m'a conseillé dans mes estimations économétriques, au Professeur Georges Zaccour pour ses remarques sur le chapitre 4, aux Professeurs Antoine Terracol et Bertrand Belvaux pour leurs remarques sur le chapitre 3. Je souhaite remercier le Professeur Jean-Michel Courtault, le Professeur Bertrand Wigniolle, le Professeur Serge Blondel, Régis Chenevaz, Berthana Dreumont, Xavier Rousset et Rémi Devaux pour leurs nombreux conseils.

L'ambiance en dehors du travail est également un facteur important dans l'écriture d'une thèse. Pour cela je tiens à remercier vivement mes amis et camarades de promotion, en particulier William Fernandes, Tin Jasak, Sofiane Harrabi, Kevin Faradji, Vladimir Novakovich, Aymeric Georget et Soufiane Carcaillet pour le soutien moral qu'ils m'ont apporté. J'ai une pensée également pour Salima Ouerk pour son soutien et sa gentillesse. Elle a su me donner les bons conseils au bon moment. Je n'oublie pas ma meilleure amie, Lucille Martin, qui a su être présente dans les moments où j'en avais le plus besoin. Un très grand merci à son père, Pascal Martin, pour avoir réussi à imprimer en un temps record plusieurs exemplaires de ce manuscrit à destination des membres du jury. J'ai une pensée pour mes amis de la Villa Borghese, lieu où j'ai pu avancer dans l'écriture de cette thèse, en particulier Sam, Laura, Lydia et Matthieu.

Enfin, le soutien de la famille est crucial dans l'écriture d'une thèse. Je remercie mes parents et mes frères qui ont toujours été présents à chaque instant et qui font que cette thèse voit le jour. Je remercie le reste de ma famille, avec une pensée particulière pour mon grand-père maternel qui nous a quittés au tout début de son écriture et qui aurait été très fier d'assister à ma soutenance.

Résumé :

L'objectif de cette thèse est d'aider les acteurs de la télévision à mieux comprendre le comportement des téléspectateurs, en étudiant l'impact du contexte sur les audiences, et donc sur les performances publicitaires. Ce contexte peut correspondre aux interactions familiales, à la météorologie, à la préférence des téléspectateurs pour la publicité ou l'utilisation d'un média, à la régulation. Cette thèse combine des modèles théoriques et des estimations statistiques ou économétriques en s'appuyant sur une base de données de 26 millions d'observations quotidiennes provenant du panel de Médiamétrie (24 334 panélistes) ainsi que des données de la société Météo France sur la période 2011-2019. Elle explore trois dimensions du contexte susceptibles d'avoir un effet sur l'audience, et donc sur les performances publicitaires. Après un premier chapitre qui présente un résumé de l'Histoire de la télévision en France, le deuxième chapitre s'intéresse à la modélisation économique des interactions familiales dans le cadre de l'audience conjointe chez les couples de téléspectateurs. Le choix de regarder seul ou à deux la télévision dépend du niveau du capital humain de chaque membre de la famille. Le troisième chapitre analyse l'effet des variables météorologiques sur la durée quotidienne que consacrent les individus à regarder la télévision à domicile en France métropolitaine. A conditions météorologiques identiques, la préférence pour l'utilisation de la télévision n'est pas la même selon les régions françaises. Le quatrième chapitre généralise à l'ensemble des médias les résultats obtenus sur les chapitres précédents relatifs à la télévision, et propose un modèle théorique sur le fonctionnement général des médias multifaces où le régulateur, les diffuseurs, les producteurs/annonceurs et les utilisateurs de médias interagissent. Contrairement aux hypothèses habituelles faites dans la littérature, les téléspectateurs peuvent avoir une appétence pour la publicité.

Descripteurs :

Télévision, Conditions Météorologiques, Interactions familiales, Média, Publicité, Préférences Publicitaires, Régulation

Abstract :

This thesis helps better understand the TV-viewers' behaviors. This is important for television players (channels, agencies, advertisers) to know the impact of context on audiences and advertising performances. For instance, this context can correspond to family interactions, weather conditions, viewers' preference for advertising, for using a media or simply regulation. For this purpose, this thesis combines theoretical models and statistical or econometric estimations using a database of 26 million daily observations from the Médiamétrie's panel (24,334 panelists) as well as data from the company Météo France over the period 2011-2019. After a first chapter that presents a summary of the history of television in France, the second chapter focuses on the economic modeling of family interactions in the context of joint viewing among TV couples. The choice of watching television alone or together depends on the level of human capital of each family member. The theoretical model replicates the empirical results. The third chapter analyzes the effect of weather variables on the daily time spent watching television at home in France. With identical weather conditions, the preference for watching television is not the same in different regions of France. The fourth chapter generalizes to all media the results obtained in the previous chapters on television, and proposes a theoretical model on the general functioning of multi-sided media where the regulator, broadcasters, producers/advertisers and media users interact. Contrary to the literature, it is shown that viewers have a liking for advertising. Since this liking is unobservable, this thesis suggests using weather to highlight its relative effects.

Keywords :

Television, Weather Conditions, Family Interactions, Media, Advertising, Preference for Advertising, Regulation

Principales abréviations

ARCEP : Autorité de régulation des communication électroniques, des postes et de la distrution de la presse

DEI : Durée d'Ecoute par Individu

DET : Durée d'Ecoute par Téléspectateur

PDA : Part D'Audience

TC : Taux cumulé

CSA : Conseil Supérieur de l'Audiovisuel

GRP : Gross Rating Point

VOD : Video on Demand

SVOD : Subscription Video On Demand

OTT : Over The Top

ISP : Internet Service Provider

P/A : Producer/Advertiser

Sommaire

Introduction

Jacqueline Aglietta, première présidente de la société Médiamétrie, avait coutume de dire que la mesure d'audience est comme une monnaie commune : elle doit être unique, reconnue, et crédible. Médiamétrie a été créée en 1985 pour mesurer les audiences de la télévision, de la radio puis d'Internet en France. Elle publie les résultats d'audience de la télévision pour chaque chaîne souscriptrice du service. Ces résultats peuvent être publiés chaque jour pour les grandes chaînes nationales. En effet, le fonctionnement économique de ces chaînes repose sur les résultats d'audience qu'elles utilisent pour calculer le tarif des écrans publicitaires qu'elles appliquent auprès des annonceurs. Ces derniers représentent la première source de revenu de ces chaînes (à l'exception des chaînes publiques qui sont financées en grande majorité par la redevance depuis le 5 janvier 2009, suite à l'interdiction de diffuser des publicités commerciales après 20h et jusqu'à 6h le lendemain matin, ou encore du groupe M6 dont 20% du chiffre d'affaire provient de revenus non publicitaires).

La mesure d'audience doit être **unique**, car plusieurs mesures d'audience sur un même marché signifieraient des résultats d'audience différents pour une même chaîne, ce qui impliquerait une confusion totale d'une part, et des prix différents pour un même résultat d'audience d'autre part. Par conséquent, il est nécessaire que cette mesure soit **reconnue** par l'ensemble des acteurs. C'est pour cette raison que la structure capitalistique de Médiamétrie est originale, dans la mesure où ses actionnaires sont également les clients qu'il est possible de classer en deux grandes familles : les groupes médias et le monde publicitaire (agences, et annonceurs). En dehors du conseil d'administration, ces acteurs se réunissent plusieurs fois dans l'année pour discuter des conventions de mesure, c'est-à-dire les "règles du jeu". S'agissant de la télévision, elles sont décidées en comités audimétriques qui réunissent 6 fois par an ces acteurs. Les conventions de mesure peuvent consister par exemple à définir la taille du panel, sa composition, les indicateurs d'audience utilisés et les règles de communication des résultats. Jusqu'à 2020, l'audience de la télévision était mesurée à domicile, dans les foyers résidant en France métropolitaine et possédant un téléviseur. Depuis 2020, la mesure prend en compte l'audience hors du domicile et en mobilité quelque soit l'écran. Enfin, la mesure doit être **crédible**, c'est-à-dire qu'elle doit constamment évoluer sur le plan technique pour représenter les comportements réels des téléspectateurs et anticiper ainsi qu'intégrer les nouveaux usages (nouveaux écrans, SVOD, hors-domicile...).

La mesure d'audience de la télévision est d'autant plus importante que ce média a été marqué par de nombreux changements structurels depuis 2005. Parmi les évolutions notables, on peut noter un accroissement du nombre de chaînes gratuites en France (en 2005, on est passé avec la Télévision Numérique Terrestre (TNT) de 6 chaînes gratuites à 18, puis à 24 en fin 2012, jusqu'à 27 actuellement), le basculement du signal de diffusion de l'analogique au tout numérique (à compter du 30 novembre 2011, Loi 2007/309 du 5 mars 2007, dite Télévision du Futur), la suppression de la publicité après 20h sur les chaînes publiques depuis le 5 janvier 2009, la diversité des modes d'accès (ADSL, Fibre Optique, 4G, 5G), de nouveaux écrans mobiles (smartphones, tablettes, TV connectées ...), l'apparition de nouveaux de modes de consommation ou de nouveaux services (différé, «replay» ou télévision de rattrapage, vidéo à la demande, plateformes de diffusion), l'arrivée de nou-

veaux acteurs de la vidéo (Netflix, Amazon Prime Video, Youtube, Apple TV +, Facebook, Disney+...), et plus récemment, la modification réalisée en août 2020 de la loi 86-1067 du 30 Septembre 1986, dite Loi Léotard, autorisant les chaînes de télévision à proposer aux annonceurs de cibler les téléspectateurs au niveau de leur foyer. Ces changements ont accompagné de nouveaux comportements du téléspectateur, ajoutant aux modes historiques du «live» (consommation linéaire en direct) et du différé, la vision délinéarisée du «replay» organisée par les groupes de télévision et pilotée par l'individu via ses moyens techniques. Ces nouveaux modes de consommation sont mesurés par la société Médiamétrie, qui fait évoluer ses conventions de mesure, et intégrés dans le périmètre de la mesure d'audience qui est utilisée quotidiennement par l'ensemble du marché publicitaire français.

Les chaînes historiques ont vu ainsi, en peu d'années, accroître leur offre via de nouveaux écrans ou modes d'accès, via de nouveaux modes de consommation, mais ont vu également augmenter leur univers concurrentiel via l'offre vidéo des nouveaux acteurs. L'individu a donc gagné en possibilités de choix quotidien. Cet univers concurrentiel a pu faire son émergence en France grâce à la pression des pouvoirs publics pour développer rapidement l'accès à l'internet haut débit (via l'ADSL et la 3G) puis l'internet très haut débit (via la fibre optique et la 4G, et très récemment la 5G). Cette nouvelle offre de vidéo proposée par des acteurs comme Google, Apple, Facebook, Amazon, Netflix ou Disney (GAFAND) est certainement responsable de la baisse de la durée d'écoute quotidienne live de la télévision observée jusqu'au début du confinement en mars 2020. En effet, le nombre d'internautes accédant à des services vidéos est en forte croissance. D'après Médiamétrie, on est passé de 24,7 millions en 2005 à 53,1 millions en 2019. De nouveaux appareils qui permettent de naviguer sur internet se sont ajoutés ou substitués à l'ordinateur comme les smartphones en 2007 ou les tablettes en 2010 et ont connu un fort succès auprès du public. Selon l'étude Media in Life réalisée par Médiamétrie, il y avait en 2020, en France, 6,4 écrans par foyer contre 4,2 en 2005. Les Français avaient 45 contacts quotidiens par média en 2019 contre 33,9 contacts en 2005, soit une hausse de 32% en 15 ans. Selon l'enquête annuelle de l'Arcep et du Conseil général de l'Economie, les Français étaient près de 77% à posséder un smartphone en 2019, contre 4% en 2011. 40% d'entre eux possèdent une tablette en 2016, un nombre qui a été multiplié par 10 en 5 ans. On peut expliquer ces évolutions spectaculaires par les trois grandes fonctions que procure le réseau technique internet : l'accès à des contenus médias/vidéos, le lien social (messageries, blogs, réseaux sociaux) et les services (consommation, réservations, administration ...). Enfin, on peut noter l'apparition de nouveaux acteurs mondiaux à la puissance économique considérable, propriétaires de leurs données (Google, Apple, Facebook, Amazon). La gestion de ces données pose des questions en matière de protection de la vie privée des internautes d'une part, ainsi qu'en matière d'indépendance dans la mesure d'audience (il est difficile de vérifier l'exactitude des chiffres d'audience "propriétaires" que publient Google ou Facebook, chiffres qui ne sont validés par aucune instance indépendante que ce soit en France ou à l'international).

Face à l'évolution de ces médias, il faut noter une amélioration du ciblage publicitaire

avec l'arrivée du programmatique (qui désigne l'ensemble des campagnes marketing associées à l'utilisation de logiciels et d'algorithmes décisionnels). L'enjeu est important car ce type de ciblage coûte plus cher aux annonceurs. Actuellement, il existe trois types de ciblage : le ciblage global (ce sont les publicités diffusées sur la télévision qui permettent de toucher la population ou une cible socio-démographique jugée stratégique par l'annonceur), le ciblage adressé (qui concernent les publicités locales ou régionales), et le ciblage personnalisé (ce sont les «cookies» sur internet qui permettent de cibler directement les consommateurs qui ont la plus haute probabilité d'acheter le bien ou le service promu). Or, depuis la mise en place de nouvelles réglementations européennes entourant l'utilisation des données privées des utilisateurs, à l'instar du Règlement Général sur la Protection des Données (RGPD) ou du ePrivacy, il devient de plus en plus difficile pour les entreprises d'obtenir le consentement des consommateurs pour l'utilisation de leurs données personnelles. Pourtant, le décret n°2020-983 du 5 août 2020, modifiant la loi 86-1067 du 30 septembre 1986, était une réponse du gouvernement français aux chaînes de télévision qui souhaitent lutter à armes égales en matière de ciblage personnalisée face aux GAFAND. En effet, ce dernier permet aux chaînes de proposer aux annonceurs de la publicité segmentée, ce qui était interdit auparavant.

Contribution. Les travaux étudiés dans ce travail doctoral s'intéressent à la modélisation des résultats d'audience de la télévision en France métropolitaine. Cette modélisation est d'une grande importance car elle permet d'une part de mieux comprendre le comportement des téléspectateurs (qui sont potentiellement de futurs consommateurs lorsqu'ils regardent une publicité), et d'autre part de modéliser indirectement le prix des publicités qui sont calculés sur la base des résultats d'audience que mesure la société Médiamétrie en France. La modélisation théorique d'une part, et économétrique sur données individuelles des résultats d'audience en France d'autre part, n'ont pas encore été étudiées à notre connaissance. Cette thèse vient ainsi contribuer cet axe de recherche peu exploité. Le but de cette recherche est d'aider les acteurs de marché de la télévision en France (chaînes, régies, agences, annonceurs, régulateur) à mieux comprendre les déterminants de l'audience de télévision au niveau local.

Afin d'atteindre cet objectif, cette thèse propose tout d'abord la modélisation économique des interactions familiales dans le cadre de l'audience conjointe chez les couples de téléspectateurs. Il est notamment montré qu'une plus grande différence du niveau d'études au sein d'un couple réduit le temps consacré à regarder la télévision à deux. Le troisième chapitre étudie l'effet des variables météorologiques sur la durée quotidienne que consacrent les individus à regarder la télévision à domicile en France métropolitaine afin d'établir les conséquences, en matière de performances publicitaires, du décret n°2020-983 du 5 août 2020. A l'aide d'une base de données de Médiamétrie et de Météo France composée de plus de 26 millions d'observations quotidiennes sur les usages de la télévision et sur les conditions météorologiques sur la période 2011-2019, il montre que la préférence des téléspectateurs en ce qui concerne le temps consacré à regarder la télévision n'est pas la même selon les régions, en particulier à cause de la météorologie et du climat. Le dernier chapitre

propose un modèle général du marché des médias multi-faces avec allocation du temps entre médias payants, médias non payants, privés - publics, réglementés - non réglementés en ce qui concerne la publicité. Il met en lumière le rôle du fournisseur de services internet, du producteur/annonceur, du diffuseur et enfin du régulateur. Contrairement à la littérature, cet article ne fait pas d'hypothèses préalables sur l'intérêt ou non des agents pour la publicités, l'hypothèse habituelle étant un désintérêt. Dans ce modèle, les décisions à l'équilibre dépendent de la préférence des agents. A partir des données Médiamétrie et de Météo France sur la période 2011-2017, il est montré que les utilisateurs de média peuvent avoir une appétence pour la publicité.

Après avoir introduit la problématique principale de cette thèse, consistant à expliquer l'intérêt pour les acteurs économiques de modéliser les résultats d'audience de la télévision, nous détaillons dans ce qui suit le plan de thèse. Ce travail doctoral fait l'objet de quatre chapitres originaux. Le premier chapitre est consacré à une présentation du marché de la télévision en France. Les trois chapitres suivants traitent chacun un ensemble de questions afin de pouvoir répondre à la problématique de la thèse.

Plan de thèse

La logique générale qui préside à l'organisation de cette thèse est la suivante. Nous avons débuté par un résumé des faits historiques majeurs relatifs à la télévision en France, avant de présenter les données sur lesquelles cette thèse s'appuie. Ensuite, nous étudions à travers un modèle théorique et une analyse en statistiques descriptives l'impact du niveau du capital humain (que nous estimons avec le nombre d'années d'études après l'obtention du Baccalauréat) sur les interactions familiales en matière d'audience individuelle ou conjointe d'un couple représentatif de téléspectateurs français. Enfin, nous introduisons dans les deux chapitres qui suivent l'impact de la météorologie. Le chapitre 3 est un modèle original consacré au choix de regarder la télévision ou non (avec offre de travail endogène) qui depend des conditions météorologiques. Le chapitre 4 généralise les chapitres 2 et 3 au cas des médias en étudiant le rôle de la régulation sur les médias selon qu'ils soient publics, privés, régulés ou non, avec ou sans publicité.

Chapitre 1 : Le marché de la télévision en France

Ce chapitre résume l'Histoire de la télévision en France et présente le marché dans lequel évoluent les différents acteurs. Par ailleurs, il donne des éléments permettant de mieux comprendre comment l'audience de la télévision est mesurée en France. Les données d'audience de la télévision appartenant à la société Médiamétrie ainsi que les données de Météo France qui sont utilisées dans cette thèse sont présentées dans ce chapitre à l'aide de statistiques descriptives.

Chapitre 2 : How do spouses share the TV ? Theory and Evidence from the French TV Audience

A travers un modèle théorique original, ce chapitre s'intéresse à la modélisation économique des interactions familiales dans le cadre de l'audience conjointe chez les couples de téléspectateurs. Quel est le rôle que joue le capital humain d'un téléspectateur suivant les

différents moment de la journée dans sa décision de regarder seul ou à deux la télévision ? Ce modèle considère le cas d'un foyer de deux individus. Chaque individu dispose d'un capital humain qui lui est propre. Il répartit son temps entre 4 sous-temps : regarder la télévision seul, regarder la télévision avec l'autre membre de son foyer, ne pas regarder la télévision et donc consacrer ce temps à n'importe quelle autre activité de loisir, et enfin travailler. Dans ce modèle, la préférence de regarder seul un programme depend du niveau de capital humain de celui qui le regarde. Par ailleurs, l'utilité de regarder la télévision à deux dépend d'une préférence qui est une fonction du capital humain des deux téléspectateurs. Nous ne faisons aucune hypothèse particulière sur le fait que l'utilité puisse croitre ou décroitre avec cette préférence. Ceci est justifié grâce à une étude de statistiques descriptives qui révèle à travers des graphiques que ces signes varient selon le moment de la journée. Nous sommes en mesure de connaître exactement l'expression de cette fonction grâce à ces graphiques. A l'aide des données de Médiamétrie sur l'audience de la télévision à domicile en France, nous analysons le taux d'audience moyen par tranche de 5 minutes sur une journée moyenne du mois de septembre 2018 du lundi au vendredi, le samedi et le dimanche. Nous faisons varier le niveau d'études du conjoint et de la conjointe selon 4 tranches. Les téléspectateurs qui ont plus de 3 années d'études après le Bac, ceux qui ont 2 années d'études après le Bac, ceux qui ont le Bac et ceux qui ont un niveau d'études inférieur au Bac. Les résultats montrent que la décision de regarder à deux la télévision dépend du niveau du capital humain, de la différence de capital humain entre les époux, en particulier de celui des deux qui a le plus grand capital humain, du moment de la journée et du jour de la semaine. Lorsque les différences sont très grandes, ils ne regardent jamais ensemble. Lorsque le niveau de capital humain des deux époux est très élevé, ils regardent plus souvent ensemble la télévision.

Chapitre 3 : Preference for Media Uses and Weather Conditions : Theory and Evidence from the French TV Audience

Le troisième chapitre s'intéresse à la modélisation économique et empirique du temps consacré à utiliser un média. La préférence pour regarder la télévision est-elle différente selon la région où habitent les téléspectateurs ? Un modèle théorique considère le cas d'un individu qui peut répartir son temps en 3 sous-temps : utiliser un média, pratiquer un loisir en dehors du temps média, et travailler. A l'optimum, nous montrons que la répartition optimale du temps de l'individu dépend de sa préférence pour l'utilisation d'un média qui est une fonction de la météo et de son goût pour l'utilisation du média. Nous testons les conclusions de notre modèle théorique à l'aide de deux bases de données. La première est celle de Médiamétrie qui contient 26 millions d'observations quotidiennes sur les usages de la télévision en France sur la période 2011-2019. Le deuxième est celle de Météo France qui contient les données quotidiennes de 5 paramètres météorologiques (la température, la durée d'ensoleillement, la pluviométrie, la vitesse du vent et la durée des précipitations) provenant de 90 stations réparties sur le territoire de la France métropolitaine sur la même période. Nous montrons que la préférence pour regarder la télévision varie selon les régions

françaises et selon le paramètre météorologique étudié. Ces différences en matière de préférence sont plus ou moins fortes selon le climat auquel ces régions sont soumises. Ainsi, le climat peut affecter les préférences des téléspectateurs, et devrait être une variable d'ajustement pour les acteurs du marché de la télévision en France, ce qui n'est pas le cas dans la réalité. Cette remarque est très importante dans le cadre de la performance publicitaire, notamment en matière de publicité ciblée.

Chapitre 4 : Multi-Sided Media Markets and Preference for Advertising : Theory and Evidence from the French TV Audience

Dans le contexte de la réglementation de la durée de la publicité, ce chapitre répond aux questions suivantes : à condition météorologique donné, quel est le rôle de la préférence pour la publicité et de la préférence pour l'utilisation de services médiatiques dans la détermination de l'équilibre d'un marché multi-faces des médias ? Les utilisateurs des médias aiment-ils la publicité ? À l'équilibre du marché multi-faces des média, la durée d'un spot publicitaire, sa répétition, son prix de diffusion et la durée maximisant le bien-être sur les médias réglementés dépendent de la préférence pour la publicité. Par conséquent, la question de savoir si les utilisateurs des médias aiment ou non la publicité est cruciale. Nous testons empiriquement le rôle de nos hypothèses théoriques sur le marché français de la télévision grâce au panel de Médiamétrie regroupant 15 millions d'observations sur la période 2011-2017 mesurant les habitudes des téléspectateurs français et en utilisant le panel de Météo France regroupant les conditions météorologiques. Nous montrons que le goût pour la publicité existe, qu'il est indépendant des conditions météorologiques et qu'il révèle d'importantes disparités régionales.

1 La télévision en France

1.1 L'Histoire de la télévision en France

La télévision française fit son apparition en 1935, avec le lancement du premier téléviseur à tube cathodique inventé par René Barthélémy. Cependant, son prix de vente élevé (4500 francs de l'époque, soit 3500 euros en 2020), l'inquiétude générale liée à la période de l'avant-guerre, la fiabilité des téléviseurs et le manque de variété des programmes expliquent en grande partie le très faible taux de possession de récepteurs par les foyers français de l'époque. A la libération, la Radiodiffusion française (RDF) est créée le 23 mars 1945 en remplacement de la Radiodiffusion nationale (RN). Il s'agit d'un monopole d'Etat dont la priorité est centrée sur la radio, le développement de la télévision coûtant trop cher à l'époque par rapport au nombre de foyers français possédant un téléviseur (estimé à 1000 sur l'ensemble de la population française). En février 1949, la RDF est remplacée par la Radiodiffusion-télévision française (RTF). Cette dernière est placée sous l'autorité de la présidence du Conseil. Son financement est permis avec l'instauration d'une taxe parafiscale sur l'équipement en téléviseurs. Par rapport à 1945, ce sont 2000 foyers supplémentaires qui possèdent un téléviseur sur l'ensemble de la population française. Les pouvoirs publics de l'époque découvrant le potentiel de la télévision comme instrument de communication (voir Balle 2019), il est décidé d'augmenter le nombre d'émetteurs sur le territoire français ainsi que la variété des émissions et leurs durées afin d'inciter les foyers français à l'achat d'un téléviseur. Ce n'est qu'à partir de 1950 que le développement de la télévision française va s'accélérer avec l'acquisition des premiers téléviseurs par les classes moyennes et l'augmentation de la variété des émissions et de leurs durées. Selon Tassi 2021, la France est passée de 600 heures de programmes diffusés en 1948 à 2800 en 1960, puis 3000 en 1963 avant d'atteindre 5200 en 1967. Les conséquences sont immédiates. Il y avait 3800 foyers français équipés d'un téléviseur fin 1950, 60 000 fin 1952, 500 000 en 1956 avant d'atteindre 1 million en 1960.

C'est également au début des années 1950 que la RTF met en place un service des Relations avec les Auditeurs. L'objectif est de mieux connaître l'opinion des téléspectateurs/auditeurs sur les émissions diffusées d'une part, ainsi que la structure de l'auditoire (catégorie socio-professionnelle, âge...) d'autre part. Les premières enquêtes sont plutôt qualitatives et reproduites chaque année. Il faut rappeler qu'à l'époque la concurrence est

inexistante, dans la mesure où il n'y a qu'une seule chaîne sans publicité.

Cependant, l'indépendance de la RTF est remise en question avec l'avènement de la Vème République. L'ordonnance du 4 février 1959 permet à la RTF de devenir une personnalité juridique. Mais son contrôle est placé sous l'autorité du ministère de l'Information. Ainsi, le gouvernement peut révoquer ou nommer à tout moment le directeur de la RTF.

Le 19 mars 1964, le Conseil Constitutionnel considère que la RTF est une exception parmi les établissements publics de l'époque, dès lors qu'elle intéresse une des libertés publiques garanties par l'article 34 de la Constitution de 1958 : *"La loi fixe les règles concernant les droits civiques et les garanties fondamentales accordées aux citoyens pour l'exercice des libertés publiques ; la liberté, le pluralisme et l'indépendance des médias"*. Le gouvernement dépose un projet de statut de l'Office de radiotélévision française (ORTF) qui sera voté par le législateur le 27 juin 1964. Il s'agit d'un établissement public industriel et commercial (EPIC). Cette loi définit plus précisément la mission de l'ORTF, à savoir de "satisfaire les besoins d'information, de culture, d'éducation et de distraction du public". La période 1964-1974 va être marquée par la création de deux chaînes supplémentaires, le passage à la télévision couleur, l'arrivée de la publicité, ainsi que de nombreux évènements affectant la vie politique française et donnant autant d'occasions d'informer les Français via la télévision, comme par exemple les évènements de Mai 1968, le départ du général de Gaulle en 1969, le décès du président Georges Pompidou en avril 1974 ou l'élection de Valéry Giscard d'Estaing à la présidence de la République en mai 1974.

A l'origine, le modèle économique de l'ORTF reposait sur celui de la redevance. Mais le 18 octobre 1967, le Conseil des Ministres approuve un projet de loi autorisant la publicité de marques sur la première chaîne de l'ORTF à partir du 1er octobre 1968. La publicité devient la deuxième source de revenus de l'ORTF (à titre de comparaison, la publicité télévisée existe aux Etats-Unis depuis 1941, au Canada depuis 1952, en Grande-Bretagne depuis 1955, en Italie depuis 1957 et en Allemagne depuis 1959).

L'élection du président Giscard d'Estaing en mai 1974 acte l'éclatement de l'ORTF avec la loi du 7 août 1974. 7 nouvelles entités apparaissent le 1er janvier 1975, parmi lesquelles 4 sociétés nationales de programmes : TF1 pour Télévision Française 1, Antenne 2, FR3, Radio France, et trois établissements publics (INA, SFP, TDF). Cette loi précise les modalités de répartition de la redevance qui doit dorénavant être affectée aux sociétés nationales de programmes selon des critères divers parmi lesquelles le volume d'écoute et les recettes des sociétés. Le volume d'écoute, qui se rapporte à l'audience, devient un critère de concurrence entre les trois chaînes. En 1975, le Centre d'étude de l'opinion (CEO) va remplacer le Service d'étude de l'opinion de l'ORTF. Ce centre est directement rattaché aux services du Premier ministre et va progressivement développer la mesure d'audience de la télévision. En 1981, le CEO va demander à la Société d'étude de la consommation, de la distribution et de la publicité (SECODIP) la constitution d'un panel audimétrique (c'est-à-dire dont les usages sont mesurés à l'aide d'un audimètre) de 600 foyers. C'est le début de l'Audimat. Désormais, l'audience est mesurée à la seconde près et est traitée la nuit avant restitution le lendemain à 9 heures. Toutefois, il s'agit d'une audience foyers, le

nombre de téléspectateurs et leur profil socio-démographique n'étant pas mesurés avant la création de Médiamétrie en 1985 via le système du Médiamat qui remplacera l'Audimat en 1989.

L'élection de François Mitterrand à la présidence de la République va entraîner de nombreux changements dans les médias français. La loi du 29 juillet 1982 instaure une Haute Autorité de la communication audiovisuelle (HACA). De plus, elle met fin au monopole d'Etat, ce qui va précipiter la création d'une 4ème chaîne qui ne sera financée ni par la redevance, ni par la publicité, mais par abonnement : c'est la naissance de Canal+ le 21 juin 1982 qui commencera à émettre le 4 novembre 1984. Néanmoins, les débuts de Canal+ sont difficiles, notamment à la suite à la création de deux nouvelles chaînes gratuites, la Cinq et TV6 (qui deviendra M6 le 1er mars 1987), participant à une fragmentation progressive de l'audience. Toutefois, la chaîne va augmenter son nombre d'abonnés de 200 000 fin 1984 à 1 800 000 en 1988, puis 3 millions fin 1989. Ceci s'explique par le succès de certaines de ses émissions (Le Journal Télévisé Nul, Nulle Part Ailleurs, les Guignols de l'info) et à la retransmission d'évènements sportifs. La même année, TV5 est créée le 2 janvier 1984, le chiffre 5 correspondant aux cinq chaînes à l'origine de son lancement que sont TF1, Antenne 2, FR3, la Télévision Suisse Romande (TSR) et la Radio-Télévision belge de la Communauté française (RTBF). Un an plus tard, le groupe Lagardère lance Canal J sur les réseaux câblés, qui précédera le lancement le 15 décembre 1986 de Paris Première sur le réseau câblé parisien par la Mairie de Paris et la Lyonnaise des Eaux. Le 14 mai 1986, François Léotard, ministre de la Communication du gouvernement Chirac, annonce la privatisation de TF1. Ainsi, de nombreuses chaînes citées ont pu voir le jour grâce à la diffusion nationale ou locale par câble ou satellite développée au milieu des années 1980, puis par l'ADSL et la TNT au milieu des années 2000.

Ces évolutions dans le secteur de la télévision ont permis l'émergence de plusieurs types d'acteurs économiques, à commencer par les chaînes de télévision en elles-mêmes qui éditent des contenus (d'où le nom d'éditeur qui est souvent utilisé). Pour financer cette édition de contenus, ces chaînes passent généralement par la publicité qui est la première source de revenu pour la grande majorité des chaînes de télévision. Viennent alors les acheteurs d'espace qui sont composés des annonceurs (c'est-à-dire des entités qui souhaitent faire la promotion d'un bien ou d'un service), puis les agences médias (ce sont les acteurs qui sont généralement mandatés par les annonceurs pour organiser et gérer les campagnes médias) et enfin les régies des chaînes de télévision qui sont chargées d'assurer leurs promotions afin de convaincre les annonceurs et les agences médias de passer par elles pour la diffusion de leurs campagnes publicitaires.

Les chaînes de télévision appartiennent généralement à des oligopoles de groupes. Elles peuvent être comparées à des marques de produits. Par exemple, les chaînes TF1, TMC, TFX, TF1 Séries Film, LCI sont des marques qui appartiennent au Groupe TF1, qui lui-même appartient au groupe Bouygues. On peut citer le Groupe M6 qui est éditeur des chaînes M6, W9, 6TER, Paris Première, Teva, Gulli, Canal J et Tiji notamment. Ce groupe détient également toutes les radios associées à RTL France. Il faut ajouter qu'en

2021, le groupe TF1 a annoncé un projet de rachat du groupe M6 dans le cadre d'une fusion, ce qui vient encore une fois bouleverser l'organisation de l'écosystème des médias en France. On peut ajouter un troisième groupe qui est le Groupe Vivendi qui détient les chaînes du groupe Canal+ (C8, Canal+,CStar, CNews). Vient ensuite un quatrième groupe, NextRadioTV, lui même détenu par le groupe Altice qui possède BFM TV, RMC Découverte, RMC Story ainsi qu'RMC Sport. Comme pour le Groupe M6, le Groupe NextRadioTV détient des radios que sont RMC Info ainsi que BFM Business. NRJ Group qui détient NRJ 12 ainsi que Chérie 25 depuis les appels d'offres du Conseil Supérieur de l'Audiovisuel (CSA) en 2005 puis 2012 constitue un cinquième groupe. Enfin, un sixième groupe est composé des chaînes publiques que sont France 2, France 3, France 4, France 5, Franceinfo qui constituent le groupe France Télévision, et le GEIE avec Arte. Ces chaînes sont soumises à des obligations différentes en matière de programmation et de quantité de publicité diffusée par rapport aux groupes privés.

Sur ce dernier point, la télévision en France a toujours respecté les principes d'égalité, d'homogénéité et de continuité territoriales, principes qui sont présents dans la loi du 30 septembre 1986 dite Loi Léotard. Cette loi oblige les chaînes de télévision à diffuser, à l'instant t, tous les contenus (émissions, écrans publicitaires...) simultanément sur l'ensemble du territoire français métropolitain. Le principe de l'égalité de traitement des téléspectateurs impose à une chaîne de télévision, à un même instant, de diffuser le même programme et donc le même écran publicitaire sur l'ensemble du territoire français. Autrement, il n'était pas possible pour les chaînes de télévision jusqu'au 5 août 2020 de faire de la publicité télévisée personnalisée selon des critères de cibles ou de localisation. Le législateur a souhaité en effet préserver les recettes publicitaires des médias de proximité, tels que les radios locales ou la presse quotidienne régionale. Il faut préciser que les annonceurs ont la possibilité de communiquer via différents médias, tels que la presse, l'affichage, le cinéma, la radio, la télévision et Internet (voir Tassi 2014). On distingue les médias qui ont une couverture nationale de ceux qui ont une couverture locale avec des contenus propres à chaque région (presse régionale, décrochages locaux des réseaux nationaux en télévision ou radio, stations locales, affichage local). Internet est actuellement le seul média qui, légalement, peut proposer un ciblage national et un ciblage personnalisé. Or, l'Autorité de la Concurrence, dans un avis du 21 février 2019, reconnaît que la publicité dite "adressée" a favorisé principalement les acteurs comme Google et Facebook au détriment des opérateurs télévisuels traditionnels. En conséquence, elle conseille de modifier la réglementation afin de corriger ces asymétries. Ainsi, le décret n°2020-983 du 5 août 2020 vient autoriser la publicité segmentée ou adressée pour les chaînes de télévision. Autrement dit, une personne qui habite dans la région Bretagne ne verrait pas au même instant la même publicité qu'une personne habitant à Paris, mais les deux personnes verraient exactement les mêmes programmes environnants. Pour ce faire, il est nécessaire d'utiliser les données des box internet que possèdent les Fournisseurs d'Accès à Internet (FAI) que sont Orange, Bouygues Telecom, SFR et Free, ce qui implique d'une part un accord entre les chaînes et les fournisseurs d'accès, d'autre part un consentement donné par les téléspectateurs pour

la transmission de certaines informations, consentement exigé par le Règlement Général sur la Protection des Données (RGPD).

Depuis les débuts de la mesure d'audience en télévision à la fin des années 1980, les chaînes de télévision ont toujours voulu savoir combien elles avaient de téléspectateurs, et qui ils étaient sur le plan sociodémographiques afin de pouvoir proposer des cibles aux annonceurs. Cependant, elles ne sont jamais allées jusqu'à étudier le contexte du téléspectateur, notamment en essayant de comprendre les raisons qui poussaient ces derniers à regarder la télévision. Or, comprendre le contexte, c'est anticiper les comportements des téléspectateurs, et cela peut aider les acteurs du marché de la télévision à prendre des décisions optimales. C'est ce que propose de faire cette thèse à travers les chapitres suivants qui étudient chacun un élément de contexte des téléspectateurs en particulier.

1.2 La mesure d'audience de la télévision en France

1.2.1 Le Médiamat

Chaque jour à 9h, Médiamétrie publie les résultats d'audience des chaînes de télévisions françaises, quel que soit l'écran (téléviseur, ordinateur, smartphone, tablette), le mode de réception (hertzien numérique, TNT, câble, satellite, ADSL, fibre optique, OTT) ou le mode de consommation qui peut être linéaire (c'est-à-dire regarder un programme de télévision en live, directement au moment de sa diffusion à l'antenne), ou délinéaire (c'est-à-dire regarder un programme de télévision en différé, en replay). Cette mesure d'audience est plus connue sous le nom de Médiamat. Il s'agit d'un système de mesure d'audience des chaînes de télévision réalisée par Médiamétrie. Le Médiamat permet des mesures d'audience individuelle, et assure un suivi quotidien des comportements du public, ce qui permet d'offrir des analyses variées des données d'audience sur la performance des chaînes, des programmes et des publicités, par tranche horaire ou par cible. Ces données individuelles permettent de calculer des indicateurs d'audience utilisés par l'ensemble des acteurs du marché de la télévision et peuvent être obtenues par chaîne, par programme ou par instant : taux d'audience moyen, nombre de téléspectateurs par seconde d'un programme, durée d'écoute par individu, part d'audience... Plus précisément, c'est le GRP (Grow Rating Point), c'est-à-dire le nombre moyen de contacts par individu lors d'une campagne publicitaire, et la couverture, qui sont utilisés par les professionnels du marché publicitaire. Ces deux indicateurs sont calculés sur la base de ces données individuelles.

Qu'elle soit à domicile ou hors du domicile, la mesure d'audience de la télévision est possible grâce aux audimètres fixes et portables qui repose sur une technologie identique : le *watermarking*. Il s'agit d'un tatouage numérique, inaudible à l'oreille humaine, et inséré dans le son des programmes par les régies des chaînes de télévision. Ce tatouage comprend l'identifiant de la chaîne, et un *timestamp* (c'est à dire la date et l'horaire original de diffusion). Il est immédiatement reconnu par les audimètres et est envoyé aux serveurs de Médiamétrie lors de la collecte des données d'audience.

- Pour la mesure à domicile, elle est réalisée auprès d'un panel national de 5000 foyers équipés d'un téléviseur, ce qui représente 11 500 personnes âgées de 4 ans et plus, à l'aide d'un audimètre fixe. Ce panel est structuré sur la base de des données de l'INSEE pour l'ensemble des critères sociodémographiques (ces informations proviennent des recensements nationaux de l'INSEE), et sur la base des données *Home Devices* (enquête réalisée par Médiamétrie) pour le suivi des équipements médias et multimédias des foyers.
- Pour la mesure hors-domicile qui existe depuis 2020, elle est réalisée auprès d'un panel composé de 4500 individus âgés de 15 ans et plus et équipés d'un audimètre individuel portable. Une fois par mois, il est possible de connaître la répartition des lieux où les panélistes ont regardé la télévision en dehors de leurs domicile (résidence secondaires, hôtels, locations, gares, aéroports, voitures, trains, bus, chez des amis, ou dans tous les lieux publics).

Les données de ces deux panels sont fusionnées chaque jour et sont restituées sous la forme d'audiences agrégées, sans distinction entre domicile et hors-domicile, ni distinction par écran. Il est toutefois possible de distinguer le live, le différé et le replay. Ces deux panels sont fusionnés par 35 strates qui repose sur l'âge, le nombre de personne dans le foyer, le sexe et les régions INSEE.

Le Médiamat existe depuis 1989, et a remplacé le système de mesure d'audience de la télévision par foyers par une mesure individuelle. En 2000, ce système de mesure d'audience évolue pour prendre en compte la diffusion numérique, avant d'intégrer les programmes visionnés en différé en 2011. En 2014, le replay est intégré dans les résultats d'audience, puis les contenus TV visionnés sur les écrans Internet peuvent être mesurées en étude Ad Hoc par Médiamétrie en 2016. Enfin, le Médiamat prend en compte l'audience hors du domicile et en mobilité quelque soit l'écran en 2020.

1.2.2 Présentation des données utilisées dans cette thèse

- Le chapitre 2 de cette thèse repose sur des données qui ont été extraites directement via Restit TV. Il s'agit du logiciel d'export des données d'audience de Médiamétrie dont se sert l'ensemble du marché de la télévision en France. Ces données ont déjà fait l'objet d'un traitement statistique de la part de Médiamétrie (redressement par rapport aux données de cadrages de l'INSEE sur la population française, extrapolation...). Il est important de souligner que Médiamétrie ne communique pas au marché les écarts-types permettant de calculer les intervalles de confiance de ses résultats d'audience.
- Contrairement au chapitre 2, les chapitres 3 et 4 de cette thèse se servent de la donnée individuelle récoltée grâce aux audimètres de la société Médiamétrie, ainsi que des données des stations météorologiques de la société Météo France. Pour ces deux chapitres, il convient tout d'abord d'expliciter les différences dans les données utilisées avant de détailler les variables qu'elles ont en commun.

1.2.2.1 Les différences

- Les analyses du chapitre 3 repose sur la mesure individuelle de la consommation quotidienne de télévision de 24 334 panélistes sur la période du 3 janvier 2011 au 2 mars 2019 (2981 jours) en France métropolitaine. En moyenne, un panéliste reste dans le panel pendant 1067 jours. La variable dépendante est durée d'écoute live quotidienne par individu (en mn). Plus précisément, il s'agit du temps total que chaque panéliste passe à regarder la télévision en direct chaque jour (y compris les programmes et les écrans publicitaires).
- Les analyses du chapitre 4 repose sur la mesure individuelle de la consommation quotidienne de télévision de 22 832 panélistes sur la période du 3 janvier 2011 au 31 juillet 2017 (2401 jours). En moyenne, un panéliste reste dans le panel pendant 681 jours. Dans ce chapitre, il y a 4 variables dépendantes. La première concerne la durée d'écoute par individu (en mn) consacrée à regarder une publicité sur une chaîne publique gratuite. La deuxième concerne la durée d'écoute par individu (en mn) consacrée à regarder une publicité sur une chaîne privée gratuite. La troisième concerne la durée d'écoute par individu (en mn) consacrée à regarder un programme diffusé sur une chaîne publique gratuite. La quatrième concerne la durée d'écoute par individu (en mn) consacrée à regarder un programme diffusé sur une chaîne privée gratuite.

1.2.2.2 Les points en commun

1. **Les situations possibles pour la variable dépendante :** La base de données est anonymisée afin de respecter les réglementations françaises et européennes. Dans le panel de Médiamétrie, il y a quatre situations individuelles différentes qui ont un impact sur les variables dépendantes. D'une part, dans son calcul de l'audience totale, Médiamétrie prend en compte 2 catégories d'individus qui ne regardent pas la télévision : la première catégorie concerne les panélistes qui sont présents chez eux sans allumer leur téléviseur tout au long de la journée. La deuxième catégorie concerne tous les membres d'un foyer qui sont référencés comme étant en vacances ou absents pour un week-end. Pour ces deux situations, la valeur 0 est indiquée dans la variable dépendante. Il existe deux autres types de situations : la première correspond au cas où Médiamétrie n'est pas en mesure de collecter les données d'audience enregistrées dans l'audimètre pour des raisons techniques. La seconde correspond à la décision de Médiamétrie de suspendre un ménage en raison d'informations inexactes reportées dans l'audimètre (mauvaise connexion, par exemple). Pour ces ménages, la valeur manquante est indiquée dans la variable dépendante.

2. **Les variables indépendantes :**

Les variables indépendantes continues utilisées dans les chapitres 3 et 4 sont les suivantes :

- TS est la variable qui mesure le temps total quotidien que consacre le panéliste à regarder la télévision en différé (en mn).
- $OTVU$ correspond au temps total quotidien (en mn) que consacre le panéliste à regarder autre chose qu'une chaîne de télévision sur son téléviseur (comme par exemple jour à des jeux vidéo, regarder des programmes SVOD (Netflix, Disney+...)). Pour cette variable, il n'est pas possible de distinguer ces différents usages.
- ω_1 est la température moyenne (en $°C$),
- ω_2 est la durée d'ensoleillement (en mn),
- ω_3 est les précipitations (en mm),
- ω_4 est la vitesse du vent (en km/h)
- ω_5 est la durée de la pluie (en mn).

Les variables indépendantes non continues utilisées dans le chapitre 3 et 4 pour décrire le panéliste sont les suivantes :

- le sexe (Homme, Femme),
- la classe d'âge (7 catégories : $4-10$ ans, $11-14$ ans, $15-24$ ans, $25-34$ ans, $35-49$ ans, $50-64$ ans, 65 ans et plus). Il s'agit des catégories d'âges utilisée par le marché publicitaire.
- la catégorie socioprofessionnelle (10 catégories : agriculteurs, artisans/commerçants, cadres-professions intellectuelles supérieures, professions intermédiaires, employés, ouvriers qualifiés, ouvriers non qualifiés, retraités, étudiants, autres inactifs),
- la durée hebdomadaire moyenne du travail (7 catégories : chômeurs ayant déjà travaillé dans le passé, personnes à la recherche d'un premier emploi, salariés à temps plein, salariés à temps partiel (0-9h59 ; 10h00-19h59 ; 20h00-29h59 ; 30h ou plus), autres inactifs),
- le revenu mensuel brut du ménage (9 catégories : moins de 600 €, de 600 à moins de 900 €, de 900 à moins de 1200 €, de 1200 à moins de 1500 €, de 1500 à moins de 2300 €, de 2300 à moins de 3000 €, de 3000 à moins de 4500 €, de 4500 à moins de 7000 €, 7000 €, et plus),
- le type de connexion à Internet (5 catégories : aucun accès à Internet, câble, ADSL, fibre optique, autres),
- la région de résidence en France métropolitaine (21 régions : Ile-de-France, Champagne-Ardenne, Picardie, Haute-Normandie, Centre, Basse-Normandie, Bourgogne, Nord-Pas-de-Calais, Lorraine, Alsace, Franche-Comté, Pays de la Loire, Bretagne, Poitou-Charentes, Aquitaine, Midi-Pyrénées, Limousin, Rhône-Alpes, Auvergne, Languedoc-Roussillon et Provence-Alpes-Côte d'Azur (PACA)).

1.2.3 Statistiques descriptives

Les tables qui suivent donnent quelques statistiques descriptives sur les variables continues des chapitres 3 et 4. Concernant les statistiques calculées, les tables 1.1 jusqu'à 1.7

reportent la moyenne (mean), l'écart-type (sd), le minimum (Min), le maximum (Max), le nombre de panélistes (n), le nombre d'observations (N), le nombre d'observation en moyenne par panéliste (Tbar), l'écart-type inter-individuel et l'écart-type intra-individuel. Les tables 1.8 jusqu'à 1.17 reportent les percentiles des variables continues d'audience par trimestre et par région, tandis que les tables 1.18 et 1.19 reportent les quartiles des variables météorologiques par trimestre et par région.

	Live TV viewing time (in mn)									Time-shifted TV viewing time (in mn)									Time devoted to other uses on TV screen (in mn)								
	Mean	sd	Min	Max	n	N	Tbar	sd_b	sd_w	Mean	sd	Min	Max	n	N	Tbar	sd_b	sd_w	Mean	sd	Min	Max	n	N	Tbar	sd_b	sd_w
Gender																											
Female	198.70	223.58	0.00	1,439.95	12,284	13,150,744	1,070.56	158.62	162.93	7.59	32.67	0.00	1,380.20	12,284	13,150,487	1,070.54	16.94	28.27	28.70	79.69	0.00	1,438.92	12,284	13,145,741	1,070.15	40.04	73.08
Male	173.80	206.16	0.00	1,439.98	12,050	12,824,515	1,064.28	143.81	152.73	6.07	27.86	0.00	1,318.58	12,050	12,824,458	1,064.27	13.58	24.41	36.00	90.50	0.00	1,436.65	12,050	12,819,700	1,063.88	50.52	80.87
Age category																											
4-10 years	96.09	142.99	0.00	1,439.75	3,933	3,011,070	765.59	77.22	124.14	4.68	22.48	0.00	1,141.05	3,933	3,011,067	765.59	7.76	21.38	32.37	79.38	0.00	1,431.73	3,933	3,010,923	765.55	33.66	74.08
11-14 years	96.55	145.34	0.00	1,439.75	2,901	1,785,584	615.51	72.00	127.62	4.61	22.49	0.00	727.82	2,901	1,785,582	615.51	8.39	21.14	31.76	83.07	0.00	1,341.85	2,901	1,785,311	615.41	36.83	76.03
15-24 years	80.46	146.17	0.00	1,439.75	4,077	3,050,675	748.26	86.03	123.93	2.92	18.14	0.00	1,318.58	4,077	3,050,674	748.26	6.77	17.12	23.96	78.05	0.00	1,422.58	4,077	3,050,254	748.16	40.56	70.36
25-34 years	163.57	200.06	0.00	1,439.92	4,144	3,055,215	737.26	129.47	162.41	8.39	31.86	0.00	886.15	4,144	3,055,205	737.26	12.91	29.02	48.44	106.29	0.00	1,438.02	4,144	3,053,975	736.96	56.41	94.39
35-49 years	196.60	210.93	0.00	1,439.98	6,783	6,187,329	912.18	140.34	165.51	9.17	34.68	0.00	1,076.25	6,783	6,187,127	912.15	16.82	30.70	38.75	92.40	0.00	1,438.92	6,783	6,183,981	911.69	54.13	82.87
50-64 years	253.53	237.78	0.00	1,439.90	5,073	4,437,862	874.80	168.73	177.75	8.27	35.76	0.00	1,380.20	5,073	4,437,806	874.79	22.23	29.34	28.71	80.66	0.00	1,438.35	5,073	4,435,411	874.32	46.71	72.40
65 years and more	290.82	236.89	0.00	1,439.95	4,359	4,447,524	1,020.31	174.16	168.62	6.17	30.86	0.00	1,170.57	4,359	4,447,484	1,020.30	21.53	24.05	21.74	68.70	0.00	1,398.52	4,359	4,445,586	1,019.86	38.82	61.61
Social-Professional Category																											
Farmer	180.18	169.32	0.00	1,432.47	167	175,519	1,051.01	103.05	136.28	4.08	23.49	0.00	829.17	167	175,519	1,051.01	9.07	21.12	19.44	65.46	0.00	1,263.60	167	175,511	1,050.96	36.52	58.67
Craftsmen-Traders-Contractor	193.02	212.12	0.00	1,439.75	582	448,040	769.83	144.17	158.35	9.36	36.74	0.00	1,193.25	582	448,037	769.82	18.50	30.65	32.87	82.34	0.00	1,349.50	582	447,906	769.60	42.54	75.18
Higher professions	140.39	174.13	0.00	1,439.75	2,800	2,374,776	848.13	112.75	140.30	9.10	34.01	0.00	1,131.42	2,800	2,374,767	848.13	15.86	30.22	34.42	84.67	0.00	1,421.78	2,800	2,374,410	848.00	42.80	76.35
Intermediate occupations	174.56	195.40	0.00	1,439.75	4,169	3,379,746	810.69	123.30	156.72	8.80	33.67	0.00	1,335.77	4,169	3,379,739	810.68	15.98	29.98	36.07	87.35	0.00	1,436.65	4,169	3,379,204	810.56	49.04	78.73
Employee	227.06	223.79	0.00	1,439.98	4,166	3,456,190	829.62	147.64	178.79	9.01	35.14	0.00	1,380.20	4,166	3,456,170	829.61	16.91	30.77	39.18	95.38	0.00	1,438.92	4,166	3,455,063	829.35	52.97	85.06
Skilled worker	214.10	219.49	0.00	1,439.92	2,340	1,810,084	773.54	144.40	175.45	6.81	29.37	0.00	886.15	2,340	1,810,078	773.54	13.56	26.04	42.54	100.99	0.00	1,410.93	2,340	1,809,096	773.12	62.11	88.50
Unskilled worker	228.31	243.13	0.00	1,439.75	1,141	664,566	582.44	172.38	179.13	6.38	29.88	0.00	1,071.50	1,141	664,405	582.30	14.67	25.60	39.78	99.13	0.00	1,422.58	1,141	663,285	581.32	54.31	87.60
Pensioner	290.11	237.89	0.00	1,439.95	4,687	4,980,459	1,062.61	171.34	171.06	6.40	31.69	0.00	1,170.57	4,687	4,980,405	1,062.60	20.77	24.88	22.44	70.13	0.00	1,431.68	4,687	4,978,448	1,062.18	39.52	63.17
Student	89.31	142.71	0.00	1,439.75	7,834	7,446,120	950.49	76.71	125.19	4.04	21.08	0.00	1,318.58	7,834	7,446,115	950.49	7.42	20.02	28.87	78.91	0.00	1,431.73	7,834	7,445,482	950.41	34.78	73.25
Other inactive	295.65	276.54	0.00	1,439.90	1,744	1,239,759	710.87	202.82	194.92	9.47	38.95	0.00	1,058.48	1,744	1,239,710	710.84	20.18	31.87	41.79	105.71	0.00	1,438.35	1,744	1,237,036	709.31	62.96	91.48
Average weekly working time																											
Unemployed person who has already worked	254.07	272.40	0.00	1,439.92	1,368	600,057	438.64	181.33	193.67	8.39	35.88	0.00	1,380.20	1,368	599,890	438.52	17.43	29.97	50.26	116.50	0.00	1,436.65	1,368	598,617	437.59	65.68	100.26
People looking for a first job	140.91	213.31	0.00	1,394.42	176	68,276	387.93	134.16	163.50	2.96	18.37	0.00	526.42	176	68,276	387.93	6.76	17.43	33.87	102.16	0.00	1,342.83	176	68,272	387.91	67.95	84.08
Full-time worker	184.59	201.27	0.00	1,439.98	10,295	9,794,272	951.36	131.44	161.89	8.27	32.90	0.00	1,335.77	10,295	9,794,250	951.36	15.79	29.22	37.16	90.53	0.00	1,438.02	10,295	9,791,968	951.14	50.34	81.27
Part-time worker : 0-9h59 per week	277.92	252.16	0.00	1,436.77	209	113,036	540.84	162.32	185.21	6.72	29.45	0.00	789.15	209	113,036	540.84	15.88	26.15	32.06	88.67	0.00	1,322.58	209	113,022	540.78	41.03	80.62
Part-time worker : 10h-19h59 per week	210.41	217.50	0.00	1,439.75	635	326,640	514.39	154.52	160.14	8.24	33.92	0.00	676.92	635	326,640	514.39	18.35	27.52	32.34	82.52	0.00	1,124.60	635	326,589	514.31	46.01	73.20
Part-time worker : 20h-29h59 per week	200.45	211.84	0.00	1,439.75	1,417	840,292	593.01	142.42	163.28	9.05	33.91	0.00	1,131.42	1,417	840,286	593.00	15.09	29.92	35.91	89.48	0.00	1,397.25	1,417	840,199	592.94	49.18	78.73
Part-time worker : 30h-34h59 per week	181.76	196.85	0.00	1,439.25	1,096	533,307	486.59	130.13	152.88	8.80	32.14	0.00	718.25	1,096	533,301	486.59	13.73	28.79	28.62	75.12	0.00	1,438.92	1,096	533,226	486.52	40.85	68.34
Other inactive	182.96	222.25	0.00	1,439.95	13,954	13,699,379	981.75	165.39	151.26	5.52	27.76	0.00	1,318.58	13,954	13,699,266	981.74	14.97	23.49	27.96	79.33	0.00	1,438.35	13,954	13,693,548	981.33	41.34	72.09
Gross monthly household income																											
Less than 600 euros	304.51	317.96	0.00	1,439.92	453	197,109	435.12	239.52	193.83	7.15	34.96	0.00	870.23	453	196,946	434.76	17.59	28.11	46.42	114.37	0.00	1,423.43	453	195,504	431.58	60.52	99.87
From 600 to 900 euros	308.14	297.60	0.00	1,439.90	1,117	529,569	474.10	223.03	196.38	7.30	36.37	0.00	1,380.20	1,117	529,531	474.07	22.34	28.32	38.55	105.24	0.00	1,438.35	1,117	527,587	472.32	67.59	90.53
From 900 to 1200 euros	276.05	268.48	0.00	1,439.90	2,157	1,079,103	500.28	200.69	181.94	6.57	32.59	0.00	1,089.65	2,157	1,079,065	500.26	18.82	26.73	38.78	103.34	0.00	1,437.50	2,157	1,077,756	499.66	61.25	88.46
From 1200 to 1500 euros	249.56	248.04	0.00	1,439.82	3,531	1,755,286	497.11	175.46	175.46	6.51	33.94	0.00	1,193.25	3,531	1,755,265	497.10	19.38	26.63	32.49	90.06	0.00	1,429.20	3,531	1,753,902	496.72	56.14	79.01
From 1500 to 2300 euros	223.75	229.99	0.00	1,439.98	8,727	5,576,534	639.00	155.92	169.03	6.16	29.32	0.00	1,071.50	8,727	5,576,495	638.99	15.41	25.09	33.15	87.96	0.00	1,418.30	8,727	5,574,880	638.81	47.73	78.18
From 2300 to 3000 euros	186.90	207.30	0.00	1,439.95	9,352	5,585,359	597.24	141.10	156.88	6.68	29.72	0.00	1,335.77	9,352	5,585,352	597.24	14.37	25.67	33.90	87.03	0.00	1,436.75	9,352	5,584,231	597.12	44.98	77.46
From 3000 to 4500 euros	155.71	187.20	0.00	1,439.75	10,381	7,043,723	678.52	124.96	145.02	7.30	30.23	0.00	1,159.45	10,381	7,043,718	678.52	15.01	26.51	31.32	80.78	0.00	1,438.92	10,381	7,043,234	678.47	41.23	72.85
From 4500 to 7000 euros	122.84	165.80	0.00	1,439.75	5,385	3,352,385	622.54	110.72	130.21	7.41	30.13	0.00	917.72	5,385	3,352,382	622.54	14.45	26.91	28.71	75.85	0.00	1,438.02	5,385	3,352,180	622.50	38.15	68.70
More than 7000 euros	96.38	147.94	0.00	1,439.50	1,372	856,191	624.05	112.03	115.09	6.95	28.14	0.00	816.82	1,372	856,191	624.05	12.60	25.65	22.92	66.31	0.00	1,247.28	1,372	856,167	624.03	39.91	59.60
Internet connection mode																											
No Internet acces	320.40	255.61	0.00	1,439.95	3,032	1,993,774	657.58	192.71	178.37	3.16	21.88	0.00	988.67	3,032	1,993,588	657.52	12.99	17.62	24.58	78.99	0.00	1,438.35	3,032	1,991,085	656.69	53.08	69.54
Cable	181.92	215.59	0.00	1,439.75	1,801	1,180,479	655.46	152.60	159.96	10.39	38.36	0.00	927.73	1,801	1,180,468	655.45	19.52	31.35	36.58	89.49	0.00	1,415.72	1,801	1,180,132	655.26	49.54	79.86
ADSL	175.58	207.73	0.00	1,439.98	21,158	20,875,531	986.65	145.80	155.32	6.67	29.67	0.00	1,335.77	21,158	20,875,419	986.64	14.89	26.06	32.23	84.61	0.00	1,438.92	21,158	20,869,472	986.36	43.80	76.50
Fiber optics	158.86	200.79	0.00	1,439.75	2,582	1,381,365	535.00	138.04	147.87	12.73	42.73	0.00	1,380.20	2,582	1,381,361	535.00	25.61	35.85	41.80	98.65	0.00	1,438.02	2,582	1,380,945	534.84	56.45	86.30
Other	190.39	216.63	0.00	1,439.75	1,396	544,110	389.76	151.34	160.33	4.16	23.95	0.00	727.82	1,396	544,109	389.76	12.34	20.76	29.97	84.03	0.00	1,322.58	1,396	543,807	389.55	54.27	73.67

TABLE 1.1 – Statistiques descriptives de la durée d'écoute Live par individu, du différé et des autres usages pour le chapitre 3 (2011-2019)

	Live TV viewing time (in mn)									Time-shifted TV viewing time (in mn)									Time devoted to other uses on TV screen (in mn)								
	Mean	sd	Min	Max	n	N	Tbar	sd_b	sd_w	Mean	sd	Min	Max	n	N	Tbar	sd_b	sd_w	Mean	sd	Min	Max	n	N	Tbar	sd_b	sd_w
Day of the week																											
Monday	185.36	212.29	0.00	1,439.95	24,308	3,710,159	152.63	157.22	148.72	6.74	29.60	0.00	1,380.20	24,308	3,710,090	152.63	16.06	25.24	29.58	81.18	0.00	1,423.43	24,307	3,708,851	152.58	46.41	72.73
Tuesday	179.42	207.97	0.00	1,439.92	24,297	3,715,176	152.91	154.22	145.91	6.53	28.77	0.00	1,335.77	24,297	3,715,120	152.90	15.50	24.66	28.76	79.29	0.00	1,437.47	24,297	3,713,938	152.86	44.48	71.14
Wednesday	182.89	209.20	0.00	1,439.90	24,296	3,714,317	152.88	153.65	148.42	7.01	30.19	0.00	1,196.73	24,296	3,714,287	152.88	16.11	25.92	31.16	82.27	0.00	1,438.92	24,296	3,713,040	152.83	46.91	73.59
Thursday	176.32	207.30	0.00	1,439.75	24,266	3,717,810	153.21	153.70	145.60	6.45	28.76	0.00	1,058.48	24,266	3,717,769	153.21	15.61	24.59	28.47	78.98	0.00	1,433.02	24,266	3,716,582	153.16	44.37	70.81
Friday	178.92	209.36	0.00	1,439.82	24,254	3,715,651	153.20	152.61	149.92	6.63	29.26	0.00	1,110.87	24,254	3,715,620	153.20	15.28	25.21	30.76	81.82	0.00	1,438.35	24,254	3,714,435	153.15	45.67	73.46
Saturday	190.80	225.12	0.00	1,439.75	24,250	3,706,836	152.86	157.93	166.66	7.04	32.25	0.00	1,170.57	24,250	3,706,790	152.86	17.13	27.84	37.72	94.04	0.00	1,438.02	24,250	3,705,220	152.79	52.00	83.75
Sunday	211.26	234.01	0.00	1,439.98	24,220	3,695,310	152.57	166.17	171.37	7.50	33.62	0.00	1,193.10	24,220	3,695,269	152.57	17.92	28.93	39.73	96.82	0.00	1,437.50	24,220	3,693,375	152.49	56.54	85.49
Regions																											
Ile-de-France	166.48	208.10	0.00	1,439.90	3,472	3,676,563	1,058.92	142.07	157.38	8.24	34.15	0.00	1,131.42	3,472	3,676,551	1,058.91	16.51	29.74	35.44	90.21	0.00	1,438.35	3,472	3,675,192	1,058.52	47.35	81.26
Champagne-Ardenne	211.04	216.79	0.00	1,439.75	634	682,255	1,076.11	148.55	161.48	5.95	30.68	0.00	1,380.20	634	682,254	1,076.11	20.19	25.53	31.68	85.10	0.00	1,322.58	634	682,185	1,076.00	40.86	76.77
Picardie	188.13	215.54	0.00	1,439.75	938	903,502	963.22	152.56	161.34	6.28	29.00	0.00	1,071.50	938	903,502	963.22	15.75	25.46	30.54	82.55	0.00	1,417.75	938	903,425	963.14	45.51	75.32
Haute-Normandie	183.05	212.53	0.00	1,439.92	787	786,417	999.26	151.11	156.17	6.20	27.92	0.00	694.38	787	786,415	999.26	12.37	24.81	32.29	86.65	0.00	1,400.33	787	786,304	999.12	39.61	79.81
Centre	193.74	218.99	0.00	1,439.75	1,481	1,690,940	1,141.76	154.46	161.85	6.41	28.77	0.00	923.90	1,481	1,690,925	1,141.75	13.93	25.08	32.15	85.82	0.00	1,417.40	1,481	1,689,993	1,141.12	39.96	77.91
Basse-Normandie	192.95	224.69	0.00	1,439.75	597	597,089	1,000.15	158.01	158.08	5.54	26.95	0.00	896.18	597	597,079	1,000.13	11.56	24.11	27.58	75.98	0.00	1,436.65	597	596,959	999.93	44.09	69.59
Bourgogne	189.30	219.52	0.00	1,439.75	769	801,656	1,042.47	162.36	158.64	4.26	22.63	0.00	1,017.22	769	801,653	1,042.46	10.41	20.83	28.95	82.94	0.00	1,300.40	769	801,101	1,041.74	56.57	76.26
Nord-Pas-de-Calais	210.94	236.33	0.00	1,439.75	1,698	1,664,371	980.19	161.13	168.49	6.70	28.93	0.00	1,058.48	1,698	1,664,370	980.19	13.68	25.49	36.73	91.40	0.00	1,438.92	1,698	1,663,963	979.95	53.06	82.95
Lorraine	179.08	219.97	0.00	1,439.75	961	985,148	1,025.13	155.95	157.40	7.10	30.63	0.00	1,141.05	961	984,984	1,024.96	13.27	27.43	41.72	97.40	0.00	1,431.73	961	984,191	1,024.13	52.14	86.26
Alsace	156.97	190.14	0.00	1,439.43	969	1,069,178	1,103.38	134.13	139.51	9.48	37.42	0.00	1,335.77	969	1,069,170	1,103.37	21.72	30.50	34.61	85.23	0.00	1,428.68	969	1,068,960	1,103.16	50.06	75.22
Franche-Comté	184.93	214.33	0.00	1,439.75	572	564,786	987.39	151.62	154.03	6.05	28.66	0.00	816.82	572	564,784	987.38	14.27	24.33	30.68	85.31	0.00	1,378.92	572	564,516	986.92	46.83	74.70
Pays de la Loire	181.05	209.58	0.00	1,439.90	1,625	1,616,908	995.02	146.47	153.15	5.86	26.90	0.00	1,193.25	1,625	1,616,896	995.01	11.44	24.52	30.12	81.87	0.00	1,372.50	1,625	1,616,625	994.85	47.58	74.17
Bretagne	189.95	213.58	0.00	1,439.75	1,379	1,323,148	959.50	156.62	154.92	5.86	28.50	0.00	971.95	1,379	1,323,132	959.49	13.79	25.18	31.19	84.30	0.00	1,422.58	1,379	1,322,112	958.75	44.37	76.05
Poitou-Charentes	209.29	225.11	0.00	1,439.92	834	864,746	1,036.87	165.15	163.69	5.72	28.31	0.00	863.58	834	864,741	1,036.86	19.59	24.30	28.92	82.34	0.00	1,429.37	834	864,552	1,036.63	38.21	73.41
Aquitaine	192.24	214.59	0.00	1,439.82	1,408	1,403,167	996.57	152.83	158.08	5.89	27.00	0.00	818.73	1,408	1,403,165	996.57	18.00	23.98	30.96	84.74	0.00	1,418.30	1,408	1,402,537	996.12	46.09	75.93
Midi-Pyrénées	179.17	209.08	0.00	1,439.98	1,210	1,286,397	1,063.14	145.43	153.53	6.01	28.24	0.00	988.67	1,210	1,286,395	1,063.14	16.26	24.01	26.18	73.75	0.00	1,363.33	1,210	1,286,293	1,063.05	39.38	67.24
Limousin	179.58	208.87	0.00	1,439.75	332	344,020	1,036.20	170.07	147.64	7.23	29.87	0.00	829.82	332	344,020	1,036.20	13.69	26.01	30.39	79.20	0.00	1,241.13	332	343,947	1,035.98	31.85	72.81
Rhône-Alpes	178.09	208.98	0.00	1,439.75	2,389	2,335,893	977.77	143.80	154.12	7.73	32.34	0.00	1,089.65	2,389	2,335,864	977.76	15.97	28.06	30.05	79.89	0.00	1,403.93	2,389	2,334,792	977.31	46.19	72.06
Auvergne	188.74	210.37	0.00	1,439.75	636	589,371	926.68	141.42	158.69	4.85	23.64	0.00	800.25	636	589,371	926.68	12.63	21.18	26.68	78.02	0.00	1,423.43	636	589,246	926.49	36.15	71.96
Languedoc-Roussillon	212.68	221.85	0.00	1,439.75	946	910,260	962.22	151.51	164.96	6.81	31.48	0.00	845.00	946	910,258	962.22	17.40	25.53	33.41	87.47	0.00	1,424.27	946	910,100	962.05	40.10	79.42
Provence-Alpes-Côte d'Azur	196.68	222.49	0.00	1,439.95	1,739	1,879,444	1,080.76	159.77	161.01	8.39	34.00	0.00	1,170.57	1,739	1,879,416	1,080.75	17.20	29.35	34.44	87.37	0.00	1,421.78	1,739	1,878,448	1,080.19	49.21	78.65
Total	186.40	215.52	0.00	1,439.98	24,334	25,975,259	1,067.45	151.85	157.98	6.84	30.40	0.00	1,380.20	24,334	25,974,945	1,067.43	15.38	26.43	32.30	85.28	0.00	1,438.92	24,334	25,965,441	1,067.04	45.71	77.03

TABLE 1.1 – (2) : Statistiques descriptives de la durée d'écoute Live par individu, du différé et des autres usages pour le chapitre 3 (2011-2019)

	Time devoted to watch ad on free private channel (in mn)									Time-shifted TV viewing time (in mn)									Time devoted to other uses on TV screen (in mn)								
	Mean	sd	Min	Max	n	N	Tbar	sd_b	sd_w	Mean	sd	Min	Max	n	N	Tbar	sd_b	sd_w	Mean	sd	Min	Max	n	N	Tbar	sd_b	sd_w
Gender																											
Female	22.96	24.49	0.00	228.30	11,018	6,698,329	607.94	15.81	18.50	8.38	33.38	0.00	1,170.57	11,018	6,698,329	607.94	17.64	28.30	30.13	73.73	0.00	1,412.80	11,018	6,694,738	607.62	40.75	65.81
Male	17.55	20.27	0.00	216.65	10,746	6,241,619	580.83	12.82	15.90	7.17	30.05	0.00	1,159.45	10,746	6,241,619	580.83	14.95	25.47	39.07	85.80	0.00	1,418.20	10,746	6,238,260	580.52	53.45	74.26
Age category																											
4-10 years	14.34	16.94	0.00	203.42	3,441	1,078,928	313.55	9.27	14.68	5.95	25.15	0.00	1,141.05	3,441	1,078,928	313.55	10.97	23.38	39.69	79.80	0.00	1,412.80	3,441	1,078,869	313.53	39.82	73.28
11-14 years	16.14	18.34	0.00	205.88	2,426	697,898	287.67	9.86	15.72	5.89	24.99	0.00	727.82	2,426	697,898	287.67	13.01	22.70	40.15	86.22	0.00	1,315.00	2,426	697,655	287.57	43.99	76.94
15-24 years	17.88	20.43	0.00	222.58	3,438	968,774	281.78	11.47	17.29	4.78	22.84	0.00	690.20	3,438	968,774	281.78	9.97	20.97	37.48	88.32	0.00	1,294.40	3,438	968,489	281.70	48.71	77.84
25-34 years	22.15	23.24	0.00	213.98	3,687	1,546,322	419.40	13.61	19.29	9.92	33.87	0.00	886.15	3,687	1,546,322	419.40	15.63	30.17	53.89	102.54	0.00	1,397.25	3,687	1,545,242	419.11	61.75	89.08
35-49 years	22.12	23.28	0.00	228.30	5,954	3,410,853	572.87	14.73	18.34	9.76	35.22	0.00	1,058.48	5,954	3,410,853	572.87	18.73	30.31	38.09	83.63	0.00	1,418.20	5,954	3,408,573	572.48	49.94	73.36
50-64 years	22.41	24.49	0.00	223.77	4,291	2,617,842	610.08	17.71	17.76	8.19	34.14	0.00	1,003.02	4,291	2,617,842	610.08	22.13	27.71	27.16	69.36	0.00	1,351.28	4,291	2,616,348	609.73	44.18	60.31
65 years and more	19.42	23.02	0.00	221.83	3,691	2,619,331	709.65	17.46	15.01	5.99	30.16	0.00	1,170.57	3,691	2,619,331	709.65	20.93	22.60	20.68	58.51	0.00	1,356.27	3,691	2,617,822	709.24	33.53	50.66
Social professional category																											
Farmer	18.54	19.08	0.00	171.18	142	100,204	705.66	11.66	14.71	3.91	23.22	0.00	829.17	142	100,204	705.66	8.72	20.77	17.80	59.83	0.00	1,121.42	142	100,198	705.62	37.12	52.48
Craftsmen-Traders-Contractor	19.29	22.14	0.00	210.00	517	241,045	466.24	14.58	16.69	10.63	39.77	0.00	826.78	517	241,045	466.24	21.63	31.84	32.89	75.59	0.00	1,142.53	517	240,929	466.01	42.91	67.38
Higher professions	14.95	17.99	0.00	190.62	2,433	1,072,843	440.95	10.55	14.72	11.04	36.79	0.00	971.95	2,433	1,072,843	440.95	20.00	31.71	37.14	79.88	0.00	1,285.80	2,433	1,072,553	440.84	46.81	70.26
Intermediate occupations	19.08	20.97	0.00	207.58	3,737	1,761,760	471.44	12.53	16.99	9.44	33.97	0.00	843.68	3,737	1,761,760	471.44	17.72	29.48	36.86	79.83	0.00	1,291.73	3,737	1,761,352	471.33	46.05	70.83
Employee	25.22	24.69	0.00	216.77	3,770	2,020,763	536.01	15.27	19.91	9.26	34.34	0.00	1,052.93	3,770	2,020,763	536.01	18.40	29.58	38.84	86.53	0.00	1,418.20	3,770	2,019,939	535.79	55.59	74.93
Skilled worker	22.89	22.94	0.00	216.65	2,107	1,036,387	491.88	14.64	18.88	7.52	30.33	0.00	886.15	2,107	1,036,387	491.88	15.66	26.21	41.18	89.92	0.00	1,365.62	2,107	1,035,761	491.58	63.32	76.76
Unskilled worker	26.49	26.12	0.00	216.12	989	358,069	362.05	17.36	20.70	6.96	30.91	0.00	826.52	989	358,069	362.05	15.60	25.99	40.83	92.41	0.00	1,329.47	989	357,180	361.15	59.02	79.84
Pensioner	19.81	23.22	0.00	223.77	4,080	2,995,059	734.08	17.35	15.32	6.32	30.86	0.00	1,170.57	4,080	2,995,059	734.08	19.52	23.51	21.42	59.82	0.00	1,356.27	4,080	2,993,466	733.69	35.43	51.91
Student	15.68	18.19	0.00	205.88	7,009	2,607,476	372.02	9.96	15.73	5.57	24.40	0.00	1,141.05	7,009	2,607,476	372.02	10.88	22.61	38.61	83.52	0.00	1,412.80	7,009	2,607,049	371.96	42.95	75.70
Other inactive	30.52	29.78	0.00	228.30	1,580	746,342	472.37	21.03	21.12	9.45	37.65	0.00	1,058.48	1,580	746,342	472.37	20.76	30.48	40.98	94.11	0.00	1,355.32	1,580	744,571	471.25	64.02	77.75
Average weekly working time																											
Unemployed person who has already worked	27.52	27.45	0.00	216.77	1,228	338,161	275.38	18.41	20.81	9.54	35.89	0.00	843.68	1,228	338,161	275.38	18.90	29.74	52.44	104.86	0.00	1,329.47	1,228	337,353	274.72	71.36	87.32
People looking for a first job	28.14	27.06	0.00	199.10	153	25,732	168.18	15.97	22.32	5.55	25.07	0.00	526.42	153	25,732	168.18	11.40	22.92	53.31	108.95	0.00	1,004.53	153	25,731	168.18	74.64	88.25
Full-time worker	20.37	21.82	0.00	216.65	9,123	5,220,062	572.19	13.31	17.71	9.00	33.61	0.00	1,052.93	9,123	5,220,062	572.19	17.44	29.07	37.74	83.36	0.00	1,418.20	9,123	5,218,190	571.98	50.71	73.10
Part-time worker : 0-9h59 per week	30.53	29.46	0.00	187.52	191	63,624	333.11	19.72	21.02	7.09	29.55	0.00	654.25	191	63,624	333.11	16.69	25.61	30.24	75.00	0.00	1,115.17	191	63,614	333.06	42.32	66.77
Part-time worker : 10h-19h59 per week	23.07	23.65	0.00	194.53	564	177,046	313.91	15.59	18.31	8.33	33.09	0.00	626.17	564	177,046	313.91	19.34	26.50	33.38	77.08	0.00	1,124.60	564	176,999	313.83	45.54	66.94
Part-time worker : 20h-29h59 per week	23.32	24.31	0.00	207.58	1,259	457,732	363.57	15.54	18.78	9.92	34.76	0.00	886.03	1,259	457,732	363.57	18.01	29.81	36.59	81.54	0.00	1,397.25	1,259	457,656	363.51	49.95	69.87
Part-time worker : 30h-34h59 per week	21.51	22.38	0.00	196.75	986	289,924	294.04	13.88	17.76	9.34	32.67	0.00	718.25	986	289,924	294.04	15.46	28.78	28.87	69.11	0.00	1,278.50	986	289,858	293.97	42.32	61.95
Other inactive	19.47	22.80	0.00	228.30	12,385	6,367,667	514.14	15.15	16.33	6.50	29.72	0.00	1,170.57	12,385	6,367,667	514.14	15.93	24.36	30.88	75.42	0.00	1,412.80	12,385	6,363,597	513.81	44.73	65.99
Gross monthly household income																											
Less than 600 euros	33.12	31.45	0.00	228.30	398	109,922	276.19	21.47	22.14	7.52	34.58	0.00	756.50	398	109,922	276.19	19.96	25.95	50.42	104.79	0.00	1,296.55	398	108,906	273.63	63.68	89.14
From 600 to 900 euros	30.46	30.46	0.00	225.17	1,002	308,653	308.04	21.92	20.57	7.75	35.40	0.00	731.10	1,002	308,653	308.04	21.41	27.27	37.22	92.05	0.00	1,351.28	1,002	307,521	306.91	69.87	75.59
From 900 to 1200 euros	27.92	27.78	0.00	223.77	1,969	617,234	313.48	19.18	19.76	7.09	34.09	0.00	1,089.65	1,969	617,234	313.48	19.54	26.44	37.95	91.72	0.00	1,412.80	1,969	616,183	312.94	69.71	74.91
From 1200 to 1500 euros	25.41	25.97	0.00	208.18	3,174	1,000,812	315.32	17.32	19.01	6.66	32.54	0.00	1,170.57	3,174	1,000,812	315.32	20.83	25.24	32.45	80.00	0.00	1,391.45	3,174	999,723	314.97	54.50	67.94
From 1500 to 2300 euros	22.24	23.71	0.00	222.58	7,913	3,123,665	394.75	15.31	17.95	6.70	29.98	0.00	1,058.48	7,913	3,123,665	394.75	15.62	25.18	33.65	80.23	0.00	1,418.20	7,913	3,122,474	394.60	50.03	68.68
From 2300 to 3000 euros	20.04	21.79	0.00	215.85	8,353	2,923,147	349.95	13.54	17.07	7.48	30.84	0.00	1,141.05	8,353	2,923,147	349.95	16.36	26.08	35.52	81.23	0.00	1,312.25	8,353	2,922,241	349.84	46.51	70.52
From 3000 to 4500 euros	17.43	19.81	0.00	212.28	9,058	3,253,298	359.16	11.97	15.83	8.67	32.26	0.00	1,159.45	9,058	3,253,298	359.16	16.14	27.46	34.35	77.04	0.00	1,356.27	9,058	3,252,911	359.12	43.83	67.69
From 4500 to 7000 euros	14.75	17.89	0.00	202.28	4,467	1,315,935	294.59	10.52	14.45	9.67	33.92	0.00	829.17	4,467	1,315,935	294.59	17.09	29.32	33.18	73.57	0.00	1,304.17	4,467	1,315,771	294.55	43.06	65.16
More than 7000 euros	11.90	16.25	0.00	221.40	1,122	287,282	256.04	10.59	12.62	10.14	32.82	0.00	579.75	1,122	287,282	256.04	17.90	29.09	29.35	67.89	0.00	1,112.50	1,122	287,268	256.03	42.85	59.47
Internet connection mode																											
No Internet acces	22.70	24.51	0.00	225.17	2,912	1,394,817	478.99	17.59	16.55	3.65	23.46	0.00	841.35	2,912	1,394,817	478.99	14.56	18.25	22.62	66.75	0.00	1,294.40	2,912	1,392,779	478.29	48.04	56.42
Cable	18.12	20.89	0.00	194.70	1,712	613,897	358.58	13.11	16.28	13.45	42.66	0.00	779.43	1,712	613,897	358.58	21.82	33.77	42.56	86.97	0.00	1,333.45	1,712	613,576	358.40	54.25	75.71
ADSL	20.19	22.55	0.00	228.30	18,954	10,225,986	539.52	14.31	17.38	7.82	31.63	0.00	1,170.57	18,954	10,225,986	539.52	16.01	27.04	35.16	80.33	0.00	1,418.20	18,954	10,221,745	539.29	47.27	70.53
Fiber optics	19.73	22.21	0.00	186.13	1,584	420,503	265.47	13.77	17.23	14.98	42.50	0.00	892.33	1,584	420,503	265.47	26.21	36.74	47.38	95.34	0.00	1,351.28	1,584	420,251	265.31	69.63	81.15
Other	20.27	22.94	0.00	198.38	1,238	284,745	230.00	15.55	16.90	4.53	24.10	0.00	727.82	1,238	284,745	230.00	15.28	20.28	29.87	75.64	0.00	1,232.32	1,238	284,647	229.92	48.01	63.23

TABLE 1.2 – Statistiques descriptives de la durée quotidienne consacrée à regarder une publicité en direct sur les chaînes privés, du différé et des autres usages pour le chapitre 4 (2011-2017)

	Time devoted to watch ad on free private channel (in mn)									Time-shifted TV viewing time (in mn)									Time devoted to other uses on TV screen (in mn)								
	Mean	sd	Min	Max	n	N	Tbar	sd_b	sd_w	Mean	sd	Min	Max	n	N	Tbar	sd_b	sd_w	Mean	sd	Min	Max	n	N	Tbar	sd_b	sd_w
Day of the week																											
Monday	20.65	22.72	0.00	225.17	21,392	1,872,159	87.52	15.80	16.36	7.85	31.32	0.00	1,003.02	21,392	1,872,159	87.52	17.92	25.85	30.85	75.07	0.00	1,391.45	21,391	1,871,229	87.48	48.98	65.06
Tuesday	19.76	22.11	0.00	228.30	21,348	1,854,767	86.88	15.24	16.03	7.57	30.46	0.00	889.80	21,348	1,854,767	86.88	17.08	25.29	30.26	73.46	0.00	1,282.05	21,348	1,853,920	86.84	47.05	63.77
Wednesday	19.91	22.17	0.00	211.57	21,353	1,870,873	87.62	15.44	16.07	7.95	31.66	0.00	1,159.45	21,353	1,870,873	87.62	17.54	26.38	32.42	75.97	0.00	1,356.27	21,348	1,869,971	87.59	49.59	65.67
Thursday	19.80	22.14	0.00	214.72	21,287	1,823,789	85.68	15.30	15.99	7.46	30.51	0.00	1,058.48	21,287	1,823,789	85.68	17.41	25.19	30.31	73.84	0.00	1,346.38	21,287	1,822,894	85.63	47.12	64.02
Friday	19.75	22.19	0.00	224.33	21,354	1,836,374	86.00	15.07	16.27	7.59	30.83	0.00	1,017.22	21,354	1,836,374	86.00	17.25	25.70	32.60	76.44	0.00	1,351.28	21,354	1,835,490	85.96	47.78	66.24
Saturday	19.98	22.87	0.00	223.77	21,303	1,767,463	82.97	15.04	17.35	8.09	33.93	0.00	1,170.57	21,303	1,767,463	82.97	18.70	28.38	42.20	90.51	0.00	1,418.20	21,302	1,766,352	82.92	58.29	77.04
Sunday	22.50	24.50	0.00	221.83	21,372	1,914,523	89.58	16.58	18.41	8.07	33.86	0.00	1,141.05	21,372	1,914,523	89.58	19.06	28.61	42.52	90.77	0.00	1,397.25	21,371	1,913,142	89.52	57.25	77.24
Regions																											
Ile-de-France	18.95	21.52	0.00	225.17	3,137	1,681,940	536.16	13.51	16.74	10.13	36.87	0.00	844.75	3,137	1,681,940	536.16	19.60	31.12	41.19	88.42	0.00	1,355.32	3,137	1,681,017	535.87	54.94	76.92
Champagne-Ardenne	22.45	23.22	0.00	199.47	555	359,899	648.47	14.32	17.99	5.76	27.89	0.00	829.17	555	359,899	648.47	18.80	22.98	32.80	81.23	0.00	1,177.55	555	359,842	648.36	43.71	71.03
Picardie	22.82	23.85	0.00	208.37	815	466,721	572.66	14.81	18.58	7.10	29.98	0.00	776.27	815	466,721	572.66	17.40	25.87	32.76	77.08	0.00	1,272.00	815	466,679	572.61	38.71	68.68
Haute-Normandie	20.98	22.63	0.00	213.95	726	396,192	545.72	15.49	17.64	7.67	30.75	0.00	694.38	726	396,192	545.72	14.89	26.38	33.18	79.29	0.00	1,365.62	726	396,086	545.57	42.09	71.46
Centre	22.10	24.37	0.00	223.77	1,323	854,984	646.25	15.62	18.33	7.06	29.37	0.00	923.90	1,323	854,984	646.25	15.25	25.38	35.19	81.68	0.00	1,317.47	1,323	854,326	645.75	43.18	72.54
Basse-Normandie	21.09	22.13	0.00	184.78	541	300,950	556.28	13.86	17.48	6.37	28.70	0.00	694.00	541	300,950	556.28	13.04	24.90	31.77	76.76	0.00	1,243.18	541	300,843	556.09	44.82	68.60
Bourgogne	21.37	23.01	0.00	221.45	669	409,264	611.75	15.56	17.88	4.73	23.41	0.00	1,017.22	669	409,264	611.75	14.59	21.27	26.91	69.14	0.00	1,258.52	669	408,926	611.25	38.45	63.06
Nord-Pas-de-Calais	24.93	25.66	0.00	221.40	1,512	866,520	573.10	15.61	19.49	7.23	30.30	0.00	1,058.48	1,512	866,520	573.10	15.05	25.73	39.01	84.96	0.00	1,208.73	1,512	866,217	572.89	53.02	74.84
Lorraine	20.36	22.70	0.00	221.83	868	454,051	523.10	14.68	17.65	8.68	32.79	0.00	1,141.05	868	454,051	523.10	14.42	28.67	43.65	90.13	0.00	1,412.80	868	453,499	522.46	55.57	78.00
Alsace	16.08	20.03	0.00	195.93	863	516,745	598.78	13.20	14.89	11.34	38.56	0.00	1,159.45	863	516,745	598.78	24.11	31.51	37.91	79.49	0.00	1,391.45	863	516,600	598.61	53.82	69.13
Franche-Comté	19.55	21.86	0.00	213.73	511	280,707	549.33	15.15	16.50	6.79	29.51	0.00	775.50	511	280,707	549.33	16.11	24.69	32.74	82.24	0.00	1,315.00	511	280,521	548.96	45.77	67.09
Pays de la Loire	20.68	22.94	0.00	213.95	1,427	789,257	553.09	13.98	17.32	6.85	29.03	0.00	886.03	1,427	789,257	553.09	13.59	25.83	31.00	75.61	0.00	1,287.80	1,427	789,014	552.92	41.78	66.33
Bretagne	21.13	22.77	0.00	222.58	1,194	687,736	575.99	14.68	17.40	6.39	29.82	0.00	971.95	1,194	687,736	575.99	14.80	25.75	29.43	73.51	0.00	1,261.13	1,194	686,815	575.22	46.73	64.88
Poitou-Charentes	21.46	22.77	0.00	202.47	725	451,185	622.32	15.02	17.52	5.53	26.21	0.00	590.75	725	451,185	622.32	15.28	22.59	28.00	74.61	0.00	1,198.53	725	451,072	622.17	43.69	64.61
Aquitaine	19.77	22.88	0.00	214.92	1,257	718,158	571.33	15.29	16.83	6.52	27.82	0.00	727.05	1,257	718,158	571.33	12.46	24.50	31.86	77.15	0.00	1,418.20	1,257	717,680	570.95	41.33	67.44
Midi-Pyrénées	18.61	22.18	0.00	213.67	1,066	635,203	595.88	14.67	16.48	6.93	30.06	0.00	790.75	1,066	635,203	595.88	15.85	24.66	28.02	69.45	0.00	1,346.38	1,066	635,119	595.80	41.96	61.85
Limousin	18.52	22.31	0.00	216.12	301	172,625	573.50	14.80	16.19	9.10	33.91	0.00	829.82	301	172,625	573.50	18.56	27.77	31.98	73.94	0.00	1,232.32	301	172,574	573.34	36.94	66.29
Rhône-Alpes	19.04	21.84	0.00	216.65	2,110	1,135,620	538.21	14.15	16.56	8.84	34.67	0.00	1,089.65	2,110	1,135,620	538.21	17.18	28.84	33.96	77.23	0.00	1,356.27	2,110	1,135,046	537.94	45.36	67.53
Auvergne	18.03	20.89	0.00	197.50	566	305,616	539.96	12.58	16.49	4.96	23.43	0.00	633.00	566	305,616	539.96	12.40	20.67	26.24	69.37	0.00	1,182.25	566	305,517	539.78	43.82	61.86
Languedoc-Roussillon	19.96	22.10	0.00	203.62	842	494,121	586.84	13.90	17.06	7.61	32.98	0.00	845.00	842	494,121	586.84	20.02	26.04	34.55	80.78	0.00	1,219.20	842	494,093	586.81	44.58	69.59
Provence-Alpes-Côte d'Azur	19.76	22.18	0.00	228.30	1,599	962,454	601.91	14.25	16.89	9.68	35.57	0.00	1,170.57	1,599	962,454	601.91	17.66	29.79	37.30	82.33	0.00	1,351.28	1,599	961,512	601.32	54.22	71.98
Total	20.35	22.71	0.00	228.30	21,764	12,939,948	594.56	14.57	17.29	7.80	31.83	0.00	1,170.57	21,764	12,939,948	594.56	16.38	26.97	34.44	79.90	0.00	1,418.20	21,764	12,932,998	594.24	47.71	70.01

TABLE 1.2 – (2) : Statistiques descriptives de la durée quotidienne consacrée à regarder une publicité en direct sur les chaînes privés, du différé et des autres usages pour le chapitre 4 (2011-2017)

	Time devoted to watch ad on free public channel (in mn)									Time-shifted TV viewing time (in mn)									Time devoted to other uses on TV screen (in mn)								
	Mean	sd	Min	Max	n	N	Tbar	sd_b	sd_w	Mean	sd	Min	Max	n	N	Tbar	sd_b	sd_w	Mean	sd	Min	Max	n	N	Tbar	sd_b	sd_w
Gender																											
Female	9.02	9.55	0.00	110.52	10,785	3,112,366	288.58	4.89	7.04	7.79	32.60	0.00	1,141.05	10,785	3,112,366	288.58	18.93	26.81	26.12	65.58	0.00	1,356.27	10,785	3,109,829	288.35	43.69	57.85
Male	7.84	8.55	0.00	123.07	10,487	2,715,072	258.90	4.14	6.43	6.63	29.12	0.00	1,159.45	10,487	2,715,072	258.90	16.19	24.32	34.00	76.58	0.00	1,346.38	10,487	2,712,663	258.67	55.35	65.21
Age category																											
4-10 years	5.18	5.04	0.00	71.25	3,332	344,599	103.42	2.03	4.71	5.78	24.66	0.00	1,141.05	3,332	344,599	103.42	12.64	22.72	39.43	77.55	0.00	1,303.37	3,332	344,581	103.42	45.12	70.48
11-14 years	4.62	4.77	0.00	73.48	2,344	187,170	79.85	1.98	4.40	6.03	25.69	0.00	614.13	2,344	187,170	79.85	17.59	22.95	39.32	81.91	0.00	1,303.42	2,344	187,003	79.78	49.40	72.78
15-24 years	5.08	5.71	0.00	86.70	3,246	233,205	71.84	2.75	5.03	5.11	24.01	0.00	690.20	3,246	233,205	71.84	12.20	21.52	36.03	81.88	0.00	1,167.17	3,246	233,094	71.81	57.81	71.19
25-34 years	6.10	6.61	0.00	90.60	3,562	478,976	134.47	2.87	5.80	9.41	32.82	0.00	886.03	3,562	478,976	134.47	18.77	28.86	51.45	95.61	0.00	1,346.38	3,562	478,301	134.28	64.51	82.40
35-49 years	6.62	7.08	0.00	101.02	5,860	1,259,026	214.85	3.35	5.99	9.55	35.11	0.00	822.88	5,860	1,259,026	214.85	20.19	29.88	36.75	79.46	0.00	1,272.30	5,860	1,257,361	214.57	51.73	69.02
50-64 years	8.67	8.97	0.00	106.00	4,253	1,424,865	335.03	5.00	6.97	7.85	33.17	0.00	930.82	4,253	1,424,865	335.03	22.49	26.86	25.56	64.69	0.00	1,351.28	4,253	1,423,962	334.81	43.03	55.45
65 years and more	11.54	11.02	0.00	123.07	3,675	1,899,597	516.90	7.32	7.82	5.37	28.01	0.00	1,159.45	3,675	1,899,597	516.90	21.18	21.04	19.43	54.52	0.00	1,356.27	3,675	1,898,190	516.51	31.34	46.90
Social professional category																											
Farmer	6.12	6.39	0.00	72.98	141	43,063	305.41	2.74	5.35	4.32	23.97	0.00	536.42	141	43,063	305.41	8.50	21.47	17.98	61.33	0.00	966.55	141	43,062	305.40	28.01	53.32
Craftsmen-Traders-Contractor	7.01	7.28	0.00	72.02	507	97,852	193.00	3.29	6.04	10.86	41.48	0.00	776.27	507	97,852	193.00	23.14	31.79	30.68	70.19	0.00	967.00	507	97,806	192.91	50.80	62.84
Higher professions	6.56	7.44	0.00	106.00	2,372	385,286	162.43	3.43	6.11	11.21	38.22	0.00	781.00	2,372	385,286	162.43	22.08	32.08	34.77	74.94	0.00	1,263.00	2,372	385,089	162.35	48.70	65.46
Intermediate occupations	6.69	7.16	0.00	101.43	3,644	689,656	189.26	3.40	6.03	8.80	32.74	0.00	843.68	3,644	689,656	189.26	20.07	28.27	34.41	74.12	0.00	1,267.38	3,644	689,349	189.17	49.71	65.01
Employee	7.58	8.06	0.00	100.73	3,668	823,105	224.40	3.92	6.52	8.53	32.72	0.00	886.03	3,668	823,105	224.40	19.82	28.14	35.61	79.50	0.00	1,342.37	3,668	822,587	224.26	56.24	67.99
Skilled worker	6.78	7.31	0.00	109.53	2,036	394,724	193.87	3.32	6.02	7.00	29.37	0.00	801.32	2,036	394,724	193.87	16.52	25.13	36.37	79.48	0.00	1,346.38	2,036	394,363	193.69	62.01	67.65
Unskilled worker	7.28	7.76	0.00	97.90	933	142,575	152.81	4.15	6.37	6.99	31.75	0.00	756.50	933	142,575	152.81	17.50	25.06	36.09	82.52	0.00	1,115.17	933	141,925	152.12	58.68	70.98
Pensioner	11.25	10.82	0.00	123.07	4,059	2,135,851	526.20	7.14	7.73	5.70	28.75	0.00	1,159.45	4,059	2,135,851	526.20	19.48	21.95	19.89	55.12	0.00	1,356.27	4,059	2,134,372	525.84	35.44	47.49
Student	4.98	5.14	0.00	86.70	6,749	729,396	108.07	2.29	4.73	5.65	24.63	0.00	1,141.05	6,749	729,396	108.07	13.18	22.57	38.16	79.47	0.00	1,303.42	6,749	729,173	108.04	49.42	71.55
Other inactive	9.42	9.70	0.00	104.70	1,546	385,930	249.63	5.27	7.29	9.11	36.85	0.00	759.22	1,546	385,930	249.63	20.96	29.50	35.17	83.55	0.00	1,351.28	1,546	384,766	248.88	64.41	67.85
Average weekly working time																											
Unemployed person who has already worked	8.83	9.71	0.00	100.73	1,164	141,958	121.96	4.37	7.33	9.60	36.49	0.00	843.68	1,164	141,958	121.96	20.10	29.17	48.60	96.63	0.00	1,223.30	1,164	141,357	121.44	66.31	79.29
People looking for a first job	6.41	6.52	0.00	88.55	140	7,919	56.56	2.82	5.78	4.53	22.07	0.00	407.30	140	7,919	56.56	11.91	20.17	48.70	100.51	0.00	842.50	140	7,919	56.56	86.45	78.19
Full-time worker	6.71	7.16	0.00	106.00	8,897	1,996,828	224.44	3.37	6.05	8.52	32.96	0.00	845.00	8,897	1,996,828	224.44	19.16	28.18	34.73	76.79	0.00	1,346.38	8,897	1,995,702	224.31	53.19	66.89
Part-time worker : 0-9h59 per week	9.83	11.27	0.00	109.53	185	33,256	179.76	5.07	7.41	6.26	26.53	0.00	412.10	185	33,256	179.76	17.15	23.29	23.72	59.64	0.00	1,115.17	185	33,249	179.72	41.76	52.37
Part-time worker : 10h-19h59 per week	8.37	8.32	0.00	82.95	549	81,709	148.83	4.23	6.68	7.68	32.96	0.00	626.17	549	81,709	148.83	21.08	25.48	29.13	66.65	0.00	956.27	549	81,687	148.79	41.54	56.67
Part-time worker : 20h-29h59 per week	7.53	8.24	0.00	95.25	1,218	186,021	152.73	4.27	6.47	9.47	33.85	0.00	886.03	1,218	186,021	152.73	19.33	28.47	33.36	73.80	0.00	1,167.17	1,218	185,958	152.67	50.28	62.60
Part-time worker : 30h-34h59 per week	6.66	6.91	0.00	84.13	952	113,208	118.92	3.70	5.83	8.92	32.33	0.00	718.25	952	113,208	118.92	18.70	28.16	26.39	63.72	0.00	1,278.50	952	113,161	118.87	45.34	56.16
Other inactive	9.64	10.03	0.00	123.07	12,079	3,266,539	270.43	5.28	7.13	6.19	29.26	0.00	1,159.45	12,079	3,266,539	270.43	16.96	23.35	25.90	65.73	0.00	1,356.27	12,079	3,263,459	270.18	48.29	56.50
Gross monthly household income																											
Less than 600 euros	9.74	11.00	0.00	110.52	385	52,699	136.88	6.54	7.28	6.96	34.92	0.00	756.50	385	52,699	136.88	21.23	23.93	43.18	90.03	0.00	1,172.50	385	51,870	134.73	63.49	75.43
From 600 to 900 euros	11.67	11.58	0.00	123.07	967	179,704	185.84	7.16	8.14	6.85	33.03	0.00	731.10	967	179,704	185.84	22.22	25.52	30.35	79.13	0.00	1,351.28	967	178,798	184.90	68.34	64.08
From 900 to 1200 euros	10.70	10.83	0.00	109.47	1,905	335,564	176.15	6.25	7.49	6.94	34.19	0.00	949.17	1,905	335,564	176.15	20.31	24.90	30.21	76.65	0.00	1,267.80	1,905	334,798	175.75	69.53	61.26
From 1200 to 1500 euros	10.12	10.60	0.00	102.13	3,083	527,061	170.96	5.50	7.21	5.95	30.35	0.00	930.82	3,083	527,061	170.96	22.44	22.56	27.08	69.51	0.00	1,199.27	3,082	526,323	170.77	54.74	58.50
From 1500 to 2300 euros	9.07	9.44	0.00	110.37	7,720	1,531,273	198.35	5.08	6.94	6.01	28.43	0.00	884.40	7,720	1,531,273	198.35	16.87	23.50	28.40	70.12	0.00	1,346.38	7,720	1,530,402	198.24	53.60	58.81
From 2300 to 3000 euros	8.04	8.75	0.00	109.53	8,136	1,278,626	157.16	4.36	6.48	7.25	30.69	0.00	1,141.05	8,136	1,278,626	157.16	18.13	25.41	30.49	71.29	0.00	1,272.30	8,136	1,278,123	157.09	49.83	61.31
From 3000 to 4500 euros	7.19	7.68	0.00	107.08	8,780	1,329,677	151.44	3.77	6.11	8.23	31.67	0.00	1,159.45	8,780	1,329,677	151.44	17.51	26.52	30.88	70.19	0.00	1,356.27	8,780	1,329,440	151.42	50.11	60.70
From 4500 to 7000 euros	6.98	7.53	0.00	106.00	4,284	497,005	116.01	3.65	6.04	9.61	34.17	0.00	701.25	4,284	497,005	116.01	19.47	28.94	30.83	68.85	0.00	1,219.00	4,284	496,916	115.99	48.96	60.20
More than 7000 euros	6.44	6.99	0.00	89.17	1,048	95,829	91.44	3.78	5.68	10.16	33.85	0.00	579.75	1,048	95,829	91.44	19.53	29.68	27.16	62.98	0.00	943.37	1,048	95,822	91.43	45.73	54.56
Internet connection mode																											
No Internet acces	11.63	11.03	0.00	123.07	2,832	972,733	343.48	6.99	7.68	3.40	22.32	0.00	759.22	2,832	972,733	343.48	15.74	16.76	19.74	59.75	0.00	1,224.07	2,832	971,086	342.90	46.78	50.26
Cable	7.80	8.69	0.00	97.18	1,642	242,197	147.50	4.06	6.51	13.30	44.64	0.00	714.50	1,642	242,197	147.50	23.18	32.82	38.97	80.77	0.00	1,267.38	1,642	241,964	147.36	58.83	68.73
ADSL	7.85	8.55	0.00	110.52	18,515	4,315,545	233.08	4.21	6.53	7.60	31.38	0.00	1,159.45	18,515	4,315,545	233.08	17.26	26.44	31.17	71.91	0.00	1,356.27	18,515	4,312,732	232.93	49.85	62.35
Fiber optics	7.45	8.50	0.00	98.42	1,509	157,863	104.61	4.21	6.49	14.89	42.79	0.00	892.33	1,509	157,863	104.61	30.38	35.62	42.60	88.02	0.00	1,351.28	1,509	157,682	104.49	75.03	73.00
Other	7.81	7.97	0.00	97.90	1,199	139,100	116.01	4.69	6.14	4.05	22.50	0.00	663.50	1,199	139,100	116.01	17.06	18.92	26.47	68.50	0.00	1,204.32	1,199	139,028	115.95	55.15	55.51

TABLE 1.3 – Statistiques descriptives de la durée quotidienne consacrée à regarder une publicité en direct sur les chaînes publiques, du différé et des autres usages pour le chapitre 4 (2011-2017)

	Time devoted to watch ad on free public channel (in mn)									Time-shifted TV viewing time (in mn)									Time devoted to other uses on TV screen (in mn)								
	Mean	sd	Min	Max	n	N	Tbar	sd_b	sd_w	Mean	sd	Min	Max	n	N	Tbar	sd_b	sd_w	Mean	sd	Min	Max	n	N	Tbar	sd_b	sd_w
Day of the week																											
Monday	8.66	9.46	0.00	123.07	19,738	873,396	44.25	5.34	6.53	7.32	30.66	0.00	893.75	19,738	873,396	44.25	19.94	24.64	27.17	67.36	0.00	1,242.35	19,736	872,692	44.22	52.38	57.26
Tuesday	8.44	9.11	0.00	107.08	19,548	842,023	43.07	5.13	6.30	7.07	29.98	0.00	885.07	19,548	842,023	43.07	19.35	24.19	26.86	66.58	0.00	1,282.05	19,548	841,419	43.04	52.47	56.47
Wednesday	8.44	9.21	0.00	109.53	19,636	864,355	44.02	5.26	6.39	7.35	30.82	0.00	1,159.45	19,636	864,355	44.02	20.86	24.93	28.39	68.49	0.00	1,356.27	19,629	863,680	44.00	53.40	57.92
Thursday	8.53	9.16	0.00	104.70	19,548	823,079	42.11	5.12	6.39	6.91	29.81	0.00	834.57	19,548	823,079	42.11	19.81	23.88	27.02	67.12	0.00	1,346.38	19,548	822,408	42.07	52.47	56.96
Friday	8.65	9.39	0.00	110.37	19,620	820,625	41.83	5.16	6.53	7.05	30.18	0.00	884.40	19,620	820,625	41.83	19.66	24.32	28.33	68.67	0.00	1,351.28	19,620	819,976	41.79	53.22	58.11
Saturday	8.75	9.23	0.00	106.22	19,804	794,742	40.13	4.92	6.84	7.55	33.08	0.00	949.17	19,804	794,742	40.13	21.01	26.82	35.37	78.85	0.00	1,267.38	19,801	794,009	40.10	61.33	65.81
Sunday	7.81	8.10	0.00	90.02	19,804	809,218	40.86	4.22	6.33	7.47	32.68	0.00	1,141.05	19,804	809,218	40.86	21.68	26.72	35.98	79.03	0.00	1,242.18	19,798	808,308	40.83	60.93	65.88
Regions																											
Ile-de-France	8.07	8.95	0.00	110.52	3,029	676,787	223.44	4.28	6.64	8.77	34.69	0.00	844.75	3,029	676,787	223.44	21.68	29.11	34.70	78.29	0.00	1,272.30	3,029	676,337	223.29	59.51	66.73
Champagne-Ardenne	7.74	8.21	0.00	80.43	548	164,600	300.36	4.49	6.16	5.14	26.13	0.00	511.75	548	164,600	300.36	18.63	21.06	29.59	76.25	0.00	1,102.25	548	164,546	300.27	44.70	65.74
Picardie	6.99	7.48	0.00	82.80	807	179,636	222.60	3.63	5.85	6.58	30.13	0.00	776.27	807	179,636	222.60	18.18	25.56	27.37	67.66	0.00	1,199.27	807	179,616	222.57	42.23	59.09
Haute-Normandie	9.66	9.69	0.00	88.55	707	178,122	251.94	4.64	7.23	7.68	31.25	0.00	575.17	707	178,122	251.94	15.89	25.86	30.30	75.31	0.00	1,049.85	707	178,022	251.80	47.67	67.49
Centre	8.21	8.60	0.00	107.08	1,301	394,089	302.91	4.41	6.77	7.13	29.49	0.00	739.83	1,301	394,089	302.91	17.01	25.34	30.73	71.80	0.00	1,229.62	1,301	393,675	302.59	47.98	62.93
Basse-Normandie	9.58	11.64	0.00	123.07	532	144,304	271.25	5.50	7.54	5.77	28.01	0.00	694.00	532	144,304	271.25	13.43	23.88	25.97	67.03	0.00	1,223.30	532	144,218	271.09	52.96	59.40
Bourgogne	8.72	9.54	0.00	102.42	654	189,000	288.99	4.57	6.75	4.62	23.60	0.00	674.83	654	189,000	288.99	16.48	21.25	24.11	63.00	0.00	1,258.52	654	188,752	288.61	39.48	56.65
Nord-Pas-de-Calais	8.60	8.86	0.00	105.07	1,479	368,332	249.04	4.41	6.94	7.15	30.52	0.00	737.40	1,479	368,332	249.04	16.98	24.92	34.12	74.14	0.00	1,108.02	1,479	368,123	248.90	49.81	65.00
Lorraine	8.01	8.72	0.00	91.32	844	192,730	228.35	4.46	6.69	7.78	32.18	0.00	1,141.05	844	192,730	228.35	15.16	26.77	37.02	79.55	0.00	1,204.32	844	192,257	227.79	58.87	67.26
Alsace	7.41	7.94	0.00	83.52	823	227,514	276.44	3.95	6.01	9.51	36.44	0.00	1,159.45	823	227,514	276.44	25.57	28.23	35.47	72.77	0.00	1,267.38	823	227,424	276.34	55.55	63.19
Franche-Comté	8.06	8.68	0.00	81.73	501	125,103	249.71	4.53	6.46	6.66	28.56	0.00	540.87	501	125,103	249.71	17.60	24.16	32.28	81.27	0.00	1,303.42	501	124,951	249.40	56.68	62.43
Pays de la Loire	9.33	10.24	0.00	109.53	1,400	354,793	253.42	4.85	7.15	5.98	26.43	0.00	886.03	1,400	354,793	253.42	14.91	23.66	26.40	66.33	0.00	1,120.12	1,400	354,650	253.32	47.05	57.52
Bretagne	8.27	8.52	0.00	98.35	1,169	317,397	271.51	4.52	6.34	6.16	28.91	0.00	781.00	1,169	317,397	271.51	15.48	24.42	24.21	63.05	0.00	1,198.78	1,169	316,691	270.91	48.39	54.19
Poitou-Charentes	9.88	11.03	0.00	109.47	711	219,973	309.39	5.71	7.21	5.25	25.42	0.00	569.05	711	219,973	309.39	15.78	21.52	23.72	64.09	0.00	1,198.53	711	219,922	309.31	43.50	55.70
Aquitaine	9.01	9.28	0.00	110.37	1,237	343,097	277.36	5.03	6.97	6.09	27.32	0.00	714.50	1,237	343,097	277.36	13.43	23.26	28.29	69.72	0.00	1,228.75	1,237	342,783	277.11	43.40	59.77
Midi-Pyrénées	8.82	9.23	0.00	106.00	1,045	304,756	291.63	4.98	6.98	6.98	31.04	0.00	731.10	1,045	304,756	291.63	16.92	24.10	25.33	64.17	0.00	1,346.38	1,045	304,696	291.58	44.56	55.99
Limousin	7.60	7.67	0.00	88.52	295	82,912	281.06	4.22	6.16	7.85	31.68	0.00	647.78	295	82,912	281.06	19.73	26.33	26.69	62.81	0.00	1,160.00	295	82,890	280.98	40.92	56.38
Rhône-Alpes	7.71	8.26	0.00	96.08	2,059	498,510	242.11	4.17	6.34	8.31	34.63	0.00	949.17	2,059	498,510	242.11	17.93	27.75	29.21	68.16	0.00	1,356.27	2,059	498,053	241.89	44.62	58.92
Auvergne	8.21	9.25	0.00	99.38	553	146,151	264.29	4.93	6.84	5.07	23.49	0.00	550.50	553	146,151	264.29	14.25	20.76	22.34	59.90	0.00	1,109.52	553	146,083	264.16	40.15	54.05
Languedoc-Roussillon	8.47	8.66	0.00	99.80	827	255,490	308.94	4.54	6.76	7.84	34.53	0.00	845.00	827	255,490	308.94	20.35	25.97	31.67	74.73	0.00	1,162.75	827	255,474	308.92	45.18	63.41
Provence-Alpes-Côte d'Azur	9.15	9.60	0.00	101.38	1,562	464,142	297.15	4.73	7.14	9.17	34.66	0.00	884.40	1,562	464,142	297.15	18.44	28.58	32.04	72.26	0.00	1,351.28	1,562	463,329	296.63	56.52	62.71
Total	8.47	9.11	0.00	123.07	21,272	5,827,438	273.95	4.54	6.76	7.25	31.03	0.00	1,159.45	21,272	5,827,438	273.95	17.64	25.68	29.79	71.03	0.00	1,356.27	21,272	5,822,492	273.72	50.08	61.39

TABLE 1.3 – (2) : Statistiques descriptives de la durée quotidienne consacrée à regarder une publicité en direct sur les chaînes publiques, du différé et des autres usages pour le chapitre 4 (2011-2017)

	Time devoted to watch program on free private channel (in mn)									Time-shifted TV viewing time (in mn)									Time devoted to other uses on TV screen (in mn)								
	Mean	sd	Min	Max	n	N	Tbar	sd_b	sd_w	Mean	sd	Min	Max	n	N	Tbar	sd_b	sd_w	Mean	sd	Min	Max	n	N	Tbar	sd_b	sd_w
Gender																											
Female	148.76	131.14	0.00	1,361.30	11,018	6,698,329	607.94	82.18	102.63	8.38	33.38	0.00	1,170.57	11,018	6,698,329	607.94	17.64	28.30	30.13	73.73	0.00	1,412.80	11,018	6,694,738	607.62	40.75	65.81
Male	123.01	114.53	0.00	1,361.30	10,746	6,241,619	580.83	68.09	93.30	7.17	30.05	0.00	1,159.45	10,746	6,241,619	580.83	14.95	25.47	39.07	85.80	0.00	1,418.20	10,746	6,238,260	580.52	53.45	74.26
Age category																											
4-10 years	79.97	86.06	0.00	1,361.30	3,441	1,078,928	313.55	45.17	75.95	5.95	25.15	0.00	1,141.05	3,441	1,078,928	313.55	10.97	23.38	39.69	79.80	0.00	1,412.80	3,441	1,078,869	313.53	39.82	73.28
11-14 years	91.80	94.99	0.00	1,181.78	2,426	697,898	287.67	46.30	83.41	5.89	24.99	0.00	727.82	2,426	697,898	287.67	13.01	22.70	40.15	86.22	0.00	1,315.00	2,426	697,655	287.57	43.99	76.94
15-24 years	104.37	106.56	0.00	1,310.47	3,438	968,774	281.78	55.69	92.54	4.78	22.84	0.00	690.20	3,438	968,774	281.78	9.97	20.97	37.48	88.32	0.00	1,294.40	3,438	968,489	281.70	48.71	77.84
25-34 years	129.41	121.05	0.00	1,250.55	3,687	1,546,322	419.40	67.59	103.36	9.92	33.87	0.00	886.15	3,687	1,546,322	419.40	15.63	30.17	53.89	102.54	0.00	1,397.25	3,687	1,545,242	419.11	61.75	89.08
35-49 years	136.78	123.00	0.00	1,361.30	5,954	3,410,853	572.87	72.79	102.20	9.76	35.22	0.00	1,058.48	5,954	3,410,853	572.87	18.73	30.31	38.09	83.63	0.00	1,418.20	5,954	3,408,573	572.48	49.94	73.36
50-64 years	154.59	129.25	0.00	1,306.90	4,291	2,617,842	610.08	85.50	103.08	8.19	34.14	0.00	1,003.02	4,291	2,617,842	610.08	22.13	27.71	27.16	69.36	0.00	1,351.28	4,291	2,616,348	609.73	44.18	60.31
65 years and more	168.52	133.18	0.00	1,295.83	3,691	2,619,331	709.65	91.23	96.89	5.99	30.16	0.00	1,170.57	3,691	2,619,331	709.65	20.93	22.60	20.68	58.51	0.00	1,356.27	3,691	2,617,822	709.24	33.53	50.66
Social professional category																											
Farmer	122.65	98.23	0.00	999.47	142	100,204	705.66	50.38	85.28	3.91	23.22	0.00	829.17	142	100,204	705.66	8.72	20.77	17.80	59.83	0.00	1,121.42	142	100,198	705.62	37.12	52.48
Craftsmen-Traders-Contractor	129.04	119.37	0.00	1,133.40	517	241,045	466.24	72.99	96.78	10.63	39.77	0.00	826.78	517	241,045	466.24	21.63	31.84	32.89	75.59	0.00	1,142.53	517	240,929	466.01	42.91	67.38
Higher professions	104.02	99.76	0.00	1,110.72	2,433	1,072,843	440.95	53.17	85.97	11.04	36.79	0.00	971.95	2,433	1,072,843	440.95	20.00	31.71	37.14	79.88	0.00	1,285.80	2,433	1,072,553	440.84	46.81	70.26
Intermediate occupations	124.74	113.41	0.00	1,203.52	3,737	1,761,760	471.44	62.43	96.11	9.44	33.97	0.00	843.68	3,737	1,761,760	471.44	17.72	29.48	36.86	79.83	0.00	1,291.73	3,737	1,761,352	471.33	46.05	70.83
Employee	152.39	128.71	0.00	1,284.42	3,770	2,020,763	536.01	75.19	108.13	9.26	34.34	0.00	1,052.93	3,770	2,020,763	536.01	18.40	29.58	38.84	86.53	0.00	1,418.20	3,770	2,019,939	535.79	55.59	74.93
Skilled worker	143.45	123.83	0.00	1,361.30	2,107	1,036,387	491.88	73.83	106.71	7.52	30.33	0.00	886.15	2,107	1,036,387	491.88	15.66	26.21	41.18	89.92	0.00	1,365.62	2,107	1,035,761	491.58	63.32	76.76
Unskilled worker	156.86	136.05	0.00	1,233.72	989	358,069	362.05	84.64	112.96	6.96	30.91	0.00	826.52	989	358,069	362.05	15.60	25.99	40.83	92.41	0.00	1,329.47	989	357,180	361.15	59.02	79.84
Pensioner	167.63	132.18	0.00	1,295.83	4,080	2,995,059	734.08	89.80	97.78	6.32	30.86	0.00	1,170.57	4,080	2,995,059	734.08	19.52	23.51	21.42	59.82	0.00	1,356.27	4,080	2,993,466	733.69	35.43	51.91
Student	89.50	94.10	0.00	1,361.30	7,009	2,607,476	372.02	48.63	82.93	5.57	24.40	0.00	1,141.05	7,009	2,607,476	372.02	10.88	22.61	38.61	83.52	0.00	1,412.80	7,009	2,607,049	371.96	42.95	75.70
Other inactive	189.22	151.81	0.00	1,361.30	1,580	746,342	472.37	103.14	117.11	9.45	37.65	0.00	1,058.48	1,580	746,342	472.37	20.76	30.48	40.98	94.11	0.00	1,355.32	1,580	744,571	471.25	64.02	77.75
Average weekly working time																											
Unemployed person who has already worked	169.64	146.62	0.00	1,214.12	1,228	338,161	275.38	91.34	116.81	9.54	35.89	0.00	843.68	1,228	338,161	275.38	18.90	29.74	52.44	104.86	0.00	1,329.47	1,228	337,353	274.72	71.36	87.32
People looking for a first job	149.58	132.81	0.00	892.70	153	25,732	168.18	74.16	113.83	5.55	25.07	0.00	526.42	153	25,732	168.18	11.40	22.92	53.31	108.95	0.00	1,004.53	153	25,731	168.18	74.64	88.25
Full-time worker	129.91	116.69	0.00	1,361.30	9,123	5,220,062	572.19	66.46	99.40	9.00	33.61	0.00	1,052.93	9,123	5,220,062	572.19	17.44	29.07	37.74	83.36	0.00	1,418.20	9,123	5,218,190	571.98	50.71	73.10
Part-time worker : 0-9h59 per week	182.44	146.77	0.00	1,142.85	191	63,624	333.11	93.69	114.52	7.09	29.55	0.00	654.25	191	63,624	333.11	16.69	25.61	30.24	75.00	0.00	1,115.17	191	63,614	333.06	42.32	66.77
Part-time worker : 10h-19h59 per week	147.89	124.59	0.00	1,051.65	564	177,046	313.91	78.88	101.51	8.33	33.09	0.00	626.17	564	177,046	313.91	19.34	26.50	33.38	77.08	0.00	1,124.60	564	176,999	313.83	45.54	66.94
Part-time worker : 20h-29h59 per week	142.52	123.91	0.00	1,214.80	1,259	457,732	363.57	75.11	101.54	9.92	34.76	0.00	886.03	1,259	457,732	363.57	18.01	29.81	36.59	81.54	0.00	1,397.25	1,259	457,656	363.51	49.95	69.87
Part-time worker : 30h-34h59 per week	135.44	118.53	0.00	1,155.80	986	289,924	294.04	68.11	98.16	9.34	32.67	0.00	718.25	986	289,924	294.04	15.46	28.78	28.87	69.11	0.00	1,278.50	986	289,858	293.97	42.32	61.95
Other inactive	138.60	128.03	0.00	1,361.30	12,385	6,367,667	514.14	81.95	94.87	6.50	29.72	0.00	1,170.57	12,385	6,367,667	514.14	15.93	24.36	30.88	75.42	0.00	1,412.80	12,385	6,363,597	513.81	44.73	65.99
Gross monthly household income																											
Less than 600 euros	202.73	169.06	0.00	1,224.73	398	109,922	276.19	105.63	125.33	7.52	34.58	0.00	756.50	398	109,922	276.19	19.96	25.95	50.42	104.79	0.00	1,296.55	398	108,906	273.63	63.68	89.14
From 600 to 900 euros	198.33	161.09	0.00	1,287.58	1,002	308,653	308.04	114.81	116.40	7.75	35.40	0.00	731.10	1,002	308,653	308.04	21.41	27.27	37.22	92.05	0.00	1,351.28	1,002	307,521	306.91	69.87	75.59
From 900 to 1200 euros	181.09	146.50	0.00	1,306.90	1,969	617,234	313.48	96.63	111.74	7.09	34.09	0.00	1,089.65	1,969	617,234	313.48	19.54	26.44	37.95	91.72	0.00	1,412.80	1,969	616,183	312.94	69.71	74.91
From 1200 to 1500 euros	168.16	141.03	0.00	1,275.23	3,174	1,000,812	315.32	89.79	107.47	6.66	32.54	0.00	1,170.57	3,174	1,000,812	315.32	20.83	25.24	32.45	80.00	0.00	1,391.45	3,174	999,723	314.97	54.50	67.94
From 1500 to 2300 euros	150.22	129.19	0.00	1,236.97	7,913	3,123,665	394.75	78.54	102.48	6.70	29.98	0.00	1,058.48	7,913	3,123,665	394.75	15.62	25.18	33.65	80.23	0.00	1,418.20	7,913	3,122,474	394.60	50.03	68.68
From 2300 to 3000 euros	133.13	118.36	0.00	1,361.30	8,353	2,923,147	349.95	70.21	96.38	7.48	30.84	0.00	1,141.05	8,353	2,923,147	349.95	16.36	26.08	35.52	81.23	0.00	1,312.25	8,353	2,922,241	349.84	46.51	70.52
From 3000 to 4500 euros	117.39	108.76	0.00	1,203.52	9,058	3,253,298	359.16	62.30	90.32	8.67	32.26	0.00	1,159.45	9,058	3,253,298	359.16	16.14	27.46	34.35	77.04	0.00	1,356.27	9,058	3,252,911	359.12	43.83	67.69
From 4500 to 7000 euros	102.87	99.44	0.00	1,250.55	4,467	1,315,935	294.59	54.67	83.77	9.67	33.92	0.00	829.17	4,467	1,315,935	294.59	17.09	29.32	33.18	73.57	0.00	1,304.17	4,467	1,315,771	294.55	43.06	65.16
More than 7000 euros	86.89	91.92	0.00	1,226.68	1,122	287,282	256.04	56.13	74.95	10.14	32.82	0.00	579.75	1,122	287,282	256.04	17.90	29.09	29.35	67.89	0.00	1,112.50	1,122	287,268	256.03	42.85	59.47
Internet connection mode																											
No Internet acces	185.33	140.84	0.00	1,252.43	2,912	1,394,817	478.99	95.83	104.46	3.65	23.46	0.00	841.35	2,912	1,394,817	478.99	14.56	18.25	22.62	66.75	0.00	1,294.40	2,912	1,392,779	478.29	48.04	56.42
Cable	125.44	117.03	0.00	1,214.80	1,712	613,897	358.58	70.28	95.75	13.45	42.66	0.00	779.43	1,712	613,897	358.58	21.82	33.77	42.56	86.97	0.00	1,333.45	1,712	613,576	358.40	54.25	75.71
ADSL	130.91	120.78	0.00	1,361.30	18,954	10,225,986	539.52	73.40	97.27	7.82	31.63	0.00	1,170.57	18,954	10,225,986	539.52	16.01	27.04	35.16	80.33	0.00	1,418.20	18,954	10,221,745	539.29	47.27	70.53
Fiber optics	122.40	118.57	0.00	1,182.50	1,584	420,503	265.47	69.22	94.17	14.98	42.50	0.00	892.33	1,584	420,503	265.47	26.21	36.74	47.38	95.34	0.00	1,351.28	1,584	420,251	265.31	69.63	81.15
Other	135.36	122.00	0.00	1,310.47	1,238	284,745	230.00	77.83	97.43	4.53	24.10	0.00	727.82	1,238	284,745	230.00	15.28	20.28	29.87	75.64	0.00	1,232.32	1,238	284,647	229.92	48.01	63.23

TABLE 1.4 – Statistiques descriptives de la durée quotidienne consacrée à regarder un programme en direct sur les chaînes privés, du différé et des autres usages pour le chapitre 4 (2011-2017)

	Time devoted to watch program on free private channel (in mn)									Time-shifted TV viewing time (in mn)									Time devoted to other uses on TV screen (in mn)								
	Mean	sd	Min	Max	n	N	Tbar	sd_b	sd_w	Mean	sd	Min	Max	n	N	Tbar	sd_b	sd_w	Mean	sd	Min	Max	n	N	Tbar	sd_b	sd_w
Day of the week																											
Monday	133.72	121.69	0.00	1,295.83	21,392	1,872,159	87.52	82.41	90.73	7.85	31.32	0.00	1,003.02	21,392	1,872,159	87.52	17.92	25.85	30.85	75.07	0.00	1,391.45	21,391	1,871,229	87.48	48.98	65.06
Tuesday	131.43	119.93	0.00	1,307.55	21,348	1,854,767	86.88	81.24	89.54	7.57	30.46	0.00	889.80	21,348	1,854,767	86.88	17.08	25.29	30.26	73.46	0.00	1,282.05	21,348	1,853,920	86.84	47.05	63.77
Wednesday	133.40	120.97	0.00	1,276.17	21,353	1,870,873	87.62	81.40	90.88	7.95	31.66	0.00	1,159.45	21,353	1,870,873	87.62	17.54	26.38	32.42	75.97	0.00	1,356.27	21,348	1,869,971	87.59	49.59	65.67
Thursday	130.34	120.76	0.00	1,361.30	21,287	1,823,789	85.68	81.76	89.67	7.46	30.51	0.00	1,058.48	21,287	1,823,789	85.68	17.41	25.19	30.31	73.84	0.00	1,346.38	21,287	1,822,894	85.63	47.12	64.02
Friday	133.90	121.13	0.00	1,309.10	21,354	1,836,374	86.00	79.98	93.16	7.59	30.83	0.00	1,017.22	21,354	1,836,374	86.00	17.25	25.70	32.60	76.44	0.00	1,351.28	21,354	1,835,490	85.96	47.78	66.24
Saturday	141.02	129.62	0.00	1,282.95	21,303	1,767,463	82.97	81.90	101.93	8.09	33.93	0.00	1,170.57	21,303	1,767,463	82.97	18.70	28.38	42.20	90.51	0.00	1,418.20	21,302	1,766,352	82.92	58.29	77.04
Sunday	150.25	132.54	0.00	1,266.70	21,372	1,914,523	89.58	85.80	103.66	8.07	33.86	0.00	1,141.05	21,372	1,914,523	89.58	19.06	28.61	42.52	90.77	0.00	1,397.25	21,371	1,913,142	89.52	57.25	77.24
Regions																											
Ile-de-France	126.51	120.15	0.00	1,251.15	3,137	1,681,940	536.16	70.47	95.56	10.13	36.87	0.00	844.75	3,137	1,681,940	536.16	19.60	31.12	41.19	88.42	0.00	1,355.32	3,137	1,681,017	535.87	54.94	76.92
Champagne-Ardenne	145.48	126.55	0.00	1,017.83	555	359,899	648.47	77.75	99.78	5.76	27.89	0.00	829.17	555	359,899	648.47	18.80	22.98	32.80	81.23	0.00	1,177.55	555	359,842	648.36	43.71	71.03
Picardie	143.11	127.60	0.00	1,174.30	815	466,721	572.66	75.92	101.92	7.10	29.98	0.00	776.27	815	466,721	572.66	17.40	25.87	32.76	77.08	0.00	1,272.00	815	466,679	572.61	38.71	68.68
Haute-Normandie	139.60	125.29	0.00	1,217.62	726	396,192	545.72	85.54	98.07	7.67	30.75	0.00	694.38	726	396,192	545.72	14.89	26.38	33.18	79.29	0.00	1,365.62	726	396,086	545.57	42.09	71.46
Centre	139.60	127.71	0.00	1,361.30	1,323	854,984	646.25	78.65	101.07	7.06	29.37	0.00	923.90	1,323	854,984	646.25	15.25	25.38	35.19	81.68	0.00	1,317.47	1,323	854,326	645.75	43.18	72.54
Basse-Normandie	143.20	123.66	0.00	1,252.43	541	300,950	556.28	75.16	100.11	6.37	28.70	0.00	694.00	541	300,950	556.28	13.04	24.90	31.77	76.76	0.00	1,243.18	541	300,843	556.09	44.82	68.60
Bourgogne	136.34	122.43	0.00	1,198.88	669	409,264	611.75	75.46	96.61	4.73	23.41	0.00	1,017.22	669	409,264	611.75	14.59	21.27	26.91	69.14	0.00	1,258.52	669	408,926	611.25	38.45	63.06
Nord-Pas-de-Calais	150.99	134.77	0.00	1,250.43	1,512	866,520	573.10	81.34	106.57	7.23	30.30	0.00	1,058.48	1,512	866,520	573.10	15.05	25.73	39.01	84.96	0.00	1,208.73	1,512	866,217	572.89	53.02	74.84
Lorraine	135.87	128.19	0.00	1,236.57	868	454,051	523.10	79.47	99.43	8.68	32.79	0.00	1,141.05	868	454,051	523.10	14.42	28.67	43.65	90.13	0.00	1,412.80	868	453,499	522.46	55.57	78.00
Alsace	121.01	113.46	0.00	1,092.32	863	516,745	598.78	70.27	90.08	11.34	38.56	0.00	1,159.45	863	516,745	598.78	24.11	31.51	37.91	79.49	0.00	1,391.45	863	516,600	598.61	53.82	69.13
Franche-Comté	136.33	122.42	0.00	1,306.90	511	280,707	549.33	77.93	96.29	6.79	29.51	0.00	775.50	511	280,707	549.33	16.11	24.69	32.74	82.24	0.00	1,315.00	511	280,521	548.96	45.77	67.09
Pays de la Loire	135.90	124.17	0.00	1,310.47	1,427	789,257	553.09	72.56	97.80	6.85	29.03	0.00	886.03	1,427	789,257	553.09	13.59	25.83	31.00	75.61	0.00	1,287.80	1,427	789,014	552.92	41.78	66.33
Bretagne	139.82	124.41	0.00	1,204.37	1,194	687,736	575.99	77.94	97.99	6.39	29.82	0.00	971.95	1,194	687,736	575.99	14.80	25.75	29.43	73.51	0.00	1,261.13	1,194	686,815	575.22	46.73	64.88
Poitou-Charentes	145.44	124.34	0.00	1,183.37	725	451,185	622.32	80.38	100.47	5.53	26.21	0.00	590.75	725	451,185	622.32	15.28	22.59	28.00	74.61	0.00	1,198.53	725	451,072	622.17	43.69	64.61
Aquitaine	138.62	126.46	0.00	1,287.58	1,257	718,158	571.33	80.86	98.03	6.52	27.82	0.00	727.05	1,257	718,158	571.33	12.46	24.50	31.86	77.15	0.00	1,418.20	1,257	717,680	570.95	41.33	67.44
Midi-Pyrénées	132.86	123.33	0.00	1,295.83	1,066	635,203	595.88	77.51	96.43	6.93	30.06	0.00	790.75	1,066	635,203	595.88	15.85	24.66	28.02	69.45	0.00	1,346.38	1,066	635,119	595.80	41.96	61.85
Limousin	135.66	124.05	0.00	1,226.68	301	172,625	573.50	80.95	95.80	9.10	33.91	0.00	829.82	301	172,625	573.50	18.56	27.77	31.98	73.94	0.00	1,232.32	301	172,574	573.34	36.94	66.29
Rhône-Alpes	129.38	119.11	0.00	1,221.38	2,110	1,135,620	538.21	72.02	95.54	8.84	34.67	0.00	1,089.65	2,110	1,135,620	538.21	17.18	28.84	33.96	77.23	0.00	1,356.27	2,110	1,135,046	537.94	45.36	67.53
Auvergne	131.79	117.00	0.00	1,060.33	566	305,616	539.96	67.47	95.86	4.96	23.43	0.00	633.00	566	305,616	539.96	12.40	20.67	26.24	69.37	0.00	1,182.25	566	305,517	539.78	43.82	61.86
Languedoc-Roussillon	138.30	122.41	0.00	1,207.23	842	494,121	586.84	74.98	99.30	7.61	32.98	0.00	845.00	842	494,121	586.84	20.02	26.04	34.55	80.78	0.00	1,219.20	842	494,093	586.81	44.58	69.59
Provence-Alpes-Côte d'Azur	138.65	123.34	0.00	1,181.43	1,599	962,454	601.91	76.34	97.86	9.68	35.57	0.00	1,170.57	1,599	962,454	601.91	17.66	29.79	37.30	82.33	0.00	1,351.28	1,599	961,512	601.32	54.22	71.98
Total	136.34	124.08	0.00	1,361.30	21,764	12,939,948	594.56	76.24	98.24	7.80	31.83	0.00	1,170.57	21,764	12,939,948	594.56	16.38	26.97	34.44	79.90	0.00	1,418.20	21,764	12,932,998	594.24	47.71	70.01

TABLE 1.4 – (2) : Statistiques descriptives de la durée quotidienne consacrée à regarder un programme en direct sur les chaînes privés, du différé et des autres usages pour le chapitre 4 (2011-2017)

	Time devoted to watch program on free public channel (in mn)									Time-shifted TV viewing time (in mn)									Time devoted to other uses on TV screen (in mn)								
	Mean	sd	Min	Max	n	N	Tbar	sd_b	sd_w	Mean	sd	Min	Max	n	N	Tbar	sd_b	sd_w	Mean	sd	Min	Max	n	N	Tbar	sd_b	sd_w
Gender																											
Female	154.45	125.31	0.00	1,335.12	10,785	3,112,366	288.58	70.36	91.21	7.79	32.60	0.00	1,141.05	10,785	3,112,366	288.58	18.93	26.81	26.12	65.58	0.00	1,356.27	10,785	3,109,829	288.35	43.69	57.85
Male	141.58	118.49	0.00	1,407.42	10,487	2,715,072	258.90	62.91	88.81	6.63	29.12	0.00	1,159.45	10,487	2,715,072	258.90	16.19	24.32	34.00	76.58	0.00	1,346.38	10,487	2,712,663	258.67	55.35	65.21
Age category																											
4-10 years	74.60	65.55	0.00	799.07	3,332	344,599	103.42	29.51	60.29	5.78	24.66	0.00	1,141.05	3,332	344,599	103.42	12.64	22.72	39.43	77.55	0.00	1,303.37	3,332	344,581	103.42	45.12	70.48
11-14 years	71.28	66.15	0.00	1,148.77	2,344	187,170	79.85	30.05	60.51	6.03	25.69	0.00	614.13	2,344	187,170	79.85	17.59	22.95	39.32	81.91	0.00	1,303.42	2,344	187,003	79.78	49.40	72.78
15-24 years	83.36	80.97	0.00	1,242.55	3,246	233,205	71.84	40.09	70.41	5.11	24.01	0.00	690.20	3,246	233,205	71.84	12.20	21.52	36.03	81.88	0.00	1,167.17	3,246	233,094	71.81	57.81	71.19
25-34 years	105.46	94.13	0.00	1,061.67	3,562	478,976	134.47	43.85	82.13	9.41	32.82	0.00	886.03	3,562	478,976	134.47	18.77	28.86	51.45	95.61	0.00	1,346.38	3,562	478,301	134.28	64.51	82.40
35-49 years	114.50	97.81	0.00	1,346.35	5,860	1,259,026	214.85	47.68	82.97	9.55	35.11	0.00	822.88	5,860	1,259,026	214.85	20.19	29.88	36.75	79.46	0.00	1,272.30	5,860	1,257,361	214.57	51.73	69.02
50-64 years	155.21	118.10	0.00	1,233.82	4,253	1,424,865	335.03	65.62	94.14	7.85	33.17	0.00	930.82	4,253	1,424,865	335.03	22.49	26.86	25.56	64.69	0.00	1,351.28	4,253	1,423,962	334.81	43.03	55.45
65 years and more	205.73	135.01	0.00	1,407.42	3,675	1,899,597	516.90	86.87	100.97	5.37	28.01	0.00	1,159.45	3,675	1,899,597	516.90	21.18	21.04	19.43	54.52	0.00	1,356.27	3,675	1,898,190	516.51	31.34	46.90
Social professional category																											
Farmer	107.53	92.21	0.00	966.85	141	43,063	305.41	42.31	75.12	4.32	23.97	0.00	536.42	141	43,063	305.41	8.50	21.47	17.98	61.33	0.00	966.55	141	43,062	305.40	28.01	53.32
Craftsmen-Traders-Contractor	119.35	96.75	0.00	845.67	507	97,852	193.00	48.34	81.97	10.86	41.48	0.00	776.27	507	97,852	193.00	23.14	31.79	30.68	70.19	0.00	967.00	507	97,806	192.91	50.80	62.84
Higher professions	127.61	106.54	0.00	1,124.32	2,372	385,286	162.43	53.61	88.22	11.21	38.22	0.00	781.00	2,372	385,286	162.43	22.08	32.08	34.77	74.94	0.00	1,263.00	2,372	385,089	162.35	48.70	65.46
Intermediate occupations	123.07	101.86	0.00	1,346.35	3,644	689,656	189.26	49.19	86.35	8.80	32.74	0.00	843.68	3,644	689,656	189.26	20.07	28.27	34.41	74.12	0.00	1,267.38	3,644	689,349	189.17	49.71	65.01
Employee	125.49	105.60	0.00	1,131.88	3,668	823,105	224.40	54.77	85.88	8.53	32.72	0.00	886.03	3,668	823,105	224.40	19.82	28.14	35.61	79.50	0.00	1,342.37	3,668	822,587	224.26	56.24	67.99
Skilled worker	118.87	102.29	0.00	1,118.08	2,036	394,724	193.87	49.06	84.98	7.00	29.37	0.00	801.32	2,036	394,724	193.87	16.52	25.13	36.37	79.48	0.00	1,346.38	2,036	394,363	193.69	62.01	67.65
Unskilled worker	123.44	107.87	0.00	1,163.97	933	142,575	152.81	57.87	86.99	6.99	31.75	0.00	756.50	933	142,575	152.81	17.50	25.06	36.09	82.52	0.00	1,115.17	933	141,925	152.12	58.68	70.98
Pensioner	201.27	133.91	0.00	1,407.42	4,059	2,135,851	526.20	85.71	100.57	5.70	28.75	0.00	1,159.45	4,059	2,135,851	526.20	19.48	21.95	19.89	55.12	0.00	1,356.27	4,059	2,134,372	525.84	35.44	47.49
Student	75.88	70.08	0.00	1,242.55	6,749	729,396	108.07	34.37	63.48	5.65	24.63	0.00	1,141.05	6,749	729,396	108.07	13.18	22.57	38.16	79.47	0.00	1,303.42	6,749	729,173	108.04	49.42	71.55
Other inactive	159.90	125.61	0.00	1,233.82	1,546	385,930	249.63	71.56	93.82	9.11	36.85	0.00	759.22	1,546	385,930	249.63	20.96	29.50	35.17	83.55	0.00	1,351.28	1,546	384,766	248.88	64.41	67.85
Average weekly working time																											
Unemployed person who has already worked	152.33	129.05	0.00	1,245.57	1,164	141,958	121.96	61.14	98.40	9.60	36.49	0.00	843.68	1,164	141,958	121.96	20.10	29.17	48.60	96.63	0.00	1,223.30	1,164	141,357	121.44	66.31	79.29
People looking for a first job	108.88	92.86	0.00	838.58	140	7,919	56.56	43.51	81.47	4.53	22.07	0.00	407.30	140	7,919	56.56	11.91	20.17	48.70	100.51	0.00	842.50	140	7,919	56.56	86.45	78.19
Full-time worker	120.03	100.53	0.00	1,269.60	8,897	1,996,828	224.44	49.41	85.19	8.52	32.96	0.00	845.00	8,897	1,996,828	224.44	19.16	28.18	34.73	76.79	0.00	1,346.38	8,897	1,995,702	224.31	53.19	66.89
Part-time worker : 0-9h59 per week	152.75	126.62	0.00	945.45	185	33,256	179.76	64.43	89.84	6.26	26.53	0.00	412.10	185	33,256	179.76	17.15	23.29	23.72	59.64	0.00	1,115.17	185	33,249	179.72	41.76	52.37
Part-time worker : 10h-19h59 per week	142.60	113.72	0.00	970.60	549	81,709	148.83	68.35	89.73	7.68	32.96	0.00	626.17	549	81,709	148.83	21.08	25.48	29.13	66.65	0.00	956.27	549	81,687	148.79	41.54	56.67
Part-time worker : 20h-29h59 per week	126.54	105.40	0.00	1,036.53	1,218	186,021	152.73	56.45	84.74	9.47	33.85	0.00	886.03	1,218	186,021	152.73	19.33	28.47	33.36	73.80	0.00	1,167.17	1,218	185,958	152.67	50.28	62.60
Part-time worker : 30h-34h59 per week	112.55	91.77	0.00	919.07	952	113,208	118.92	49.91	77.54	8.92	32.33	0.00	718.25	952	113,208	118.92	18.70	28.16	26.39	63.72	0.00	1,278.50	952	113,161	118.87	45.34	56.16
Other inactive	168.35	131.92	0.00	1,407.42	12,079	3,266,539	270.43	77.89	92.89	6.19	29.26	0.00	1,159.45	12,079	3,266,539	270.43	16.96	23.35	25.90	65.73	0.00	1,356.27	12,079	3,263,459	270.18	48.29	56.50
Gross monthly household income																											
Less than 600 euros	174.30	147.57	0.00	1,245.57	385	52,699	136.88	83.31	98.89	6.96	34.92	0.00	756.50	385	52,699	136.88	21.23	23.93	43.18	90.03	0.00	1,172.50	385	51,870	134.73	63.49	75.43
From 600 to 900 euros	188.90	144.25	0.00	1,303.40	967	179,704	185.84	94.06	100.48	6.85	33.03	0.00	731.10	967	179,704	185.84	22.22	25.52	30.35	79.13	0.00	1,351.28	967	178,798	184.90	68.34	64.08
From 900 to 1200 euros	180.90	140.95	0.00	1,346.35	1,905	335,564	176.15	88.61	97.90	6.94	34.19	0.00	949.17	1,905	335,564	176.15	20.31	24.90	30.21	76.65	0.00	1,267.80	1,905	334,798	175.75	69.53	61.26
From 1200 to 1500 euros	169.71	133.91	0.00	1,335.12	3,083	527,061	170.96	77.90	93.84	5.95	30.35	0.00	930.82	3,083	527,061	170.96	22.44	22.56	27.08	69.51	0.00	1,199.27	3,082	526,323	170.77	54.74	58.50
From 1500 to 2300 euros	159.10	127.22	0.00	1,407.42	7,720	1,531,273	198.35	72.23	92.50	6.01	28.43	0.00	884.40	7,720	1,531,273	198.35	16.87	23.50	28.40	70.12	0.00	1,346.38	7,720	1,530,402	198.24	53.60	58.81
From 2300 to 3000 euros	140.92	116.90	0.00	1,269.60	8,136	1,278,626	157.16	63.57	86.99	7.25	30.69	0.00	1,141.05	8,136	1,278,626	157.16	18.13	25.41	30.49	71.29	0.00	1,272.30	8,136	1,278,123	157.09	49.83	61.31
From 3000 to 4500 euros	130.22	108.08	0.00	1,092.20	8,780	1,329,677	151.44	57.83	83.81	8.23	31.67	0.00	1,159.45	8,780	1,329,677	151.44	17.51	26.52	30.88	70.19	0.00	1,356.27	8,780	1,329,440	151.42	50.11	60.70
From 4500 to 7000 euros	127.84	106.42	0.00	1,124.32	4,284	497,005	116.01	56.25	83.68	9.61	34.17	0.00	701.25	4,284	497,005	116.01	19.47	28.94	30.83	68.85	0.00	1,219.00	4,284	496,916	115.99	48.96	60.20
More than 7000 euros	118.27	96.95	0.00	1,242.55	1,048	95,829	91.44	55.54	79.81	10.16	33.85	0.00	579.75	1,048	95,829	91.44	19.53	29.68	27.16	62.98	0.00	943.37	1,048	95,822	91.43	45.73	54.56
Internet connection mode																											
No Internet acces	205.93	141.19	0.00	1,335.12	2,832	972,733	343.48	96.06	100.80	3.40	22.32	0.00	759.22	2,832	972,733	343.48	15.74	16.76	19.74	59.75	0.00	1,224.07	2,832	971,086	342.90	46.78	50.26
Cable	132.84	111.89	0.00	1,110.57	1,642	242,197	147.50	58.13	86.92	13.30	44.64	0.00	714.50	1,642	242,197	147.50	23.18	32.82	38.97	80.77	0.00	1,267.38	1,642	241,964	147.36	58.83	68.73
ADSL	137.43	115.10	0.00	1,407.42	18,515	4,315,545	233.08	61.90	87.54	7.60	31.38	0.00	1,159.45	18,515	4,315,545	233.08	17.26	26.44	31.17	71.91	0.00	1,356.27	18,515	4,312,732	232.93	49.85	62.35
Fiber optics	132.80	115.57	0.00	1,081.13	1,509	157,863	104.61	62.02	87.03	14.89	42.79	0.00	892.33	1,509	157,863	104.61	30.38	35.62	42.60	88.02	0.00	1,351.28	1,509	157,682	104.49	75.03	73.00
Other	133.46	109.42	0.00	1,118.35	1,199	139,100	116.01	66.65	84.58	4.05	22.50	0.00	663.50	1,199	139,100	116.01	17.06	18.92	26.47	68.50	0.00	1,204.32	1,199	139,028	115.95	55.15	55.51

TABLE 1.5 – Statistiques descriptives de la durée quotidienne consacrée à regarder un programme en direct sur les chaînes publiques, du différé et des autres usages pour le chapitre 4 (2011-2017)

	Time devoted to watch program on free public channel (in mn)									Time-shifted TV viewing time (in mn)									Time devoted to other uses on TV screen (in mn)								
	Mean	sd	Min	Max	n	N	Tbar	sd_b	sd_w	Mean	sd	Min	Max	n	N	Tbar	sd_b	sd_w	Mean	sd	Min	Max	n	N	Tbar	sd_b	sd_w
Day of the week																											
Monday	143.73	118.88	0.00	1,305.52	19,738	873,396	44.25	72.69	81.85	7.32	30.66	0.00	893.75	19,738	873,396	44.25	19.94	24.64	27.17	67.36	0.00	1,242.35	19,736	872,692	44.22	52.38	57.26
Tuesday	144.43	118.79	0.00	1,256.37	19,548	842,023	43.07	71.61	82.57	7.07	29.98	0.00	885.07	19,548	842,023	43.07	19.35	24.19	26.86	66.58	0.00	1,282.05	19,548	841,419	43.04	52.47	56.47
Wednesday	143.58	117.81	0.00	1,299.27	19,636	864,355	44.02	72.19	81.81	7.35	30.82	0.00	1,159.45	19,636	864,355	44.02	20.86	24.93	28.39	68.49	0.00	1,356.27	19,629	863,680	44.00	53.40	57.92
Thursday	140.63	117.24	0.00	1,327.70	19,548	823,079	42.11	70.68	82.37	6.91	29.81	0.00	834.57	19,548	823,079	42.11	19.81	23.88	27.02	67.12	0.00	1,346.38	19,548	822,408	42.07	52.47	56.96
Friday	145.44	120.83	0.00	1,335.12	19,620	820,625	41.83	72.41	84.50	7.05	30.18	0.00	884.40	19,620	820,625	41.83	19.66	24.32	28.33	68.67	0.00	1,351.28	19,620	819,976	41.79	53.22	58.11
Saturday	161.03	131.46	0.00	1,407.42	19,804	794,742	40.13	77.37	95.20	7.55	33.08	0.00	949.17	19,804	794,742	40.13	21.01	26.82	35.37	78.85	0.00	1,267.38	19,801	794,009	40.10	61.33	65.81
Sunday	161.61	129.66	0.00	1,331.58	19,804	809,218	40.86	76.61	94.52	7.47	32.68	0.00	1,141.05	19,804	809,218	40.86	21.68	26.72	35.98	79.03	0.00	1,242.18	19,798	808,308	40.83	60.93	65.88
Regions																											
Ile-de-France	150.49	123.83	0.00	1,233.82	3,029	676,787	223.44	66.46	91.10	8.77	34.69	0.00	844.75	3,029	676,787	223.44	21.68	29.11	34.70	78.29	0.00	1,272.30	3,029	676,337	223.29	59.51	66.73
Champagne-Ardenne	140.93	116.06	0.00	1,017.90	548	164,600	300.36	63.18	86.12	5.14	26.13	0.00	511.75	548	164,600	300.36	18.63	21.06	29.59	76.25	0.00	1,102.25	548	164,546	300.27	44.70	65.74
Picardie	127.10	109.65	0.00	1,335.12	807	179,636	222.60	57.15	82.59	6.58	30.13	0.00	776.27	807	179,636	222.60	18.18	25.56	27.37	67.66	0.00	1,199.27	807	179,616	222.57	42.23	59.09
Haute-Normandie	157.24	129.21	0.00	944.07	707	178,122	251.94	66.77	93.01	7.68	31.25	0.00	575.17	707	178,122	251.94	15.89	25.86	30.30	75.31	0.00	1,049.85	707	178,022	251.80	47.67	67.49
Centre	143.23	116.80	0.00	1,061.67	1,301	394,089	302.91	63.80	88.87	7.13	29.49	0.00	739.83	1,301	394,089	302.91	17.01	25.34	30.73	71.80	0.00	1,229.62	1,301	393,675	302.59	47.98	62.93
Basse-Normandie	160.47	143.29	0.00	1,173.82	532	144,304	271.25	73.24	94.40	5.77	28.01	0.00	694.00	532	144,304	271.25	13.43	23.88	25.97	67.03	0.00	1,223.30	532	144,218	271.09	52.96	59.40
Bourgogne	147.19	119.63	0.00	1,177.88	654	189,000	288.99	61.81	87.64	4.62	23.60	0.00	674.83	654	189,000	288.99	16.48	21.25	24.11	63.00	0.00	1,258.52	654	188,752	288.61	39.48	56.65
Nord-Pas-de-Calais	135.57	113.27	0.00	1,073.47	1,479	368,332	249.04	57.70	87.45	7.15	30.52	0.00	737.40	1,479	368,332	249.04	16.98	24.92	34.12	74.14	0.00	1,108.02	1,479	368,123	248.90	49.81	65.00
Lorraine	147.94	125.33	0.00	1,148.77	844	192,730	228.35	67.95	92.57	7.78	32.18	0.00	1,141.05	844	192,730	228.35	15.16	26.77	37.02	79.55	0.00	1,204.32	844	192,257	227.79	58.87	67.26
Alsace	137.75	110.30	0.00	1,014.87	823	227,514	276.44	58.37	85.78	9.51	36.44	0.00	1,159.45	823	227,514	276.44	25.57	28.23	35.47	72.77	0.00	1,267.38	823	227,424	276.34	55.55	63.19
Franche-Comté	139.61	113.70	0.00	1,269.60	501	125,103	249.71	62.50	89.17	6.66	28.56	0.00	540.87	501	125,103	249.71	17.60	24.16	32.28	81.27	0.00	1,303.42	501	124,951	249.40	56.68	62.43
Pays de la Loire	154.82	130.55	0.00	1,048.12	1,400	354,793	253.42	70.73	90.95	5.98	26.43	0.00	886.03	1,400	354,793	253.42	14.91	23.66	26.40	66.33	0.00	1,120.12	1,400	354,650	253.32	47.05	57.52
Bretagne	147.46	119.08	0.00	1,097.78	1,169	317,397	271.51	70.35	86.37	6.16	28.91	0.00	781.00	1,169	317,397	271.51	15.48	24.42	24.21	63.05	0.00	1,198.78	1,169	316,691	270.91	48.39	54.19
Poitou-Charentes	159.78	137.37	0.00	1,331.58	711	219,973	309.39	75.69	91.43	5.25	25.42	0.00	569.05	711	219,973	309.39	15.78	21.52	23.72	64.09	0.00	1,198.53	711	219,922	309.31	43.50	55.70
Aquitaine	155.42	123.92	0.00	1,299.27	1,237	343,097	277.36	72.37	92.43	6.09	27.32	0.00	714.50	1,237	343,097	277.36	13.43	23.26	28.29	69.72	0.00	1,228.75	1,237	342,783	277.11	43.40	59.77
Midi-Pyrénées	150.32	121.70	0.00	1,269.97	1,045	304,756	291.63	72.44	90.86	6.98	31.04	0.00	731.10	1,045	304,756	291.63	16.92	24.10	25.33	64.17	0.00	1,346.38	1,045	304,696	291.58	44.56	55.99
Limousin	136.98	103.42	0.00	1,242.55	295	82,912	281.06	57.22	83.75	7.85	31.68	0.00	647.78	295	82,912	281.06	19.73	26.33	26.69	62.81	0.00	1,160.00	295	82,890	280.98	40.92	56.38
Rhône-Alpes	144.21	118.33	0.00	1,175.53	2,059	498,510	242.11	64.15	88.77	8.31	34.63	0.00	949.17	2,059	498,510	242.11	17.93	27.75	29.21	68.16	0.00	1,356.27	2,059	498,053	241.89	44.62	58.92
Auvergne	153.89	125.67	0.00	1,346.35	553	146,151	264.29	71.89	93.73	5.07	23.49	0.00	550.50	553	146,151	264.29	14.25	20.76	22.34	59.90	0.00	1,109.52	553	146,083	264.16	40.15	54.05
Languedoc-Roussillon	158.06	121.16	0.00	1,131.88	827	255,490	308.94	68.97	92.44	7.84	34.53	0.00	845.00	827	255,490	308.94	20.35	25.97	31.67	74.73	0.00	1,162.75	827	255,474	308.92	45.18	63.41
Provence-Alpes-Côte d'Azur	156.01	127.49	0.00	1,407.42	1,562	464,142	297.15	71.87	93.36	9.17	34.66	0.00	884.40	1,562	464,142	297.15	18.44	28.58	32.04	72.26	0.00	1,351.28	1,562	463,329	296.63	56.52	62.71
Total	148.45	122.35	0.00	1,407.42	21,272	5,827,438	273.95	66.83	90.10	7.25	31.03	0.00	1,159.45	21,272	5,827,438	273.95	17.64	25.68	29.79	71.03	0.00	1,356.27	21,272	5,822,492	273.72	50.08	61.39

TABLE 1.5 – (2) : Statistiques descriptives de la durée quotidienne consacrée à regarder un programme en direct sur les chaînes publiques, du différé et des autres usages pour le chapitre 4 (2011-2017)

	Temperature (in °C)					Sunshine duration (in mn)					Rainfall (in mm)					Wind speed (in km/h)					Rain duration (in mn)				
	Mean	sd	Min	Max	N	Mean	sd	Min	Max	N	Mean	sd	Min	Max	N	Mean	sd	Min	Max	N	Mean	sd	Min	Max	N
Regions																									
Ile-de-France	11.96	6.44	-6.22	27.99	2981.00	289.47	254.42	0.00	897.43	2981.00	1.71	3.82	0.00	58.61	2981.00	3.31	1.32	0.82	9.09	2981.00	113.76	184.63	0.00	1421.99	2981.00
Champagne-Ardenne	10.50	6.43	-9.85	26.75	2981.00	293.25	253.96	0.00	912.50	2981.00	1.97	3.60	0.00	37.73	2981.00	2.97	1.34	0.72	9.88	2981.00	125.42	187.19	0.00	1325.00	2980.00
Picardie	10.90	6.09	-8.13	26.33	2981.00	278.71	238.92	0.00	905.33	2981.00	1.90	3.54	0.00	33.90	2981.00	3.80	1.58	1.00	12.07	2981.00	118.12	175.29	0.00	1275.00	2974.00
Haute-Normandie	11.38	5.75	-7.70	28.61	2981.00	271.79	244.58	0.00	903.50	2981.00	1.93	3.48	0.00	35.15	2981.00	4.00	1.62	1.12	11.07	2981.00	114.78	174.91	0.00	1274.00	2976.00
Centre	11.17	6.37	-9.38	26.46	2981.00	312.53	249.35	0.00	903.17	2981.00	1.81	3.51	0.00	37.73	2981.00	3.41	1.44	0.88	9.87	2981.00	115.86	179.90	0.00	1335.00	2981.00
Basse-Normandie	11.39	5.17	-4.13	26.30	2981.00	289.80	233.80	0.00	905.67	2981.00	2.13	3.61	0.00	34.63	2981.00	4.12	1.71	0.83	11.47	2981.00	135.35	186.15	0.00	1200.00	2980.00
Bourgogne	11.89	6.89	-8.00	28.71	2981.00	318.31	256.45	0.00	903.20	2981.00	2.08	3.86	0.00	37.40	2981.00	2.83	1.15	0.69	10.04	2981.00	128.06	190.97	0.00	1185.90	2981.00
Nord-Pas-de-Calais	11.39	5.85	-7.00	27.29	2980.00	281.40	240.12	0.00	916.33	2981.00	2.15	4.01	0.00	40.73	2981.00	4.02	1.69	0.86	12.23	2980.00	125.79	187.87	0.00	1439.00	2979.00
Lorraine	10.50	6.43	-9.85	26.75	2981.00	288.90	257.41	0.00	903.75	2981.00	2.00	3.98	0.00	46.48	2981.00	2.97	1.41	0.62	9.95	2981.00	120.63	201.30	0.00	1332.50	2981.00
Alsace	10.69	6.44	-10.55	26.80	2981.00	304.14	261.73	0.00	900.00	2981.00	1.84	3.74	0.00	41.80	2981.00	2.64	1.14	0.75	9.60	2981.00	130.94	206.03	0.00	1386.00	2980.00
Franche-Comté	10.74	6.57	-9.32	27.29	2981.00	312.71	263.30	0.00	890.81	2981.00	2.63	4.92	0.00	42.01	2981.00	2.26	1.15	0.57	9.26	2981.00	140.57	218.34	0.00	1332.83	2981.00
Pays de la Loire	11.33	6.15	-7.07	26.18	2981.00	315.39	248.82	0.00	900.40	2981.00	2.06	4.07	0.00	41.06	2981.00	3.16	1.25	0.70	8.42	2981.00	120.77	188.61	0.00	1433.00	2981.00
Bretagne	11.24	5.53	-4.67	24.52	2981.00	285.25	230.50	0.00	908.50	2981.00	2.38	3.98	0.00	40.90	2981.00	4.02	1.59	0.93	11.38	2981.00	138.38	189.57	0.00	1168.50	2981.00
Poitou-Charentes	11.75	6.25	-7.74	27.12	2981.00	345.35	250.26	0.00	876.50	2981.00	2.03	4.17	0.00	37.33	2981.00	3.75	1.46	0.80	11.18	2981.00	98.94	169.09	0.00	1209.33	2980.00
Aquitaine	12.61	6.20	-6.30	26.89	2981.00	334.07	239.21	0.00	882.00	2981.00	2.46	4.42	0.00	37.88	2981.00	2.54	1.01	0.72	8.34	2981.00	120.12	186.52	0.00	1330.50	2980.00
Midi-Pyrénées	10.42	6.44	-9.50	26.73	2981.00	344.74	239.61	0.00	868.75	2981.00	2.10	3.87	0.00	35.70	2981.00	2.70	1.10	0.89	9.51	2981.00	115.17	177.07	0.00	1211.00	2981.00
Limousin	10.32	6.44	-9.20	26.70	2981.00	322.02	260.08	0.00	889.67	2981.00	2.57	4.83	0.00	41.07	2981.00	2.68	1.13	0.60	8.90	2981.00	132.03	211.33	0.00	1349.50	2980.00
Rhône-Alpes	10.78	6.45	-10.90	27.14	2981.00	355.88	248.44	0.00	863.50	2981.00	2.63	5.40	0.00	57.84	2981.00	2.62	1.02	1.02	8.71	2981.00	123.83	189.60	0.00	1234.83	2981.00
Auvergne	10.68	6.44	-10.55	26.80	2981.00	331.19	249.37	0.00	893.00	2981.00	2.06	4.20	0.00	41.33	2981.00	2.45	1.15	0.72	8.82	2981.00	119.31	180.54	0.00	1245.25	2981.00
Languedoc-Roussillon	10.62	6.44	-10.27	26.78	2981.00	395.33	235.18	0.00	866.50	2981.00	1.72	4.34	0.00	52.70	2981.00	3.86	1.37	1.16	9.50	2981.00	81.48	145.30	0.00	1275.33	2981.00
Provence-Alpes-Côte d'Azur	16.26	5.83	1.15	29.75	2981.00	515.79	212.65	0.00	865.25	2981.00	3.35	8.47	0.00	123.50	2981.00	11.89	26.92	1.35	169.10	2981.00	99.99	198.11	0.00	1437.00	2981.00
Total	11.36	6.35	-10.90	29.75	62600.00	323.14	251.83	0.00	916.33	62601.00	2.17	4.42	0.00	123.50	62601.00	3.62	6.32	0.57	169.10	62600.00	119.97	188.14	0.00	1439.00	62581.00

TABLE 1.6 – Statistiques descriptives des variables météorologiques selon les régions pour le chapitre 3 (2011-2019)

	Temperature (in °C)					Sunshine duration (in mn)					Rainfall (in mm)					Wind speed (in km/h)					Rain duration (in mn)				
	Mean	sd	Min	Max	N	Mean	sd	Min	Max	N	Mean	sd	Min	Max	N	Mean	sd	Min	Max	N	Mean	sd	Min	Max	N
Regions																									
Ile-de-France	11.99	6.33	-6.22	27.99	2402.00	291.09	255.12	0.00	897.43	2402.00	1.66	3.61	0.00	45.81	2402.00	3.31	1.31	0.85	9.09	2402.00	111.15	180.75	0.00	1421.99	2402.00
Champagne-Ardenne	10.53	6.35	-9.85	26.75	2402.00	292.76	252.95	0.00	912.50	2402.00	1.95	3.54	0.00	30.15	2402.00	2.97	1.32	0.72	9.88	2402.00	123.16	183.10	0.00	1315.00	2402.00
Picardie	10.92	6.00	-8.13	25.55	2402.00	279.93	238.78	0.00	905.33	2402.00	1.85	3.47	0.00	33.90	2402.00	3.85	1.58	1.00	12.07	2402.00	117.79	175.93	0.00	1275.00	2397.00
Haute-Normandie	11.39	5.68	-7.70	28.61	2402.00	275.09	245.20	0.00	903.50	2402.00	1.88	3.43	0.00	35.15	2402.00	4.03	1.62	1.12	11.07	2402.00	113.34	173.04	0.00	1274.00	2400.00
Centre	11.18	6.27	-9.38	26.46	2402.00	315.15	249.76	0.00	903.17	2402.00	1.83	3.62	0.00	37.73	2402.00	3.42	1.40	0.88	9.87	2402.00	115.38	179.64	0.00	1204.83	2402.00
Basse-Normandie	11.41	5.11	-4.08	26.30	2402.00	292.48	233.49	0.00	905.67	2402.00	2.12	3.62	0.00	28.10	2402.00	4.14	1.69	0.83	11.47	2402.00	136.85	187.79	0.00	1200.00	2402.00
Bourgogne	11.91	6.81	-8.00	27.86	2402.00	320.44	256.92	0.00	903.20	2402.00	2.11	3.95	0.00	37.40	2402.00	2.81	1.12	0.69	10.04	2402.00	129.13	193.42	0.00	1185.90	2402.00
Nord-Pas-de-Calais	11.43	5.75	-7.00	26.21	2402.00	281.80	241.25	0.00	916.33	2402.00	2.20	4.12	0.00	40.73	2402.00	4.03	1.68	0.86	12.23	2401.00	128.68	192.22	0.00	1439.00	2400.00
Lorraine	10.53	6.35	-9.85	26.75	2402.00	290.08	256.81	0.00	903.75	2402.00	1.98	3.89	0.00	35.77	2402.00	2.95	1.37	0.62	9.95	2402.00	118.85	200.16	0.00	1332.50	2402.00
Alsace	10.71	6.35	-10.55	26.80	2402.00	305.08	261.24	0.00	898.00	2402.00	1.90	3.81	0.00	41.80	2402.00	2.60	1.09	0.75	9.40	2402.00	135.33	211.59	0.00	1386.00	2401.00
Franche-Comté	10.77	6.48	-9.32	27.29	2402.00	314.94	264.12	0.00	890.81	2402.00	2.67	5.01	0.00	42.01	2402.00	2.23	1.10	0.57	9.26	2402.00	140.93	220.38	0.00	1332.83	2402.00
Pays de la Loire	11.35	6.06	-7.07	25.59	2402.00	317.84	249.00	0.00	900.40	2402.00	2.03	4.04	0.00	40.04	2402.00	3.17	1.22	0.74	8.42	2402.00	120.50	190.58	0.00	1433.00	2402.00
Bretagne	11.28	5.46	-4.66	24.52	2402.00	286.59	229.97	0.00	891.75	2402.00	2.36	3.98	0.00	40.90	2402.00	4.06	1.58	0.93	11.38	2402.00	139.75	192.55	0.00	1168.50	2402.00
Poitou-Charentes	11.77	6.15	-7.74	26.09	2402.00	347.58	249.87	0.00	876.50	2402.00	2.05	4.31	0.00	37.33	2402.00	3.76	1.43	0.97	11.18	2402.00	97.23	167.83	0.00	1209.33	2402.00
Aquitaine	12.66	6.11	-6.30	26.89	2402.00	338.08	240.63	0.00	882.00	2402.00	2.43	4.42	0.00	35.32	2402.00	2.54	1.01	0.72	8.34	2402.00	118.69	184.95	0.00	1330.50	2402.00
Midi-Pyrénées	10.44	6.35	-9.50	26.73	2402.00	349.83	241.03	0.00	868.75	2402.00	2.09	3.88	0.00	31.26	2402.00	2.71	1.10	0.89	9.51	2402.00	114.33	177.01	0.00	1211.00	2402.00
Limousin	10.35	6.35	-9.20	26.70	2402.00	325.82	261.28	0.00	889.67	2402.00	2.57	4.85	0.00	41.07	2402.00	2.70	1.13	0.60	8.90	2402.00	130.19	207.76	0.00	1349.50	2402.00
Rhône-Alpes	10.80	6.36	-10.90	26.83	2402.00	362.19	247.81	0.00	863.50	2402.00	2.66	5.49	0.00	57.84	2402.00	2.59	1.01	1.02	8.71	2402.00	125.06	190.88	0.00	1227.75	2402.00
Auvergne	10.71	6.35	-10.55	26.80	2402.00	334.33	250.72	0.00	893.00	2402.00	2.11	4.34	0.00	41.33	2402.00	2.45	1.15	0.72	8.82	2402.00	119.48	182.04	0.00	1245.25	2402.00
Languedoc-Roussillon	10.64	6.35	-10.27	26.78	2402.00	400.50	237.51	0.00	866.50	2402.00	1.67	4.22	0.00	42.00	2402.00	3.88	1.37	1.16	9.50	2402.00	79.55	144.46	0.00	1275.33	2402.00
Provence-Alpes-Côte d'Azur	16.56	5.78	1.15	29.75	2402.00	524.91	215.72	0.00	865.25	2402.00	3.30	8.53	0.00	123.50	2402.00	3.69	1.52	1.35	11.30	2402.00	101.24	203.20	0.00	1437.00	2402.00
Total	11.40	6.28	-10.90	29.75	50442.00	326.02	252.70	0.00	916.33	50442.00	2.16	4.44	0.00	123.50	50442.00	3.23	1.47	0.57	12.23	50441.00	119.84	188.79	0.00	1439.00	50432.00

TABLE 1.7 – Statistiques descriptives des variables météorologiques selon les régions pour le chapitre 4 (2011-2017)

	Live TV viewing time							Time-shifted TV viewing time							Time devoted to other uses on TV screen						
	p10	p25	p50	p75	p90	p95	p99	p10	p25	p50	p75	p90	p95	p99	p10	p25	p50	p75	p90	p95	p99
Regions																					
Ile-de-France	0.00	0.00	88.75	263.38	470.18	610.72	832.00	0.00	0.00	0.00	0.00	1.75	64.68	171.75	0.00	0.00	0.25	15.15	120.80	209.27	456.40
Champagne-Ardenne	0.00	3.50	157.30	331.33	525.72	646.50	870.67	0.00	0.00	0.00	0.00	0.00	34.00	152.40	0.00	0.00	0.37	9.00	108.62	192.98	437.73
Picardie	0.00	0.00	122.27	293.82	499.85	638.18	874.80	0.00	0.00	0.00	0.00	0.00	43.75	141.75	0.00	0.00	0.28	9.12	104.60	185.00	413.40
Haute-Normandie	0.00	0.00	111.75	291.00	506.92	631.25	827.22	0.00	0.00	0.00	0.00	0.00	43.63	143.50	0.00	0.00	0.28	11.50	107.23	191.43	452.12
Centre	0.00	0.00	129.53	302.93	509.25	646.82	883.67	0.00	0.00	0.00	0.00	0.00	45.25	147.13	0.00	0.00	0.35	11.00	109.00	192.93	434.80
Basse-Normandie	0.00	0.00	120.70	302.22	530.27	670.22	884.63	0.00	0.00	0.00	0.00	0.00	32.75	138.43	0.00	0.00	0.25	7.25	95.02	170.82	381.68
Bourgogne	0.00	0.00	122.93	295.75	495.57	636.00	902.72	0.00	0.00	0.00	0.00	0.00	20.00	115.97	0.00	0.00	0.25	5.50	97.22	180.38	426.08
Nord-Pas-de-Calais	0.00	0.00	138.10	329.92	560.58	698.00	957.25	0.00	0.00	0.00	0.00	0.50	48.75	148.25	0.00	0.00	0.50	19.25	123.43	212.90	460.13
Lorraine	0.00	0.00	102.33	281.67	490.50	643.40	914.33	0.00	0.00	0.00	0.00	0.75	51.50	154.00	0.00	0.00	0.50	29.40	141.57	234.53	480.67
Alsace	0.00	0.00	92.62	248.70	425.25	555.48	777.92	0.00	0.00	0.00	0.00	17.63	75.05	182.63	0.00	0.00	0.38	20.97	115.95	194.47	428.60
Franche-Comté	0.00	0.00	120.59	288.30	486.83	625.52	889.50	0.00	0.00	0.00	0.00	0.00	40.82	144.02	0.00	0.00	0.32	9.10	101.40	185.48	444.50
Pays de la Loire	0.00	0.00	114.02	287.72	486.95	614.18	843.20	0.00	0.00	0.00	0.00	0.00	41.00	136.50	0.00	0.00	0.28	9.48	101.78	183.05	415.97
Bretagne	0.00	0.00	127.37	298.53	494.85	622.67	865.50	0.00	0.00	0.00	0.00	0.00	38.20	143.17	0.00	0.00	0.25	9.80	105.12	188.25	429.73
Poitou-Charentes	0.00	0.00	149.63	327.43	534.57	663.35	912.52	0.00	0.00	0.00	0.00	0.00	35.75	141.50	0.00	0.00	0.25	6.47	96.87	179.75	421.62
Aquitaine	0.00	0.00	132.58	302.03	493.42	629.25	878.75	0.00	0.00	0.00	0.00	0.00	41.25	136.75	0.00	0.00	0.32	9.60	104.00	187.75	429.97
Midi-Pyrénées	0.00	0.00	111.90	285.95	478.62	605.00	860.33	0.00	0.00	0.00	0.00	0.00	40.25	146.25	0.00	0.00	0.28	6.80	88.37	159.98	378.00
Limousin	0.00	0.00	118.42	274.60	473.62	620.82	864.65	0.00	0.00	0.00	0.00	2.18	54.22	153.50	0.00	0.00	0.48	12.50	102.97	179.57	399.98
Rhône-Alpes	0.00	0.00	113.68	279.12	475.75	608.43	856.70	0.00	0.00	0.00	0.00	1.83	57.75	164.03	0.00	0.00	0.35	11.65	101.47	177.92	403.48
Auvergne	0.00	0.00	128.50	298.00	494.03	619.50	842.20	0.00	0.00	0.00	0.00	0.00	26.30	123.25	0.00	0.00	0.28	6.53	86.50	164.58	405.55
Languedoc-Roussillon	0.00	0.00	157.65	342.78	535.82	650.20	863.20	0.00	0.00	0.00	0.00	0.13	46.50	157.50	0.00	0.00	0.50	13.77	111.20	200.38	447.53
Provence-Alpes-Côte d'Azur	0.00	0.00	129.28	314.54	521.32	653.85	881.85	0.00	0.00	0.00	0.00	5.25	65.50	170.75	0.00	0.00	0.50	17.02	115.10	200.42	440.47
Total	0.00	0.00	119.37	294.05	498.17	632.42	871.00	0.00	0.00	0.00	0.00	0.20	48.98	153.50	0.00	0.00	0.33	12.02	109.18	192.75	432.83

TABLE 1.8 – Par région : Percentiles de la durée d'écoute Live par individu, du différé et des autres usages (en mn) pour le chapitre 3 (2011-2019)

	Live TV viewing time							Time-shifted TV viewing time							Time devoted to other uses on TV screen						
	p10	p25	p50	p75	p90	p95	p99	p10	p25	p50	p75	p90	p95	p99	p10	p25	p50	p75	p90	p95	p99
Quarter																					
Q1-2011	0.00	1.77	140.97	309.55	504.75	633.07	867.90	0.00	0.00	0.00	0.00	0.00	2.25	105.75	0.00	0.00	0.43	12.33	109.05	198.67	458.58
Q2-2011	0.00	0.00	117.67	276.40	467.73	603.25	852.13	0.00	0.00	0.00	0.00	0.00	2.75	103.50	0.00	0.00	0.25	8.50	94.35	170.53	403.42
Q3-2011	0.00	0.00	103.33	280.85	485.47	622.18	860.62	0.00	0.00	0.00	0.00	0.00	0.90	102.50	0.00	0.00	0.17	6.25	93.80	170.97	400.73
Q4-2011	0.00	1.50	149.75	319.50	518.82	646.50	872.22	0.00	0.00	0.00	0.00	0.00	10.50	115.75	0.00	0.00	0.33	10.08	101.98	180.50	403.55
Q1-2012	0.00	9.15	153.90	323.65	524.20	651.62	875.48	0.00	0.00	0.00	0.00	0.00	14.80	121.25	0.00	0.00	0.40	11.75	105.07	180.63	393.98
Q2-2012	0.00	0.08	139.05	302.93	498.05	626.97	860.15	0.00	0.00	0.00	0.00	0.00	10.75	112.97	0.00	0.00	0.33	10.18	100.47	173.12	380.92
Q3-2012	0.00	0.00	101.45	274.93	475.97	611.55	849.30	0.00	0.00	0.00	0.00	0.00	3.25	105.15	0.00	0.00	0.22	7.47	101.00	181.72	404.45
Q4-2012	0.00	0.07	143.75	312.75	508.62	636.17	864.95	0.00	0.00	0.00	0.00	0.00	15.00	121.00	0.00	0.00	0.50	17.25	122.83	211.47	444.30
Q1-2013	0.00	1.50	153.75	328.22	529.37	653.95	880.25	0.00	0.00	0.00	0.00	0.00	22.50	126.25	0.00	0.00	0.50	17.50	120.90	207.42	435.03
Q2-2013	0.00	0.00	132.62	297.10	489.55	617.95	851.80	0.00	0.00	0.00	0.00	0.00	19.43	121.17	0.00	0.00	0.37	10.73	101.62	174.12	379.27
Q3-2013	0.00	0.00	97.32	268.22	463.73	595.93	833.48	0.00	0.00	0.00	0.00	0.00	5.50	107.25	0.00	0.00	0.22	6.70	94.10	165.58	377.23
Q4-2013	0.00	0.05	142.25	313.20	508.38	631.38	857.18	0.00	0.00	0.00	0.00	0.00	24.50	124.00	0.00	0.00	0.42	14.47	112.00	189.77	402.60
Q1-2014	0.00	0.32	143.35	314.48	510.77	635.85	862.95	0.00	0.00	0.00	0.00	0.00	25.00	126.75	0.00	0.00	0.38	14.93	113.88	193.20	405.70
Q2-2014	0.00	0.00	121.70	285.42	476.12	605.58	839.78	0.00	0.00	0.00	0.00	0.00	24.00	120.50	0.00	0.00	0.28	11.25	106.17	181.83	391.50
Q3-2014	0.00	0.00	96.95	272.43	472.43	605.58	840.07	0.00	0.00	0.00	0.00	0.00	14.50	112.75	0.00	0.00	0.22	7.75	102.88	182.57	404.98
Q4-2014	0.00	0.00	137.65	309.55	507.55	635.93	864.73	0.00	0.00	0.00	0.00	0.50	42.35	137.25	0.00	0.00	0.37	13.03	110.08	190.77	411.50
Q1-2015	0.00	0.00	142.17	318.18	521.52	650.60	880.72	0.00	0.00	0.00	0.00	0.50	42.25	135.00	0.00	0.00	0.42	14.98	114.72	199.25	438.70
Q2-2015	0.00	0.00	115.37	279.87	477.22	612.48	861.27	0.00	0.00	0.00	0.00	0.45	40.75	133.75	0.00	0.00	0.28	10.87	105.40	186.22	430.32
Q3-2015	0.00	0.00	87.07	267.50	474.78	614.37	865.87	0.00	0.00	0.00	0.00	0.00	29.25	126.00	0.00	0.00	0.22	7.85	103.55	188.53	449.68
Q4-2015	0.00	0.00	132.85	309.48	512.07	643.75	882.02	0.00	0.00	0.00	0.00	0.55	41.80	133.75	0.00	0.00	0.40	15.28	116.03	200.83	453.82
Q1-2016	0.00	0.00	130.58	307.80	514.70	647.07	889.60	0.00	0.00	0.00	0.00	28.00	86.75	188.70	0.00	0.00	0.45	14.75	114.77	205.60	470.67
Q2-2016	0.00	0.00	112.42	281.42	483.90	620.37	874.82	0.00	0.00	0.00	0.00	23.50	81.25	177.75	0.00	0.00	0.40	12.62	105.38	190.28	441.28
Q3-2016	0.00	0.00	84.90	264.72	475.25	617.03	868.12	0.00	0.00	0.00	0.00	2.25	69.25	170.02	0.00	0.00	0.23	7.48	94.22	175.82	427.08
Q4-2016	0.00	0.00	124.90	303.47	510.08	646.00	887.63	0.00	0.00	0.00	0.00	24.75	85.50	191.00	0.00	0.00	0.42	13.03	109.28	196.05	452.17
Q1-2017	0.00	0.00	127.08	306.23	517.87	654.07	894.67	0.00	0.00	0.00	0.00	29.00	86.90	195.00	0.00	0.00	0.43	14.45	108.53	192.48	442.43
Q2-2017	0.00	0.00	107.15	280.08	487.13	629.13	880.02	0.00	0.00	0.00	0.00	23.50	82.50	183.75	0.00	0.00	0.33	11.00	100.93	182.13	428.50
Q3-2017	0.00	0.00	74.58	260.70	479.07	625.17	871.72	0.00	0.00	0.00	0.00	4.75	71.75	177.50	0.00	0.00	0.23	9.30	107.13	194.03	448.67
Q4-2017	0.00	0.00	115.57	298.52	514.35	652.95	891.70	0.00	0.00	0.00	0.00	24.75	85.47	189.83	0.00	0.00	0.40	15.13	115.57	203.78	462.37
Q1-2018	0.00	0.00	120.73	308.75	529.23	666.25	902.50	0.00	0.00	0.00	0.00	29.25	89.00	199.50	0.00	0.00	0.48	17.98	124.30	218.05	474.75
Q2-2018	0.00	0.00	94.84	268.38	479.52	622.88	872.90	0.00	0.00	0.00	0.00	26.50	85.70	190.92	0.00	0.00	0.35	13.50	111.60	199.43	449.90
Q3-2018	0.00	0.00	56.58	245.70	466.75	615.73	865.87	0.00	0.00	0.00	0.00	8.50	74.08	181.68	0.00	0.00	0.20	10.10	114.40	211.72	490.00
Q4-2018	0.00	0.00	105.97	292.93	509.90	649.17	889.30	0.00	0.00	0.00	0.00	34.25	91.08	203.07	0.00	0.00	0.37	17.50	127.75	225.80	492.50
Q1-2019	0.00	0.00	106.90	296.07	516.45	656.00	890.73	0.00	0.00	0.00	0.00	35.28	93.35	209.00	0.00	0.00	0.53	25.35	139.90	239.92	499.00
Total	0.00	0.00	119.37	294.05	498.17	632.42	871.00	0.00	0.00	0.00	0.00	0.20	48.98	153.50	0.00	0.00	0.33	12.02	109.18	192.75	432.83

TABLE 1.9 – Par trimestre : Percentiles de la durée d'écoute Live par individu, du différé et des autres usages (en mn) pour le chapitre 3 (2011-2019)

	Time devoted to watch ad on free private channel							Time-shifted TV viewing time							Time devoted to other uses on TV screen						
	p10	p25	p50	p75	p90	p95	p99	p10	p25	p50	p75	p90	p95	p99	p10	p25	p50	p75	p90	p95	p99
Regions																					
Ile-de-France	0.00	2.22	12.37	27.88	47.95	62.85	94.97	0.00	0.00	0.00	0.00	23.75	83.25	183.50	0.00	0.18	1.82	37.63	136.20	217.37	432.80
Champagne-Ardenne	0.00	5.03	15.92	32.42	53.78	69.78	102.68	0.00	0.00	0.00	0.00	0.00	36.50	148.05	0.00	0.13	0.98	15.68	112.77	188.58	407.57
Picardie	0.00	4.68	15.95	33.28	55.52	71.80	104.68	0.00	0.00	0.00	0.00	1.50	52.50	147.50	0.00	0.12	1.08	20.28	112.63	183.78	375.02
Haute-Normandie	0.00	3.83	14.33	30.25	51.30	67.75	101.10	0.00	0.00	0.00	0.00	2.75	60.50	157.68	0.00	0.13	1.17	21.48	111.00	182.13	397.50
Centre	0.00	3.85	14.50	31.82	55.13	72.82	108.25	0.00	0.00	0.00	0.00	1.25	53.25	148.75	0.00	0.18	1.30	23.82	118.90	194.72	401.72
Basse-Normandie	0.00	4.18	14.63	30.80	51.37	66.37	96.72	0.00	0.00	0.00	0.00	0.50	43.50	148.25	0.00	0.12	1.00	17.80	108.88	182.83	376.97
Bourgogne	0.00	3.98	14.58	31.20	51.85	67.48	102.07	0.00	0.00	0.00	0.00	0.00	25.25	119.15	0.00	0.08	0.67	10.60	95.32	158.25	340.13
Nord-Pas-de-Calais	0.00	5.77	17.70	36.05	59.94	77.78	112.80	0.00	0.00	0.00	0.00	1.75	53.23	154.50	0.00	0.18	1.57	33.58	130.07	209.40	413.87
Lorraine	0.00	2.98	13.18	29.72	51.18	66.92	99.82	0.00	0.00	0.00	0.00	15.50	70.75	166.58	0.00	0.23	2.30	43.67	144.75	227.68	431.62
Alsace	0.00	0.53	9.35	23.65	41.88	56.20	92.17	0.00	0.00	0.00	0.00	34.50	87.75	190.00	0.00	0.20	2.42	37.43	124.33	192.63	382.25
Franche-Comté	0.00	3.10	12.70	28.43	48.37	63.72	98.15	0.00	0.00	0.00	0.00	0.75	49.40	149.58	0.00	0.13	1.15	17.70	107.55	183.57	423.27
Pays de la Loire	0.00	3.42	13.53	29.95	51.27	67.33	103.00	0.00	0.00	0.00	0.00	1.00	50.72	147.42	0.00	0.15	1.10	17.32	104.93	175.98	376.75
Bretagne	0.00	4.05	14.45	30.60	51.38	67.22	101.70	0.00	0.00	0.00	0.00	0.07	43.75	148.00	0.00	0.08	0.83	15.18	100.50	167.85	363.85
Poitou-Charentes	0.00	4.23	14.63	31.27	52.65	68.18	100.18	0.00	0.00	0.00	0.00	0.00	37.50	136.00	0.00	0.08	0.72	10.25	95.98	165.82	377.53
Aquitaine	0.00	2.95	12.67	28.00	48.90	66.35	105.52	0.00	0.00	0.00	0.00	0.73	48.50	142.22	0.00	0.13	1.10	17.98	108.64	180.50	381.48
Midi-Pyrénées	0.00	1.57	11.50	27.20	47.88	63.58	99.60	0.00	0.00	0.00	0.00	0.75	50.07	153.75	0.00	0.17	1.10	14.48	96.68	161.17	345.88
Limousin	0.00	1.48	11.52	26.63	47.52	64.55	101.12	0.00	0.00	0.00	0.00	19.50	73.00	172.00	0.00	0.23	1.52	22.30	107.22	175.15	363.02
Rhône-Alpes	0.00	2.17	12.37	27.73	47.97	63.57	97.38	0.00	0.00	0.00	0.00	13.50	70.25	171.50	0.00	0.18	1.50	25.37	113.57	184.40	381.80
Auvergne	0.00	2.17	11.73	26.03	45.28	60.27	94.52	0.00	0.00	0.00	0.00	0.00	27.25	123.38	0.00	0.13	0.88	12.27	88.00	150.50	346.77
Languedoc-Roussillon	0.00	3.12	13.07	29.10	49.80	65.27	97.75	0.00	0.00	0.00	0.00	1.50	54.50	164.27	0.00	0.20	1.50	22.68	115.87	194.83	401.58
Provence-Alpes-Côte d'Azur	0.00	2.62	12.72	29.05	49.83	65.15	97.62	0.00	0.00	0.00	0.00	22.50	78.75	179.00	0.00	0.23	2.00	31.70	122.50	197.13	401.22
Total	0.00	3.08	13.23	29.60	50.68	66.77	101.22	0.00	0.00	0.00	0.00	3.25	60.00	161.00	0.00	0.17	1.28	23.67	116.03	189.98	393.90

TABLE 1.10 – Par région : Percentiles de la durée quotidienne consacrée à regarder une publicité en direct sur les chaînes privés, du différé et des autres usages (en mn) pour le chapitre 4 (2011-2017)

	Time devoted to watch ad on free private channel							Time-shifted TV viewing time							Time devoted to other uses on TV screen						
	p10	p25	p50	p75	p90	p95	p99	p10	p25	p50	p75	p90	p95	p99	p10	p25	p50	p75	p90	p95	p99
Quarter																					
Q1-2011	0.00	2.37	11.53	25.55	43.78	57.40	86.77	0.00	0.00	0.00	0.00	0.00	21.75	121.75	0.00	0.08	1.33	21.23	111.38	186.73	403.75
Q2-2011	0.00	2.28	11.92	26.55	45.87	60.77	93.00	0.00	0.00	0.00	0.00	0.00	21.75	120.00	0.00	0.02	1.08	18.18	104.08	173.30	379.82
Q3-2011	0.00	2.28	11.33	24.95	42.90	56.47	85.98	0.00	0.00	0.00	0.00	0.00	22.75	122.25	0.00	0.10	1.23	20.77	113.15	186.67	393.98
Q4-2011	0.00	3.58	13.27	28.53	47.77	62.07	92.37	0.00	0.00	0.00	0.00	0.00	26.50	128.97	0.00	0.10	1.13	20.85	112.75	188.17	390.63
Q1-2012	0.00	3.23	12.20	25.97	44.10	57.52	85.95	0.00	0.00	0.00	0.00	0.00	29.00	132.00	0.00	0.12	1.12	22.08	112.58	183.82	378.42
Q2-2012	0.00	2.95	12.23	26.18	44.38	58.53	88.63	0.00	0.00	0.00	0.00	0.00	26.00	126.00	0.00	0.12	1.15	21.30	111.02	180.17	369.05
Q3-2012	0.00	1.75	10.88	24.68	42.82	56.52	86.07	0.00	0.00	0.00	0.00	0.00	25.25	125.62	0.00	0.15	1.25	25.00	120.18	196.75	402.18
Q4-2012	0.00	3.65	13.48	29.03	48.97	63.93	95.53	0.00	0.00	0.00	0.00	0.00	31.50	133.75	0.00	0.17	1.50	30.30	129.07	209.25	416.78
Q1-2013	0.00	3.22	12.62	27.18	45.70	59.67	88.90	0.00	0.00	0.00	0.00	0.00	37.00	139.00	0.00	0.18	1.50	30.23	127.83	207.23	416.25
Q2-2013	0.00	3.12	13.27	29.42	49.50	64.70	97.17	0.00	0.00	0.00	0.00	0.00	31.75	134.75	0.00	0.17	1.27	22.83	113.97	183.35	375.33
Q3-2013	0.00	2.63	12.57	28.07	47.92	62.82	94.30	0.00	0.00	0.00	0.00	0.00	26.50	126.75	0.00	0.17	1.33	23.25	115.77	186.35	385.00
Q4-2013	0.00	4.03	14.62	31.47	52.77	68.55	100.48	0.00	0.00	0.00	0.00	0.50	40.25	137.00	0.00	0.15	1.35	27.00	120.35	191.83	387.00
Q1-2014	0.00	3.17	12.97	28.50	48.18	62.85	93.42	0.00	0.00	0.00	0.00	0.50	41.50	141.00	0.00	0.13	1.18	26.25	119.78	192.45	385.23
Q2-2014	0.00	3.27	13.47	30.03	50.80	66.48	99.40	0.00	0.00	0.00	0.00	0.50	38.00	134.48	0.00	0.13	1.08	23.03	114.03	183.28	368.68
Q3-2014	0.00	3.00	13.38	30.23	51.60	67.77	103.07	0.00	0.00	0.00	0.00	0.50	35.50	132.25	0.00	0.13	1.18	23.43	118.43	191.72	393.50
Q4-2014	0.00	4.00	15.20	33.00	56.28	73.58	111.27	0.00	0.00	0.00	0.00	5.50	57.50	152.75	0.00	0.15	1.25	24.22	116.98	191.17	389.55
Q1-2015	0.00	3.33	13.72	30.65	52.32	68.98	104.82	0.00	0.00	0.00	0.00	4.25	59.10	153.50	0.00	0.15	1.25	24.50	117.00	190.70	391.63
Q2-2015	0.00	3.28	14.18	31.60	54.25	71.82	109.23	0.00	0.00	0.00	0.00	4.15	59.00	150.75	0.00	0.15	1.13	21.40	111.02	181.83	379.38
Q3-2015	0.00	2.80	13.67	31.37	54.42	72.20	108.52	0.00	0.00	0.00	0.00	3.00	52.25	149.25	0.00	0.18	1.28	23.53	117.58	192.75	410.30
Q4-2015	0.00	3.65	14.93	33.10	56.25	73.70	109.58	0.00	0.00	0.00	0.00	8.00	58.50	150.87	0.00	0.18	1.40	27.78	121.25	196.15	403.20
Q1-2016	0.00	3.50	14.08	31.45	54.02	71.13	106.88	0.00	0.00	0.00	0.00	54.50	104.00	212.38	0.00	0.18	1.50	23.73	117.02	194.98	411.60
Q2-2016	0.00	3.00	13.87	31.37	54.30	72.07	109.68	0.00	0.00	0.00	0.00	49.68	97.88	202.00	0.00	0.22	1.48	22.75	111.30	185.62	394.07
Q3-2016	0.00	2.05	12.70	29.43	51.72	68.57	104.37	0.00	0.00	0.00	0.00	44.40	96.75	202.25	0.00	0.22	1.38	21.12	111.18	185.57	396.22
Q4-2016	0.00	3.68	15.43	34.17	57.92	75.63	111.95	0.00	0.00	0.00	0.00	52.50	104.25	216.75	0.00	0.22	1.47	23.40	116.13	193.32	406.75
Q1-2017	0.00	2.92	14.28	32.52	56.02	73.98	110.78	0.00	0.00	0.00	0.00	53.75	105.25	220.30	0.00	0.22	1.50	24.82	115.25	191.00	407.08
Q2-2017	0.00	2.75	14.40	32.67	56.53	74.83	112.40	0.00	0.00	0.00	0.00	51.68	102.25	212.37	0.00	0.20	1.33	20.98	107.98	181.52	395.70
Q3-2017	0.00	2.08	14.23	33.57	59.07	78.20	116.73	0.00	0.00	0.00	0.00	46.00	100.38	213.53	0.00	0.25	1.58	26.52	124.82	206.43	424.90
Total	0.00	3.08	13.23	29.60	50.68	66.77	101.22	0.00	0.00	0.00	0.00	3.25	60.00	161.00	0.00	0.17	1.28	23.67	116.03	189.98	393.90

TABLE 1.11 – Par trimestre : Percentiles de la durée quotidienne consacrée à regarder une publicité en direct sur les chaînes privés, du différé et des autres usages (en mn) pour le chapitre 4 (2011-2017)

	Time devoted to watch ad on free public channel							Time-shifted TV viewing time							Time devoted to other uses on TV screen						
	p10	p25	p50	p75	p90	p95	p99	p10	p25	p50	p75	p90	p95	p99	p10	p25	p50	p75	p90	p95	p99
Regions																					
Ile-de-France	0.53	1.75	4.93	10.83	19.58	26.40	41.22	0.00	0.00	0.00	0.00	6.50	73.00	175.93	0.00	0.20	1.50	25.20	117.03	190.00	381.00
Champagne-Ardenne	0.62	1.97	4.87	10.33	18.42	24.82	38.27	0.00	0.00	0.00	0.00	0.00	25.00	139.59	0.00	0.18	1.07	12.58	101.52	171.43	379.85
Picardie	0.53	1.62	4.50	9.33	16.50	21.85	34.83	0.00	0.00	0.00	0.00	0.50	45.40	147.75	0.00	0.17	1.03	13.63	96.33	159.15	331.17
Haute-Normandie	0.70	2.72	6.60	13.58	22.80	29.73	43.23	0.00	0.00	0.00	0.00	1.75	59.25	163.60	0.00	0.17	1.15	16.57	102.70	170.52	375.65
Centre	0.65	2.05	5.45	11.22	19.12	25.48	39.98	0.00	0.00	0.00	0.00	1.73	54.00	148.75	0.00	0.25	1.50	19.75	105.33	172.70	350.52
Basse-Normandie	0.67	2.08	5.72	12.40	22.55	32.13	60.00	0.00	0.00	0.00	0.00	0.25	32.23	145.00	0.00	0.17	1.02	12.43	87.62	152.33	330.85
Bourgogne	0.70	2.25	5.60	11.70	20.48	27.63	46.13	0.00	0.00	0.00	0.00	0.00	24.00	118.64	0.00	0.13	0.78	9.50	84.90	142.57	307.72
Nord-Pas-de-Calais	0.70	2.40	5.78	11.75	19.98	26.42	41.88	0.00	0.00	0.00	0.00	1.25	52.50	156.75	0.00	0.25	1.93	29.02	114.03	182.25	361.53
Lorraine	0.58	2.00	5.10	10.62	18.88	25.58	41.28	0.00	0.00	0.00	0.00	2.00	60.75	166.75	0.00	0.25	2.22	30.85	124.48	199.10	386.25
Alsace	0.53	1.78	4.83	9.85	17.25	22.82	38.52	0.00	0.00	0.00	0.00	18.00	76.75	183.00	0.00	0.25	2.72	35.13	118.20	180.22	347.45
Franche-Comté	0.53	1.95	5.05	10.88	19.57	25.58	40.20	0.00	0.00	0.00	0.00	0.75	49.25	149.00	0.00	0.22	1.38	17.55	104.25	182.40	430.67
Pays de la Loire	0.67	2.30	5.88	12.65	22.75	30.58	47.18	0.00	0.00	0.00	0.00	0.48	42.58	135.37	0.00	0.20	1.12	13.50	90.57	152.92	328.15
Bretagne	0.68	2.30	5.57	11.20	19.27	25.45	39.37	0.00	0.00	0.00	0.00	0.00	40.78	148.22	0.00	0.13	0.92	11.23	81.75	141.85	313.12
Poitou-Charentes	0.70	2.55	6.40	13.12	23.53	31.33	53.55	0.00	0.00	0.00	0.00	0.00	31.25	134.75	0.00	0.15	0.80	8.75	80.57	143.12	319.47
Aquitaine	0.70	2.53	6.22	12.40	20.88	27.55	43.02	0.00	0.00	0.00	0.00	0.25	42.60	142.75	0.00	0.18	1.12	14.43	98.28	165.43	348.32
Midi-Pyrénées	0.70	2.40	5.88	12.03	20.77	27.40	42.83	0.00	0.00	0.00	0.00	0.50	49.53	160.80	0.00	0.22	1.17	12.22	85.55	150.63	323.57
Limousin	0.57	1.85	5.08	10.58	17.73	22.90	34.55	0.00	0.00	0.00	0.00	6.90	59.23	161.53	0.00	0.25	1.53	16.70	92.97	145.97	309.38
Rhône-Alpes	0.55	1.83	4.95	10.32	18.07	24.48	39.02	0.00	0.00	0.00	0.00	4.75	63.27	169.75	0.00	0.23	1.45	19.15	99.02	161.87	336.77
Auvergne	0.60	1.92	5.23	10.95	19.27	25.80	42.32	0.00	0.00	0.00	0.00	0.05	30.25	124.50	0.00	0.20	1.00	11.02	69.83	129.27	299.78
Languedoc-Roussillon	0.67	2.25	5.78	11.80	19.55	25.57	40.25	0.00	0.00	0.00	0.00	1.50	54.50	170.10	0.00	0.25	1.60	20.55	105.47	180.52	371.25
Provence-Alpes-Côte d'Azur	0.70	2.35	5.95	12.70	21.97	29.07	44.08	0.00	0.00	0.00	0.00	16.60	75.03	175.50	0.00	0.25	1.98	25.03	107.32	171.25	347.82
Total	0.63	2.13	5.47	11.48	20.03	26.75	42.57	0.00	0.00	0.00	0.00	1.00	53.25	158.25	0.00	0.22	1.32	18.17	101.63	167.77	350.23

TABLE 1.12 – Par region : Percentiles de la durée quotidienne consacrée à regarder une publicité en direct sur les chaînes publiques, du différé et des autres usages (en mn) pour le chapitre 4 (2011-2017)

	Time devoted to watch ad on free public channel							Time-shifted TV viewing time							Time devoted to other uses on TV screen						
	p10	p25	p50	p75	p90	p95	p99	p10	p25	p50	p75	p90	p95	p99	p10	p25	p50	p75	p90	p95	p99
Quarter																					
Q1-2011	0.53	2.50	6.38	12.77	21.83	29.33	46.95	0.00	0.00	0.00	0.00	0.00	14.95	116.67	0.00	0.17	1.50	16.77	98.50	165.78	358.57
Q2-2011	0.63	2.15	5.72	11.87	20.53	27.45	44.25	0.00	0.00	0.00	0.00	0.00	12.00	112.00	0.00	0.10	1.25	15.15	93.00	156.29	343.60
Q3-2011	0.67	2.25	5.58	11.42	19.50	25.52	39.72	0.00	0.00	0.00	0.00	0.00	19.00	121.00	0.00	0.18	1.35	16.80	100.17	167.43	355.62
Q4-2011	0.70	2.15	5.58	11.67	20.12	26.77	42.58	0.00	0.00	0.00	0.00	0.00	22.25	125.92	0.00	0.17	1.25	16.25	99.92	167.27	357.58
Q1-2012	0.68	2.07	5.13	10.78	18.78	24.92	39.42	0.00	0.00	0.00	0.00	0.00	23.50	127.25	0.00	0.17	1.25	17.25	101.20	166.75	342.47
Q2-2012	0.62	2.08	5.08	10.47	18.10	24.12	37.85	0.00	0.00	0.00	0.00	0.00	21.25	119.50	0.00	0.20	1.27	17.62	101.10	165.48	339.77
Q3-2012	0.57	1.98	4.93	10.20	17.60	23.17	35.80	0.00	0.00	0.00	0.00	0.00	23.25	125.00	0.00	0.22	1.42	20.12	107.43	178.95	368.93
Q4-2012	0.70	2.00	5.02	10.43	18.23	24.33	38.60	0.00	0.00	0.00	0.00	0.00	26.00	132.30	0.00	0.23	1.53	22.70	114.08	186.63	375.07
Q1-2013	0.65	2.15	5.22	10.93	19.03	25.10	39.02	0.00	0.00	0.00	0.00	0.00	30.75	135.25	0.00	0.23	1.51	22.75	112.42	184.22	373.00
Q2-2013	0.62	2.10	5.15	10.67	18.53	24.50	38.43	0.00	0.00	0.00	0.00	0.00	26.50	130.25	0.00	0.22	1.38	18.58	102.62	168.00	344.33
Q3-2013	0.53	2.00	4.78	9.85	17.30	22.98	36.25	0.00	0.00	0.00	0.00	0.00	23.50	125.00	0.00	0.23	1.50	19.12	104.50	170.12	355.40
Q4-2013	0.63	2.07	5.38	11.18	19.40	25.82	40.45	0.00	0.00	0.00	0.00	0.07	33.50	134.67	0.00	0.20	1.37	20.37	106.52	170.72	355.55
Q1-2014	0.63	2.17	5.28	10.95	18.85	25.03	39.00	0.00	0.00	0.00	0.00	0.50	38.25	140.50	0.00	0.18	1.23	19.90	107.48	173.60	352.90
Q2-2014	0.53	2.05	5.12	10.88	19.13	25.83	40.48	0.00	0.00	0.00	0.00	0.48	33.25	132.75	0.00	0.18	1.13	17.43	100.50	164.00	332.13
Q3-2014	0.53	2.20	5.32	11.22	19.20	25.28	38.68	0.00	0.00	0.00	0.00	0.25	27.00	128.73	0.00	0.17	1.18	17.63	103.00	168.50	343.17
Q4-2014	0.70	2.27	5.83	12.10	20.68	27.23	42.42	0.00	0.00	0.00	0.00	1.00	49.50	146.55	0.00	0.18	1.23	17.47	100.65	165.43	344.00
Q1-2015	0.70	1.90	5.33	11.35	20.02	27.02	42.83	0.00	0.00	0.00	0.00	1.25	53.75	151.00	0.00	0.18	1.22	17.88	100.13	163.68	337.70
Q2-2015	0.53	1.73	5.18	11.08	19.92	26.77	42.42	0.00	0.00	0.00	0.00	1.25	53.25	148.75	0.00	0.18	1.12	16.00	96.00	157.77	332.50
Q3-2015	0.65	1.87	5.48	11.82	20.70	27.48	43.00	0.00	0.00	0.00	0.00	1.25	49.50	150.25	0.00	0.22	1.25	17.15	99.77	164.97	352.40
Q4-2015	0.67	1.85	5.48	11.88	20.80	27.90	44.70	0.00	0.00	0.00	0.00	2.50	53.75	146.50	0.00	0.20	1.27	19.23	102.75	165.47	341.35
Q1-2016	0.63	1.85	5.43	12.07	21.58	29.30	47.58	0.00	0.00	0.00	0.00	47.25	100.03	209.63	0.00	0.23	1.42	17.57	97.25	163.68	344.53
Q2-2016	0.67	2.25	5.55	11.77	21.28	28.80	46.67	0.00	0.00	0.00	0.00	42.50	94.62	200.63	0.03	0.25	1.43	17.73	94.62	159.73	341.73
Q3-2016	0.58	2.27	5.63	12.08	21.32	28.27	44.15	0.00	0.00	0.00	0.00	38.25	93.50	201.00	0.03	0.25	1.48	17.82	98.00	164.65	352.72
Q4-2016	0.72	2.58	6.55	13.02	22.58	30.57	48.33	0.00	0.00	0.00	0.00	43.50	99.00	211.00	0.02	0.25	1.38	17.73	98.43	166.63	353.95
Q1-2017	0.68	2.65	6.57	13.07	23.25	31.25	49.00	0.00	0.00	0.00	0.00	45.80	100.25	213.50	0.02	0.25	1.45	19.00	98.37	166.13	355.02
Q2-2017	0.67	2.38	6.10	12.63	21.85	29.42	46.93	0.00	0.00	0.00	0.00	43.25	97.13	207.50	0.03	0.25	1.35	16.67	93.07	157.77	338.43
Q3-2017	0.70	2.55	6.68	13.87	23.42	30.55	46.85	0.00	0.00	0.00	0.00	36.50	93.75	207.50	0.03	0.25	1.50	19.57	107.25	175.75	359.00
Total	0.63	2.13	5.47	11.48	20.03	26.75	42.57	0.00	0.00	0.00	0.00	1.00	53.25	158.25	0.00	0.22	1.32	18.17	101.63	167.77	350.23

TABLE 1.13 – Par trimestre : Percentiles de la durée quotidienne consacrée à regarder une publicité en direct sur les chaînes publiques, du différé et des autres usages (en mn) pour le chapitre 4 (2011-2017)

	Time devoted to watch program on free private channel							Time-shifted TV viewing time							Time devoted to other uses on TV screen						
	p10	p25	p50	p75	p90	p95	p99	p10	p25	p50	p75	p90	p95	p99	p10	p25	p50	p75	p90	p95	p99
Regions																					
Ile-de-France	7.00	34.70	94.90	181.97	290.37	368.20	530.65	0.00	0.00	0.00	0.00	23.75	83.25	183.50	0.00	0.18	1.82	37.63	136.20	217.37	432.80
Champagne-Ardenne	13.80	48.65	114.63	208.03	319.30	396.40	558.00	0.00	0.00	0.00	0.00	0.00	36.50	148.05	0.00	0.13	0.98	15.68	112.77	188.58	407.57
Picardie	12.50	44.98	110.60	205.73	320.45	399.07	557.12	0.00	0.00	0.00	0.00	1.50	52.50	147.50	0.00	0.12	1.08	20.28	112.63	183.78	375.02
Haute-Normandie	11.25	42.80	106.58	201.58	319.25	393.45	534.60	0.00	0.00	0.00	0.00	2.75	60.50	157.68	0.00	0.13	1.17	21.48	111.00	182.13	397.50
Centre	12.08	43.83	106.48	197.47	312.53	397.63	570.22	0.00	0.00	0.00	0.00	1.25	53.25	148.75	0.00	0.18	1.30	23.82	118.90	194.72	401.72
Basse-Normandie	13.47	46.88	113.55	206.95	315.70	388.55	536.68	0.00	0.00	0.00	0.00	0.50	43.50	148.25	0.00	0.12	1.00	17.80	108.88	182.83	376.97
Bourgogne	12.83	42.75	104.62	194.88	305.85	381.48	534.08	0.00	0.00	0.00	0.00	0.00	25.25	119.15	0.00	0.08	0.67	10.60	95.32	158.25	340.13
Nord-Pas-de-Calais	13.50	47.87	116.57	215.92	337.75	422.57	588.47	0.00	0.00	0.00	0.00	1.75	53.23	154.50	0.00	0.18	1.57	33.58	130.07	209.40	413.87
Lorraine	9.00	38.92	101.98	193.98	308.63	396.80	573.08	0.00	0.00	0.00	0.00	15.50	70.75	166.58	0.00	0.23	2.30	43.67	144.75	227.68	431.62
Alsace	6.95	34.78	90.97	174.43	275.38	349.10	502.35	0.00	0.00	0.00	0.00	34.50	87.75	190.00	0.00	0.20	2.42	37.43	124.33	192.63	382.25
Franche-Comté	11.27	42.43	105.75	195.53	304.43	380.05	543.80	0.00	0.00	0.00	0.00	0.75	49.40	149.58	0.00	0.13	1.15	17.70	107.55	183.57	423.27
Pays de la Loire	10.90	41.68	103.65	194.40	306.80	385.15	544.80	0.00	0.00	0.00	0.00	1.00	50.72	147.42	0.00	0.15	1.10	17.32	104.93	175.98	376.75
Bretagne	13.80	46.02	108.67	198.67	306.77	385.93	559.63	0.00	0.00	0.00	0.00	0.07	43.75	148.00	0.00	0.08	0.83	15.18	100.50	167.85	363.85
Poitou-Charentes	15.50	49.67	116.57	207.68	313.13	389.37	552.17	0.00	0.00	0.00	0.00	0.00	37.50	136.00	0.00	0.08	0.72	10.25	95.98	165.82	377.53
Aquitaine	11.53	44.03	108.03	195.88	302.82	387.30	573.77	0.00	0.00	0.00	0.00	0.73	48.50	142.22	0.00	0.13	1.10	17.98	108.64	180.50	381.48
Midi-Pyrénées	9.10	38.70	101.30	191.37	299.57	377.28	543.15	0.00	0.00	0.00	0.00	0.75	50.07	153.75	0.00	0.17	1.10	14.48	96.68	161.17	345.88
Limousin	9.93	41.15	103.75	193.35	307.72	388.77	542.12	0.00	0.00	0.00	0.00	19.50	73.00	172.00	0.00	0.23	1.52	22.30	107.22	175.15	363.02
Rhône-Alpes	9.25	38.97	98.75	184.97	292.07	369.43	526.10	0.00	0.00	0.00	0.00	13.50	70.25	171.50	0.00	0.18	1.50	25.37	113.57	184.40	381.80
Auvergne	10.73	41.62	103.98	188.68	290.88	364.85	519.25	0.00	0.00	0.00	0.00	0.00	27.25	123.38	0.00	0.13	0.88	12.27	88.00	150.50	346.77
Languedoc-Roussillon	12.58	44.78	107.95	198.25	306.07	381.72	536.43	0.00	0.00	0.00	0.00	1.50	54.50	164.27	0.00	0.20	1.50	22.68	115.87	194.83	401.58
Provence-Alpes-Côte d'Azur	10.53	43.32	108.22	200.10	309.27	385.75	537.33	0.00	0.00	0.00	0.00	22.50	78.75	179.00	0.00	0.23	2.00	31.70	122.50	197.13	401.22
Total	10.57	41.80	104.75	195.22	305.70	384.80	547.45	0.00	0.00	0.00	0.00	3.25	60.00	161.00	0.00	0.17	1.28	23.67	116.03	189.98	393.90

TABLE 1.14 – Par région : Percentiles de la durée quotidienne consacrée à regarder un programme en direct sur les chaînes privés, du différé et des autres usages (en mn) pour le chapitre 4 (2011-2017)

	Time devoted to watch program on free private channel							Time-shifted TV viewing time							Time devoted to other uses on TV screen						
	p10	p25	p50	p75	p90	p95	p99	p10	p25	p50	p75	p90	p95	p99	p10	p25	p50	p75	p90	p95	p99
Quarter																					
Q1-2011	11.23	43.12	106.72	196.95	304.38	382.28	540.88	0.00	0.00	0.00	0.00	0.00	21.75	121.75	0.00	0.08	1.33	21.23	111.38	186.73	403.75
Q2-2011	8.87	37.68	95.91	180.87	283.92	360.90	523.73	0.00	0.00	0.00	0.00	0.00	21.75	120.00	0.00	0.02	1.08	18.18	104.08	173.30	379.82
Q3-2011	10.25	41.82	105.17	195.88	306.92	386.50	556.52	0.00	0.00	0.00	0.00	0.00	22.75	122.25	0.00	0.10	1.23	20.77	113.15	186.67	393.98
Q4-2011	12.02	44.53	109.25	200.75	310.13	387.92	544.88	0.00	0.00	0.00	0.00	0.00	26.50	128.97	0.00	0.10	1.13	20.85	112.75	188.17	390.63
Q1-2012	12.58	44.50	108.53	200.08	309.67	387.60	546.37	0.00	0.00	0.00	0.00	0.00	29.00	132.00	0.00	0.12	1.12	22.08	112.58	183.82	378.42
Q2-2012	11.13	42.08	103.50	189.03	292.80	368.62	529.07	0.00	0.00	0.00	0.00	0.00	26.00	126.00	0.00	0.12	1.15	21.30	111.02	180.17	369.05
Q3-2012	9.95	41.08	103.35	192.63	300.32	377.30	537.30	0.00	0.00	0.00	0.00	0.00	25.25	125.62	0.00	0.15	1.25	25.00	120.18	196.75	402.18
Q4-2012	11.53	43.68	107.25	197.05	305.47	381.73	540.50	0.00	0.00	0.00	0.00	0.00	31.50	133.75	0.00	0.17	1.50	30.30	129.07	209.25	416.78
Q1-2013	13.28	47.12	114.08	207.67	319.40	398.20	554.85	0.00	0.00	0.00	0.00	0.00	37.00	139.00	0.00	0.18	1.50	30.23	127.83	207.23	416.25
Q2-2013	10.55	40.67	101.13	187.78	292.87	367.42	519.02	0.00	0.00	0.00	0.00	0.00	31.75	134.75	0.00	0.17	1.27	22.83	113.97	183.35	375.33
Q3-2013	10.00	40.38	101.37	189.38	296.00	371.43	530.23	0.00	0.00	0.00	0.00	0.00	26.50	126.75	0.00	0.17	1.33	23.25	115.77	186.35	385.00
Q4-2013	11.97	43.58	107.72	199.78	310.47	388.72	540.93	0.00	0.00	0.00	0.00	0.50	40.25	137.00	0.00	0.15	1.35	27.00	120.35	191.83	387.00
Q1-2014	11.83	43.63	108.28	200.80	311.37	388.37	545.10	0.00	0.00	0.00	0.00	0.50	41.50	141.00	0.00	0.13	1.18	26.25	119.78	192.45	385.23
Q2-2014	10.13	40.00	100.95	187.50	293.25	368.20	525.10	0.00	0.00	0.00	0.00	0.50	38.00	134.48	0.00	0.13	1.08	23.03	114.03	183.28	368.68
Q3-2014	10.13	41.02	102.42	191.28	299.23	374.45	534.62	0.00	0.00	0.00	0.00	0.50	35.50	132.25	0.00	0.13	1.18	23.43	118.43	191.72	393.50
Q4-2014	11.25	42.57	105.77	196.78	305.62	382.28	538.10	0.00	0.00	0.00	0.00	5.50	57.50	152.75	0.00	0.15	1.25	24.22	116.98	191.17	389.55
Q1-2015	11.70	43.50	107.73	199.53	310.53	388.00	548.23	0.00	0.00	0.00	0.00	4.25	59.10	153.50	0.00	0.15	1.25	24.50	117.00	190.70	391.63
Q2-2015	9.47	39.25	98.98	184.80	290.47	367.40	531.33	0.00	0.00	0.00	0.00	4.15	59.00	150.75	0.00	0.15	1.13	21.40	111.02	181.83	379.38
Q3-2015	9.58	40.37	101.72	192.05	304.20	384.20	546.85	0.00	0.00	0.00	0.00	3.00	52.25	149.25	0.00	0.18	1.28	23.53	117.58	192.75	410.30
Q4-2015	10.73	42.07	106.25	199.45	312.85	394.30	557.22	0.00	0.00	0.00	0.00	8.00	58.50	150.87	0.00	0.18	1.40	27.78	121.25	196.15	403.20
Q1-2016	10.73	42.02	106.37	200.57	315.82	398.07	563.40	0.00	0.00	0.00	0.00	54.50	104.00	212.38	0.00	0.18	1.50	23.73	117.02	194.98	411.60
Q2-2016	9.50	39.60	101.43	190.40	301.55	382.20	553.12	0.00	0.00	0.00	0.00	49.68	97.88	202.00	0.00	0.22	1.48	22.75	111.30	185.62	394.07
Q3-2016	9.07	40.83	104.65	195.62	310.05	393.73	567.25	0.00	0.00	0.00	0.00	44.40	96.75	202.25	0.00	0.22	1.38	21.12	111.18	185.57	396.22
Q4-2016	9.85	41.92	107.83	203.13	322.68	408.25	581.62	0.00	0.00	0.00	0.00	52.50	104.25	216.75	0.00	0.22	1.47	23.40	116.13	193.32	406.75
Q1-2017	10.00	41.50	106.67	201.90	322.05	408.88	582.58	0.00	0.00	0.00	0.00	53.75	105.25	220.30	0.00	0.22	1.50	24.82	115.25	191.00	407.08
Q2-2017	8.17	37.80	99.03	187.85	302.95	388.47	563.28	0.00	0.00	0.00	0.00	51.68	102.25	212.37	0.00	0.20	1.33	20.98	107.98	181.52	395.70
Q3-2017	8.25	39.64	102.60	197.12	314.92	401.07	566.00	0.00	0.00	0.00	0.00	46.00	100.38	213.53	0.00	0.25	1.58	26.52	124.82	206.43	424.90
Total	10.57	41.80	104.75	195.22	305.70	384.80	547.45	0.00	0.00	0.00	0.00	3.25	60.00	161.00	0.00	0.17	1.28	23.67	116.03	189.98	393.90

TABLE 1.15 – Par trimestre : Percentiles de la durée quotidienne consacrée à regarder un programme en direct sur les chaînes privés, du différé et des autres usages (en mn) pour le chapitre 4 (2011-2017)

	Time devoted to watch program on free public channel							Time-shifted TV viewing time							Time devoted to other uses on TV screen						
	p10	p25	p50	p75	p90	p95	p99	p10	p25	p50	p75	p90	p95	p99	p10	p25	p50	p75	p90	p95	p99
Regions																					
Ile-de-France	26.67	55.35	118.73	212.70	321.00	396.98	551.23	0.00	0.00	0.00	0.00	6.50	73.00	175.93	0.00	0.20	1.50	25.20	117.03	190.00	381.00
Champagne-Ardenne	27.47	52.85	107.98	197.88	305.41	377.52	513.57	0.00	0.00	0.00	0.00	0.00	25.00	139.59	0.00	0.18	1.07	12.58	101.52	171.43	379.85
Picardie	24.30	46.20	95.42	178.32	273.27	342.90	506.53	0.00	0.00	0.00	0.00	0.50	45.40	147.75	0.00	0.17	1.03	13.63	96.33	159.15	331.17
Haute-Normandie	27.72	56.12	121.32	226.48	344.82	419.12	551.65	0.00	0.00	0.00	0.00	1.75	59.25	163.60	0.00	0.17	1.15	16.57	102.70	170.52	375.65
Centre	29.18	56.22	113.15	198.18	298.03	367.83	540.60	0.00	0.00	0.00	0.00	1.73	54.00	148.75	0.00	0.25	1.50	19.75	105.33	172.70	350.52
Basse-Normandie	28.38	56.40	119.15	217.36	350.40	459.88	674.78	0.00	0.00	0.00	0.00	0.25	32.23	145.00	0.00	0.17	1.02	12.43	87.62	152.33	330.85
Bourgogne	28.80	56.62	116.70	205.67	308.87	383.57	540.07	0.00	0.00	0.00	0.00	0.00	24.00	118.64	0.00	0.13	0.78	9.50	84.90	142.57	307.72
Nord-Pas-de-Calais	25.97	49.72	103.22	192.40	292.75	361.25	504.58	0.00	0.00	0.00	0.00	1.25	52.50	156.75	0.00	0.25	1.93	29.02	114.03	182.25	361.53
Lorraine	27.27	53.57	112.87	208.02	318.20	399.15	569.82	0.00	0.00	0.00	0.00	2.00	60.75	166.75	0.00	0.25	2.22	30.85	124.48	199.10	386.25
Alsace	27.03	53.87	110.78	193.13	284.45	351.77	508.47	0.00	0.00	0.00	0.00	18.00	76.75	183.00	0.00	0.25	2.72	35.13	118.20	180.22	347.45
Franche-Comté	26.20	52.90	110.95	195.60	296.67	361.93	509.17	0.00	0.00	0.00	0.00	0.75	49.25	149.00	0.00	0.22	1.38	17.55	104.25	182.40	430.67
Pays de la Loire	27.15	54.97	117.42	219.20	341.78	422.67	565.17	0.00	0.00	0.00	0.00	0.48	42.58	135.37	0.00	0.20	1.12	13.50	90.57	152.92	328.15
Bretagne	27.97	56.53	115.23	208.85	313.28	384.10	529.63	0.00	0.00	0.00	0.00	0.00	40.78	148.22	0.00	0.13	0.92	11.23	81.75	141.85	313.12
Poitou-Charentes	30.15	58.98	123.12	221.55	336.10	417.92	644.72	0.00	0.00	0.00	0.00	0.00	31.25	134.75	0.00	0.15	0.80	8.75	80.57	143.12	319.47
Aquitaine	30.07	60.93	124.85	217.90	323.53	398.23	555.40	0.00	0.00	0.00	0.00	0.25	42.60	142.75	0.00	0.18	1.12	14.43	98.28	165.43	348.32
Midi-Pyrénées	28.95	58.27	118.22	211.45	317.88	387.98	541.30	0.00	0.00	0.00	0.00	0.50	49.53	160.80	0.00	0.22	1.17	12.22	85.55	150.63	323.57
Limousin	28.87	56.62	112.22	193.58	280.07	337.90	457.73	0.00	0.00	0.00	0.00	6.90	59.23	161.53	0.00	0.25	1.53	16.70	92.97	145.97	309.38
Rhône-Alpes	27.28	54.87	113.55	201.43	304.07	376.78	539.88	0.00	0.00	0.00	0.00	4.75	63.27	169.75	0.00	0.23	1.45	19.15	99.02	161.87	336.77
Auvergne	29.07	58.45	121.47	215.77	325.25	402.10	567.77	0.00	0.00	0.00	0.00	0.05	30.25	124.50	0.00	0.20	1.00	11.02	69.83	129.27	299.78
Languedoc-Roussillon	32.23	64.78	130.02	219.75	327.78	397.80	541.95	0.00	0.00	0.00	0.00	1.50	54.50	170.10	0.00	0.25	1.60	20.55	105.47	180.52	371.25
Provence-Alpes-Côte d'Azur	29.43	59.20	123.02	218.35	329.63	406.42	570.87	0.00	0.00	0.00	0.00	16.60	75.03	175.50	0.00	0.25	1.98	25.03	107.32	171.25	347.82
Total	27.95	55.82	116.15	208.25	315.23	390.40	550.33	0.00	0.00	0.00	0.00	1.00	53.25	158.25	0.00	0.22	1.32	18.17	101.63	167.77	350.23

TABLE 1.16 – Par région : Percentiles de la durée quotidienne consacrée à regarder un programme en direct sur les chaînes publiques, du différé et des autres usages (en mn) pour le chapitre 4 (2011-2017)

	Time devoted to watch program on free public channel							Time-shifted TV viewing time							Time devoted to other uses on TV screen						
	p10	p25	p50	p75	p90	p95	p99	p10	p25	p50	p75	p90	p95	p99	p10	p25	p50	p75	p90	p95	p99
Regions																					
Ile-de-France	26.67	55.35	118.73	212.70	321.00	396.98	551.23	0.00	0.00	0.00	0.00	6.50	73.00	175.93	0.00	0.20	1.50	25.20	117.03	190.00	381.00
Champagne-Ardenne	27.47	52.85	107.98	197.88	305.41	377.52	513.57	0.00	0.00	0.00	0.00	0.00	25.00	139.59	0.00	0.18	1.07	12.58	101.52	171.43	379.85
Picardie	24.30	46.20	95.42	178.32	273.27	342.90	506.53	0.00	0.00	0.00	0.00	0.50	45.40	147.75	0.00	0.17	1.03	13.63	96.33	159.15	331.17
Haute-Normandie	27.72	56.12	121.32	226.48	344.82	419.12	551.65	0.00	0.00	0.00	0.00	1.75	59.25	163.60	0.00	0.17	1.15	16.57	102.70	170.52	375.65
Centre	29.18	56.22	113.15	198.18	298.03	367.83	540.60	0.00	0.00	0.00	0.00	1.73	54.00	148.75	0.00	0.25	1.50	19.75	105.33	172.70	350.52
Basse-Normandie	28.38	56.40	119.15	217.36	350.40	459.88	674.78	0.00	0.00	0.00	0.00	0.25	32.23	145.00	0.00	0.17	1.02	12.43	87.62	152.33	330.85
Bourgogne	28.80	56.62	116.70	205.67	308.87	383.57	540.07	0.00	0.00	0.00	0.00	0.00	24.00	118.64	0.00	0.13	0.78	9.50	84.90	142.57	307.72
Nord-Pas-de-Calais	25.97	49.72	103.22	192.40	292.75	361.25	504.58	0.00	0.00	0.00	0.00	1.25	52.50	156.75	0.00	0.25	1.93	29.02	114.03	182.25	361.53
Lorraine	27.27	53.57	112.87	208.02	318.20	399.15	569.82	0.00	0.00	0.00	0.00	2.00	60.75	166.75	0.00	0.25	2.22	30.85	124.48	199.10	386.25
Alsace	27.03	53.87	110.78	193.13	284.45	351.77	508.47	0.00	0.00	0.00	0.00	18.00	76.75	183.00	0.00	0.25	2.72	35.13	118.20	180.22	347.45
Franche-Comté	26.20	52.90	110.95	195.60	296.67	361.93	509.17	0.00	0.00	0.00	0.00	0.75	49.25	149.00	0.00	0.22	1.38	17.55	104.25	182.40	430.67
Pays de la Loire	27.15	54.97	117.42	219.20	341.78	422.67	565.17	0.00	0.00	0.00	0.00	0.48	42.58	135.37	0.00	0.20	1.12	13.50	90.57	152.92	328.15
Bretagne	27.97	56.53	115.23	208.85	313.28	384.10	529.63	0.00	0.00	0.00	0.00	0.00	40.78	148.22	0.00	0.13	0.92	11.23	81.75	141.85	313.12
Poitou-Charentes	30.15	58.98	123.12	221.55	336.10	417.92	644.72	0.00	0.00	0.00	0.00	0.00	31.25	134.75	0.00	0.15	0.80	8.75	80.57	143.12	319.47
Aquitaine	30.07	60.93	124.85	217.90	323.53	398.23	555.40	0.00	0.00	0.00	0.00	0.25	42.60	142.75	0.00	0.18	1.12	14.43	98.28	165.43	348.32
Midi-Pyrénées	28.95	58.27	118.22	211.45	317.88	387.98	541.30	0.00	0.00	0.00	0.00	0.50	49.53	160.80	0.00	0.22	1.17	12.22	85.55	150.63	323.57
Limousin	28.87	56.62	112.22	193.58	280.07	337.90	457.73	0.00	0.00	0.00	0.00	6.90	59.23	161.53	0.00	0.25	1.53	16.70	92.97	145.97	309.38
Rhône-Alpes	27.28	54.87	113.55	201.43	304.07	376.78	539.88	0.00	0.00	0.00	0.00	4.75	63.27	169.75	0.00	0.23	1.45	19.15	99.02	161.87	336.77
Auvergne	29.07	58.45	121.47	215.77	325.25	402.10	567.77	0.00	0.00	0.00	0.00	0.05	30.25	124.50	0.00	0.20	1.00	11.02	69.83	129.27	299.78
Languedoc-Roussillon	32.23	64.78	130.02	219.75	327.78	397.80	541.95	0.00	0.00	0.00	0.00	1.50	54.50	170.10	0.00	0.25	1.60	20.55	105.47	180.52	371.25
Provence-Alpes-Côte d'Azur	29.43	59.20	123.02	218.35	329.63	406.42	570.87	0.00	0.00	0.00	0.00	16.60	75.03	175.50	0.00	0.25	1.98	25.03	107.32	171.25	347.82
Total	27.95	55.82	116.15	208.25	315.23	390.40	550.33	0.00	0.00	0.00	0.00	1.00	53.25	158.25	0.00	0.22	1.32	18.17	101.63	167.77	350.23

TABLE 1.17 – Par trimestre : Percentiles de la durée quotidienne consacrée à regarder un programme en direct sur les chaînes publiques, du différé et des autres usages (en mn) pour le chapitre 4 (2011-2017)

	Temperature (in °C)			Sunshine duration (in mn)			Rainfall (in mm)			Wind speed (in km/h)			Rain duration (in mn)		
	Q1	Médiane	Q3	Q1	Médiane	Q3	Q1	Médiane	Q3	Q1	Médiane	Q3	Q1	Médiane	Q3
Regions															
Ile-de-France	7.03	11.89	16.96	48.24	236.66	479.97	0.00	0.08	1.52	2.32	3.11	4.01	0.00	20.68	161.93
Champagne-Ardenne	5.53	10.46	15.69	57.50	233.25	491.50	0.05	0.25	2.40	1.98	2.73	3.70	0.00	34.88	179.88
Picardie	6.25	10.90	15.68	64.33	227.00	447.00	0.00	0.27	2.20	2.67	3.53	4.60	0.00	40.67	167.50
Haute-Normandie	7.05	11.31	15.91	46.50	222.00	449.00	0.03	0.28	2.40	2.80	3.73	4.85	0.00	28.50	171.50
Centre	6.22	11.08	16.26	86.17	269.33	505.00	0.00	0.17	1.95	2.38	3.13	4.17	0.00	28.17	162.83
Basse-Normandie	7.47	11.17	15.55	89.00	243.00	451.33	0.07	0.40	2.67	2.83	3.83	5.03	0.00	54.00	202.58
Bourgogne	6.47	11.83	17.41	88.40	262.10	523.70	0.01	0.23	2.44	1.98	2.62	3.44	0.00	35.00	186.25
Nord-Pas-de-Calais	7.05	11.35	16.10	62.00	235.50	452.00	0.00	0.30	2.52	2.80	3.75	5.00	0.00	37.00	185.75
Lorraine	5.53	10.44	15.68	54.00	221.75	495.25	0.00	0.15	2.20	1.93	2.67	3.67	0.00	14.50	161.50
Alsace	5.72	10.65	15.85	59.00	245.00	522.00	0.00	0.10	1.90	1.85	2.35	3.15	0.00	27.00	189.00
Franche-Comté	5.59	10.65	16.08	58.25	263.00	534.94	0.00	0.20	3.16	1.46	1.95	2.70	0.00	26.33	206.50
Pays de la Loire	6.60	11.29	16.25	90.60	277.20	502.60	0.04	0.20	2.22	2.26	2.98	3.86	0.00	30.00	169.60
Bretagne	6.90	11.18	15.64	79.25	246.00	446.75	0.05	0.50	3.10	2.83	3.70	4.95	0.00	54.00	217.33
Poitou-Charentes	6.97	11.62	16.71	119.25	326.00	546.00	0.00	0.15	2.02	2.70	3.52	4.55	0.00	14.50	133.00
Aquitaine	7.81	12.50	17.71	125.40	301.20	525.20	0.04	0.28	2.98	1.84	2.32	3.02	0.00	27.75	172.12
Midi-Pyrénées	5.43	10.38	15.63	138.00	308.12	534.00	0.03	0.25	2.50	1.90	2.50	3.24	0.00	29.14	167.80
Limousin	5.30	10.25	15.50	80.33	274.00	541.67	0.00	0.20	3.00	1.83	2.43	3.27	0.00	21.00	193.25
Rhône-Alpes	5.86	10.72	15.89	133.12	320.25	564.88	0.00	0.15	2.77	1.89	2.38	3.08	0.12	28.12	178.88
Auvergne	5.72	10.65	15.85	107.50	291.75	537.00	0.00	0.20	2.25	1.65	2.15	2.95	0.00	30.50	177.25
Languedoc-Roussillon	5.67	10.59	15.81	200.75	390.75	585.75	0.00	0.08	1.32	2.84	3.58	4.62	0.00	12.75	103.33
Provence-Alpes-Côte d'Azur	11.35	15.70	21.20	381.00	529.00	690.00	0.00	0.20	2.40	2.62	3.50	5.27	0.00	6.00	100.80
Total	6.55	11.30	16.29	94.00	283.80	523.00	0.00	0.20	2.38	2.14	2.92	4.03	0.00	27.50	170.67

TABLE 1.18 – Par région : Quartiles des variables météorologiques (2011-2019)

	Temperature (in °C)			Sunshine duration (in mn)			Rainfall (in mm)			Wind speed (in km/h)			Rain duration (in mn)		
	Q1	Médiane	Q3	Q1	Médiane	Q3	Q1	Médiane	Q3	Q1	Médiane	Q3	Q1	Médiane	Q3
Quarter															
Q1-2011	3.48	6.09	8.87	28.58	166.42	408.85	0.00	0.07	1.60	2.15	3.05	4.14	0.00	21.00	192.07
Q2-2011	12.76	14.55	16.75	311.35	549.50	716.25	0.00	0.05	0.96	2.17	2.82	3.65	0.00	2.00	60.33
Q3-2011	15.39	17.07	19.02	212.17	410.81	632.31	0.03	0.20	2.05	2.02	2.70	3.65	0.00	14.21	110.83
Q4-2011	6.12	8.61	11.90	29.62	161.62	354.59	0.04	0.25	2.67	2.00	2.92	4.30	0.00	35.60	236.33
Q1-2012	2.31	6.42	8.90	46.80	264.25	515.00	0.00	0.04	0.72	2.10	2.90	4.00	0.00	8.58	156.75
Q2-2012	9.38	13.50	16.46	153.80	335.25	571.67	0.05	0.93	4.28	2.47	3.19	4.30	2.35	67.62	225.00
Q3-2012	14.99	17.18	19.32	247.17	436.38	653.38	0.00	0.10	1.46	2.10	2.77	3.68	0.00	8.04	77.73
Q4-2012	5.55	7.96	10.79	26.35	123.12	272.96	0.07	0.95	4.72	2.18	3.11	4.45	5.75	103.75	287.50
Q1-2013	0.56	3.03	5.85	16.50	116.20	277.75	0.00	0.53	3.00	2.38	3.28	4.39	6.50	113.17	315.25
Q2-2013	9.89	12.15	14.82	115.00	296.50	550.00	0.00	0.47	3.27	2.34	3.20	4.25	0.00	53.25	215.33
Q3-2013	15.79	17.80	20.77	264.75	527.67	708.34	0.00	0.10	1.39	2.00	2.60	3.40	0.00	4.78	72.08
Q4-2013	4.53	7.39	12.54	43.65	149.43	311.00	0.04	0.60	3.73	2.16	3.15	4.40	1.86	67.00	245.75
Q1-2014	5.06	6.74	9.02	65.25	184.12	388.94	0.00	0.88	3.90	2.38	3.38	4.77	0.20	91.25	260.42
Q2-2014	11.40	13.80	15.98	230.20	442.50	673.50	0.00	0.13	2.20	2.31	3.02	3.90	0.00	14.00	109.00
Q3-2014	15.81	17.54	19.51	235.75	407.12	578.62	0.05	0.25	3.11	1.90	2.58	3.37	0.00	17.50	105.47
Q4-2014	6.03	9.43	12.87	21.42	121.12	317.23	0.06	0.40	2.74	1.88	2.68	3.88	1.50	58.29	232.92
Q1-2015	2.48	5.06	6.99	43.12	176.12	360.88	0.00	0.35	2.46	2.22	3.23	4.70	0.00	68.78	276.50
Q2-2015	10.93	13.47	16.25	258.50	509.80	725.44	0.00	0.05	1.14	2.33	2.98	3.90	0.00	3.14	85.62
Q3-2015	14.51	17.50	21.00	236.53	468.31	666.04	0.00	0.08	1.75	2.25	2.90	3.70	0.00	5.81	85.88
Q4-2015	7.45	10.21	12.17	61.88	197.93	349.10	0.00	0.15	1.18	1.94	2.78	3.95	0.00	21.48	141.50
Q1-2016	3.68	5.71	8.03	36.40	145.00	303.06	0.00	0.92	4.03	2.58	3.66	5.10	5.00	128.00	315.00
Q2-2016	10.17	14.00	16.50	128.50	303.40	506.00	0.05	0.80	3.77	2.31	3.00	3.83	1.33	59.75	203.50
Q3-2016	16.61	18.44	20.60	265.62	535.62	704.50	0.00	0.05	0.60	1.96	2.55	3.27	0.00	1.16	35.42
Q4-2016	4.10	7.65	10.48	51.88	193.65	373.23	0.00	0.08	1.35	1.72	2.40	3.47	0.00	11.08	128.62
Q1-2017	2.64	6.55	9.18	32.33	171.12	417.25	0.00	0.17	1.95	2.15	3.12	4.35	0.00	38.25	223.75
Q2-2017	10.03	14.25	18.31	298.00	538.80	733.00	0.00	0.05	1.38	2.25	2.88	3.70	0.00	1.50	75.50
Q3-2017	15.19	17.43	20.12	204.75	367.94	581.25	0.01	0.28	2.33	2.02	2.67	3.65	0.00	19.10	100.00
Q4-2017	4.70	7.81	12.12	33.83	158.45	334.90	0.04	0.35	2.52	2.00	2.92	4.25	1.00	55.55	223.75
Q1-2018	2.37	5.49	7.78	24.67	125.00	293.00	0.10	1.30	4.21	2.65	3.73	5.00	22.75	156.83	336.00
Q2-2018	12.14	15.62	18.50	209.00	428.33	681.67	0.00	0.15	2.55	2.16	2.86	3.83	0.00	13.50	107.83
Q3-2018	16.86	19.35	21.49	373.50	587.46	706.58	0.00	0.05	0.60	2.02	2.60	3.40	0.00	0.12	29.75
Q4-2018	5.28	8.74	11.60	39.08	162.33	353.48	0.03	0.27	3.00	2.10	2.97	4.33	0.12	47.75	216.00
Q1-2019	2.74	5.07	7.38	34.25	164.50	448.50	0.00	0.10	1.44	2.13	2.98	4.33	0.00	36.10	190.83
Total	6.55	11.30	16.29	94.00	283.80	523.00	0.00	0.20	2.38	2.14	2.92	4.03	0.00	27.50	170.67

TABLE 1.19 – Par trimestre : Quartiles des variables météorologiques (2011-2019)

2 How do spouses share the TV ? Theory and Evidence from the French TV Audience

2.1 Introduction

This paper answers the following question in the context of television audience : What is the role of the human capital (i.e the years of education) in the optimal allocation of the time devoted to watch a TV program alone or in pairs ?

Beginning with the media users' behavior, we show that their leisure time devoted to media is shared between watching TV program alone and in pairs. This choice depends on human capital and the moment of the day. Consequently, we highlight the decisive role of all of them in the determination of equilibrium, since they have a deep impact on the media users' choices. We test the findings of our theoretical model using Médiamétrie's. Within the framework of the measurement conventions, these television audience data relate to television at home, in France, in households with a television set. We look at the average audience rate for the month of September 2018 from Monday to Friday, Saturday, and Sunday by varying the spouse study levels. The results show that a greater difference in education level within a couple reduces the amount of time spent watching TV together.

Since the seminal work of Lehmann 1971, there is a literature that has identified various factors affecting the utility of viewers watching television programs. These factors include viewer demographics and program genre (Rust et Alpert 1984 ; Anand et Shachar 2011), artistic cast (Shachar et Emerson 2000 ; Wilbur 2008), advertising time (ibid.), viewer's previous program choices (Moshkin et Shachar 2002), and most recently weather as we show in the next chapters). In addition, there is an emerging stream that is interested in modeling consumers' interdependent preferences in choosing a television program. For example, the utility of viewers to watch a television program can be affected by the choice of spouse (Yang, Narayan et Assael 2006). Yang, Zhao et al. 2010 go further to distinguish between preferential interaction (i.e., the dependence of one person's utility on another person's utility) and behavioral interaction (i.e., the dependence of one person's utility on another person's choice, which may determine joint

consumption). However, the literature does not take into account the human capital as determinant of the individual's optimal choice to watch television alone or in pairs. This is probably because there is no theoretical model that does so. Our methodology helps solving this problem.

This paper is organized as follows. Section 2.2 presents the general model. Section 2.3 is devoted to empirical results and Section 2.4 characterizes the solutions according to French TV audience data. Section 2.5 concludes.

2.2 The model

The model developed hereafter is as simple as possible. There is complete and perfect information. The household is composed by two representative individuals, $i = 1, 2$. Denote the representative individual's human capital h_i. Each individual works during $T - \ell_i$ units of time at the hourly market wage $w_i := w(h_i)$. He spends his labor revenue in consumption C_i at the market price p_i. Consequently, his budget constraint is $p_i C_i = w_i(T - \ell_i)$. Moreover, each individual splits his leisure time into two parts : time devoted to leisure out of TV programs, $\ell_i - t_j$, $j \neq i$ and time devoted to watch TV programs t_j. The latter being divided into two sub-times : the time watching TV program alone t_i and the time sharing TV with the spouse $t_j - t_i$.

Define the time slot x_i during a day in which an individual watches TV. The preference for watching alone a TV program is a function $\phi(h_i, x_i)$, while the preference for sharing TV is a function $\xi(h_i, h_j, x_i))$. We do not make any assumption about the influence of the human capital on the individual's choice of sharing or not a given TV program. It could either have a positive or negative influence on her/his utility. Denote A a constant that can be set to zero except for the log utility function, in the case of a zero TV program audience $t_i = t_j = 0$.

Theorem 1. Denote the invert function of the first derivative $v := {u'_{t_i}}^{-1}$. Whatever the utility function, the solution for the time spent alone watching TV, the time spent sharing TV with the spouses and the leisure out of TV is the following

$$t_i^\star = \frac{1}{\phi_i(h_i, x_i)} v\Big(\frac{1}{\phi_i(h_i, x_i)} \frac{w_i}{p_i} - A\Big),$$

$$t_j^\star - t_i^\star = \frac{1}{\xi_i(h_i, h_j, x_i)} v\Big(\frac{1}{\xi_i(h_i, h_j, x_i)} \frac{w_i}{p_i} - A\Big),$$

$$\ell_i^\star = \frac{2}{\phi_i(h_i, x_i)} v\Big(\frac{1}{\phi_i(h_i, x_i)} \frac{w_i}{p_i} - A\Big) + \frac{1}{\xi_i(h_i, h_j, x_i)} v\Big(\frac{1}{\xi_i(h_i, h_j, x_i)} \frac{w_i}{p_i} - A\Big).$$

Démonstration. Each individual i has a quasi-linear utility function of the following form :

$$U := C_i + u(t_i, t_j, \ell_i, \phi_i(h_i, x_i), \xi_i(h_i, h_j, x_i))$$

where

$$u(t_i, t_j, \ell_i, \phi_i(h_i, x_i), \xi_i(h_i, h_j, x_i)) := u(A + \phi_i(h_i, x_i)t_i) + u(A + \xi_i(h_i, h_j, x_i)(t_j - t_i))$$
$$+u(A + \phi_i(h_i, x_i)(\ell_i - t_j)).$$

Isolating the consumption C_i from the budget constraint, $C_i = (T - \ell_i)w_i/p$, given the composition of the household's human capital h_i, h_j a rational individual solves the following program

$$\max_{t_i, t_j, \ell_i} \frac{w_i}{p}(T - \ell_i) + u(t_i, t_j, \ell_i, \phi_i(h_i, x_i), \xi_i(h_i, h_j, x_i)).$$

The first-order condition is such that there exist $t_i^\star, t_j^\star, \ell_i^\star$

$$\phi_i(h_i, x_i)u'_{t_i}(A + \phi_i(h_i, x_i)t_i^\star) = \xi_i(h_i, h_j, x_i)u'_{t_i}(A + \xi_i(h_i, h_j, x_i)(t_j^\star - t_i^\star)) \quad (2.1)$$
$$\xi_i(h_i, h_j, x_i)u'_{t_j}(A + \xi_i(h_i, h_j, x_i)(t_j^\star - t_i^\star) = \phi_i(h_i, x_i)u'_{t_j}(A + \phi_i(h_i, x_i)(\ell_i^\star - t_j^\star)) \quad (2.2)$$
$$\phi_i(h_i, x_i)u'_{\ell_i}(A + \phi_i(h_i, x_i)(\ell_i^\star - t_j^\star)) = \frac{w_i}{p_i} \quad (2.3)$$

Note that $u'_{t_i} = u'_{t_j} = u'_{\ell_i}$, so that

$$\phi_i(h_i, x_i)u'_{t_i}(A + \phi_i(h_i, x_i)t_i^\star) \quad = \quad w_i/p_i. \quad (2.4)$$

Denote the invert function of the first derivative $v := {u'_{t_i}}^{-1}$. From relation (2.4) we have

$$t_i^\star \quad = \quad \frac{1}{\phi_i(h_i, x_i)} v\Big(\frac{1}{\phi_i(h_i, x_i)}\frac{w_i}{p_i} - A\Big). \quad (2.5)$$

Redo the same exercise and find

$$t_j^\star - t_i^\star \quad = \quad \frac{1}{\xi_i(h_i, h_j, x_i)} v\Big(\frac{1}{\xi_i(h_i, h_j, x_i)}\frac{w_i}{p_i} - A\Big). \quad (2.6)$$
$$\ell_i^\star - t_j^\star \quad = \quad \frac{1}{\phi_i(h_i, x_i)} v\Big(\frac{1}{\phi_i(h_i, x_i)}\frac{w_i}{p_i} - A\Big). \quad (2.7)$$

□

2.3 Empirical application to the French TV audience

In order to study empirically the time allocation between watching TV alone or in pairs, we use Médiamétrie's data. We are in measure to represent graphically the average TV audience rate per 5-minute slot on September, 2018, according to the moment of the week (Monday to Friday, Saturday and Sunday) and the educational level of the spouses. The exam that allows students to enter the university (in the same way, it closes the high school) in France is called "Baccalauréat" (Bac) which we take as a reference to divide the level of education into 4 groups."Bac+3" which means that the individual has a level of education

that equals or is higher to 3 years after having obtained the Baccalauréat, "Bac+2" which means that the individual has a level of education equal to 2 years after the Baccalauréat, "Bac" which means that the individual has a level equal to the Baccalauréat, and "< Bac" which means that the individual has a level less than the Baccalauréat. Hereafter the results are classified into 4 categories. The first one describes any couple that has the same human capital. The second one describes any couple with a small difference in human capital between spouses. The third one describes any couple with a medium difference in human capital between spouses. The last one describes huge differences in human capital between spouses. In each the previous categories, we report results following the moment of the week. The husband's average TV audience is represented by the blue curve. The wife's average TV audience is represented by the orange curve. The grey curve represents the average TV audience of individuals who are more than 15 years old. If we look at the 3 :00-3 :05 AM range for the Figure 2.1a for the blue curve, it says 0.734730%. This means that the average individual corresponding to the husbands whose level of education is higher than or equal to Bac+3 watched television during 0.036 minutes (5*0.0073473=0.036) between 3 :00 and 3 :05 am. In other words, it is as if he did not watch television. When the orange and blue curves are merged, it means that the husband and wife are watching TV at the same time. When there is a gap, it means that they are not watching TV at the same time.

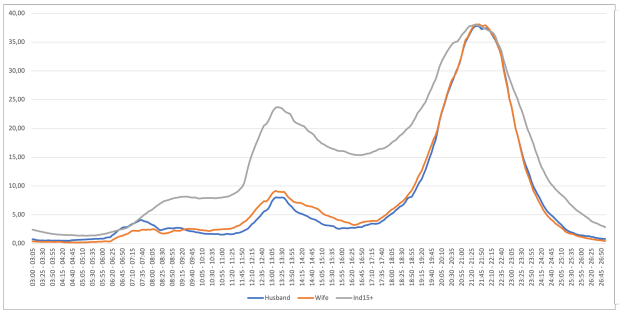
2.3.1 General observations

It should be borne in mind that the interpretation of the graphs in this section is a study of correlation, not causality. In this chapter, we only analyse variations in the level of education within couples on the average audience rate by day of the week and time of day. Unlike the following chapters, we do not control for the effect of age, socio-professional category, weekly working time, household income, mode of Internet connection or region of residence.

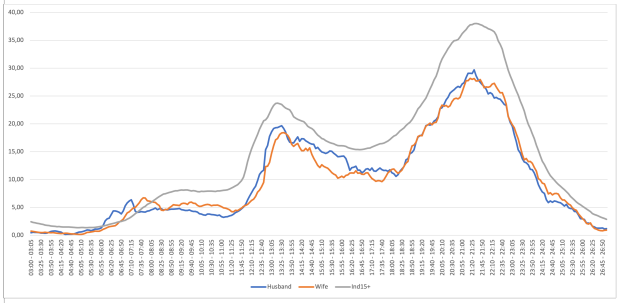
We can make several observations. First of all, there are 3 peaks of audience in a day. The first is between 7 :10 and 8 am, the second between 1 and 1 :45 pm, the third between 8 :55 and 10 :05 pm. We find these peaks for all the graphs, whatever the time of the week and the level of education of the spouses.

2.3.2 Identical human capital (see Figures 2.1, 2.2 and 2.3)

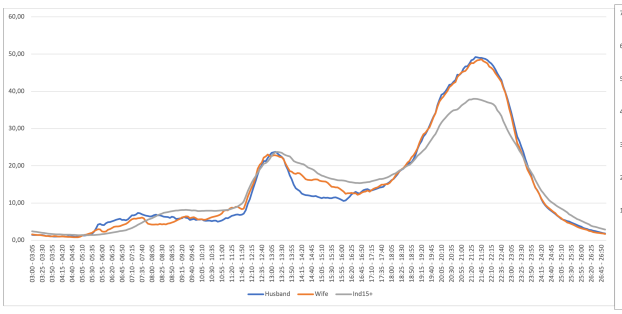
When the couple has the same level of human capital, they watch less television when their human capital is equal to Bac+2, then Bac+3, then Bac and finally below Bac, and this is true whatever the moment of the day. The result is reversed for Bac+2 and Bac+3 on Sundays. The couples whose level is equals to Bac+3 and Bac spend more time watching television together during the week, in particular during prime time. On Saturday, couples with a level of education equal to Bac+2 and Bac watch less television together compared to other levels of education. This result is true on Sunday only for couples with a level of education equal to Bac. From Monday to Friday at lunch, the differences between the husband curve and the wife curve is greater when the level of education is decreasing inside the couple.



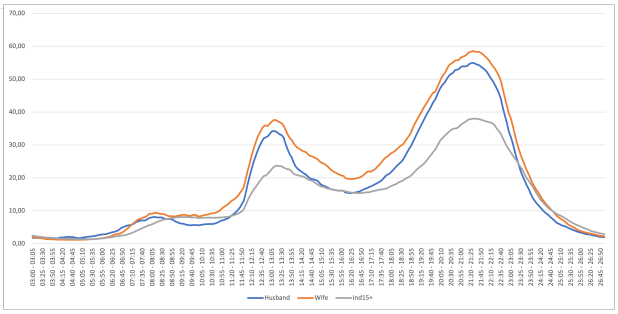
(a) Husband with Bac+3 and Wife with Bac+3



(b) Husband with Bac+2 and Wife with Bac+2

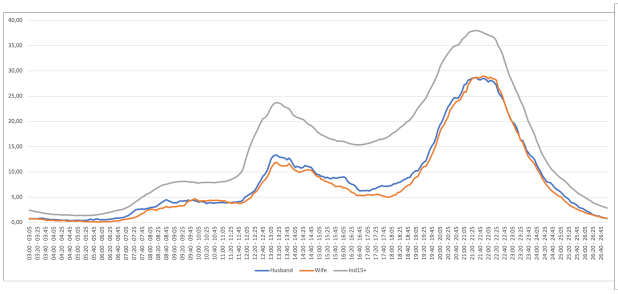


(c) Husband with Bac and Wife with Bac

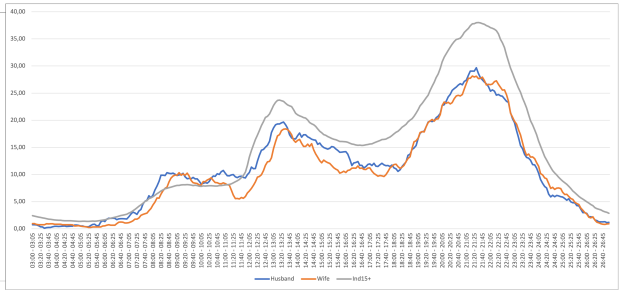


(d) Husband with a < Bac and Wife < Bac

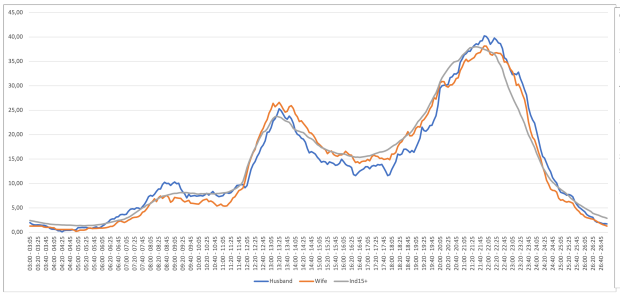
FIGURE 2.1 – Average TV audience rate per 5-minute slot with equivalent human capital for the month of September 2018 from Monday to Friday in France.
Sources : Médiamétrie



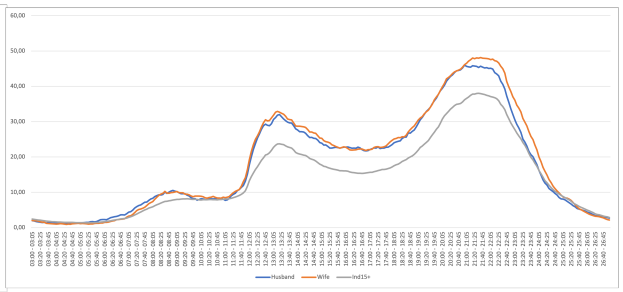
(a) Husband with Bac+3 and Wife with Bac+3



(b) Husband with Bac +2 and Wife with Bac+2

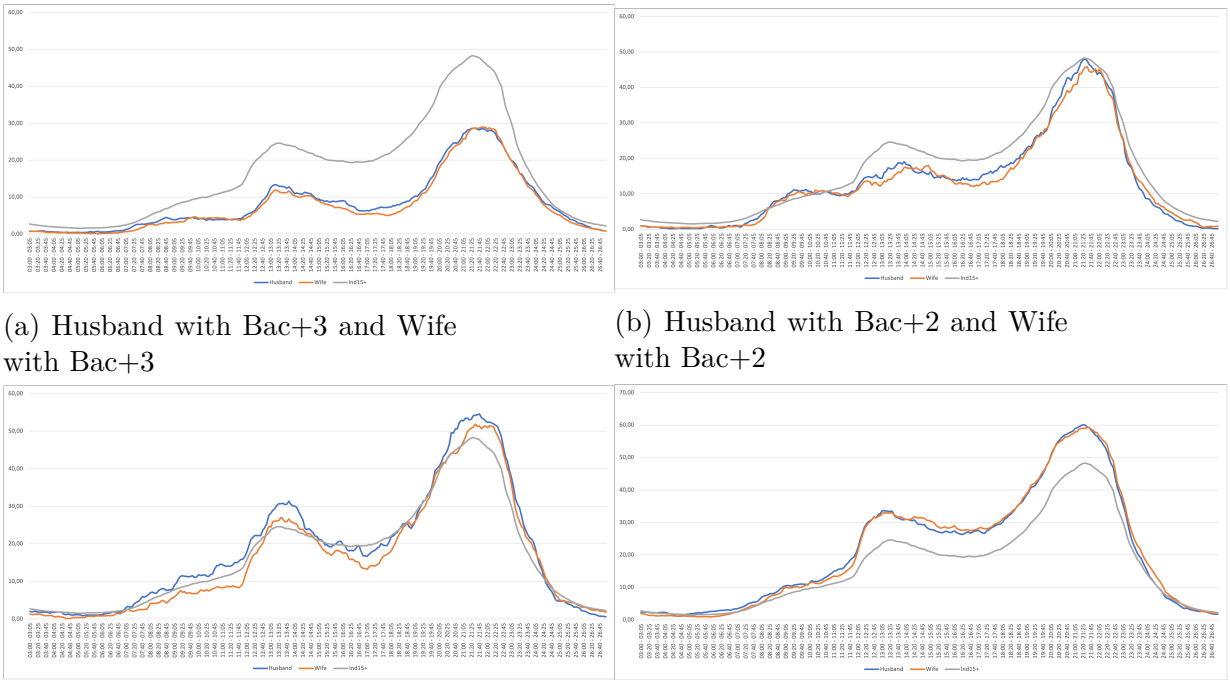


(c) Husband with Bac and Wife with Bac



(d) Husband with a < Bac and Wife < Bac

FIGURE 2.2 – Average TV audience rate per 5-minute slot with equivalent human capital for the month of September 2018 on Saturday in France.
Sources : Médiamétrie



(a) Husband with Bac+3 and Wife with Bac+3

(b) Husband with Bac+2 and Wife with Bac+2

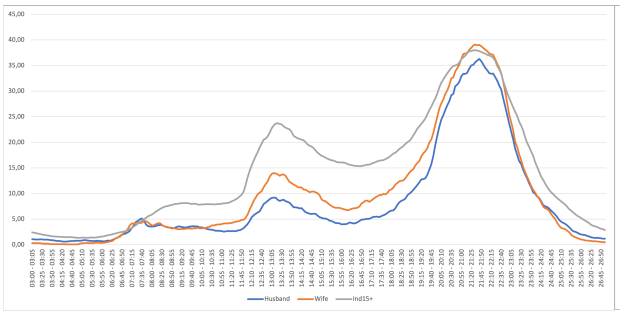
(c) Husband with Bac and Wife with Bac

(d) Husband with a < Bac and Wife < Bac

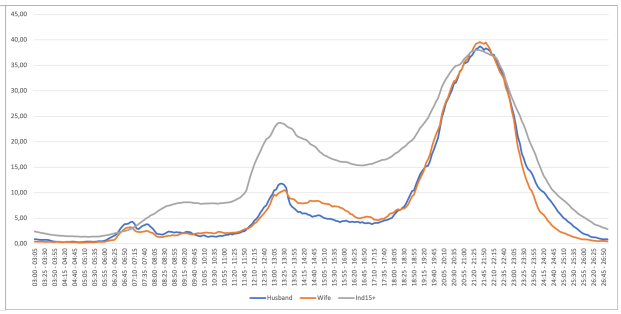
FIGURE 2.3 – Average TV audience rate per 5-minute slot with equivalent human capital for the month of September 2018 on Sunday in France.
Sources : Médiamétrie

2.3.3 Small differences in human capital (see Figures 2.4, 2.5 and 2.6)

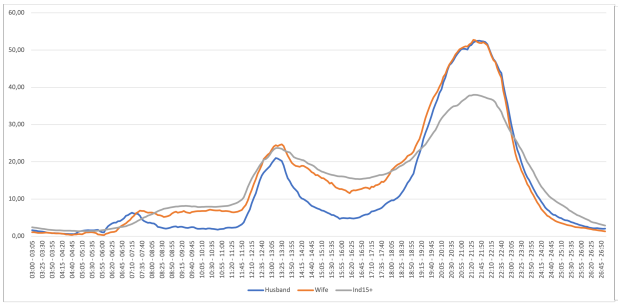
When there are small differences in human capital inside the family, then the lower the level of education, the higher the audience rate. This can be explained by the fact that French people with a low level of education generally have a lower working time than French people with a higher level of education. From Monday to Friday, when the husband has a Bac+2 level and the wife has a Bac level, they watch more the television together than the other configurations in human capital. This result is not true on week-end and is only verified when husband has a Bac degree and his wife a level less than a Bac degree. When the husband has a Bac+2 level and the wife has a Bac+3 level, they watch more the television together. On Saturday, this true also, and we get the same results when the husband has a level of education lower than a Bac degree and his wife has a Bac. On Sunday, this is this last group that they watch more television together. Finally, when the wife has more human capital than the husband, they watch more the television together than the conversely.



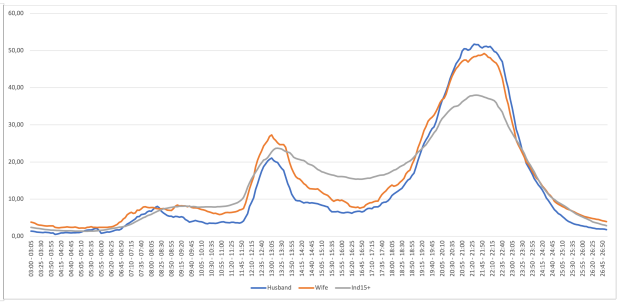
(a) Husband with Bac+3 and Wife with Bac+2



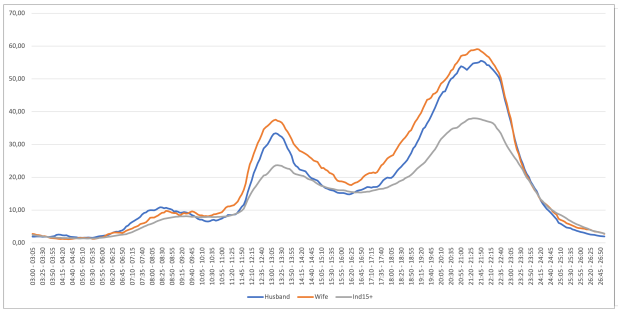
(b) Husband with Bac+2 and Wife with Bac+3



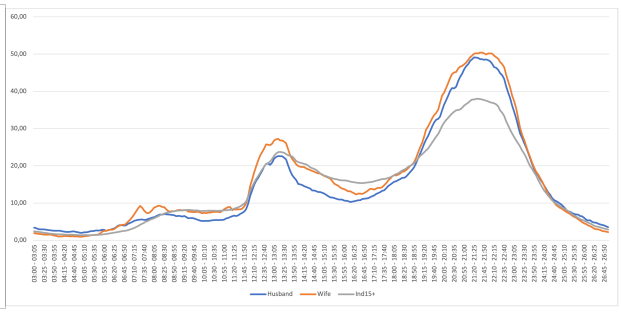
(c) Husband with Bac+2 and Wife with Bac



(d) Husband with Bac and Wife with Bac+2



(e) Husband with Bac and Wife < Bac

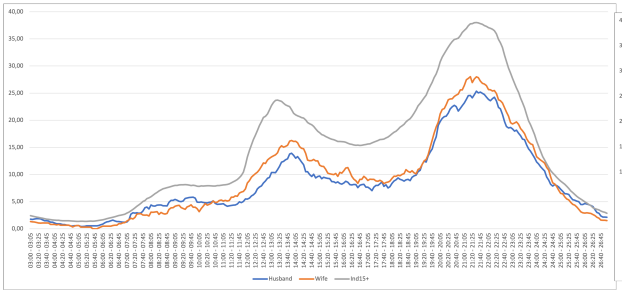


(f) Husband with a < Bac and Wife with Bac

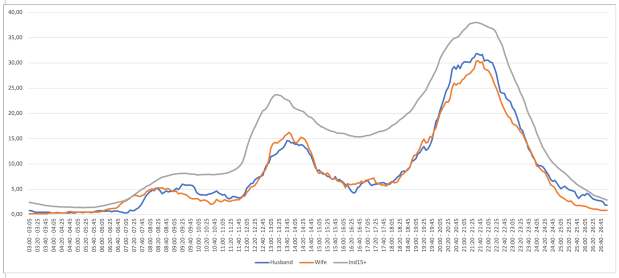
FIGURE 2.4 – Average TV audience rate per 5-minute slot with small differences in human capital for the month of September 2018 from Monday to Friday in France.
Sources : Médiamétrie

2.3.4 Medium differences in human capital (see Figures 2.7, 2.8 and 2.9)

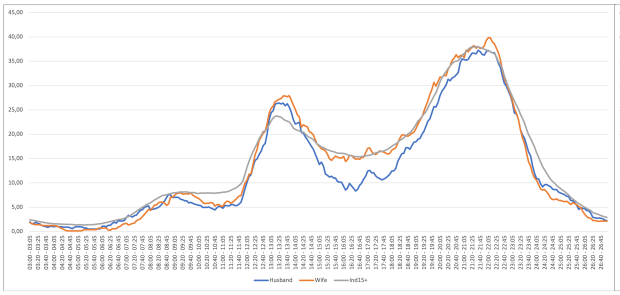
From Monday to Friday, when the wife is more graduated than her husband, they watch more the television together than the situation where the husband is more graduated than his wife. This result is not true on week-end, particularly on Saturday when the wife has a



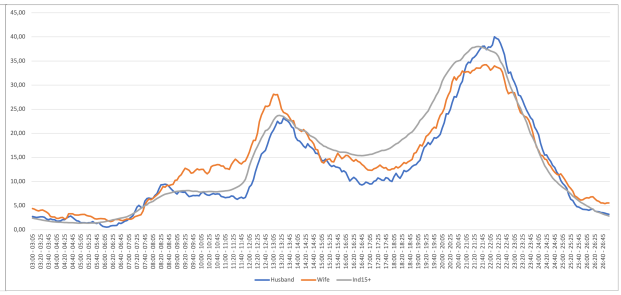
(a) Husband with Bac+3 and Wife with Bac+2



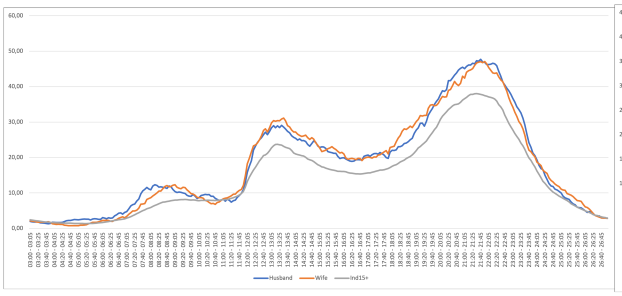
(b) Husband with Bac +2 and Wife with Bac+3



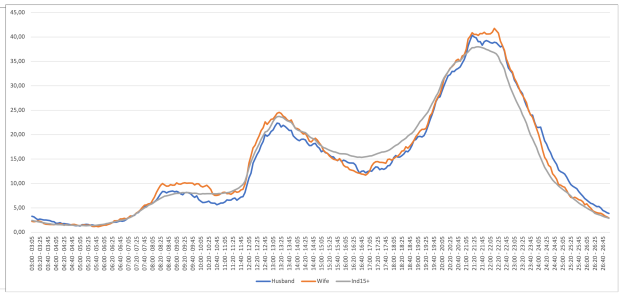
(c) Husband with Bac +2 and Wife with Bac



(d) Husband with Bac and Wife with Bac+2

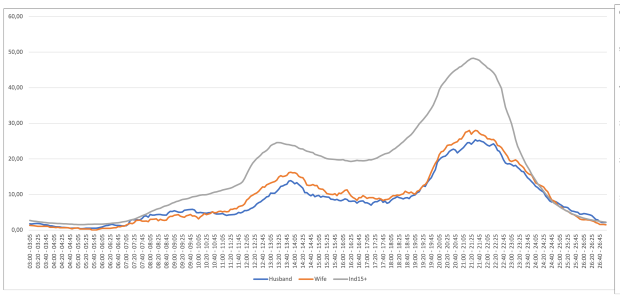


(e) Husband with Bac and Wife < Bac

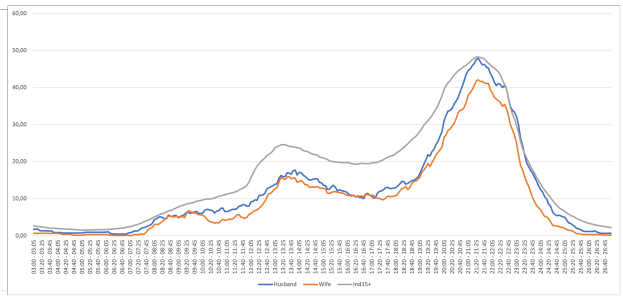


(f) Husband with a < Bac and Wife with Bac

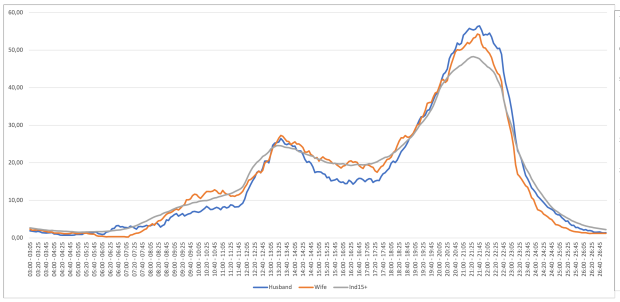
FIGURE 2.5 – Average TV audience rate per 5-minute slot with small differences in human capital for the month of September 2018 on Saturday in France.
Sources : Médiamétrie



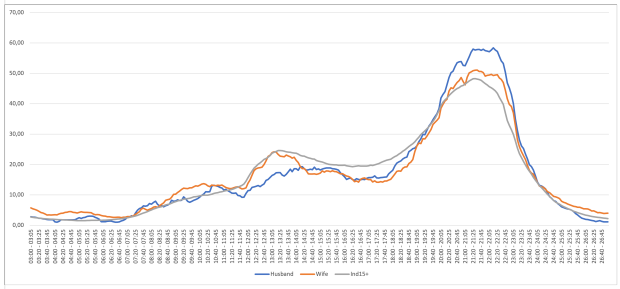
(a) Husband with Bac+3 and Wife with Bac+2



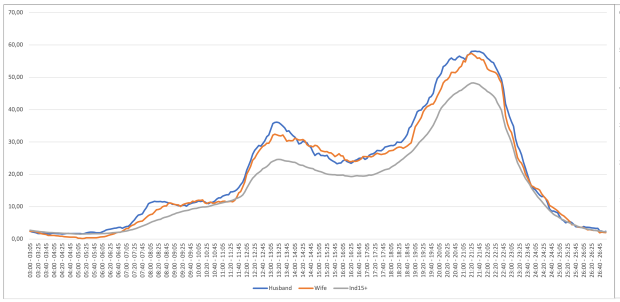
(b) Husband with Bac+2 and Wife with Bac+3



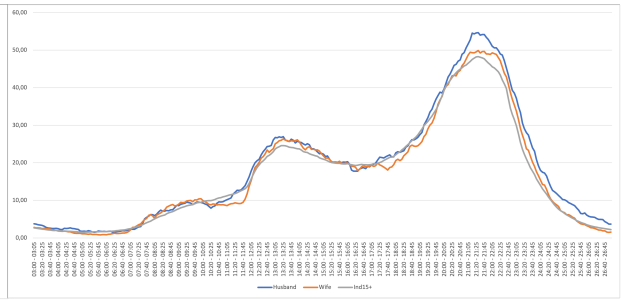
(c) Husband with Bac+2 and Wife with Bac



(d) Husband with Bac and Wife with Bac+2



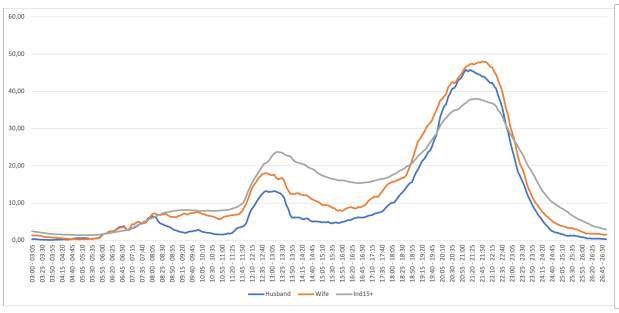
(e) Husband with Bac and Wife < Bac



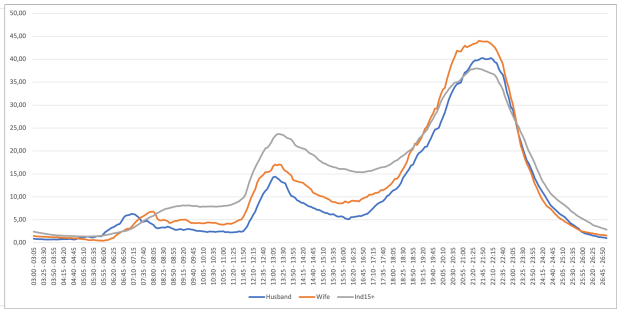
(f) Husband with a < Bac and Wife with Bac

FIGURE 2.6 – Average TV audience rate per 5-minute slot with small differences in human capital for the month of September 2018 on Sunday in France.
Sources : Médiamétrie

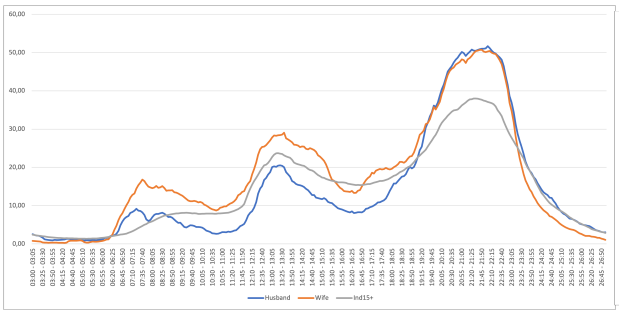
Bac+2 and her husband has a degree lower than the Bac level. When the husband is more graduated than his wife, they watch more the television than the conversely situation, except on Sunday when the husband has a Bac level and his wife has a Bac+3 level.



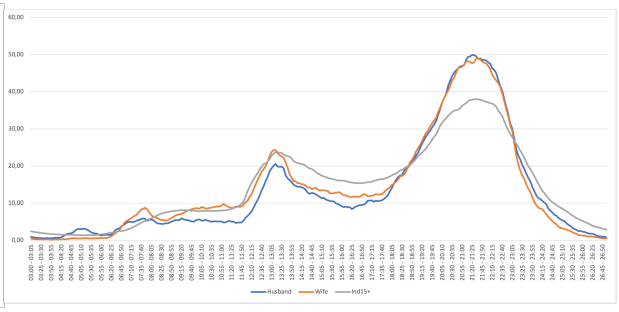
(a) Husband with Bac+3 and Wife with Bac



(b) Husband with Bac and Wife with Bac+3

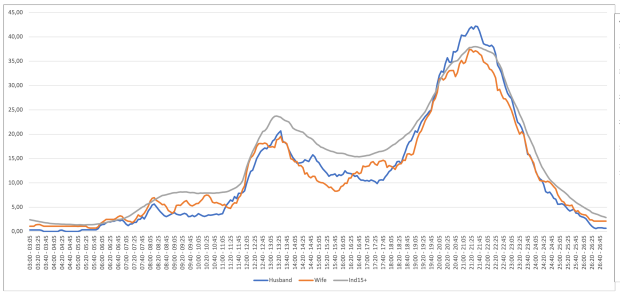


(c) Husband with Bac+2 and Wife < Bac

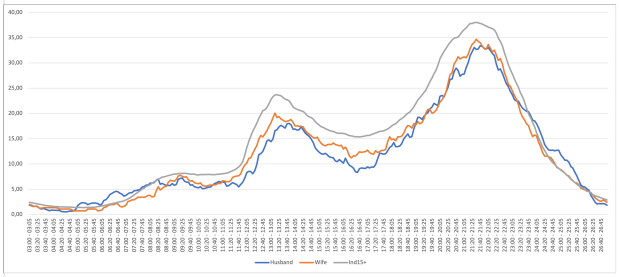


(d) Husband < Bac and Wife with Bac+2

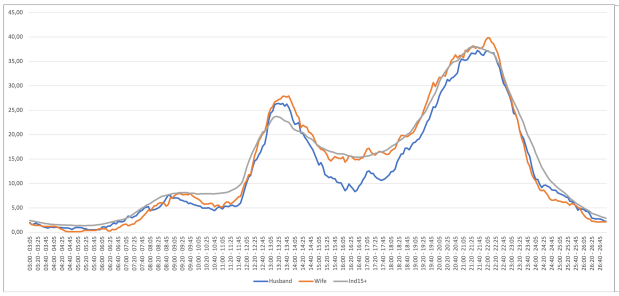
FIGURE 2.7 – Average TV audience rate per 5-minute slot with medium differences in human capital for the month of September 2018 from Monday to Friday in France. Sources : Médiamétrie



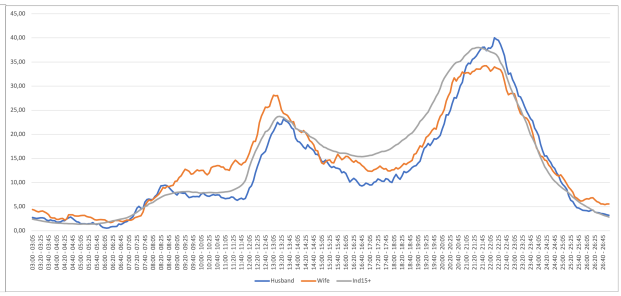
(a) Husband with Bac+3 and Wife with Bac



(b) Husband with Bac and Wife with Bac+3

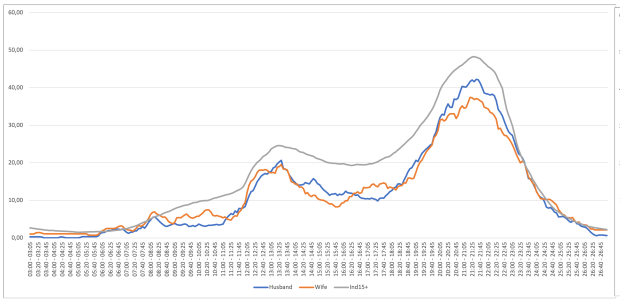


(c) Husband with Bac+2 and Wife < Bac

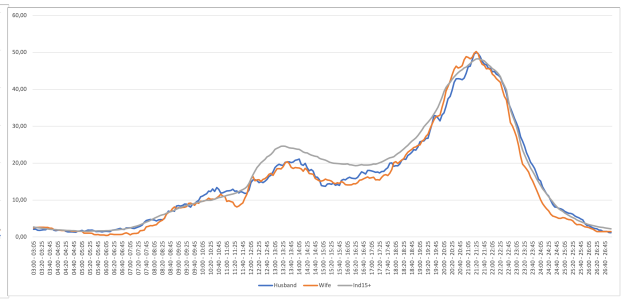


(d) Husband < Bac and Wife with Bac+2

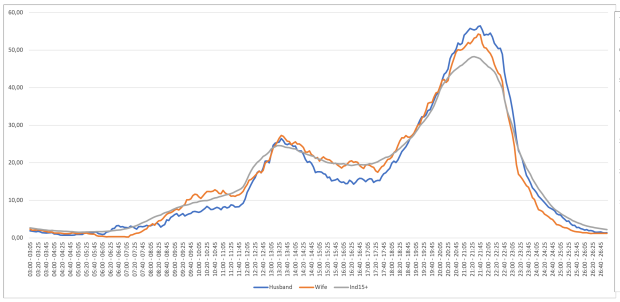
FIGURE 2.8 – Average TV audience rate per 5-minute slot with medium differences in human capital for the month of September 2018 on Saturday in France.
Sources : Médiamétrie



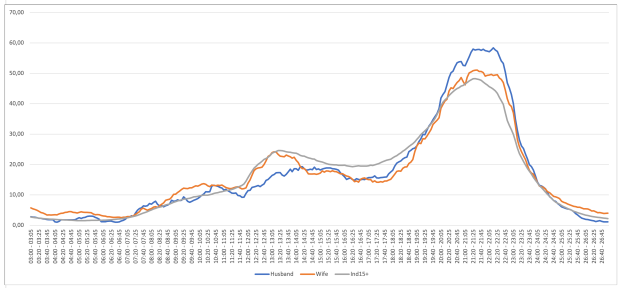
(a) Husband with Bac+3 and Wife with Bac



(b) Husband with Bac and Wife with Bac+3



(c) Husband with Bac+2 and Wife < Bac

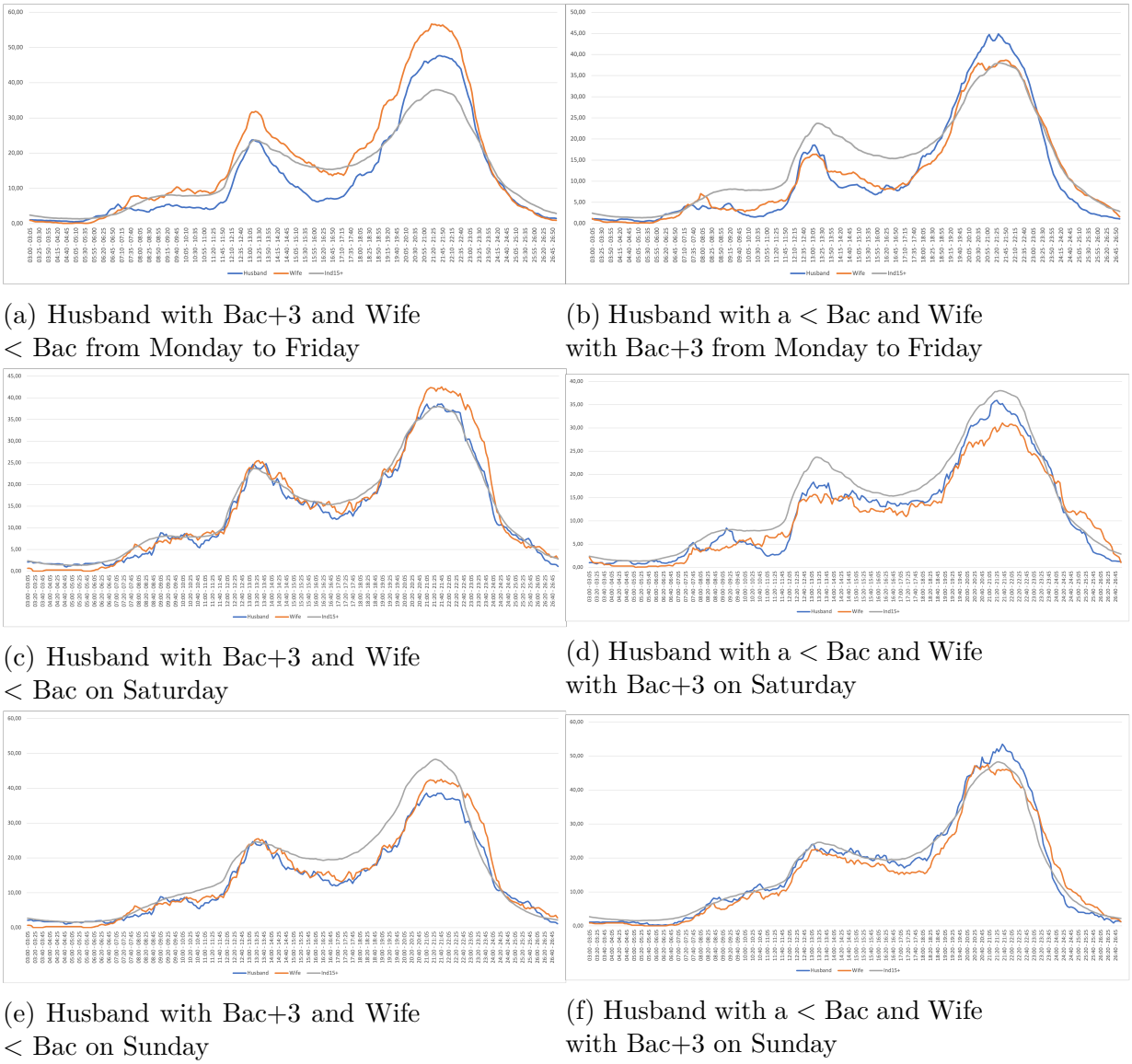


(d) Husband < Bac and Wife with Bac+2

FIGURE 2.9 – Average TV audience rate per 5-minute slot with medium differences in human capital for the month of September 2018 on Sunday in France.
Sources : Médiamétrie

2.3.5 Huge differences in human capital (see Figures 2.10)

When there is huge differences in human capital, and when the husband is more graduated than his wife, they watch less the television together from Monday to Friday than the opposite situation. In addition, they watch more the television From Monday to Saturday than the situation when the wife is more graduated than her husband.



(a) Husband with Bac+3 and Wife < Bac from Monday to Friday

(b) Husband with a < Bac and Wife with Bac+3 from Monday to Friday

(c) Husband with Bac+3 and Wife < Bac on Saturday

(d) Husband with a < Bac and Wife with Bac+3 on Saturday

(e) Husband with Bac+3 and Wife < Bac on Sunday

(f) Husband with a < Bac and Wife with Bac+3 on Sunday

FIGURE 2.10 – Average TV audience rate per 5-minute slot with big differences in human capital for the month of September 2018 from Monday to Friday, on Saturday and on Sunday in France.
Sources : Médiamétrie

2.4 Characterization of solution according to French TV audience data

Consider hereafter a log utility function. According to Theorem 3 the solution is

$$t_i^\star = \frac{p_i}{w_i} - \frac{A}{\phi\left(h_i, x_i\right)} \tag{2.8}$$

$$t_j^\star - t_i^\star = \frac{p_i}{w_i} - \frac{A}{\xi\left(h_i, h_j, x_i, x_j\right)} \tag{2.9}$$

$$\ell_i^\star = \frac{p_i}{w_i} - \frac{A}{\phi\left(h_i, x_i\right)} \tag{2.10}$$

Assume that both spouses share the TV. This means that $x_i = x_j = x$ and $t_j^\star = t_i^\star = t^\star$. Using relation 2.9, we have

$$t_j^\star - t_i^\star = 0 \iff \frac{p_i}{w_i} = \frac{A}{\xi\left(h_i, h_j, x, x\right)},$$

that we replace into (2.8)

$$t^\star = \frac{A}{\xi\left(h_i, h_j, x, x\right)} - \frac{A}{\phi\left(h_i, x_i\right)}$$

Reduce to the same denominator

$$t^\star = A\left[\frac{\phi\left(h_i, x\right) - \xi\left(h_i, h_j, x, x\right)}{\phi\left(h_i, x\right)\xi\left(h_i, h_j, x, x\right)}\right]$$

This proves that the time sharing is a function of the difference in human capital. The economic interpretation is the following. For i to share the TV with j it is necessary that his preference for watching alone the TV is greater than the preference for watching the TV with his/her spouse. In other words, it is necessary that i sufficiently likes watching TV to accept to share TV with his/her spouse.

Define $t_i^\star(h_i, x_j)$ the daily average rate of audience as a function of the individual's human capital h_i and the time slot x_i during the $T = 27$ hours of a day. We are able to reproduce the general shape of $t_i^\star(h_i, x_i)$ according to the previous Graphics, see Section 4.3. Indeed,

$$t_i^\star(h_i, x_i) = \alpha\left(\beta x_i - h_i\right)\cos(T - \gamma x_i) - \sin(T - \gamma x_i) + \delta\sin(x) + a x_i + b \tag{2.11}$$

Making the link with our theoretical model, the time watching the TV alone should equal the previous relation, so that we have

$$\frac{p_i}{w_i} - \frac{A}{\phi\left(h_i, x_i\right)} = \alpha\left(\beta x_i - h_i\right)\cos(24 - \gamma x_i) - \sin(T - \gamma x_i) + \delta\sin(x) + a x_i + b$$

from what we isolate

$$\frac{p_i}{w_i} - (\alpha(\beta x_i - h_i)\cos(T - \gamma x_i) - \sin(T - \gamma x_i) + \delta \sin(x) + a x_i + b) = \frac{A}{\phi(h_i, x_i)}$$

$$\phi(h_i, x_i) = \frac{A}{\frac{p_i}{w_i} - (\alpha(\beta x_i - h_i)\cos(T - \gamma x_i) - \sin(T - \gamma x_i) + \delta \sin(x) + a x_i + b)}$$

Here are some simulations

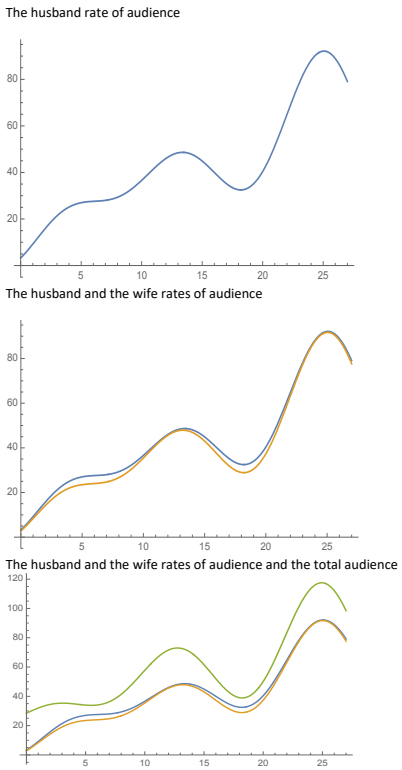


FIGURE 2.11 – Simulation of TV audience rate
Sources : Author's calculation

2.5 Conclusion

This chapter focuses on the economic modeling of family interactions in the context of joint viewing among TV viewing couples. A theoretical model considers the case of a household of two representative individuals. Each individual has his own human capital. He divides his time between 4 sub-times : watching television alone, watching television with the other individual of his household, doing another leisure activity than watching television and working. At the optimum, the optimal time spent watching television alone depends on human capital, and that the optimal time spent watching television with two people depends on the human capital of the two individuals present in the household. It is shown that the preference for watching television alone or together depends on the moment of the day. It is a non linear relation. We empirically verify the conclusions of our theoretical model using Médiamétrie's data on television viewing in France. To do so, we analyze the average audience rate per 5-minute slot on an average day in September 2018 from Monday to Friday, Saturday and Sunday. We vary the education level of the spouse according to 4 brackets. Viewers with more than 3 years of education after high school, those with 2 years of education after high school, those with high school degree and those with less than high school degree. The results show that the decision to watch television together depends on the human capital, the difference in human capital inside the couple, the moment of the day, the moment of the week, and the gender. Our model takes into account all these characteristics and reproduces all the empirical curves.

3 Preference for Media Uses and Weather Conditions : Theory and Evidence from the French TV Audience

3.1 Introduction

This paper answers the following theoretical and empirical questions : what is the theoretical role of the preference for media services in the media user's allocation of leisure time ? How to provide empirical evidence of this preference ?

This paper builds a theoretical model of the media user's behavior in their allocation of leisure time between using a media service and enjoying leisure out of media time. This choice depends on a function that enters the representative media user's utility. This function is the preference for media services which depends on two variables : weather conditions and the liking for media user's utilization of media services which is an individual's characteristic. This function influences the media using. Indeed, a media user with a strong liking for media using wants to spent a longer time using media services compare to a media user who does not like it, regardless of the weather condition. Consequently, the liking for media using is independent on weather conditions. We make no particular assumptions about the way the preference for media services impact the utility of the representative media user. It could either have a positive or negative influence on their utility. Therefore, we highlight its decisive role in the determination of the optimal allocation of time, since it has a deep impact on the media users' choices.

To provide empirical evidences of this preference for media services on media user's utility, we use two panel data sets. The first one is the Médiamétrie's [1] panel. It gathers 26 million observations over the period 2011-2019 measuring TV viewers' daily habits. The second one is the Météo France's [2] panel. It contains daily weather conditions data over the same period. We have run 21 regional regressions on our merged panel data set with individual control variables on panelists. The effects of the preference for media services are directly estimated in our regional regressions. The empirical results are the following.

- The preference for media services is not the same depending on the weather variables used.
- For a given weather condition, the preference for media services varies across french regions. This finding has not yet been made in the literature but is consistent with the work of Chenavaz, Escobar et Rousset 2019 showing that firms would benefit from adapting controllable variables (price, advertising...) according to uncontrollable variables (temperature, rain duration...).

If there are few works which have been interested in the study of television audience (Frey et Benesch 2008 ;Van Reeth 2013), a small literature of three papers have studied the effect of weather conditions on TV audience and shows that weather conditions impacts the utility of watching a given TV channel. (Barnett et al. 1991 ; Roe et Vandebosch 1996 ; Eisinga, Franses et Vergeer 2011). Other works have addressed the issue of mo-

1. Mediamétrie is the company in France that daily publish television audience results, allowing TV channels to calculate the price of an advertisement.
2. Météo France is the company in France that measures weather.

deling the duration of viewing time devoted to television, but without taking into account weather variables. Bryant et Gerner 1981 show the importance of socio-demographic variables in the explanation of this duration. Liebowitz et Zentner 2012 is the only paper that analyses the repartition of leisure time. Using annual American regional data, they show that the development of the Internet has had a negative and significant impact on the time spent watching television. All the previous papers do not conclude on TV viewer's preference.

Our results show the interest for the different players of the television market to take into account the preference for the use of media services. However, all the previous empirical results are obtained over the 2011-2019 period which in France was characterized by a context of untargeted advertising. It is worth noticing that the French regulator authorized targeted TV-advertising on August 6th 2020. Before this date, television channels have been required to broadcast all content (programs, advertising screens, etc.) simultaneously throughout France. In other words, a television channel had to broadcast, at a given time t, the same program or advertising screen over the entire territory, which had two consequences for advertising. First, a television channel could not vary the advertising's price according to regional criteria. Second, advertisers were not allowed to make personalized television advertising at the level of the viewer's household. French decree n°2020-983 of August 6, 2020 now gives television channels the possibility of offering advertisers to target advertising at the level of the viewer's household. Concretely, on the same channel, a household living on the 3rd floor of a building would not see at the same time the same advertising as a household living on the 4th floor of the same building, but both households would see exactly the same programs. This new possibility of targeting would be done thanks to Internet boxes. According to Médiamétrie, more than 60% of French households receive television via one of these boxes. Players in the French television market expected this possibility of targeting viewers more precisely in a context of strong competition in the video market with the GAFAND (Google, Amazon, Facebook, Apple, Netflix, Disney). French Competition Authority also encouraged it, in a notice dated February 21, 2019, recognizing that players such as Google and Facebook took advantage of personalized advertising to the detriment of television channels. This competitive advantage was made possible thanks to the development of very high-speed broadband in France since 2008.

No advertiser, broadcaster or even regulator has taken into account at the same time media users' preference for media services in order to better target them. This is probably because there is no theoretical model that does so. Moreover, information about media viewer's preference for media services utilization is costly to obtain. This paper suggests to use regional weather conditions to solve this problem.

Section 3.2 presents an original analysis of the stylized facts describing the relationship between daily weather conditions and daily television and Section 3.3 presents the general model. Section 3.4 is devoted to empirical results before Section 3.5 concludes.

3.2 The potential role of weather variables in explaining television viewing time

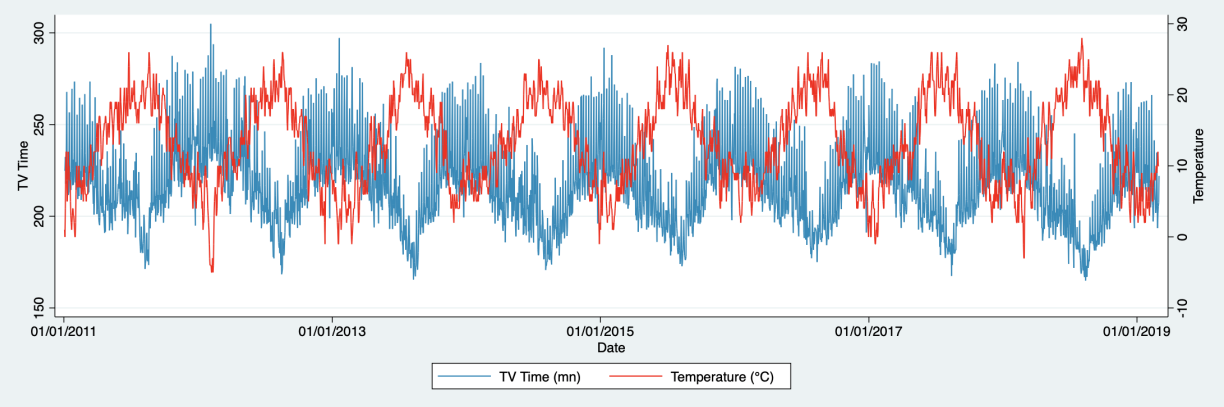
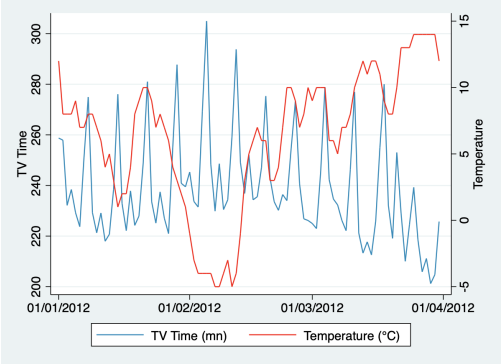


FIGURE 3.1 – Daily live television viewing time per individual and average temperature from 2011 to 2018 in metropolitan France.
Sources : Médiamétrie and Météo France.

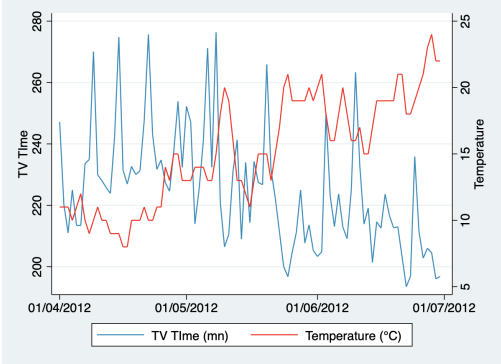
Taking into account weather variables seems relevant to explain regional differences in television viewing times. Figure 3.1 represents the daily television viewing time [3] (blue curve) and the daily temperature (red curve) in metropolitan France between 2011 and 2018. A "mirror" effect is clearly visible between the two curves. More precisely, when it is hot, the audience is at its lowest level, and conversely when it is cold. Figure 3.2 [4] shows the seasonal component for each quarter of the year 2012 (each graph is different) and the effect of temperature on the daily television viewing time per individual. If the weather seems to have an influence on audience results, it is clear that this influence differs according to the french regions. Thus, taking into account uncontrollable regional climatic differences is interesting because it makes it possible to estimate their repercussions on the amount of time an individual spends watching television, which may indirectly affect controllable economic variables such as the price of an advertisement (see CHENAVAZ, ESCOBAR et ROUSSET 2019).

France experienced exceptional and opposite weather conditions for the months of September in 2017 and 2018 (see Table 3.1), as well as for the months of February 2018 and 2019 (see Table 3.2). We note a strong freshness in September 2017 and prolonged heat in September 2018, a cold spell in February 2018 and mild weather in February 2019. This resulted in two significant variations in the daily television viewing time (-17 mn

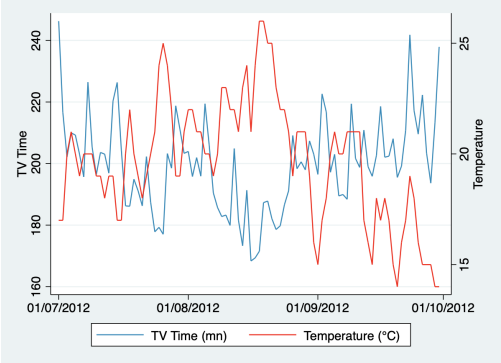
3. See TASSI 2005 for a more in-depth description of television audience indicators.
4. We have chosen to represent the year 2012, considered by Météo France to be the year closest to normal for the period 2011-2019.



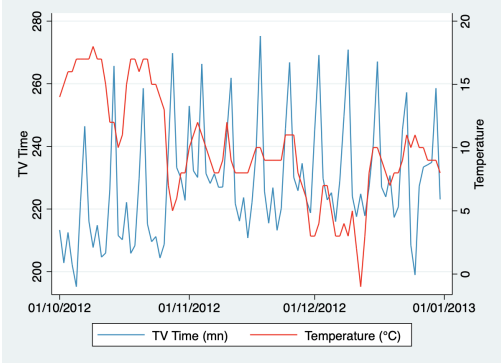
(a) 1st Quarter 2012



(b) 2nd Quarter 2012



(c) 3rd Quarter 2012



(d) 4th Quarter 2012

FIGURE 3.2 – Daily television viewing time per individual and average daily temperature according to the quarters of the year 2012.
Sources : Médiamétrie and Météo France.

Table 3.1 – Comparison of daily TV time par individual in Sept. 2017 and Sept. 2018.

	Sept. 2017	**Sept. 2018**	**Variation**
Average temperature (in °C)	16.42	19.10	+2.67***
Average sunshine duration (in mn)	329.00	491.85	+162.85***
Live TV viewing time per individual (in mn)	199.28	182.23	-17.04***
Cumulative rate (in %)	73.73	70.12	-3.60***

Source : Author's calculation based on data from Médiamétrie and Météo France.

Table 3.2 – Comparison of daily TV time par individual in Feb. 2018 and Feb. 2019.

	Febr. 2018	**Febr. 2019**	**Variation**
Average temperature (in °C)	3.85	8.29	+4.43***
Average sunshine duration (in mn)	241.57	380.96	+139.39***
Live TV viewing time per individual (in mn)	223.69	201.43	-22.25***
Cumulative rate (in %))	76.26	72.92	-3.32***

Source : Author's calculation based on data from Médiamétrie and Météo France.
Note : The stars in Tables 3.1 and 3.2 indicate the level of significance of the Student test between year-to-year variations. : * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

in September 2018 compared to September 2017, -22 mn in February 2019 compared to February 2018) but also in the cumulative rate, that is to say the proportion of people in the population having watched television for at least 1 s (-3.60% in September 2018 and -3.32% in February 2019). These declines that illustrate the role of the weather in explaining television viewing time are particularly worrying for television channels and advertisers. Indeed, this means a decrease in the probability of a viewer watching an advertisement on the television screen. One of the consequences for advertising agencies is the decline in the attractiveness of the television medium (on television screen), which may lead to decisions unfavorable to television channels. Advertisers via advertising agencies will prefer to choose other media. The consequence for television channels is a decrease in the expectation of advertising revenue in the medium term. Advertisers will therefore reach fewer viewers via advertising, which will lead to a decrease in the profitability of their advertising screens and an increase in the cost to GRP [5].

5. The GRP (Gross Rating Point) is an indicator of advertising pressure which corresponds to the average number of advertising contacts obtained per 100 individuals of the target audience. It is used by the entire television market via mediaplanning software in order to compare campaigns or media plans. Mathematically, it is calculated by multiplying the percentage coverage by the average repetition.

3.3 Theory

Consider a static model with complete information and no-uncertainty. Let us denote $\Omega := \{\omega_1, \omega_2, \ldots, \omega_K\}$ the set of all possible weather conditions, where $\omega_k \in \mathbb{R}$, $k = 1, 2, \ldots, K$ captures a given weather conditions. For example $\omega_1 > 0$ represents nice temperature. In the remainder of the paper, the reasoning is as follows. Given some ω_k, a media user optimally chooses how to allocate his time between watching a media and other leisure. For this reason, no probability is assigned to any weather condition. To be clearer, if it is raining, then a media user chooses either or not to use any media. He never asks the following question : what will I do if it is raining ?

3.3.1 The representative individual's optimal time allocation

Assume that a rational representative individual devotes his total available time T between leisure time L and working time $T - L$ paid at the hourly wage w. Leisure is divided between two main categories of time, see Table 3.3 below.

1. The time devoted to use a given media service t_1.

2. The time devoted to the other leisure $L - t_1$.

Table 3.3 – Time decomposition

Leisure devoted to media service	Other Leisure	Working
0 t_1	L	T

3.3.2 The representative individual's preferences

Denote $\psi_m \in \mathbb{R}$ the representative media user's liking for media services. ψ_m is an individual's characteristics independent of any $\omega_k, k = 1, \ldots, K$ as our empirical results suggest it is. We consider that the preference for media services $h(\psi_m, \Omega)$ is a function that enters the representative media user's utility function. It influences the media user's utilization of media services. We do not make any particular assumptions about the way $h(\psi_m, \Omega)$ influences the media user's utility. More precisely it can either have a positive or a negative impact on the media user's utility. Let us illustrate how this function operates. For some media users the preference for media services $h(\psi_m, \Omega)$ corresponds to a disutility (they do not like to spend time on media when it is sunny/when it is rainy) while for others it corresponds to a utility (they do like to spend time on media when it is sunny/when it is rainy).

C is the consumption good an individual consumes during leisure-time and p is its price. Individual's preferences depend on each of the previous sub-times described above. Preferences are represented by a quasi-linear concave utility function of the following form,

$$U(.) = C + V(.),$$

where "." captures all arguments of the functions U and V detailed below. The function V captures the sum of all the various utilities of each sub-time [6]. These utilities are denoted $u(.)$, a C^1 concave utility function in the time spent using media services. Let us present all the various utilities of the individual's time allocation that enter $V(.)$. Define $A \in \mathbb{R}_+$ a parameter capturing the reservation utility of a media user who neither watches advertising, nor uses any of the available media, nor has any non-media leisure. This parameter is crucial for results. Indeed, if $A = 0$ then all solutions are positive and are independent of the preference for media services given weather conditions. Moreover, consider the log utility function. If the viewer chooses not to use media services, then the $\log(0)$ is not defined. Finally, the general case $A \neq 0$ can generate nil solutions. Let us now detail the expressions of $V(.)$.

- $u(A + h(\psi_m, \Omega)t_1))$: utility of time spent on media.
- $u(A + h(\psi_m, \Omega)(L - t_1))$: is the utility of leisure out of media time.

Finally, the general utility $V(.)$ takes the following form :

$$u(A + h(\psi_m, \Omega)t_1)) + u(A + h(\psi_m, \Omega)(L - t_1)).$$

3.3.3 Individual's optimal consumption and time allocation

Given his endogenous total income $(T - L)w$, the consumer's budget constraint is the following : $pC = (T - L)w$. From what we deduce $C = (T - L)\frac{w}{p}$. The rational media user maximizes the following utility :

$$\max_{t_1, \ell} \ (T - L)\frac{w}{p} + V(.).$$

Define $v := u'^{-1}$ and $Z(h(\psi_m, \Omega), w, p) := \frac{1}{h(\psi_m, \Omega))}\left[v(\frac{1}{h(\psi_m, \Omega)}\frac{w}{p}) - A\right]$. Given the parameters and the weather conditions, we have the following Theorem.

Theorem 2. Whatever the utility function, in the individual equilibrium, the optimal media time is equal to $Z(h(\psi_m, \Omega), w, p)$. The optimal media time is decreasing in purchasing power. Leisure time depends on media user's preference for using a media service given a particular weather condition $h(\psi_m, \Omega)$.

6. The choice of a quasi-linear utility function is motivated by the fact that the equivalent variation, the compensating variation and the surplus are all equivalent in term of welfare.

Optimal media time
$t_1{}^\star = Z(h(\psi_m, \Omega), w, p)$.
Optimal leisure out of media time

$$L - t_1{}^\star = L - Z(h(\psi_m, \Omega), w, p)$$

.

3.4 Empirical Results

3.4.1 Data description

To estimate the preference for television use, we have a combination of two panel data sets. The first one relates to the daily TV audience, the second one relates to the daily weather conditions.

1. The first data set is the Médiamétrie's panel related to the French daily Television audience which covers the period January, 3rd 2011 to March, 2nd 2019 (2981 days). In our theoretical model, it corresponds to the variable t_1.

2. The second data set is the Météo France's panel, related to the daily weather conditions. Data comes from more than 90 stations throughout the French territory, represented by a red dot in Figure 3.3. It contains the daily averages of temperature [7] (in $°C$), sunshine duration (in mn), rain duration (in mn), average rainfall (in mm) and wind speed (in km/h). For each region and for each weather condition variable, we calculated the average of all the stations. In our theoretical model, it corresponds to the variable $\omega_k, k = 1, \ldots, 5$.

The database contains the individual measurement of daily television consumption of 24,334 panelists over the period 2011 - 2019 in France. The database is anonymized in order to comply with French and European regulations.

The dependent variable is the daily viewing time per individual (in mn). More precisely, it is the total time each panelist spends watching live television every day (including programs and advertising screens). The audience measurement convention defined by the french television market concerns television on home TV for people aged 4 years old and over. These individual data enable the calculation of audience indicators used by all the players in the television market and can be obtained per channel, per program or per moment : average audience rate, number of viewers per second of a program, viewing time per individual, audience share, etc. More precisely, it is the GRP (Grow Rating Point), that is to say the average number of contacts per individual during an advertising campaign,

7. Average of the minimum and maximum temperatures daily observed.

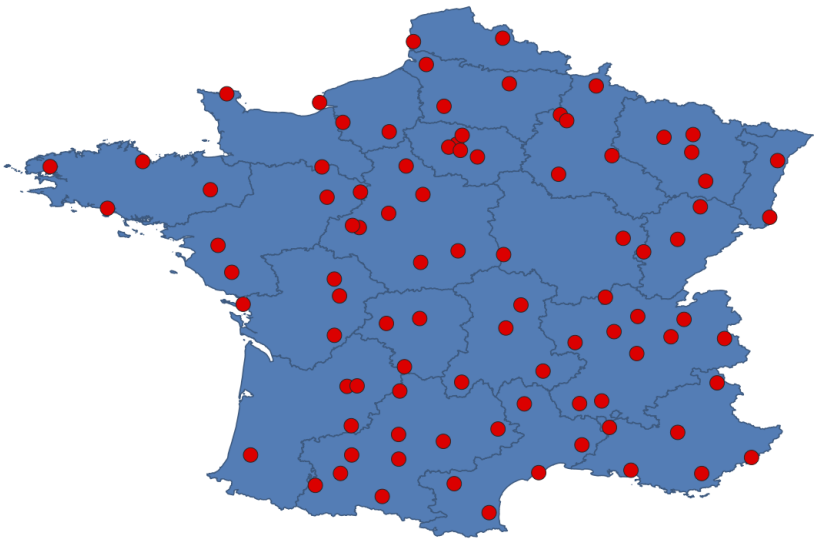


FIGURE 3.3 – Location of Météo France's stations in our data base

and the coverage, which are used by the advertising market profession. Both indicators are calculated on the basis of these individual data.

In the Médiamétrie's panel, there are four different individual's situations impacting the four dependent variables. On the one hand, in its calculation of the total audience, Médiamétrie takes into account 2 types of individuals who do not watch TV : the first type concerns panelists who are present at home without switching their television set on all the day long, the second type concerns all the members of a household who are referred as being on holiday or absent for a week-end. For both these situations, the value 0 is indicated in the dependent variable. On the other hand, there are two other types of situations : the first one corresponds to the case where Médiamétrie is unable to collect the audience data recorded in the audimeter for technical reasons, the second one corresponds to the Médiamétrie's decision to suspend a household due to inaccurate information reported in the audimeter (wrong connection, for example). For these households, the missing value is indicated in the dependent variable.

The independent variables used in the regressions are the following. TS_{it} is the daily time-shifting (in mn), and $OTVU_{it}$ the total daily time (in mn) devoted to any other screen media that are not TV channels (Video games, SVOD, AVOD, etc.). Subscript j captures a given region, $j = 1, \ldots, 21$. Ω_{kjt} is a set of $\omega_{kjt}, k = 1, \ldots, 5$ weather conditions explanatory variables measured for region j on day t where individual i resides. According to the theoretical model : ω_{1jt} is the average temperature (in $°C$), ω_{2jt} captures the sunshine duration (in mn), ω_{3jt} the rainfall (in mm), ω_{4jt} the wind speed (in km/h), and ω_{5jt} the

rain duration (in mn) [8].

X_{ita} is a set of A explanatory control variables ($a = 1, \ldots, A$) describing individual i, including : gender, age group (7 categories : $4-10$ years, $11-14$ years, $15-24$ years, $25-34$ years, $35-49$ years, $50-64$ years, 65 years and over), socio-professional category (10 categories : farmers, craftsman/craftswoman-manager, managerial staff-senior professionals, intermediate professions, employees, skilled workers, unskilled workers, retired, students, other inactives), average weekly working time (7 categories : unemployed persons who already have worked in the past, persons looking for a first job, full-time employees, part-time employees (0-9h59 ; 10h00-19h59 ; 20h00-29h59 ; 30h or more), other inactive persons), gross monthly household's income (9 categories : less than 600 €, from 600 to less than 900 €, from 900 to less than 1200 €, from 1200 to less than 1500 €, from 1500 to less than 2300 €, from 2300 to less than 3000 €, from 3000 to less than 4500 €, from 4500 to less than 7000 €, 7000 € and more), the type of Internet connection (5 categories : no Internet access, cable, ADSL, optic fibers, others) and the region of residence in metropolitan France (21 regions : Ile-de-France, Champagne-Ardenne, Picardie, Haute-Normandie, Centre, Basse-Normandie, Bourgogne, Nord-Pas-de-Calais, Lorraine, Alsace, Franche-Comté, Pays de la Loire, Bretagne, Poitou-Charentes, Aquitaine, Midi-Pyrénées, Limousin, Rhône-Alpes, Auvergne, Languedoc-Roussillon and Provence-Alpes-Côte d'Azur (PACA)). $month_{ip}$ is an indicator variable for each individual i where $p = 1, \ldots, 108$ corresponds to one of the 108 months over the period 03/01/2011 to 02/03/2019. The purpose of introducing this variable is to neutralise the seasonal component present in our data, as well as some current events that may justify an exceptional increase in the time devoted to watch television (Football World Cup, Olympic games, tennis tournaments, Tour de France...). Day_{id} is an indicator variable, where subscript $d = 1, \ldots, 7$ captures each of the 7 named days of the week. We introduce this variable in order to take into account the programing effect which is not the same depending on the day of the week. For example, there are no films aired on Wednesdays in France in order to respect competition with movie theaters. In addition, this variable takes into account some days of the week that are very specific to the French society : Saturday and Sunday are rest days, and Wednesday is a rest day for children. Finally u_{it} is the error term.

Unfortunately, some variables of interest such as individual daily time spent surfing on the Internet, daily time spent watching an SVOD program, household equipment (number and age of smartphones, computers, tablets) and municipality of residence are not available in this database. More formally, we estimate separately for each region the four dependent variables y_{jit} with the autoregressive fixed-effect (see Appendix A.2 for its justification) as

8. The two rain variables have been dissociated in order not to confused them.

follows, where $\sigma_j, \iota_j, \kappa_j, \beta_{kjt}, \beta_{aj}, \beta_{pj}$ and β_{dj} are estimated parameters :

$$y_{jit} = \sigma_j y_{jit-1} + \iota_j \text{TS}_{jit} + \kappa_j \text{OTVU}_{jit} + \sum_{k=1}^{5} \beta_{kj} \omega_{kjt} + \sum_{a=1}^{K} \beta_{aj} X_{ajit} + \sum_{p=1}^{P} \beta_{pj} \text{Month}_{pji} + \sum_{d=1}^{D} \beta_{dj} \text{Day}_{dji} + u_{jit}. \quad (3.1)$$

Note that in our theoretical model we have considered the preference for media services as a function $h(\psi_m, \Omega)$. In order to estimate its influence on the time spent watching television, we estimate an affine function of it, say $\hat{h}(\hat{\psi}_m, \Omega)$. For doing that, we split ψ_m into two proxies : the habit of watching television $\hat{\psi}_m^1 := y_{jit-1}$, and the time shifting $\hat{\psi}_m^2 := \text{TS}_{it}$. Weather conditions are captured by ω_{kjt}. Consequently, $\hat{h}(\hat{\psi}_m, \Omega) = \sigma_j y_{jit-1} + \iota_j \text{TS}_{it} + \sum_{k=1}^{5} \beta_{kjt} \omega_{kjt}$.

The Médiamétrie's panel must be permanently representative of the French population having a television set at home. A particularity of the Médiamétrie's panel is that it is rotating. Indeed, if the situation of household $\mathcal{H}_0$ has changed, it is likely to be replaced by household $\mathcal{H}_1$. This happens for instance in the following cases : arrival of a child, house move, or change in the salary category, etc. Since these situations may alter the representativeness of the panel, if it happens then the Médiamétrie's policy is to exclude $\mathcal{H}_0$ from the panel. Thus, our panel is unbalanced insofar as the individuals present do not have the same length of participation and therefore do not have the same number of observations over time. Biørn 1981 distinguishes two cases in the literature : complete overlapping, where all the panelists are replaced by other panelists, and partly overlapping, where some of the panelists are replaced by other panelists. In our case, we do not know which incoming panelist was chosen to replace a particular outgoing panelist, but we know why. Therefore, we are facing with an unbalanced panel and not with a rotating panel in the traditional sense. Since we know why an individual enters or exits the panel, we use classical estimation methods in panel data. For more details on rotation in our panel data, see Figure A.1 in Appendix A.1. On average, a panelist is present 1067 days (compared to $\mathcal{T} = 2981$ days in the 2011-2019 period).

3.4.2 Results and Discussion

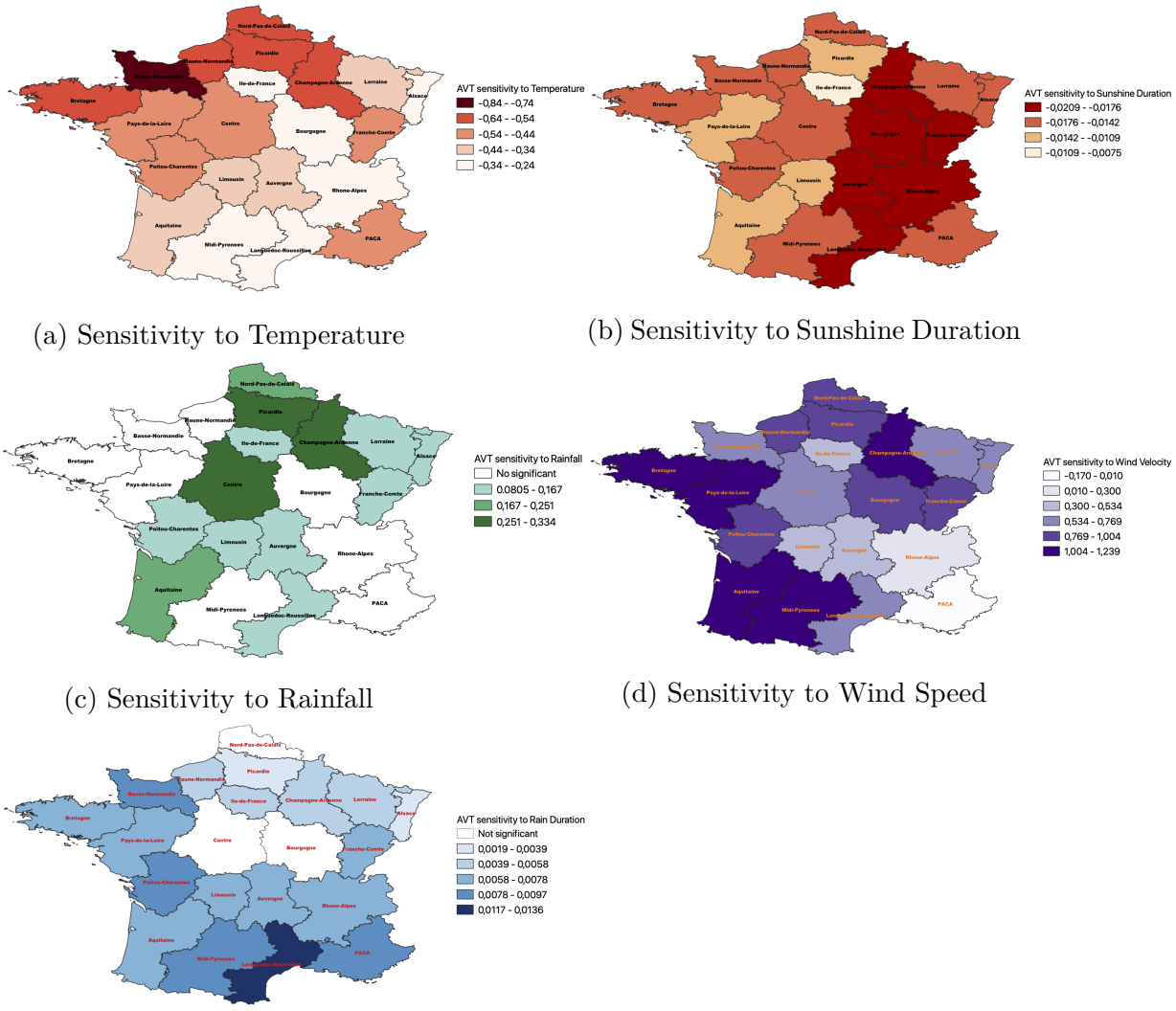
In the remainder of the paper, we estimated the autoregressive fixed-effects model for each of the 21 regions using the Within estimator with standard deviations adjusted for heteroskedasticity problems. The results for continuous variables are available in Table 3.4 below.

	(1) (IDF)	(2) (C-A)	(3) (PIC)	(4) (H-N)	(5) (CEN)	(6) (B-N)	(7) (BOU)	(8) (N-P-C)	(9) (LOR)	(10) (ALS)	(11) (F-C)
Lagged Live Daily TV viewing time	.433008***	.4100313***	.3719027***	.4083145***	.4095752***	.3970986***	.3839361***	.3906805***	.4010332***	.3798196***	.3658819***
	(.0062164)	(.0108824)	(.0083464)	(.0124044)	(.0074693)	(.0125299)	(.0105692)	(.0069875)	(.0108099)	(.0085228)	(.0139939)
	69.66	37.68	44.56	32.92	54.83	31.69	36.33	55.91	37.10	44.57	26.15
Time-Shifting (in mn)	.1911392***	.0962754***	.2123524***	.1656698***	.1573841***	.1184772***	.2425689***	.2231354***	.0990677***	.1476861***	.1472829***
	(.0136122)	(.033346)	(.0262342)	(.0362432)	(.0227278)	(.0297745)	(.0350643)	(.0202921)	(.0238571)	(.0252654)	(.0403544)
	14.04	2.89	8.09	4.57	6.92	3.98	6.92	11.00	4.15	5.85	3.65
OTVU (in mn)	.0217019***	-.0614888***	-.00969	-.0596498***	-.026988**	-.0467977**	-.0774838***	-.0526834***	-.0461451***	-.0347376**	-.0515215***
	(.0068756)	(.013709)	(.014899)	(.0164453)	(.0115029)	(.0227105)	(.0167869)	(.0100912)	(.0144823)	(.0150701)	(.0181121)
	3.16	-4.49	-0.65	-3.63	-2.35	-2.06	-4.62	-5.22	-3.19	-2.31	-2.84
ω_1 : **Temperature (in °C)**	-.3195886***	-.5873487***	-.619308***	-.6387506***	-.4800834***	-.8405978***	-.2758019***	-.612448***	-.4173009***	-.2409046***	-.4691561***
	(.0240055)	(.0641602)	(.0525606)	(.061926)	(.0391691)	(.0708827)	(.0520656)	(.0435361)	(.0456433)	(.0392897)	(.0617602)
	-13.31	-9.15	-11.78	-10.31	-12.26	-11.86	-5.30	-14.07	-9.14	-6.13	-7.60
ω_2 : **Sunshine duration (in mn)**	-.00752***	-.0195732***	-.0135851***	-.0150912***	-.0149878***	-.015475***	-.0194018***	-.0153325***	-.0168789***	-.015622***	-.0209195***
	(.0003961)	(.0012935)	(.0009924)	(.0010853)	(.0007303)	(.0012865)	(.0012306)	(.0007522)	(.0011173)	(.0009646)	(.0014243)
	-18.98	-15.13	-13.69	-13.90	-20.52	-12.03	-15.77	-20.38	-15.11	-16.19	-14.69
ω_3 : **Rainfall (in mm)**	.0815338***	.2856526***	.3335926***	.0432507	.2781206***	-.0156007	.084895	.2195252***	.1020871*	.0804826*	.1146787*
	(.0289878)	(.0806307)	(.070569)	(.078523)	(.0510844)	(.0807338)	(.0683116)	(.0448099)	(.0606542)	(.0478549)	(.0656542)
	2.81	3.54	4.73	0.55	5.44	-0.19	1.24	4.90	1.68	1.68	1.75
ω_4 : **Wind speed (in km/h)**	.3864752***	1.121433***	.8219701***	.8372536***	.6490102***	.6802948***	.8043569***	.8729387***	.7176996***	.607742***	.8466978***
	(.056766)	(.1422439)	(.1011244)	(.1144421)	(.0846094)	(.121325)	(.1503725)	(.0769742)	(.1146317)	(.1176993)	(.1788083)
	6.81	7.88	8.13	7.32	7.67	5.61	5.35	11.34	6.26	5.16	4.74
ω_5 : **Rain duration (in mn)**	.0054345***	.0047045***	.0030906**	.0055561***	.0011527	.0084928***	.0057563***	.0014984	.0047688***	.0036035***	.0067388***
	(.0006534)	(.0016855)	(.0015735)	(.0016147)	(.0011688)	(.0018463)	(.001535)	(.0010526)	(.0012232)	(.0009196)	(.0017112)
	8.32	2.79	1.96	3.44	0.99	4.60	3.75	1.42	3.90	3.92	3.94
Intercept	94.69027***	132.3007***	124.0541***	83.65449***	113.7782***	137.6681***	125.115***	133.2826***	122.8616***	77.20179***	125.5985***
	(8.828761)	(16.43521)	(14.09283)	(15.99362)	(10.00816)	(16.57961)	(14.16699)	(12.23111)	(12.49104)	(13.79498)	(14.6086)
	10.73	8.05	8.80	5.23	11.37	8.30	8.83	10.90	9.84	5.60	8.60
Number of observations	3,586,309	664,921	877,521	763,181	1,645,520	581,574	779,501	1,616,231	959,773	1,044,981	550,293
Number of groups	3,470	634	937	785	1,481	595	768	1,695	961	965	572
R-squared for overall model : R^2_O	0.43	0.37	0.33	0.43	0.41	0.38	0.36	0.42	0.46	0.40	0.21
R-squared for between model : R^2_B	0.89	0.70	0.69	0.90	0.86	0.71	0.74	0.83	0.94	0.84	0.28
R-squared for within model : R^2_W	0.21	0.19	0.16	0.18	0.18	0.18	0.17	0.17	0.18	0.16	0.16
Panel-level standard deviation : σ_u	87.91	103.87	110.07	97.64	100.34	113.95	115.86	108.51	97.45	91.90	129.99
Standard deviation of ϵ_{it} : σ_e	139.54	145.12	147.70	140.68	145.36	143.02	143.77	152.87	142.06	127.19	140.10
Intraclass correlation : ρ	0.28	0.34	0.36	0.33	0.32	0.39	0.39	0.34	0.32	0.34	0.46

	(12) (P-D-L)	(13) (BRE)	(14) (P-C)	(15) (AQU)	(16) (M-P)	(17) (LIM)	(18) (R-A)	(19) (AUV)	(20) (L-R)	(21) (PACA)
Lagged Live Daily TV viewing time	.3950521***	.3972698***	.4079932***	.4190063***	.4162481***	.3873793***	.394013***	.4112863***	.433738***	.4137685***
	(.0073366)	(.006596)	(.0092929)	(.008383)	(.0079323)	(.011698)	(.0072213)	(.0120644)	(.0091897)	(.0068652)
	53.85	60.23	43.90	49.98	52.48	33.12	54.56	34.09	47.20	60.27
Time-Shifting (in mn)	.1917192***	.1220197**	.1370491***	.1494358***	.1435932***	.1424283***	.1532684***	.1599419***	.065233**	.1771776***
	(.022495)	(.050619)	(.0292598)	(.0217953)	(.0215418)	(.0352163)	(.0202129)	(.0368913)	(.0301807)	(.0202394)
	8.52	2.41	4.68	6.86	6.67	4.04	7.58	4.34	2.16	8.75
OTVU (in mn)	-.0434516***	-.0777211***	-.0670563***	-.0569658***	-.0217618*	-.0402395	.0087955	-.1011263***	-.0799448***	-.0254193**
	(.0125548)	(.0126128)	(.0160184)	(.012182)	(.0127553)	(.0251641)	(.009094)	(.0202216)	(.014625)	(.0112818)
	-3.46	-6.16	-4.19	-4.68	-1.71	-1.60	0.97	-5.00	-5.47	-2.25
ω_1 : **Temperature (in °C)**	-.5112951***	-.6278257***	-.5112902***	-.4098785***	-.2631725***	-.351624***	-.2727286***	-.4218557***	-.2836119***	-.4864612***
	(.039476)	(.0490249)	(.0573461)	(.0455282)	(.0380904)	(.0737845)	(.0293214)	(.0590437)	(.0517316)	(.0451644)
	-12.95	-12.81	-8.92	-9.00	-6.91	-4.77	-9.30	-7.14	-5.48	-10.77
ω_2 : **Sunshine duration (in mn)**	-.0137706***	-.0175186***	-.0161557***	-.0137082***	-.0168326***	-.014213***	-.0185788***	-.0194092***	-.0186762***	-.0162637***
	(.0006944)	(.0008816)	(.0011507)	(.0008329)	(.0009292)	(.0014366)	(.0007347)	(.0013601)	(.0011101)	(.0008492)
	-19.83	-19.87	-14.04	-16.46	-18.11	-9.89	-25.29	-14.27	-16.82	-19.15
ω_3 : **Rainfall (in mm)**	.0510804	.0087374	.1607547**	.1887681***	-.0416669	.1544759**	.0207527	.1418938**	.1062301*	.03832
	(.0422536)	(.0540438)	(.0634156)	(.051299)	(.0537604)	(.0767227)	(.0283039)	(.0621333)	(.0573554)	(.0341073)
	1.21	0.16	2.53	3.68	-0.78	2.01	0.73	2.28	1.85	1.12
ω_4 : **Wind speed (in km/h)**	1.035831***	1.05197***	.868648***	1.085694***	1.23863***	.4892477**	.2574111***	.5231867***	.5542704***	-.1696697***
	(.0933458)	(.0887915)	(.1168918)	(.1371381)	(.1211565)	(.2183772)	(.0947039)	(.1732759)	(.1201157)	(.0430917)
	11.10	11.85	7.43	7.92	10.22	2.24	2.72	3.02	4.61	-3.94
ω_5 : **Rain duration (in mn)**	.0074881***	.006892***	.0077787***	.0066598***	.0090943***	.0076801***	.0060926***	.005958***	.013605***	.0088027***
	(.0010638)	(.0012454)	(.0018011)	(.001265)	(.0014412)	(.0017586)	(.0008789)	(.0016419)	(.0019358)	(.0013318)
	7.04	5.53	4.32	5.26	6.31	4.37	6.93	3.63	7.03	6.61
Intercept	122.0624***	122.3944***	151.2106***	124.0649***	102.7789***	133.7586***	126.7924***	123.0082***	160.7346***	144.6099***
	(11.89394)	(10.79551)	(18.08182)	(11.01789)	(12.27532)	(24.25853)	(9.343083)	(15.90393)	(13.24383)	(9.947531)
	10.26	11.34	8.36	11.26	8.37	5.51	13.57	7.73	12.14	14.54
Number of observations	1,574,069	1,286,027	840,614	1,361,359	1,253,081	335,514	2,277,070	572,069	884,166	1,814,659
Number of groups	1,625	1,378	834	1,408	1,210	332	2,388	635	944	1,732
R-squared for overall model : R^2_O	0.42	0.40	0.39	0.38	0.39	0.33	0.41	0.45	0.39	0.44
R-squared for between model : R^2_B	0.86	0.81	0.75	0.77	0.77	0.59	0.87	0.94	0.74	0.89
R-squared for within model : R^2_W	0.17	0.18	0.19	0.20	0.19	0.18	0.17	0.20	0.21	0.19
Panel-level standard deviation : σ_u	95.72	105.61	115.72	104.58	99.51	127.14	94.83	84.08	104.44	101.86
Standard deviation of ϵ_{it} : σ_e	138.71	139.47	146.90	141.17	137.56	133.48	139.50	141.85	146.05	144.47
Intraclass correlation : ρ	0.32	0.36	0.38	0.35	0.34	0.48	0.32	0.26	0.34	0.33

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

TABLE 3.4 – By regions : Results of the autoregressive fixed-effects model corrected for heteroskedasticity problems



(a) Sensitivity to Temperature

(b) Sensitivity to Sunshine Duration

(c) Sensitivity to Rainfall

(d) Sensitivity to Wind Speed

(e) Sensitivity to Rain Duration

FIGURE 3.4 – Regional preference for Television viewing given weather variables. Sources : Author's calculation based on data from Médiamétrie and Météo France.

Let us start by interpreting the regional preference for television use given weather conditions. For each weather variable, we have represented the preference for television viewing on a map to facilitate interpretation. Thus, the coefficient associated with temperature (see Figure 3.4a) for the Basse-Normandie region can be interpreted as follows : a one-degree increase in temperature reduces the television viewing time by 50 s (0.841 mn). Overall, we can distinguish a group of regions (Basse-Normandie, Haute-Normandie, Bretagne, Picardie, Nord-Pas-de-Calais) in the North-West of France for where panelists are more sensitive to a variation in temperature (the coefficient varies between 0.54 and 0.64 mn). These regions have an oceanic climate characterized, according to Météo France,

by mild temperatures and relatively abundant rainfall. Next comes a second group of regions, which is slightly less sensitive than the previous group (Pays-de-la-Loire, Poitou-Charentes, Centre, Franche-Comté, PACA). The coefficients varies between 0.44 mn and 0.55 mn. A third group is composed of the Aquitaine, Limousin, Auvergne and Lorraine regions, regions for which the coefficients varies between 0.34 and 0.44 mn. Finally, the last group is the least sensitive to a rise in temperature (Midi-Pyrénées, Languedoc-Roussillon, Rhône-Alpes, Bourgogne, Alsace, Ile-de-France) with a coefficient lower than 0.34 mn.

The coefficient associated with the duration of sunshine (see Figure 3.4b) for the Franche-Comté region can be interpreted as follows : an increase in the duration of sunshine of 1 mn reduces television viewing time by 1.2 s (0.0209 mn). One can distinguish the regions in the east of France where panelists are more sensitive to variations in the duration of sunshine than the regions in the west. The explanation may come from the fact that the sun sets later in the west of France than in the east.

The coefficients associated with rainfall (see Figure 3.4c) are not significant for 8 of the 21 regions, with the exception of Nord-Pas-de-Calais, Picardie, Ile-de-France, Champagne-Ardenne, Centre, Franche-Comté, Lorraine, Alsace, Aquitaine, Poitou-Charentes, Limousin, Auvergne, and Languedoc-Roussillon. The coefficient associated with the Picardie region can be interpreted as follows : an increase in rainfall of 1 mm increases the television viewing time by 20 s (0.334 mn). We distinguish a group of regions (Picardie, Centre, Champagne-Ardenne, Nord-Pas-de-Calais) where panelists are more sensitive to rainfall than the others.

The coefficient associated with wind speed (see Figure 3.4d) for the Midi-Pyrénées region can be interpreted as follows : an increase in wind speed of 1 km/h increases the television viewing time by 1 mn and 14 s (1.239 mn). Among the regions where panelists are more sensitive to wind speed, we find at the top of the list the oceanic climate regions (Aquitaine, Poitou-Charentes, Pays de la Loire, Bretagne) which experience disturbances coming from the Atlantic Ocean, sometimes resulting in violent winds. Panelists who are living in the Midi-Pyrénées region, which is close to the Aquitaine region, are also sensitive to wind speed. The coefficients in the Northeast regions such as Champagne-Ardenne is equally sensitive. It should be noted that the PACA region has a coefficient of opposite sign compared to the coefficients of the other regions. For example, an increase in wind speed of 1 km/h reduces the television viewing time by 10 s (0.170 mn). The explanation may come from the fact that the wind clears the sky and brings good weather.

The coefficient associated with the duration of rainfall (see Figure 3.4e) for the Languedoc-Roussillon region can be interpreted as follows : an increase in the duration of rainfall of 1 mn increases the television viewing time by 0.8 s (0.0136 mn). For this parameter, panelists who are living in regions close to the coasts are more sensitive, especially those in the south of France such as the Languedoc-Roussillon, Midi-Pyrénées and PACA regions. These three regions have a Mediterranean climate, characterized by a high level of sunshine and few rainy days. Nevertheless, these regions experience thunderstorms where it can fall nearly 40% of the total annual rainfall in three months.

Now, let us describe the regional liking for television use, i.e ψ_m in our theoretical model. As explained in the previous section, we can use two proxies to approximate this liking : the habit formation coefficient σ_j and the time-shifted viewing coefficient ι_j.

One minute of television watched by viewers the day before, in $t-1$, increases the time of television watched on day t by between 0.366 mn and 0.434 mn depending on the region These coefficients σ_j reflect the habit effect of watching television regularly and show various behaviors across regions.

When viewers watch TV on a delayed basis for 1mn, the time spent on TV increases between 0.0652 mn and 0.243 mn. These coefficients ι_j show various behaviors across french regions. Indeed, regions with a high ι_j like less television than those with a low ι_j.

3.5 Conclusion

This paper proposes a theoretical model of the media user's behavior in their allocation of leisure time between using a media service and enjoying leisure out of media time. This choice depends on their preference for media services that is a function of two variables : weather conditions and the liking for media services' utilization. If the preference for media services is a non available variable to advertisers, broadcasters or regulators, then we propose to use weather conditions in order to highlights its influence.

An econometric test on French data aims at showing that preference for television exists. We have merged two panel data sets. The first one is the Médiamétrie's panel. It contains 26 million observations over the 2011-2019 period measuring the French TV daily viewing habits. The second one is the Météo's France panel which contains daily weather conditions over the same period. Preference for television varies across french regions and weather variable.These disparities are more or less strong depending on the climate in which the regions are located. This proves that climate-related regional disparities in metropolitan France can modify television viewer's preference in watching television. Consequently, it is very important for advertisers, broadcasters and regulators to take into account our results prior to targeting an audience.

4 Multi-Sided Media Markets and Preference for Advertising : Theory and Evidence from the French TV Audience

Co-écrit avec Damien Gaumont et Yassine Badra

4.1 Introduction

This paper is threefold. It uses standard microeconomic endogenous labor supply and demand for leisure, industrial organization with multi-sided media markets and marketing with advertising. It answers the following questions in the context of advertising duration regulation : What is the role of the media user's preferences for advertising and for media services given weather conditions for the regulator, the broadcaster, the producer/advertiser and the media user in the determination of the equilibrium of the multi-sided media market ? Do media users like advertising ? What are the differences between preference for advertising and taste for advertising ? The taste for advertising being a crucial theoretical and empirical question, especially for targeted advertising. This paper answers these questions and builds a normative theoretical model of the general functioning of multi-sided media [1]markets.

In the real world, regulator, broadcasters, producer/advertisers and media users are so strongly interconnected that a multi-sided media market model is needed to have a comprehensive understanding of the complete functioning of these markets. In many countries in general, advertising slots are sold through an upfront market, often months before the weather condition can be forecasted. Our normative static model underlines the impact of the preference for advertising and media content in multi-sided media market equilibrium. Our theoretical conclusion should help designed proper targeted advertising.

From a theoretical point of view we solve our model by using a backward induction technique. Beginning with the media users' behavior, we show that their leisure time devoted to media is shared between watching advertising and using media services. This choice depends on weather conditions, on their tastes for advertising and media uses. Consequently, we highlight the decisive role of all of them in the determination of equilibrium, since they have a deep impact on the media users', advertisers', broadcasters' and regulators' choices.

So far the literature relating to advertising audience has focused on the consequences of two major hypotheses. The first one assumes that media users dislike or are indifferent to advertising and avoids mentioning the impact of weather conditions on advertising audiences. In this line of research, few papers acknowledge that media users like it (see Section 4.2 for more details). The second one, which is only used in few papers, considers weather conditions as a determining factor of TV ratings, but leaves the media user's advertising tastes aside.

Our paper encompasses all these approaches and enlarges them. Indeed, we consider that two functions enter the representative media user's utility function. The first one is the preference for advertising given weather conditions. This preference for advertising is a function of two variables : weather conditions and the taste for advertising which

1. For the remainder of the paper, we call media any process allowing the distribution, broadcasting or communication of works, documents, or audio or audiovisual messages (press, cinema, poster, radio broadcasting, television broadcasting, TV channels, videography, cable television, telematics, telecommunication, svod, avod, audiomarkets).

is an individual's characteristic. This function influences the advertising viewing. Indeed, a media user with a strong taste for advertising wants to spent a longer time watching advertising compare to a media user who does not like it, regardless of weather conditions. Consequently, the taste for advertising is independent on weather conditions. The second function is the preference for media services given weather conditions. It also depends on two variables : weather conditions and the taste for media services which is also an individual's characteristic. Like advertising does, it influences the media user's utilization of media services. We make no particular assumptions about the way these two functions impact the utility of the representative media user. They could either have a positive or negative influence on their utility. Therefore, the advertisers' and broadcasters' profit as well as the regulator welfare function are truly modified. In equilibrium, we have the following theoretical results.

- The representative media user's optimal time spent viewing advertising is independent on the aired advertising whether it is distributed by any private or public regulated or unregulated broadcaster. The demand for leisure is increasing in the optimal time spent on media out of advertising. The pure leisure out of any media uses is decreasing in the advertising aired on non-pay private unregulated media. Whatever weather conditions, whether or not media users like or dislike advertising, the utility of the time spent viewing a regulated advertising is a constant.
- The producer/advertiser chooses the quantity of goods to produce, then the length of his advertising spot taking into account the media user's solution and finally the number of times its is distributed by broadcasters. The optimal length of an advertising spot varies whether it is aired by a regulated or unregulated broadcaster. Moreover, depending on parameters values the advertiser can choose to advertise or not his product whether it is advertised throughout a regulated or unregulated broadcaster. If he advertises it, the producer/advertiser's advertising spot duration is greater than the media user's time spent watching advertising. Surprisingly enough, the number of repetition of the advertising spot is independent on the preference to media services but depends on the preference for advertising given weather conditions, something which is in practice not very well understood.
- In market equilibrium, depending on parameters values, the broadcaster price for one spot of advertising varies whether it is regulated or unregulated. As the advertiser optimal repetition of the advertising, its price is independent on the preference for media services but depends on the preference for advertising given weather conditions. .
- Like the market solution, the regulator chooses a welfare maximizing aired advertising on public regulated media that is dependent only on the preference for advertising given weather conditions. Such a result explains why some regulators operate a targeted advertising policy. The welfare maximizing aired advertising can either be above or below the market solution. In addition, the regulator generically chooses a welfare maximizing aired advertising that could be lower or higher than the one the media

users watch or the one the broadcasters air.
Since the time spent watching advertising, the length and the repetition of an advertising spot on unregulated media markets and the welfare maximizing aired advertising depend on whether or not media users like or dislike advertising, the crucial empirical question for all decision makers is : do media users like or dislike advertising ?

To answer this question, we test our theoretical conclusions on a medium whose functioning matches our theoretical model in order to conclude on the relevance of our hypotheses. The television market works exactly the same way. Indeed, on TV markets, viewers [2], advertisers, broadcasters are strongly inter-connected and the advertising can either be regulated or unregulated whether it is private or public TV channels. If the preference for advertising and the preference for media services given weather conditions are significant on this particular media market, then we expect that they are also significant on other ones.

To show that their effects are significant on the multi-sided TV market, we use two panel data sets. The first one is the Médiamétrie's panel. It gathers 15 million observations over the period 2011-2017 measuring TV viewers' daily habits in the context of untargeted advertising [3]. The second one is the Météo France's panel. It contains daily weather conditions data over the same period. Though information about the TV viewers' taste for advertising was not requested from them, by merging these two panel data sets, we use quantiles on the average daily time spent on advertising conditional to TV program viewing (Table 4.1) as well as regional descriptive statistics on weather conditions (Table 4.3, Section 4.5) to prove its existence.

In Table 4.1, the first row and the first column are read as follows : a viewer who watches on average less than 25.50 mn of private TV program also watches 5.43 mn of advertising in Ile-de-France. The differences in the number of minutes spent watching advertising across the 21 French regions in each column prove the existence of a regional taste for advertising. The differences by quantiles and whether it is a private or public TV channels prove the existence of a regional taste for TV program. If we consider weather conditions as the only parameter representing TV preference, then at first sight, we should observe that when weather conditions are pleasant, TV viewing is low. However, we do not observe this kind of simplistic relationship. This means that beyond the weather conditions, there is at least one other parameter that counteracts the effects of weather on TV viewing. Thus, we show the important role of taste in explaining the TV audience. Moreover in Section 4.5, Table 4.3 shows the two following results.

1. If we consider two regions sharing identical weather conditions, the minutes spent watching advertising differ across regions along with the minutes spent watching regular programs.

2. In some cases they watch TV on the Internet via Internet service providers.
3. The French regulator authorized targeted TV-advertising on Thursday, August 6th 2020.

TABLE 4.1 – Average daily time over the period 2011-2017 devoted to watch advertising according to quantiles time devoted to watch program on French private and public channels in mn.

	3 quantiles time spent on Private Program				3 quantiles of time spent on Public Program			
	< 25.50	< 106.33	< 273.19	Total	< 39.35	< 118.33	< 287.68	Total
Regions								
Ile-de-France	5.43	16.42	38.22	18.95	3.33	6.40	14.21	8.07
Champagne-Ardenne	6.92	17.34	39.91	22.45	3.51	6.73	13.72	7.74
Picardie	6.13	17.59	42.58	22.82	3.36	6.70	12.89	6.99
Haute-Normandie	6.07	17.14	38.95	20.98	3.68	7.71	16.78	9.66
Centre	6.36	16.98	42.29	22.10	3.41	6.98	14.69	8.21
Basse-Normandie	6.21	16.72	37.76	21.09	3.35	7.02	17.82	9.58
Bourgogne	6.76	18.03	39.28	21.37	3.39	6.86	15.96	8.72
Nord-Pas-de-Calais	6.90	18.70	44.76	24.93	3.67	7.74	15.81	8.60
Lorraine	5.75	16.60	39.55	20.36	3.49	6.84	13.93	8.01
Alsace	4.33	13.76	34.22	16.08	3.29	6.59	13.06	7.41
Franche-Comté	5.83	15.87	36.74	19.55	3.62	6.99	14.33	8.06
Pays de la Loire	6.14	16.72	39.50	20.68	3.54	7.03	16.98	9.33
Bretagne	6.45	16.59	39.14	21.13	3.52	6.88	14.38	8.27
Poitou-Charentes	6.57	16.61	37.78	21.46	3.68	7.24	17.68	9.88
Aquitaine	5.69	15.49	37.39	19.77	3.63	7.10	15.37	9.01
Midi-Pyrénées	5.15	14.68	37.11	18.61	3.56	7.09	15.53	8.82
Limousin	5.26	14.40	36.35	18.52	3.43	6.92	12.92	7.60
Rhône-Alpes	5.67	15.78	37.68	19.04	3.31	6.59	13.56	7.71
Auvergne	5.47	14.86	34.43	18.03	3.32	6.67	14.11	8.21
Languedoc-Roussillon	5.90	15.80	37.31	19.96	3.40	6.89	13.94	8.47
Provence-Alpes-Côte d'Azur	5.36	15.57	37.24	19.76	3.49	7.18	15.95	9.15
Total	5.85	16.33	38.87	20.35	3.47	6.93	15.01	8.47

Source : authors calculation based on Médiamétrie's data.

2. Surprisingly enough, we have evidenced identical durations for the viewing of advertising across regions with dissimilar weather conditions along with the viewing of regular programs.

Consequently, weather conditions alone prove to be unreliable variables to account for the TV viewers' habits. Thus to explain the TV viewers' habits, we need to combine weather conditions, taste for advertising and taste for program, something the literature has not considered yet. The statistical information encapsulated into our data set on TV viewers' daily habits is the result of all advertiser's, broadcasters and regulator's interconnections. Consequently, it is relevant to run an econometric test on these data. It helps determine whether or not weather conditions, the taste for advertising and the taste for TV program are significant variables. If it is the case, then our empirical results enforce our theoretical conclusions. For that reason, we have run 21 regional regressions on our merged panel data set with individual control variables on panelists. It contains data on private and public regulated French TV channels.

In order to estimate the taste for advertising we use two proxies. The first one is the advertising habit formation coefficient. The second one is the time-shifted viewing. This is a crucial variable since TV viewers can choose to avoid watching advertising during the time-shifted period. The effects of the preference for advertising given weather conditions are directly estimated in our regional regressions.

In order to estimate the taste for TV program, we use the TV program habit formation coefficient and the time-shifted as proxies. The effects of the preference for TV program given weather conditions are also estimated in our regressions. The empirical results are the following.

- The habit formation coefficient is always significantly positive at the three stars level whatever the time spent watching advertising or watching TV programs. Moreover, our results exhibit huge regional differences.
- The time-shifted viewing decreases the time spent watching advertising on private (public) channels but with a different magnitude. This leads us to conclude that French TV viewers do not appreciate similarly watching advertising on public or private TV channels. Note that the magnitude of the taste for advertising varies across regions.
- Our empirical results show that there are regional disparities in the preference for advertising and TV program given weather conditions. This finding has not yet been made in the literature.

All the previous empirical results are obtained over the 2011-2017 period which in France was characterized by a context of untargeted advertising. It is worth noticing that the French regulator authorized targeted TV-advertising on Thursday, August 6th 2020. Therefore, in practice, these effects should be taken into account by advertisers, broadcasters and regulators, especially in the context of targeted advertising. Indeed, our results should help devising proper targeted advertising spots.

- As for advertisers, they need to know whether media users appreciate advertising or not. Indeed, depending on their tastes, media users will be more or less receptive to the goods, services or brands the advertisers sell. Consequently, this has an impact on their attention which plays a role in the short and medium term memorization of the advertising message leading to the consumers' final decision to buy. For example, in Great Britain, TV-targeted advertising has had a strong consequence : a decrease of 33% in the rate of channel switching during advertising (source : Oliver Wyman Consulting). This obviously increases the rate of memorization of a given advertising spot.
- Now what about the broadcaster's interest ? Our model underlines that the time spent on advertising helps determine the price of a given advertising spot. Commercial targeted advertising is the primary source of revenue in the Internet economy. TV-Segmented advertising represents between 2% and 5% of the revenues of television advertising companies in the countries where it is already developed (source : Oliver Wyman Consulting). Targeted advertising is therefore a money-spinner for broadcasters since it attracts a large variety of advertisers targeting the various consumers' needs.
- Considering the above arguments for media users, advertisers, broadcasters, regulators have a strong interest in understanding how to set up the welfare-maximizing advertising duration. Indeed, in some countries like Belgium, France, Great Britain, the USA, regulators have authorized targeted advertising spots whenever the medium allows its implementation. For instance, they can be broadcast via the boxes of Internet access providers and they meet precise criteria, notably geographical ones or some linked to the viewers' profile.
- It is of interest to researchers to have models that offer true theoretical conclusions empirically validated. Contrary to the literature detailed in Section 4.2, if media users did not like advertising, then there should have been no need for targeted advertising at all. Yet, empirical observations reveal that targeted advertising on media is common practice. This accounts for the blatant success of some companies, among which Google, Amazon or Facebook. It is therefore important to have theoretical models to understand all these individuals' behaviors.

No advertiser, broadcaster or even regulator has taken into account at the same time media users' preference for advertising and media services given weather conditions in order to better target them. This is probably because there is no theoretical model that does so. Moreover, targeted advertising requires processing personal data information about viewers which are in practice costly to obtain. Our methodology helps solving this problem.

This paper is organized as follows. Section 4.2 presents the literature and Section 4.3 presents the general model. Section 4.5 is devoted to empirical results before Section 4.6 concludes.

4.2 Literature review

The literature relating to our paper can be divided into three main domains of analysis. The first one is related to labor supply and leisure demand, without any advertising or weather conditions considerations. The second one is related to advertising, which can itself be subdivided in two subparts : the literature assuming that media users dislike or are indifferent to advertising, the literature assuming that they like it. The third one, the literature that considers weather conditions as relevant to explain TV audience.

4.2.1 Labor supply and demand for leisure without advertising or weather conditions considerations

Theoretically, the allocation of time between leisure and work has been studied by Becker 1965, Gronau 1977 and Lancaster 1966. The theoretical literature explains how people select hours of work and leisure in order to reach a time allocation point that maximizes an individual's utility subject to a budget constraint, since people have to spend time working in order to earn money to spend on leisure pursuits. Empirically, Aguiar et Hurst 2007 have shown that leisure time increased significantly in the United States between 1965 and 2003 for both men and women. They find that leisure activities, such as reading a book or watching TV may add to one's human capital or be directly job related and therefore be considered market substitutes. Bruni et Stanca 2008 discuss the role of relational goods and television viewing for individual happiness. They underline the increasing role of television viewing in contemporary society. Moreover,Liebowitz et Zentner 2012 and Crawford et Yurukoglu 2012 underline that TV viewing is the most important leisure activity of Americans, about 3-4 hours a day. This impressive fraction of leisure time is increasingly allocated to watching program from a channel available predominantly through multi-channel television.

4.2.2 The literature relating to advertising

4.2.2.1 The literature relating to advertising as being informative

Since Chamberlin 1933 who describes the informative and persuasive effects of advertising, Lancaster 1966 who points out the role of the characteristics of goods, and Stigler et Becker 1977 who show Section IV p 83 to 87 that advertising does not affect individuals' tastes but only provide information, economists have developed models that help explain media users' behavior.

4.2.2.2 The literature relating to advertising audience

The literature relating to advertising audience has focused on the consequences of two major hypotheses. The first one assumes that media users dislike or are indifferent

to advertising and avoids mentioning the impact of weather conditions on advertising audiences. The second one, considers weather conditions as a determining factor of TV ratings, but leaves the media user's advertising tastes aside.

The literature assuming that viewers dislike or are indifferent to advertising

Many theoretical papers assume a negative impact of advertising on the viewer's utility. Crampes, Haritchabalet et Jullien 2009 explore media competition with free entry when media platforms are financed both from advertising receipts and customers' subscriptions. Under constant or increasing returns to scale in the audience size, they find an excessive level of entry and an insufficient level of advertising.Gabszewicz, Dider Laussel et Sonnac 2001 and Gal-Or et Dukes 2003 analyze the impact of advertising on the level of differentiation of goods. Armstrong 2006 compares an advertising quantity game and an advertising price game in the Hotelling model. Focusing on welfare issues, Anderson et Coate 2005 show that equilibrium advertising levels can be above or below socially optimal levels and that media platforms can provide too many or too few programs. Peitz et Valletti 2008 show that if viewers strongly dislike advertising, the advertising intensity is greater under free-to-air television. Kind, Nilssen et Sørgard 2009 consider a model of a TV oligopoly where TV channels transmit advertising and viewers dislike such commercials. Some TV channels do not use all their time allocated to advertising by the social planner. W. Zhou 2004 examines the choice of commercial breaks by a television network in a monopoly setup. Assuming that viewers dislike commercials, it is shown that commercial breaks become more frequent toward the end of the program, and that the length of breaks is single-peaked. The higher the audience, the more frequent the commercials. Danaher 1995 studies television audience levels during commercial breaks. With a Hotelling (1929)-like model with quadratic cost, Gabszewicz, Didier Laussel et Sonnac 2004 show that the program audience of each station decreases with its own rate of advertising broadcasting time but increases with the one of the rival TV stations. The main result of the paper is that the existence of a negative externality from advertising for TV viewers induces more contents differentiation in the TV industry below a critical value and the reverse above. It is documented that viewers try to avoid advertising breaks, see for example Moriarty et Everett 1994 and Danaher 1995. Belo et al. 2019 found that time shifting does not change the likelihood of skipping ads during live viewership, suggesting that households do not use time shifting to strategically avoid ads.Chatterjee et B. Zhou 2021 underline that consumers dislike sponsored content ads more than they dislike traditional ads (such as television, radio, newspaper...). Wilbur 2008 p 359 mentions that audience losses increase with advertising time. A negative viewer utility of advertising does not necessarily mean that viewers "dislike" advertising. Rather, it is a statement that viewers have a relative preference for watching programs over watching advertising. If it were not the case [...] it might be difficult to explain the existence of programs. Filistrucchi et al. 2014 underline that competition authorities often do not discuss whether readers or viewers like, dislike or are indifferent to advertisements, which is equivalent to an implicit assumption that readers or viewers are indifferent to advertising. In the TV market, they

consider that viewers dislike advertising.

Literature that assumes viewers like advertising

There is a small literature that has considered that viewers can enjoy advertising. Kaiser et Song 2009 empirically show that readers in many magazine segments appreciate advertising. Using a panel data, Lee, Hosanagar et Nair 2018 conduct a study of advertising content. They show that engagement is increasing in "Likes and comments" of advertising.

4.2.2.3 The impact of weather condition on TV audience

A small literature of three papers, Eisinga, Franses et Vergeer 2011,Barnett et al. 1991,Roe et Vandebosch 1996, has studied the effect of weather conditions on TV audience and shows that weather conditions impacts the utility of watching a given TV channel. They do not conclude on advertising audience.

4.3 The model

4.3.1 General considerations

In our paper, the allocation of time between alternative leisure activities is enlarged to endogenous time spent using multimedia services on pay, non-pay, public or private media, in the context of regulated or unregulated advertising. The general structure of the model is depicted in Figure 4.1.

The distinction between pay, non-pay, public or private media, in the context of regulated or unregulated media is important. Indeed, it is worth noticing that the number of unregulated pay-media increases in many countries. Indeed, technological progress makes them more accessible. As for private and public media, their advertising and media services regulations differ. Media regulation is multi-faceted : it is enforced on competition, content and on advertising duration. Our paper concentrates on advertising duration and its regulation.

Moreover, we consider both endogenous leisure time and endogenous working time, contrary to Izquierdo Sanchez, Elliott et Simmons 2016 who study TV-program audience with a fixed working time. This obviously involves that all our theoretical results are purchasing power dependent, something the theoretical literature has not considered yet (even if it is well known from an empirical perspective).

4.3.2 Theory

Consider a static model with complete information and no-uncertainty. Let us denote $\Omega := \{\omega_1, \omega_2, \ldots, \omega_K\}$ the set of all possible weather conditions, where $\omega_k \in \mathbb{R}$, $k =$

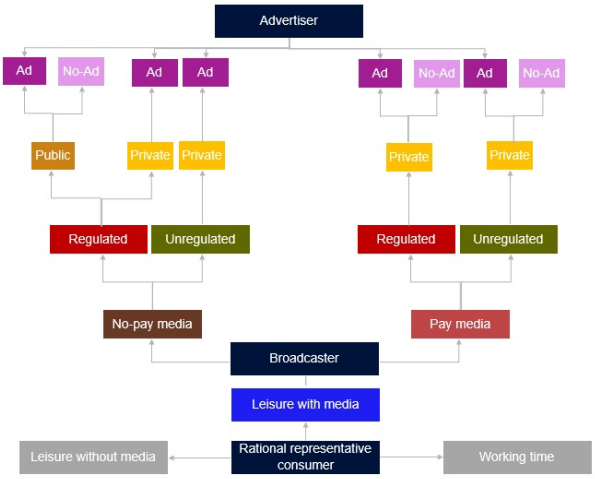


FIGURE 4.1 – The multi-sided media markets structure.

$1, 2, \ldots, K$ captures a given weather conditions. For example $\omega_1 > 0$ represents nice temperature. In the remainder of the paper, the reasoning is as follows. Given some ω_k, a media user optimally chooses how to allocate his time between various media as depicted in Figure 4.1 above or in Table 4.2 below. For this reason, no probability is assigned to any weather condition. To be clearer, if it is raining, then a media user chooses either or not to use any media. He never asks the following question : what will I do if it is raining ?

4.3.3 The representative individual

In all the remaining of the paper we will use the following vocabulary. The representative individual can either be a consumer when he consumes (during leisure time out of any media uses), a worker when he works, a media user when he uses a given media.

4.3.3.1 The representative individual's optimal time allocation

Assume that a rational representative individual devotes his total available time T between leisure time ℓ and working time $T - \ell$ paid at the hourly wage w. Leisure is divided between three main categories of time, see Table 4.2. In the remaining of the paper, subscript $j = 0, 2, 3$ captures regulated media, while subscript $j' = 0, 3$ captures unregulated media. The time sharing relating to regulated media uses is t_j and the time sharing relating to unregulated media uses is $\tau_{j'}$. The time spent watching advertising when using regulated media services is q_j^R. Denote $q_j^{R\star}$ the media user's market solution. The time spent watching advertising when using unregulated media services is $q_{j'}^{NR}$. Q_j^R capture the advertising aired by broadcasters on regulated media and $Q_{j'}^{NR}$ capture the advertising aired by broadcasters on unregulated media. $Q_j^{R\star}$ is the market solution. Finally, p_0^R is the price to access private regulated pay media with advertising, p_0^{NR} is the price to access private

unregulated pay media with advertising and p_1^{NR} is the price to access private unregulated pay media without advertising. The price of consumption is p and p_3 the price to access the Internet via a box. The regulator implements the welfare maximizing aired advertising Q_j^{Rw} where w means welfare maximizing. This is the authorized aired advertising upper bound such that $Q_j^R := \min\{Q_j^{R\star}, Q_j^{Rw}\}$. Similarly we have $q_j^R := \min\{q_j^{R\star}, Q_j^R, Q_j^{Rw}\}$.

TABLE 4.2 – Time decomposition

Pay-Media			Non-Pay Media				Leisure	Working
Private			Public	Private		Public		
Advertising		No-Ad.	Advertising			No-Ad.		
Regulated	Unregulated		Regulated		Unregulated			
0 t_0	τ_0	t_1	t_2	t_3	τ_3	t_4	ℓ	T
q_0^R Q_0^R	q_0^{NR} Q_0^{NR}		q_2^R Q_2^R	q_3^R Q_3^R	q_3^{NR} Q_3^{NR}			
p_0^R	p_0^{NR}	p_1^{NR}	0	0	0	0	p, p_3	wage w

1. The period devoted to pay-media t_1 can be subdivided into three subparts
   (a) the first sub-part is the period devoted to pay private regulated media with advertising t_0,
   (b) the second sub-part is the period devoted to pay private unregulated media with advertising $\tau_0 - t_0$,
   (c) the third sub-part is the period devoted to pay private unregulated media without advertising $t_1 - \tau_0$.
2. The period devoted to non-pay media $t_4 - t_1$ can be subdivided into four subparts
   (a) the first sub-part is the period devoted to non-pay public regulated media $t_2 - t_1$ with advertising,
   (b) the second sub-part is the period devoted to non-pay private regulated media $t_3 - t_2$ with advertising,
   (c) the third sub-part is the period devoted to non-pay private unregulated media $\tau_3 - t_3$ with advertising,
   (d) the fourth sub-part is the period devoted to non-pay public unregulated media $t_4 - \tau_3$ without advertising.
3. Note that in general, there is no non-pay private media without advertising.
4. The leisure out of media time is $\ell - t_4$. The total leisure time L is the leisure out of media time plus the sum of all the various times not spent watching advertising $L := \ell - t_4 + Q_0^R - q_0^R + Q_0^{NR} - q_0^{NR} + Q_2^R - q_2^R + Q_3^R - q_3^R + Q_3^{NR} - q_3^{NR}$.

Even if a given media service does not need any Internet service provider, the media user pays it at price p_3 for a debit of x_3 to access other media that necessitate it.

4.3.3.2 The representative individual's preferences

Denote $\psi_a \in \mathbb{R}$ the representative media user's taste for advertising which impacts its memorization of the good advertised, and $\psi_m \in \mathbb{R}$ the representative media user's taste for media services. Both ψ_a and ψ_m are individual's characteristics independent of any $\omega_k, k = 1, \ldots, K$ as our empirical results suggest it is. We consider that two functions enter the representative media user's utility function. The first one is the preference for advertising given weather conditions $g(\psi_a, \Omega)$. It influences the advertising viewing. The second one is the preference for media services $h(\psi_m, \Omega)$ given weather conditions. It influences the media user's utilization of media services. We do not make any particular assumptions about the way $g(\psi_a, \Omega)$ and $h(\psi_m, \Omega)$ influence the media user's utility. More precisely they can either have a positive or a negative impact on the media user's utility. Let us illustrate how these two functions operate.

1. For some media users, the preference for advertising given weather conditions $g(\psi_a, \Omega)$ is a disutility (they do not like to spend time on advertising when it is sunny / when it is rainy) while for others it is a utility (they do like to spend time on advertising when it is sunny/when it is rainy).

2. Similarly, for some media users the preference for media services $h(\psi_m, \Omega)$ corresponds to a disutility (they do not like to spend time on media when it is sunny/when it is rainy) while for others it corresponds to a utility (they do like to spend time on media when it is sunny/when it is rainy).

Tables 4.4 to 4.7 in Section 4.5 provide us with direct evidences of the empirical existence of such functions, which are shown to operate the same way this theoretical illustration above. C is the consumption good an individual consumes during leisure-time and p is its price. Individual's preferences depend on each of the previous sub-times described above. Preferences are represented by a quasi-linear concave utility function of the following form,

$$U(.) = C + V(.),$$

where "." captures all arguments of the functions U and V detailed below. The function V captures the sum of all the various utilities of each sub-time [4]. These utilities are denoted $u(.)$, a C^1 concave utility function in the time spent watching advertising and the time spent using media services. Let us present all the various utilities of the individual's time allocation that enter $V(.)$. Define $A \in \mathbb{R}_+$ a parameter capturing the reservation utility of a media user who neither watches advertising, nor uses any of the available media, nor has any non-media leisure. This parameter is crucial for results. Indeed, if $A = 0$ then all solutions are positive and are independent of the preference for advertising and the preference for media services given weather conditions. Moreover, consider the log utility

4. The choice of a quasi-linear utility function is motivated by the fact that the equivalent variation, the compensating variation and the surplus are all equivalent in term of welfare.

function. If the viewer chooses not to watch an advertising or not to use media services, then the log(0) is not defined. Finally, the general case $A \neq 0$ can generate nil solutions. This is a more convenient assumption since media users can avoid watching advertising. Let us now detail the expressions of $V(.)$.

- $u(A + g(\psi_a, \Omega)q_0^R)$: utility of time spent watching advertising on a private pay regulated media,
- $u(A + h(\psi_m, \Omega)(t_0 - Q_0^R))$: utility of time spent using media services on a regulated private pay-media with advertising,
- $u(A + g(\psi_a, \Omega)(q_0^{NR} - t_0))$: utility of time spent watching advertising on a private pay unregulated media,
- $u(A + h(\psi_m, \Omega)(\tau_0 - Q_0^{NR}))$: utility of time spent using media services on the private pay unregulated media with advertising,
- $u(A + h(\psi_m, \Omega)(t_1 - \tau_0))$: utility of time spent using media services on the private pay unregulated media without advertising,
- $u(A + g(\psi_a, \Omega)(q_2^R - t_1))$: utility of time spent watching advertising on a public non-pay regulated media with advertising,
- $u(A + h(\psi_m, \Omega)(t_2 - Q_2^R))$: utility of time spent using media services on the public non-pay regulated media with advertising,
- $u(A + g(\psi_a, \Omega)(q_3^R - t_2))$: utility of time spent watching advertising on a private non-pay regulated media with advertising,
- $u(A + h(\psi_m, \Omega)(t_3 - Q_3^R))$: utility of time spent using media services on the private non-pay regulated media with advertising,
- $u(A + g(\psi_a, \Omega)(q_3^{NR} - t_3))$: utility of time spent watching advertising on a private non-pay unregulated media with advertising,
- $u(A + h(\psi_m, \Omega)(\tau_3 - Q_3^{NR}))$: utility of time spent using media services on private non-pay unregulated media with advertising,
- $u(A + h(\psi_m, \Omega)(t_4 - \tau_3))$: utility of time spent using media services on the public non-pay unregulated media without advertising,
- $u(A + h(\psi_m, \Omega)L)$: is the utility of the total leisure. Recall that $L := \ell - t_4 + Q_0^R - q_0^R + Q_0^{NR} - q_0^{NR} + Q_2^R - q_2^R + Q_3^R - q_3^R + Q_3^{NR} - q_3^{NR}$. Consequently, the total leisure is a decreasing function of total time spent using media services t_4. That is the reason why the total leisure time is modified by the preference for media services given weather conditions $h(\psi_m, \Omega)$. The more the media user likes media services given weather conditions, the less he works, see Theorem 3.
- $u(x_3)$: utility of having a debit x_3 when using the Internet service provider, i.e., the box. Some particular media are only accessible above a given debit. The choice of x_3 is consequently important.

Finally, the general utility $V(.)$ takes the following form,

$$V(.) = \sum_{j=0,2,3} u(A, q_j^R, t_j, g(\psi_a, \Omega), h(\psi_m, \Omega), Q_j^R) + \sum_{j'=0,3} u(A, q_{j'}^{NR}, \tau_{j'}, g(\psi_a, \Omega), h(\psi_m, \Omega), Q_{j'}^{NR}) + u(A, h(\psi_m, \Omega), L) + u(x_3).$$

4.3.3.3 Individual's optimal consumption and time allocation

Given his endogenous total income $(T-\ell)w$, the consumer's budget constraint is the following : $pC + p_0^R + p_0^{NR} + p_1^R + p_3 x_3 = (T-\ell)w$. From what we deduce $C = (T-\ell)\frac{w}{p} - \frac{p_0^R + p_0^{NR}}{p} - \frac{p_1^R}{p} - \frac{p_3}{p}x_3$. The rational media user maximizes the following utility.

$$\max_{q_0^R, q_0^{NR}, q_2^R, q_3^R, q_3^{NR}, t_0, \tau_0, t_1, t_2, t_3, \tau_3, t_4, \ell, x_3} (T-\ell)\frac{w}{p} - \left(\frac{p_0^R + p_0^{NR}}{p}\right) - \frac{p_1^R}{p} - \frac{p_3}{p}x_3 + V(.).$$

Define $v := u'^{-1}, Y(g(\psi_a, \Omega), w, p) := \frac{1}{g(\psi_a,\Omega)}\left[v(\frac{1}{g(\psi_a,\Omega)}\frac{w}{p}) - A\right]$ and $Z(h(\psi_m, \Omega), w, p) := \frac{1}{h(\psi_m,\Omega)}\left[v(\frac{1}{h(\psi_m,\Omega)}\frac{w}{p}) - A\right]$. Appendix B.1 explains how they are obtained and details their respective expressions for usual utility functions. Given the parameters and weather conditions, we have the following Theorem.

Theorem 3. Whatever the utility function, all the optimal times spent watching advertising equal $Y(g(\psi_a, \Omega), w, p)$ and all the optimal time spent using media services and the total leisure L equal $Z(h(\psi_m, \Omega), w, p)$. All optimal media times are decreasing in purchasing power. Leisure out of media time is an increasing function in $g(\psi_a, \Omega)$ and in $h(\psi_m, \Omega)$ but a decreasing function of the advertising aired on non-pay private non-regulated media Q_3^{NR}.

Optimal media time-sharing solutions
$q_0^{R\star} = Y(g(\psi_a, \Omega), w, p)$,
$q_0^{NR\star} = Q_0^R + Y(g(\psi_a, \Omega), w, p) + Z(h(\psi_m, \Omega), w, p)$,
$q_2^{R\star} = Q_0^{NR} + Y(g(\psi_a, \Omega), w, p) + 2Z(h(\psi_m, \Omega), w, p)$,
$q_3^{R\star} = Q_2^R + Y(g(\psi_a, \Omega), w, p) + Z(h(\psi_m, \Omega), w, p)$,
$q_3^{NR\star} = Q_3^R + Y(g(\psi_a, \Omega), w, p) + Z(h(\psi_m, \Omega), w, p)$,
$t_0^\star = Q_0^R + Z(h(\psi_m, \Omega), w, p),\ \tau_0^\star = Q_0^{NR} + Z(h(\psi_m, \Omega), w, p),\ t_1^\star = Q_0^{NR} + 2Z(h(\psi_m, \Omega), w, p)$,
$t_2^\star = Q_2^R + Z(h(\psi_m, \Omega), w, p),\ t_3^\star = Q_3^R + Z(h(\psi_m, \Omega), w, p),\ \tau_3 = Q_3^{NR} + Z(h(\psi_m, \Omega), w, p)$,
$t_4^\star = Q_3^{NR} + 2Z(h(\psi_m, \Omega), w, p)$.
Optimal time spent on advertising
$q_0^{R\star} = Y(g(\psi_a, \Omega), w, p)$,
$q_0^{NR\star} - t_0^\star = Y(g(\psi_a, \Omega), w, p)$,
$q_2^{R\star} - t_1^\star = Y(g(\psi_a, \Omega), w, p)$,
$q_3^{R\star} - t_2^\star = Y(g(\psi_a, \Omega), w, p)$.
$q_3^{NR\star} - t_3^\star = Y(g(\psi_a, \Omega), w, p)$.
Optimal time spent on media out of advertising
$t_0^\star - Q_0^R = Z(h(\psi_m, \Omega), w, p),\ \tau_0^\star - Q_0^{NR} = Z(h(\psi_m, \Omega), w, p),\ t_1^\star - \tau_0^\star = Z(h(\psi_m, \Omega), w, p)$,
$t_2^\star - Q_2^{R\star} = Z(h(\psi_m, \Omega), w, p),\ t_3^\star - Q_3^{R\star} = Z(h(\psi_m, \Omega), w, p),\ \tau_3^\star - Q_3^{NR} = Z(h(\psi_m, \Omega), w, p)$,
$t_4^\star - \tau_3^\star = Z(h(\psi_m, \Omega), w, p)$.
Optimal time spent on media is $Q_3^{NR} + 2Z(h(\psi_m, \Omega), w, p)$
Optimal Leisure

$\ell^\star = 5Y(g(\psi_a, \Omega), w, p) + 8Z(h(\psi_m, \Omega), w, p)$,
$\ell^\star - t_4^\star = 5Y(g(\psi_a, \Omega), w, p) + 6Z(h(\psi_m, \Omega), w, p) - Q_3^{NR}$,
$L^\star = Z(h(\psi_m, \Omega), w, p)$.
The demand for the Internet service provider and the demand for good
$x_3^\star = v(\frac{p_3}{p}), C^\star = (T - (5Y(g(\psi_a, \Omega), w, p) + 8Z(h(\psi_m, \Omega), w, p))\frac{w}{p} - \frac{p_0}{p} - \frac{p_1}{p} - \frac{p_3}{p}v(\frac{p}{p_3})$.

Proof is given in Appendix B.1. Note that, given the same weather condition ω_k and the same price of the advertised good p, two different individuals (in wages, or/and in (ψ_a, ψ_m)) experience different sub-times while watching advertising or using media services and leisure since both $Y(g(\psi_a, \Omega), w, p)$ and $Z(h(\psi_m, \Omega), w, p)$ are different.

For usual utility functions, the time spent watching advertising or the time spent on media services is a decreasing function of the wage w. Proof is provided in Appendix B.1.

4.3.4 The Internet service provider, ISP

The Internet service provider, ISP, determines the optimal debit x_3 given the market price p_3. The total receipt of the ISP is $p_3 x_3$. The total network maintenance cost $TC_{ISP}(x_3)$ is supposed to be a convex function. The ISP maximizes its profit with respect to the debit x_3

$$\max_{x_3} \; p_3 x_3 - TC_{ISP}(x_3).$$

The first-order condition leads to the following equation

$$p_3 = \frac{\partial CT_{ISP}(x_3)}{\partial x_3}.$$

Denote ϵ_{ISP} the invert function of the marginal cost, we have

$$x_3^\star = \epsilon_{ISP}(p_3).$$

Application : Consider $TC_{ISP}(x_3) = 1/2x_3^2$. The solution is $x_3 = p_3$.

4.3.5 The optimal choice of advertising by the producer/advertiser

In the real world, advertising emerges on oligopoly market structure. Oligopoly involves that each producer anticipates the price of the other producers. As Stigler et Becker 1977 argued p. 85, a representative producer/advertiser (P/A) takes the optimal market price $p = p^\star$ of the other as given. In order to maximize the P/A profit, there are two methods. The first one is to consider a general problem in which the P/A maximizes its profit according to the consumption good C, the length of the aired advertising spot Q and its repetition θ. The second one is to solve the problem in three recursive steps. The P/A first chooses the quantity of goods to produce, then the length of his advertising spot taking into account the media user's solution and finally the number of times its is distributed by

broadcasters. We choose this method for two reasons. The first one is because in reality this is the way P/A's proceed in this type of multi-sided market. The second one is because the level of the profit reached is higher than the one obtained with the first method, as illustrated in Appendix B.2. We prove the following Theorem.

Theorem 4. The optimal duration of an advertising spot as well as its number of repetitions are two increasing functions in the time spent watching advertising. They increase with the preference for advertising given weather conditions. They are independent on the time spent using media services and the preference for media services given weather conditions. The Producer/Advertiser's optimal duration is greater than the time a media user spends watching advertising.

Proof. First theoretical stage : the producer Assume that TC_P is a convex total cost function of production. The representative P/A determines the optimal quantity of good C to produce, out of advertising considerations, by maximizing its profit, $\max_C p^\star C - TC_P(C)$. The solution is $p^\star = \frac{\partial TC_P(C)}{\partial C}$. Denote ϕ the inverse function of the marginal total cost TC'_{PC}. We have $C^{\star\star} = \phi(p^\star)$.

Second theoretical stage : the advertiser Suppose that C_A is the convex cost function for the production of Q units of advertising, where $Q = Q_0^R + Q_0^{NR} - t_0 + Q_2^R - t_1 + Q_3^R - t_2 + Q_3^{NR} - t_3$ is the total aired advertising on any possible media. Contrary to Crawford *et al.* (2018)Crawford et Yurukoglu 2012, we consider an endogenous revenue of advertising for the P/A. The total receipt of a given sale is increased by the optimal time a media user spends watching advertising. The aired advertising Q increases the producer profit. However, the P/A takes into account the fact that media users may not watch the advertising in their entirety. Consequently, its cost function depends on non-watched advertising time. Taking into account the optimal solutions of the media user, by Theorem 3 we have $q_0^\star = q_0^{NR\star} - t_0^\star = q_2^{R\star} - t_1^\star = q_3^{R\star} - t_2^\star = q_3^{NR\star} - t_3^\star = Y(g(\psi_a, \Omega), w, p)$. The total time spent watching advertising is $5Y((g(\psi_a, \Omega), w, p)$. The non-watched advertising time is $Q - (q_0^{R\star} + q_0^{NR\star} - t_0^\star + q_2^{R\star} - t_1^\star + q_3^{R\star} - t_2^\star + q_3^{NR\star} - t_3^\star)) = Q - 5Y(g(\psi_a, \Omega), w, p)$.

Knowing the first stage solution $C^{\star\star} = \phi(p)$, the rational representative P/A determines the optimal quantity of advertising $Q^\star$ to be advertised by maximizing its profit [5]

$$\max_Q Qp^\star\phi(p^\star) - C_A\Big(Q - \big(5Y(g(\psi_a, \Omega), w, p)\big)\Big).$$

The first-order condition leads to $p^\star\phi(p^\star) = \frac{\partial C_A}{\partial Q}(Q - (5Y(g(\psi_a, \Omega), w, p)))$. Denote γ the inverse function of C'_{AQ}. We have $Q^\star = \gamma(p^\star\phi(p^\star)) + 5Y(g(\psi_a, \Omega), w, p)$. The advertising duration $Q^\star$ is always greater than the media user's total time spent watching advertising. Note that the optimal time spent watching advertising has a positive impact on $Q^\star$. Finally, the total profit of a sale that is advertised is $\Pi(C^{\star\star}, Q^\star) := (1 + Q^\star)p^\star C^{\star\star} - TC_P(C^{\star\star}) -$

5. Note that considering the cost $C_A\Big(Q - \big(5Y(g(\psi_a, \Omega), w, p)\big)\Big)$ is more general than simply considering the cost $C_A(Q)$ since it contains crossed effects.

$C_A\Big(Q^\star - \Big(5Y(g(\psi_a,\Omega),w,p)\Big)\Big)$. Appendix B.2 shows for reasonable functions that this profit is greater than the one obtained with the first methodology for high level of price p.

Third theoretical stage Finally, the rational representative P/A determines the optimal repetition $\theta_j^R > 1$ or $\theta_{j'}^{NR} > 1$ the advertising $Q^\star$ is to be allocated to each type of advertising distributor, the regulated broadcasters $j = 0, 2, 3$ (which applies to variable t) at price $p_{b_j}^R$ and the unregulated broadcasters $j' = 0, 3$ (which applies to variable τ) at price $p_{b_{j'}}^{NR}$. For example, the producer finances an advertising of 30 seconds that corresponds to $Q^\star$ that will be broadcast 100 times$= \theta_j$ by broadcaster j if regulated or by broadcaster j' if not regulated. We have therefore $Q_j^{R\star} = \theta_j^R Q^\star$ and $Q_{j'}^{NR\star} = \theta_{j'}^{NR} Q^\star$. Knowing that on regulated media the time spent watching advertising is $q_j^{R\star} + \max\{-j,-1\}t_{j-1}^\star$, where $t_j^\star = Q_j^{R\star} + Z(g(\psi_a,\Omega),w,p)$, and on unregulated media it is $q_{j'}^{NR\star} - t_{j'}^\star$. We define the following relations $q_j^R := \min\{q_j^{R\star}, Q_j^{R\star}\}$ and $q_{j'}^{NR} := \min\{\mathrm{q}_{j'}^{NR\star}, Q_{j'}^{NR\star}\}$. Consequently, we have the following notations $q_j^{R\star} + \max\{-j,-1\}t_{j-1}^\star = \alpha_j^R\Big(Q_j^{R\star} + \max\{-j,-1\}t_{j-1}^\star\Big)$ where $\alpha_j^R \in \mathbb{R}_+$. Define $\alpha_{j'}^{NR} \in \mathbb{R}_+$ and $q_{j'}^{NR\star} - t_{j'} = \alpha_{j'}^{NR}(Q_{j'}^{NR\star} - t_{j'})$ where $\alpha_{j'}^{NR} \in \mathbb{R}_+$. Note that $Q^\star > 5Y(g(\psi_a,\Omega),w,p)$ which is always true since $\gamma(p^\star\phi(p^\star)) > 0$. The media user do not watch the advertising in their entirety. The total revenue of this advertising depends on q_j but the P/A costs depend on $Q_j^\star = \theta_j Q^\star$. Finally, the rational P/A maximizes the profit of an advertising spot, and solves the following program

$$\max_{\theta_j} \sum_{j=0,2,3} \Big[(q_j^{R\star} + \max\{-j,-1\}t_{j-1}^\star)p^\star\phi(p^\star) - C_A(\theta_j^R Q^\star) - p_{b_j}^R \theta_j^R Q^\star\Big]$$

$$+ \sum_{j'=0,3} \Big[(q_{j'}^{NR\star} - t_{j'}^\star)p^\star\phi(p^\star) - C_A(\theta_{j'}^{NR} Q^\star) - p_{b_{j'}}^{NR}\theta_{j'}^{NR} Q^\star\Big].$$

Using $q_j^{R\star} + \max\{-j,-1\}t_{j-1}^\star = \alpha_j^R\Big(Q_j^{R\star} + \max\{-j,-1\}t_{j-1}^\star\Big)$, $q_{j'}^{NR\star} - t_{j'} = \alpha_{j'}^{NR}(Q_{j'}^{NR\star} - t_{j'})$ into the previous expression, we have

$$\max_{\theta_j^R} \sum_{j=0,2,3} \Big[\alpha_j^R(\theta_j^R Q^\star + \max\{-j,-1\}t_{j-1}^\star)p^\star\phi(p^\star) - C_A(\theta_j^R Q^\star) - p_{b_j}^R\theta_j^R Q^\star\Big]$$

$$+\max_{\theta_j^{NR}} \sum_{j'=0,3} \Big[\alpha_{j'}^{NR}(\theta_{j'}^{NR} Q^\star - t_{j'}^\star)p^\star\phi(p^\star) - C_A(\theta_{j'}^{NR} Q^\star) - p_{b_{j'}}^{NR}\theta_{j'}^{NR} Q^\star\Big].$$

To solve this problem, we use a recursive methodology, which helps understand that θ_j is obtained in the previous step. Using Theorem 3, replace all $t_{j-1}^\star$ and $t_{j'}^\star$ by their respective expression.

Consider the theoretical case $j = 0$. The problem is

$$\max_{\theta_0^R} \alpha_0^R\theta_0^R Q^\star p\phi(p) - C_A\Big(\theta_0^R Q^\star\Big) - p_{b_0}^R\Big(\theta_0^R Q^\star\Big) - \alpha_0^{NR}\theta_0^R Q^\star p\phi(p).$$

The first-order condition is $\Big((\alpha_0^R - \alpha_0^{NR})p^\star\phi(p^\star) - p_{b_0}^R\Big)Q^\star = \frac{\partial C_A(\theta_0^R Q^\star)}{\partial \theta_0^R}$. Denote ξ_0^R the inverse function of $\frac{\partial C_A}{\partial \theta_0^R}$, we have $\theta_0^{R\star} = \frac{\xi_0^R\Big(\big((\alpha_0^R - \alpha_0^{NR})p^\star\phi(p^\star) - p_{b_0}^R\big)Q^\star\Big)}{Q^\star}$ and with $Q^\star = \gamma(p^\star\phi(p^\star)) + 5Y(g(\psi_a,\Omega),w,p)$ we have

$$\theta_0^{R\star} = \frac{\xi_0^R\Big(\big((\alpha_0^R - \alpha_0^{NR})p^\star\phi(p^\star) - p_{b_0}^R\big)\big(\gamma(p^\star\phi(p^\star)) + 5Y(g(\psi_a,\Omega),w,p)\big)\Big)}{\gamma(p^\star\phi(p^\star)) + 5Y(g(\psi_a,\Omega),w,p))}. \quad (4.1)$$

Consider the theoretical cases $j = 2, 3$. Solutions are obtained with the same methodology, where ξ_2^R and ξ_3^R are the inverse functions of the marginal cost

$$\theta_2^{R\star} = \frac{\xi_2^R\Big(\big((\alpha_2^R - \alpha_3^R)p^\star\phi(p^\star) - p_{b_2}^R\big)Q^\star\Big)}{Q^\star}, \quad (4.2)$$

$$\theta_3^{R\star} = \frac{\xi_3^R\Big(\big((\alpha_3^R - \alpha_3^{NR})p^\star\phi(p^\star) - p_{b_3}^R\big)Q^\star\Big)}{Q^\star}. \quad (4.3)$$

Consider the theoretical case $j' = 0$. Recall from Theorem 3 that $\mathrm{t}_0^\star = \theta_0^R Q^\star + Z(h(\psi_m,\Omega),w),p)$ and replace it into the profit function to have

$$\max_{\theta_0^{NR}} \Big[\alpha_0^{NR}(\theta_0^{NR} - \theta_0^{R\star})Q^\star - Z(h(\psi_m,\Omega),w,p)))\Big]\, p\phi(p) - C_A\Big(\theta_0^{NR}Q^\star\Big) - p_{b_0}^{NR}\theta_0^{NR}Q^\star - \alpha_2^R\theta_0^{NR}Q^\star p\phi(p).$$

Compute the first-order condition and redo the same exercice as above and find

$$\theta_0^{NR\star} = \frac{\xi_0^R\Big(\big((\alpha_0^{NR} - \alpha_2^R)p^\star\phi(p^\star) - p_{b_0}^{NR}\big)Q^\star\Big)}{Q^\star}. \quad (4.4)$$

Consider the theoretical case $j' = 3$. The solution is

$$\theta_0^{NR\star} = \frac{\xi_0^R\Big(\big(\alpha_3^{NR}p^\star\phi(p^\star) - p_{b_3}^{NR}\big)Q^\star\Big)}{Q^\star}. \quad (4.5)$$

From all the above results, we have the following Theorem.

Theorem 5. 1. Depending on parameters on regulated media markets $j = 0, 2, 3$, the producer Advertiser can either choose to aire his advertising on one or two or three media $\theta_j^{R\star} \geq 0$ for some j or not at all, $\forall j\ \theta_j^{R\star} = 0$.

2. Depending on parameters on unregulated media markets $j' = 0, 3$, the producer Advertiser can either choose to aire his advertising on one or two media $\theta_{j'}^{NR\star} \geq 0$ or not at all, $\theta_{j'}^{NR\star} = 0$.

4.3.6 The optimal price of advertising chosen by the broadcaster

The P/A's advertising can be distributed either by a private regulated pay-media broadcaster b_0 or by a public regulated non-pay media b_2 or private regulated non-pay media b_3 or a private unregulated pay-media $\mathcal{B}_0$ or a public unregulated non-pay media $\mathcal{B}_3$. We prove the following Theorem.

Theorem 6. The optimal price of a regulated or unregulated advertising spot is independent on the preference for media services given weather conditions. It only depends on the time spent watching advertising and the number of repetitions of the advertising spot. Moreover, it is an increasing function of the marginal cost of airing $Q^\star$, and of the price p of the good sold by the P/A.

Proof is conducted through Subsection 4.3.6 and a complete example is provided in Appendix B.2.

4.3.6.1 The regulated broadcasters

The regulated broadcaster b_0 gets the subscription p_0^R but not the broadcasters b_2 or b_3, see Table 4.2. Each of them gets the revenue of advertising $p_{b_j}^R \theta_j^{R\star}(p_{b_j}^R) Q^\star(p, Y(g(\psi_a, \Omega), w, p))$, $j = 0, 2, 3$ and bears the cost of distributing the advertising $C_{b_j}(\theta_j^{R\star}(p_{b_j}^R) Q^\star(p, Y(g(\psi_a, \Omega), w, p)))$ with $C'_{b_j}(Q) > 0$ and $C''_{b_j}(0) \geq 0$.

A rational regulated broadcaster $j = 0, 2, 3$ takes $\theta_j^{R\star}(p_{b_j}^R)$ has given and maximizes its concave profit with respect to the price $p_{b_j}^R$. The general form of the regulated broadcaster's profit is

$$\begin{aligned}\Pi_{b_j} := \max\{\frac{3-j}{1-j}, \frac{2-j}{4-j}\}\frac{p_j^R}{3} + p_{b_j}^R \theta_j^{R\star}(p_{b_j}^R) Q^\star(p, Y(g(\psi_a, \Omega), w, p)) \\ - C_{b_j}(\theta_j^{R\star}(p_{b_j}^R) Q^\star(p, Y(g(\psi_a, \Omega), w, p))).\end{aligned}$$

Consider the problem $\max_{p_{b_j}^R} \Pi_{b_j}$. The first-order condition is a sufficient condition for the profit maximization. It leads to the following equation

$$\left(\theta_j^{R\star}(p_{b_j}^R) + p_{b_j}^R \left(\frac{\partial \theta_j^{R\star}(p_{b_j}^R)}{\partial p_{b_j}^R}\right)\right) Q^\star(p, Y(g(\psi_a, \Omega), w, p)) = \frac{\partial C_{b_j}(\theta_j^{R\star}(p_{b_j}^R) Q^\star(p, Y(g(\psi_a, \Omega), w, p)))}{\partial p_{b_j}^R}.$$

Define ζ_j the inverse function of $\frac{\partial C_{b_j}(\theta_j^{R\star}(p_{b_j}^R) Q^\star(p, Y(g(\psi_a, \Omega), w, p)))}{\partial p_{b_j}^R}$. The optimal solution is a fixed-point of the following relation

$$p_{b_j}^{R\star} = \theta_j^{R\star -1}\left[\frac{\zeta_j\left(\left(\theta_j^{R\star}(p_{b_j}^{R\star}) + p_{b_j}^{R\star}\left(\frac{\partial \theta_j^{R\star}(p_{b_j}^{R\star})}{\partial p_{b_j}^R}\right)\right) Q^\star(p, Y(g(\psi_a, \Omega), w, p))\right)}{Q^\star(p, Y(g(\psi_a, \Omega), w, p)))}\right].$$

The existence of such a fixed point is conducted through an example in Appendix B.2.

4.3.6.2 The unregulated broadcasters

The unregulated broadcaster $\mathcal{B}_0$ gets the subscription p_0^{NR} but not the broadcaster $\mathcal{B}_3$, see Table 4.2. Each of them gets the revenue of advertising $p_{b_{j'}}^{NR}\theta_{j'}^{NR\star}(p_{b_{j'}})Q^\star(p, Y(g(\psi_a,\Omega),w,p)), j' = 0,3$ and bears the cost of distributing the advertising $C_{b_{j'}}(\theta_{j'}^{NR\star}(p_{b_{j'}}^{NR})Q^\star(p,Y(g(\psi_a,\Omega),w,p)))$ with $C'_{b_{j'}}(Q) > 0$ and $C''_{b_{j'}}(0) \geq 0$. A rational broadcaster solves the following problem

$$\max_{p_{b_{j'}}} \left(3-j'\right)\frac{p_{j'}^{NR}}{3}+p_{b_{j'}}^{NR}\theta_{j'}^{NR\star}(p_{b_{j'}}^{NR})Q^\star(p,Y(g(\psi_a,\Omega),w,p))-C_{b_{j'}}\left(\theta_{j'}^{NR\star}(p_{b_{j'}}^{NR})Q^\star(p,Y(g(\psi_a,\Omega),w,p))\right).$$

The optimal solution is a fixed-point of the following relation

$$p_{b'_j}^{NR\star} = \theta_{j'}^{NR\star-1}\left[\frac{\zeta_j\left(\left(\theta_{j'}^{NR\star}(p_{b_{j'}}^{NR\star})+p_{b_{j'}}^{NR\star}(\frac{\partial\theta_{j'}^{NR\star}(p_{b_{j'}}^{i\,NR\star})}{\partial p_{b'_j}^{NR}})\right)Q^\star(p,Y(g(\psi_a,\Omega),w,p))\right)}{Q^\star(p,Y(g(\psi_a,\Omega),w,p)))}\right].$$

As above for the regulated broadcaster, the existence of such a fixed point is conducted through Appendix B.2.

4.3.7 The regulator

The regulator implements the welfare maximizing aired advertising Q_j^{Rw} where w means welfare maximizing. This is the authorized aired advertising upper bound such that $Q_j^R := \min\{Q_j^{R\star}, Q_j^{Rw}\}$. Recall that the time spent watching advertising by the media user is $q_j^R := \min\{q_j^{R\star}, Q_j^R, Q_j^{Rw}\}$. The regulator maximizes the welfare function defined as $W = U + \sum_{j=0,2,3}\Pi_{b_j}$.

$$\max_{Q_0^{Rw},Q_2^{Rw},Q_3^{Rw}} u(A+h(\psi_m,\Omega)(t_0-Q_0^{Rw}))+u(A+h(\psi_m,\Omega)(t_2-Q_2^{Rw}))+u(A+h(\psi_m,\Omega)(t_3-Q_3^{Rw}))$$

$$+u(A+h(\psi_m,\Omega)(\ell-t_4+Q_0^{Rw}-q_0^R+Q_2^{Rw}-q_2^R+Q_3^{Rw}-q_3^R+Q_0^{NRw}-q_0^{NR}+Q_3^{NRw}-q_3^{NR}))$$
$$+\sum_{j=0,2,3}p_{b_j}^\star(Q_j^{Rw})-C_{b_j}(Q_j^{Rw}).$$

We prove the following Theorem.

Theorem 7.
1. The utility of media services and the utility of leisure are each of them a constant.
2. Consequently, the marginal utility of the welfare maximizing aired advertising during the media services is nil on regulated media.
3. Contrary to the market solution, the regulator's solution is dependent on the preference for advertising and indepedent on the preference for media services.

Proof. According to Theorem 3, $t_j^\star - Q_j^R = Z(g(\psi_a, \Omega), w, p))$ a constant with respect to Q_j^R and $L = Z(h(\psi_m, \Omega), w, p)$. The problem to solve becomes

$$\max_{Q_0^{Rw}, Q_2^{Rw}, Q_3^{Rw}} 4u \left(A + h(\psi_m, \Omega) Z(h(\psi_m, \Omega)) + \sum_{j=0,2,3} p_{b_j}^\star(Q_j^{Rw}) - C_{b_j}(Q_j^{Rw}).\right.$$

Note that all the utility of spending time watching advertising are independent on Q_j^{Rw}. Consequently, their respective marginal utilities are nil. It is thus equivalent to solve

$$\max_{Q_0^{Rw}, Q_2^{Rw}, Q_3^{Rw}} \sum_{j=0,2,3} p_{b_j}^\star(Q_j^{Rw}) - C_{b_j}(Q_j^{Rw}).$$

The system of first-order condition is the following, where $\mathcal{Q}_j,\ j = 0, 2, 3$ is the appropriate inverse function

$$\begin{cases} \frac{\partial W}{\partial Q_0^{Rw}} = 0 & \frac{\partial p_{b_0}^{R\star}(Q_0^{Rw})}{\partial Q_0^{Rw}} = \frac{\partial C_{b_0}(Q_0^{Rw})}{\partial Q_0^{Rw}} \Rightarrow Q_0^{Rw} = \mathcal{Q}_0\left(p_{b_0}^{R\star}\Big(Y\Big(g(\psi_a, \Omega), w, p\Big)\Big)\right), \\ \frac{\partial W}{\partial Q_2^{Rw}} = 0 & \frac{\partial p_{b_2}^{R\star}(Q_2^{Rw})}{\partial Q_2^{Rw}} = \frac{\partial C_{b_2}(Q_2^{Rw})}{\partial Q_2^{Rw}} \Rightarrow Q_2^{Rw} = \mathcal{Q}_3\left(p_{b_2}^{R\star}\Big(Y\Big(g(\psi_a, \Omega), w, p\Big)\Big)\right), \\ \frac{\partial W}{\partial Q_3^{Rw}} = 0 & \frac{\partial p_{b_3}^{R\star}(Q_3^{Rw})}{\partial Q_3^{Rw}} = \frac{\partial C_{b_3}(Q_3^{Rw})}{\partial Q_3^{Rw}} \Rightarrow Q_3^{Rw} = \mathcal{Q}_3\left(p_{b_3}^{R\star}\Big(Y\Big(g(\psi_a, \Omega), w, p\Big)\Big)\right). \end{cases}$$

4.4 Some properties of the Multi-sided media market equilibrium

Considering that all the previous markets are interconnected, we now turn to study some properties of the multi-sided media market equilibrium. There 6 possible rankings of the next three variables $q_j^R, Q_j^{R\star}, Q_j^{Rw}, j = 0, 2, 3$ which are the following :

$$\left\{q_j^R < Q_j^{R\star} < Q_j^W\right\}, \left\{q_j^R < Q_j^W < Q_j^{R\star}\right\}, \left\{Q_j^{R\star} < q_j^R < Q_j^W\right\},$$

$$\left\{Q_j^{R\star} < Q_j^W < q_j^R\right\}, \left\{Q_j^W < q_j^R < Q_j^{R\star}\right\}, \left\{Q_j^W < Q_j^{R\star} < q_j^R\right\}.$$

Theorem 8. There are only two possible cases, either $\left\{q_j^R < Q_j^{R\star} < Q_j^W\right\}$ or $\left\{q_j^R < Q_j^W < Q_j^{R\star}\right\}$. In multi-sided media market equilibrium, the media user never watch the entire advertising broadcast $q_j^\star = \min\{q_j^R, Q_j^{R\star}, Q_j^W\}$ and the regulator may choose or not to constraint the duration of the regulated market advertising, either $Q_j^W < Q_j^{R\star}$ or $Q_j^{R\star} < Q_j^W$.

Proof : From Theorem 4, we know that the media users do not watch the advertising in their entirety. This rules out the four last cases. Consequently only the two first cases are possible.

For that reason, we provide general conditions for which $q_j^R < Q_j^{Rw}$. From Theorem 3 we have $q_j^R = Y\Big(g(\psi_a,\Omega),w,p\Big)$. From Theorem 7 above, we have $Q_j^{Rw} = \mathcal{Q}_j\left(p_{b_j}^{R\star}\Big(Y\Big(g(\psi_a,\Omega),w,p\Big)\Big)\right)$. Let us denote $\varphi\Big(Y\Big(g(\psi_a,\Omega),w,p\Big)\Big) := \mathcal{Q}_0 \circ p_{b_0}^{R\star}\Big(Y\Big(g(\psi_a,\Omega),w,p\Big)\Big)$. Using this notation, we have

$$q_j^R < Q_j^{Rw} \iff Y\Big(g(\psi_a,\Omega),w,p\Big) < \varphi\Big(Y\Big(g(\psi_a,\Omega),w,p\Big)\Big).$$

A sufficient condition for the previous inequality to hold is that the function is always above the 45 degree line :

$$S_1 : \left\{ \begin{array}{l} \mathrm{d}\ \varphi\Big(Y\Big(g(\psi_a,\Omega),w,p\Big)\Big)\Big/_{dY\Big(g(\psi_a,\Omega),w,p\Big)} > 1 \qquad \forall Y \geq 0. \end{array} \right. \varphi$$

From a general point of view, conditions described by system S_1 are not easy to study.

The economic interpretation of the previous system is the following. The welfare maximizing aired advertising is dependent on the preference for advertising but is independent on the preference for media services. It can either be higher or lower than the market solution. Note that in France, the regulator sets $\mathrm{Q}_2^{Rw} = 6$ mn on average per hour of advertising on non-pay public TV channels, $\mathrm{Q}_3^{Rw} = 9$ mn on average on non-pay private channels and $\mathrm{Q}_0^{Rw} = 12$ mn per hour of advertising on average on pay private TV channels.

In this theoretical model, it has been shown that the media user's optimal time spent watching advertising depends on his own preference for advertising given weather conditions, and more specifically on his taste for advertising ψ_a. However, ψ_a is not easily observable from an empirical point of view even if weather conditions are. Consequently, the preference for advertising given weather conditions $g(\psi_a,\Omega)$ is not easily observable. Similarly, the optimal time spent using media services also depends on the taste for media services ψ_m, which is also a non available data. That is the reason why we now turn to use panel data in order to estimate their significant effects.

4.5 Empirical results

The TV media is a multi-sided market where regulator broadcasters advertisers and viewers are strongly interconnected. Consequently it is a very good empirical case for testing our theoretical conclusions. Through the rest of the paper, media services are called TV programs or simply programs. This section proves the existence of a significant preference for advertising and evaluates its magnitude regarding the individuals' choices between various TV channels. As the empirical conclusions of this section illustrate, the preference for advertising plays a huge role on TV channels market. This is important for general considerations, since it is probably the case on many other multi-sided media markets in many other countries.

4.5.1 Presentation of the Data bases

To study the role of the unavailable preference for advertising we use a combination of two panel data sets. The first one relates to the daily TV audience, the second one relates to the daily weather conditions.

1. The first data set is the Médiamétrie's [6] panel related to the French daily Television audience which covers the period January, 3rd 2011 to July, 31st 2017 (2401 days). According to our theoretical model, this database is related to the non-pay regulated media with advertising, whether it is a private or a public media. This data set does not encompass information about pay TV channels and about non-pay unregulated public TV channels advertising free. However, it is not a problem since our data set is thorough enough to meet our objectives.

2. The second data set is the Météo France's panel, related to the daily weather conditions [7]. Data comes from more than 90 stations throughout the French territory, represented by a red dot in Figure 4.2. It contains the daily averages of temperature [8] (in $°C$), sunshine duration (in mn), rain duration (in mn), average rainfall (in mm) and wind speed (in km/h). For each region and for each weather condition variable, we calculated the average of all the stations. In our theoretical model, it corresponds to the variable $\omega_k, k = 1, \ldots, 5$.

The database contains the individual measurement of daily television consumption of 22,832 panelists over the period 2011 - 2017 in France. The database is anonymized in order to comply with French and European regulations.

They are $h = 1, \ldots, 4$ dependent variables for each individual i at date t, denoted y_{ith}.

- The lower subscript $h = 1$ is the daily viewing time per individual (in mn) devoted to watch an advertising on a non-pay public channel, $y_{it1} = (q_2^R - t_1)_{it}$.
- The lower subscript $h = 2$ is the daily viewing time per individual (in mn) devoted to watch an advertising on a non-pay private channel, $y_{it2} = (q_3^R - t_2)_{it}$.
- The lower subscript $h = 3$ is the daily viewing time per individual (in mn) devoted to watch a program broadcast on a non-pay public channel, $y_{it3} = (t_2 - Q_2^R)_{it}$.
- Finally, The lower subscript $h = 4$ is the daily viewing time per individual (in mn) devoted to watch a program broadcast on a non-pay private channel, $y_{it4} = (t_3 - Q_3^R)_{it}$.

In the Médiamétrie's panel, there are four different individual's situations impacting the four dependent variables. On the one hand, in its calculation of the total audience, Médiamétrie takes into account 2 types of individuals who do not watch TV : the first type concerns panelists who are present at home without switching their television set on all the

6. Mediamétrie is the French company that daily publishes television audience results, allowing TV channels to calculate the price of an advertisement.

7. Météo France is the French company that measures the daily weather conditions in France.

8. Average of the minimum and maximum temperatures daily observed.

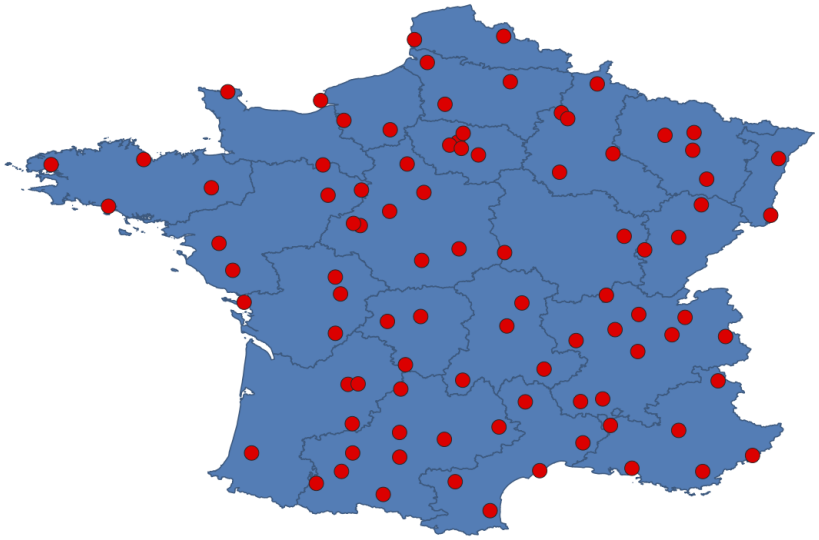


FIGURE 4.2 – Location of Météo France's stations in our data base.

day long, the second type concerns all the members of a household who are referred as being on holiday or absent for a week-end. For both these situations, the value 0 is indicated in the dependent variable. On the other hand, there are two other types of situations : the first one corresponds to the case where Médiamétrie is unable to collect the audience data recorded in the audimeter for technical reasons, the second one corresponds to the Médiamétrie's decision to suspend a household due to inaccurate information reported in the audimeter (wrong connection, for example). For these households, the missing value is indicated in the dependent variable.

The independent variables used in the regressions are the following. TS_{it} is the daily time-shifting (in mn), and $OTVU_{it}$ the total daily time (in mn) devoted to any other screen media that are not TV channels (Video games, SVOD, AVOD, etc.). Subscript j captures a given region, $j = 1, \ldots, 21$. Ω_{kjt} is a set of $\omega_{kjt}, k = 1, \ldots, 5$ weather conditions explanatory variables measured for region j on day t where individual i resides. According to the theoretical model : ω_{1jt} is the average temperature (in $°C$), ω_{2jt} captures the sunshine duration (in mn), ω_{3jt} the rainfall (in mm), ω_{4jt} the wind speed (in km/h), and ω_{5jt} the rain duration (in mn) [9].
X_{ita} is a set of A explanatory control variables ($a = 1, \ldots, A$) describing individual i, including : gender, age group (7 categories : $4-10$ years, $11-14$ years, $15-24$ years, $25-34$ years, $35-49$ years, $50-64$ years, 65 years and over), socio-professional category (10 categories : farmers, craftsman/craftswoman-manager, managerial staff-senior professionals, intermediate professions, employees, skilled workers, unskilled workers, re-

9. The two rain variables have been dissociated in order not to confused them.

tired, students, other inactives), average weekly working time (7 categories : unemployed persons who already have worked in the past, persons looking for a first job, full-time employees, part-time employees (0-9h59 ; 10h00-19h59 ; 20h00-29h59 ; 30h or more), other inactive persons), gross monthly household's income (9 categories : less than 600 €, from 600 to less than 900 €, from 900 to less than 1200 €, from 1200 to less than 1500 €, from 1500 to less than 2300 €, from 2300 to less than 3000 €, from 3000 to less than 4500 €, from 4500 to less than 7000 €, 7000 € and more), the type of Internet connection (5 categories : no Internet access, cable, ADSL, optic fibers, others) and the region of residence in metropolitan France (21 regions : Ile-de-France, Champagne-Ardenne, Picardie, Haute-Normandie, Centre, Basse-Normandie, Bourgogne, Nord-Pas-de-Calais, Lorraine, Alsace, Franche-Comté, Pays de la Loire, Bretagne, Poitou-Charentes, Aquitaine, Midi-Pyrénées, Limousin, Rhône-Alpes, Auvergne, Languedoc-Roussillon and Provence-Alpes-Côte d'Azur (PACA)). $month_{ip}$ is an indicator variable for each individual i where $p = 1, \ldots, 79$ corresponds to one of the 79 months over the period 03/01/2011 to 31/07/2017. The purpose of introducing this variable is to neutralise the seasonal component present in our data, as well as some current events that may justify an exceptional increase in the time devoted to watch television (Football World Cup, Olympic games, tennis tournaments, Tour de France...). Day_{id} is an indicator variable, where subscript $d = 1, \ldots, 7$ captures each of the 7 named days of the week. We introduce this variable in order to take into account the programing effect which is not the same depending on the day of the week. For example, there are no films aired on Wednesdays in France in order to respect competition with movie theaters. In addition, this variable takes into account some days of the week that are very specific to the French society : Saturday and Sunday are rest days, and Wednesday is a rest day for children. Finally u_{it} is the error term.

Unfortunately, some variables of interest such as individual daily time spent surfing on the Internet, daily time spent watching an SVOD program, household equipment (number and age of smartphones, computers, tablets) and municipality of residence are not available in this database. More formally, we estimate separately for each region the four dependent variables y_{iht} with the autoregressive fixed-effect (the justification of the choice of this estimator and the results relative to control variables are not presented in this article, but are available on request) as follows, where $\sigma_j, \iota_j, \kappa_j, \beta_{kjt}, \beta_a, \beta_p$ and β_d are estimated parameters :

$$y_{hit} = \sigma_j y_{hit-1} + \iota_j \mathrm{TS}_{it} + \sum_{k=1}^{5} \beta_{kjt}\omega_{kjt} + \kappa_j \mathrm{OTVU}_{it} + \sum_{a=1}^{K} \beta_a X_{ita} + \sum_{p=1}^{P} \beta_p \mathrm{Month}_{ip} + \sum_{d=1}^{D} \beta_d \mathrm{Day}_{id} + u_{it}. \tag{4.6}$$

Note that in our theoretical model we have considered the preference for advertising as a function $g(\psi_a, \Omega)$. In order to estimate its influence on the time spent watching advertising, we estimate an affine function of it, say $\hat{g}(\hat{\psi}_a, \Omega)$. For doing that, we split ψ_a into two proxies : the habit of watching advertising $\hat{\psi}_a^1 := y_{hit-1},\ h = 1, 2$ and the time shifting

$\hat{\psi}_a^2 := \text{TS}_{it}$. Weather conditions are captured by ω_{kjt}. Consequently, $\hat{g}(\hat{\psi}_a, \Omega) = \sigma_j y_{hit-1} + \iota_j \text{TS}_{it} + \sum_{k=1}^{5} \beta_{kjt}\omega_{kjt}$. Similarly, we estimate the influence of the preference for watching TV program $\hat{g}(\hat{\psi}_m, \Omega)$ on the time spent watching TV program the same way for $h = 3, 4$.

In our database, the subscripts vary as follows : $t = 1, ..., \mathcal{T}$ where $\mathcal{T} = 2401$ corresponds to the number of days over the period from 03/01/2011 to 31/07/2017, $i = 1, ..., n$ where $n = 22,832$ is the number of panelists.

The Médiamétrie's panel must be permanently representative of the French population having a television set at home. A particularity of the Médiamétrie's panel is that it is rotating. Indeed, if the situation of household $\mathcal{H}_0$ has changed, it is likely to be replaced by household $\mathcal{H}_1$. This happens for instance in the following cases : arrival of a child, house move, or change in the salary category, etc. Since these situations may alter the representativeness of the panel, if it happens then the Médiamétrie's policy is to exclude $\mathcal{H}_0$ from the panel. Thus, our panel is unbalanced insofar as the individuals present do not have the same length of participation and therefore do not have the same number of observations over time. Biørn 1981 distinguishes two cases in the literature : complete overlapping, where all the panelists are replaced by other panelists, and partly overlapping, where some of the panelists are replaced by other panelists. In our case, we do not know which incoming panelist was chosen to replace a particular outgoing panelist, but we know why. Therefore, we are facing with an unbalanced panel and not with a rotating panel in the traditional sense. Since we know why an individual enters or exits the panel, we use classical estimation methods in panel data. For more details on rotation in our panel data, see Figure B.1 in Appendix B.3. On average, a panelist is present 681 days (compared to $\mathcal{T} = 2401$ days in the 2011-2017 period).

4.5.2 Results and Discussion

4.5.2.1 Empirical existence of the taste for advertising

In Table 4.3, we ranked regions according to the mean of temperature. Note that in Table 4.3, on the first line and on the column $q_3^R - t_2$, 19.77 means 19 mn and 46 seconds and similarly for all numbers in the last four columns.

According to this ranking, we presents two types of results.

1. Regions with similar temperature exhibit very different advertising audiences. For instance, Franche-Comté, Alsace and Auvergne correspond to this kind of regions whether it is a public or private channel.

2. Regions with dissimilar temperature exhibit similar advertising audiences. For instance Bourgogne and Franche-Comté whether it is a public or private channel.

3. Moreover, considering Lorraine and Champagne-Ardenne, we observe that these two regions are very similar in all weather conditions variables ω_1, ω_2, ω_3, ω_4 and ω_5. Advertising audience are similar on public channels but significantly dissimilar on

TABLE 4.3 – Regional descriptive statistics on ad and program audiences w.r.t. weather conditions.

	ω_1	ω_2	ω_3	ω_4	ω_5	$q_3^R - t_2$	$q_2^R - t_1$	$t_3 - Q_3^R$	$t_2 - Q_2^R$
Region									
Aquitaine	12.66	336.91	2.43	2.54	120.66	19.77	9.01	138.62	155.42
PACA	12.61	454.88	1.94	3.51	67.64	19.76	9.15	138.65	156.01
Bourgogne	12.05	324.47	2.17	2.66	132.57	21.37	8.72	136.34	147.19
Ile-de-France	11.94	290.53	1.66	3.33	110.33	18.95	8.07	126.51	150.49
Poitou-Charentes	11.77	347.60	2.05	3.76	97.07	21.46	9.88	145.44	159.78
Haute-Normandie	11.67	283.34	1.74	4.18	96.99	20.98	9.66	139.60	157.24
Nord-Pas-de-Calais	11.44	278.88	2.24	3.97	129.35	24.93	8.60	150.99	135.57
Basse-Normandie	11.41	292.49	2.12	4.14	137.22	21.09	9.58	143.20	160.47
Pays-de-la-Loire	11.35	318.39	2.03	3.17	120.29	20.68	9.33	135.90	154.82
Bretagne	11.28	286.55	2.36	4.06	138.80	21.13	8.27	139.82	147.46
Centre	11.18	315.25	1.83	3.42	115.49	22.10	8.21	139.60	143.23
Picardie	10.92	280.57	1.85	3.86	115.21	22.82	6.99	143.11	127.10
Rhône-Alpes	10.80	360.56	2.66	2.59	124.54	19.04	7.71	129.38	144.21
Franche-Comté	10.80	315.83	2.71	2.27	141.71	19.55	8.06	136.33	139.61
Alsace	10.71	305.06	1.90	2.60	135.67	16.08	7.41	121.01	137.75
Auvergne	10.71	334.33	2.11	2.45	119.38	18.03	8.21	131.79	153.89
Languedoc-Roussillon	10.64	400.34	1.67	3.88	79.81	19.96	8.47	138.30	158.06
Champagne-Ardenne	10.53	292.69	1.95	2.97	118.78	22.45	7.74	145.48	140.93
Lorraine	10.53	290.00	1.98	2.95	119.15	20.36	8.01	135.87	147.94
Midi-Pyrénées	10.44	349.83	2.09	2.71	113.24	18.61	8.82	132.86	150.32
Limousin	10.35	325.83	2.57	2.70	130.17	18.52	7.60	135.66	136.98

Source : authors calculation based on Médiamétrie's data and Météo France.

private channels. This illustrates the existence of a taste for advertising by region independent on weather conditions, which is higher in Champagne-Ardenne compared to Lorraine.

These results confirm that our assumption in Subsection 4.3.3.2 of our model of an independent ψ_a with respect to weather conditions is adapted. Indeed, we have shown the existence of a taste for advertising (point 1) which is independent on weather conditions (point 2 and point 3). One can redo the exercise by ranking regions according to successively ω_2, ω_3, ω_4 and ω_5 and find similar results.

4.5.2.2 Empirical impacts of the preference for advertising and of the preference for program

We now turn to estimate on the one hand the influence of the preferences for advertising on the time spent watching advertising and on the other hand the influence of the preferences for TV program on the time spent watching TV program.

Table 4.4 – By region - Time spent watching an ad from a free private channel per Individual

	(1) (IDF)	(2) (C-A)	(3) (PIC)	(4) (H-N)	(5) (CEN)	(6) (B-N)	(7) (BOU)	(8) (N-P-C)	(9) (LOR)	(10) (ALS)	(11) (F-C)	(12) (P-D-L)	(13) (BRE)	(14) (P-C)	(15) (AQU)	(16) (M-P)	(17) (LIM)	(18) (R-A)	(19) (AUV)	(20) (L-R)	(21) (PACA)
$(q_3^R - t_2)_{t-1}$	.2045402***	.2063358***	.2016038***	.1938463***	.2265185***	.2187535***	.2055210***	.2219559***	.204681***	.186618***	.1979351***	.2013544***	.2158498***	.2185468***	.2088206***	.2195193***	.2007354***	.191072***	.2184162***	.2137705***	.2091251***
	(.0040292)	(.0093558)	(.0073447)	(.0085066)	(.0069244)	(.010322)	(.0067345)	(.0064099)	(.0073585)	(.0078663)	(.0072401)	(.0063578)	(.0062646)	(.0091935)	(.0061949)	(.0083001)	(.0121918)	(.0053912)	(.0120398)	(.0080636)	(.0058745)
	50.76	22.05	27.45	22.79	32.71	21.19	30.52	34.63	27.82	23.72	27.34	31.67	34.46	23.77	33.71	26.45	16.46	35.44	18.14	26.51	35.60
TS (in mn)	-.003144***	-.0097432***	-.0012768	-.0059319**	-.0081099***	-.0066644	-.0055477	-.000322	-.0099693***	-.0107747***	-.0087683***	-.005698***	-.0171438**	-.0159538***	-.0075865***	-.0093427***	-.0084383**	-.0072697***	-.00992**	-.0133678***	-.0063662***
	(.00116)	(.0026067)	(.0022972)	(.0023348)	(.0017748)	(.0049047)	(.0039593)	(.0022128)	(.0024597)	(.0026943)	(.0029362)	(.0020452)	(.0081775)	(.0030874)	(.0017099)	(.0030375)	(.0034942)	(.0016084)	(.0041457)	(.0029904)	(.0017502)
	-2.71	-3.74	-0.56	-2.54	-4.57	-1.36	-1.40	-0.15	-4.05	-4.00	-2.99	-2.79	-2.10	-5.17	-4.44	-3.08	-2.41	-4.52	-2.39	-4.47	-3.64
OTVU (in mn)	-.007245***	-.0126175***	-.0086596***	-.0141904***	-.014531***	-.0139367***	-.0117426***	-.0126754***	-.0118332***	-.0100558***	-.0105629***	-.0122662***	-.0149799***	-.0148751***	-.0124838***	-.0086338***	-.0111541***	-.0094962***	-.0141694***	-.0134593***	-.0114794***
	(.0009159)	(.001975)	(.0014052)	(.0017444)	(.0016316)	(.0022052)	(.0016135)	(.0011912)	(.001483)	(.0016873)	(.0019423)	(.001428)	(.0016817)	(.0017981)	(.0014124)	(.0016132)	(.0032102)	(.0010148)	(.0027728)	(.0014181)	(.001087)
	-7.91	-6.39	-6.16	-8.13	-8.91	-6.32	-7.28	-10.64	-7.98	-5.96	-5.44	-8.59	-8.91	-8.27	-8.84	-5.35	-3.47	-9.36	-5.11	-9.49	-10.56
ω_1 **: Temperature (in °C)**	-.0790403***	-.1058314***	-.1392224***	-.1358929***	-.0991143***	-.1507745***	-.0998152***	-.1482726***	-.1049316***	-.0596122***	-.133905***	-.1062554***	-.1473615***	-.0904875***	-.1028868***	-.090218***	-.0773114***	-.0839269***	-.0917756***	-.109742***	-.1198831***
	(.0051447)	(.0105801)	(.0104831)	(.0131321)	(.0077235)	(.0164164)	(.0110844)	(.0081855)	(.0108123)	(.0077294)	(.012)	(.0082268)	(.0101323)	(.0096762)	(.0087703)	(.0081066)	(.0162659)	(.0056048)	(.010732)	(.0094953)	(.0078731)
	-15.36	-10.00	-13.28	-10.35	-12.83	-9.18	-9.01	-18.11	-9.70	-7.71	-11.16	-12.92	-14.54	-9.35	-11.73	-11.13	-4.75	-14.97	-8.55	-11.56	-15.23
ω_2 **: Sunshine duration (in mn)**	-.0007562***	-.0021401***	-.0015432***	-.0014579***	-.0014831***	-.0019836***	-.0019679***	-.0017079***	-.0013016***	-.0014847***	-.0014188***	-.0014658***	-.0022542***	-.0017951***	-.0014596***	-.001388***	-.0013722***	-.0016256***	-.0016829***	-.0019254***	-.0016478***
	(.0000828)	(.0001987)	(.0001941)	(.0001894)	(.0001278)	(.0002221)	(.0002099)	(.0001325)	(.0001798)	(.0001778)	(.0002355)	(.0001333)	(.0001637)	(.0001898)	(.000143)	(.0001507)	(.0002628)	(.0001268)	(.0002164)	(.0001645)	(.0001349)
	-9.13	-10.77	-7.95	-7.70	-11.61	-8.93	-9.38	-12.89	-7.24	-8.35	-6.03	-10.99	-13.77	-9.46	-10.21	-9.21	-5.22	-12.82	-7.78	-11.71	-12.22
ω_3 **: Rainfall (in mm)**	.0166942***	.0130348	.0593656***	.0139186	.0247145**	-.0149306	-.014396	.0363202***	.0030701	-.0043622	.0121081	.0181188**	.0382994***	.0410187***	.0133678	.0050974	.0082118	-.0224198***	-.0043714	.0084323	.0080963
	(.006361)	(.0158231)	(.0129231)	(.0163895)	(.0096167)	(.0159077)	(.0132414)	(.0078826)	(.0112695)	(.0087646)	(.01156)	(.0089925)	(.009041)	(.0111718)	(.0094182)	(.009827)	(.0157926)	(.0055227)	(.0117408)	(.0106207)	(.0061709)
	2.62	0.82	4.59	0.85	2.57	-0.94	-1.09	4.61	0.27	-0.50	1.05	2.01	4.24	3.67	1.42	0.52	0.52	-4.06	-0.37	0.79	1.31
ω_4 **: Wind speed (in km/h)**	-.0834947***	-.0433182*	-.0098968	-.0052082	-.0045633	-.0202156	.0507509*	-.0473884***	-.0928807***	-.0219905	.0440613	.0301223	.0455527***	.0260434	.1245929***	.0835829***	-.0318098	.0221691	.0219543	.0493089***	.02833**
	(.0115559)	(.0254556)	(.0196343)	(.02075)	(.0153673)	(.0206938)	(.0280363)	(.0144283)	(.0255797)	(.0232429)	(.0325717)	(.0194724)	(.016596)	(.0205766)	(.0247991)	(.0217759)	(.0400763)	(.0180067)	(.0294828)	(.0187625)	(.0125723)
	-7.23	-1.70	-0.50	-0.25	-0.30	-0.98	1.81	-3.28	-3.63	-0.95	1.35	1.55	2.74	1.27	5.02	3.84	-0.79	1.23	0.74	2.63	2.25
ω_5 **: Rain duration (in mn)**	.0003562***	.0002814	-.0001786	.0012523***	.0002374	.0008153**	.0009601***	-.0007824***	.0012294***	.0008702***	.0010601***	.0001823	-.0006711***	.0003052	.0007059***	.0008868***	.0007391**	.0012591***	.0008206***	.0012154***	.0010155***
	(.0001252)	(.0003122)	(.0002602)	(.0003293)	(.0002139)	(.0003247)	(.0002779)	(.0001774)	(.0002281)	(.0001741)	(.0002998)	(.0001884)	(.0001849)	(.0002977)	(.0002311)	(.000242)	(.0003183)	(.0001754)	(.0002929)	(.0003427)	(.0002135)
	2.85	0.90	-0.69	3.80	1.11	2.51	3.45	-4.41	5.39	5.00	3.54	0.97	-3.63	1.03	3.06	3.66	2.32	7.18	2.80	3.55	4.76
Intercept	14.52448***	11.84259***	20.64104***	5.563978*	17.36033***	21.24683***	20.38873***	22.69348***	13.82172***	11.30219***	17.43099***	15.20608***	17.62744***	16.74988***	17.16106***	15.35493***	13.93234***	17.69463***	7.971859**	17.95915***	16.46029***
	(1.721213)	(2.995387)	(2.500725)	(2.914034)	(2.558461)	(3.494478)	(2.244174)	(2.226535)	(3.31632)	(3.147734)	(2.742792)	(3.012512)	(2.341296)	(3.819739)	(2.399679)	(2.198216)	(2.993723)	(2.047877)	(3.792079)	(2.349439)	(1.581975)
	8.44	3.95	8.25	1.91	6.79	6.08	9.09	10.19	4.17	3.59	6.36	5.05	7.53	4.39	7.15	6.99	4.65	8.64	2.10	7.64	10.40
Number of observations	1,299,588	293,617	371,992	315,276	683,147	242,661	326,124	701,448	355,539	403,930	225,595	625,260	553,773	369,763	575,238	502,314	139,266	893,941	244,025	403,628	760,731
Number of groups	3,083	554	806	712	1,311	528	655	1,490	854	844	506	1,406	1,179	707	1,237	1,054	297	2,076	556	828	1,565
R-squared for overall model : R^2_O	0.22	0.22	0.22	0.19	0.28	0.17	0.21	0.25	0.23	0.20	0.19	0.23	0.20	0.16	0.23	0.23	0.21	0.26	0.21	0.22	0.26
R-squared for between model : R^2_B	0.49	0.44	0.52	0.40	0.66	0.42	0.54	0.51	0.41	0.25	0.21	0.42	0.34	0.24	0.37	0.40	0.28	0.71	0.32	0.31	0.67
R-squared for within model : R^2_W	0.06	0.07	0.06	0.07	0.07	0.07	0.06	0.07	0.06	0.06	0.07	0.06	0.07	0.07	0.06	0.07	0.07	0.06	0.08	0.07	0.07
Panel-level standard deviation : σ_u	11.62	12.21	12.50	13.08	12.92	12.13	13.25	12.95	12.31	11.97	13.73	12.26	12.97	13.54	13.32	12.65	13.25	11.76	10.62	12.56	11.70
Standard deviation of ϵ_{it} : σ_ϵ	16.67	17.68	18.40	17.38	18.03	17.24	17.46	19.17	17.47	14.90	16.18	17.20	16.98	17.12	16.63	16.38	15.86	16.48	16.25	16.73	16.70
Intraclass correlation : ρ	0.33	0.32	0.32	0.36	0.34	0.33	0.37	0.31	0.33	0.39	0.42	0.34	0.37	0.38	0.39	0.37	0.41	0.34	0.30	0.36	0.33

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 4.5 – By region - Time spent watching an ad from a free public channel per Individual

	(1) (IDF)	(2) (C-A)	(3) (PIC)	(4) (H-N)	(5) (CEN)	(6) (B-N)	(7) (BOU)	(8) (N-P-C)	(9) (LOR)	(10) (ALS)	(11) (F-C)	(12) (P-D-L)	(13) (BRE)	(14) (P-C)	(15) (AQU)	(16) (M-P)	(17) (LIM)	(18) (R-A)	(19) (AUV)	(20) (L-R)	(21) (PACA)
$(q_2^R - t_1)_{t-1}$	.2199805***	.1945249***	.2018958***	.2492998***	.2344676***	.1863952***	.2381119***	.2013511***	.1934555***	.1889088***	.1707349***	.2155104***	.2108529***	.2287214***	.2127558***	.219399***	.203873***	.2072511***	.1523844***	.221725***	.2374148***
	(.0094417)	(.0123064)	(.0104533)	(.0260063)	(.0156228)	(.0254041)	(.0173443)	(.0150912)	(.0142654)	(.0137739)	(.0100799)	(.0133595)	(.0118175)	(.0095484)	(.0085481)	(.0079462)	(.0165639)	(.0083168)	(.022925)	(.00944)	(.010192)
	23.30	15.81	19.31	9.59	15.01	7.34	13.73	13.34	13.56	13.72	16.94	16.13	17.84	23.95	24.89	27.61	12.31	24.92	6.65	23.49	23.29
TS (in mn)	-.0025589***	-.0042947***	.0004164	-.006227**	-.0015834	-.0055124**	-.001484	-.0032934**	-.0039705**	.0000739	-.0015588	-.0028611**	-.0028563**	-.0038231**	-.0015113	-.0053056***	-.0055417**	-.001001	.0023699	-.0035728***	-.0013573
	(.0008982)	(.0014884)	(.0013961)	(.0026759)	(.0010954)	(.002278)	(.0011991)	(.0012852)	(.0016781)	(.0013894)	(.001745 8)	(.0012437)	(.0013021)	(.0016263)	(.001246)	(.0016634)	(.0024299)	(.0009759)	(.0017505)	(.0012857)	(.0011832)
	-2.85	-2.89	0.30	-2.33	-1.45	-2.42	-1.24	-2.56	-2.37	0.05	-0.89	-2.30	-2.19	-2.35	-1.21	-3.19	-2.28	-1.03	1.35	-2.78	-1.15
OTVU (in mn)	-.001995***	-.0023965***	-.0021898***	-.0049463***	-.0016553**	-.0044828*	-.0038093**	-.0032362***	-.0022297*	-.0019905	-.0021161*	-.0029028***	-.0020303***	-.006237***	-.0029285***	-.0039048***	-.0042377***	-.0024908***	-.0085076*	-.0072432***	-.0037712***
	(.0004113)	(.0005877)	(.0006498)	(.0010791)	(.0006498)	(.0023671)	(.0015267)	(.0007331)	(.0012667)	(.0012769)	(.0010903)	(.0008321)	(.0007427)	(.0019139)	(.0009005)	(.0010034)	(.0013533)	(.0006532)	(.0049289)	(.0010967)	(.0008103)
	-4.85	-4.08	-3.37	-4.58	-2.55	-1.89	-2.50	-4.41	-1.76	-1.56	-1.94	-3.49	-2.73	-3.26	-3.25	-3.89	-3.13	-3.81	-1.73	-6.60	-4.65
ω_1 : **Temperature (in °C)**	-.0368667***	-.051474***	-.0389809***	-.0491754***	-.0465639***	-.0605804***	-.0419686***	-.0579899***	-.0249981***	-.0188625***	-.0328309***	-.056314***	-.0546804***	-.0614583***	-.0395677***	-.0373108***	-.048139***	-.021062***	-.031839***	-.0368503***	-.0677881***
	(.0039466)	(.0082286)	(.0082908)	(.0080251)	(.0048849)	(.0091634)	(.0072867)	(.0059406)	(.0062332)	(.0052709)	(.0103328)	(.0065444)	(.0077097)	(.0085798)	(.0067484)	(.0052928)	(.0090024)	(.004396)	(.0081729)	(.0054762)	(.0061818)
	-9.34	-6.26	-4.70	-6.13	-9.53	-6.61	-5.76	-9.76	-4.01	-3.58	-3.18	-8.60	-7.09	-7.16	-5.86	-7.05	-5.35	-4.79	-3.90	-6.73	-10.97
ω_2 : **Sunshine duration (in mn)**	-.000837***	-.0008077***	-.0003448***	-.0007432***	-.0004553***	-.0006435***	-.0005507***	-.0003247***	-.000465***	-.0006109***	-.0005765***	-.0004406***	-.0005293***	-.0007494***	-.0004855***	-.0003816***	-.0003911**	-.0008068***	-.000796***	-.0004695***	-.0006938***
	(.000064)	(.0001809)	(.0001133)	(.0001523)	(.000086)	(.0002075)	(.0001415)	(.0000876)	(.0001403)	(.0001155)	(.0001668)	(.0001027)	(.0001026)	(.0002119)	(.0000909)	(.0001137)	(.0001799)	(.0000946)	(.0001524)	(.0001153)	(.0001093)
	-5.99	-4.46	-3.04	-4.88	-5.29	-3.10	-3.89	-3.71	-3.31	-5.29	-3.46	-4.29	-5.16	-3.54	-5.34	-3.36	-2.17	-8.53	-5.22	-4.07	-6.35
ω_3 : **Rainfall (in mm)**	.0205327***	.0238846**	.0303854***	.0288029***	.0211572***	.0166132	.0159914*	.0113969*	.0187661**	.0059804	-.0144083	.0100773	.016816**	.0088321	-.0025666	.0015801	.027317***	-.0009083	.0124201	.0112521	.0071208*
	(.0045834)	(.0106628)	(.0081284)	(.0109297)	(.0063938)	(.0115737)	(.0089984)	(.0063498)	(.0080209)	(.0078476)	(.0106774)	(.0067996)	(.0074119)	(.0086536)	(.0067178)	(.0078076)	(.0088105)	(.0037578)	(.0093605)	(.0076555)	(.0042615)
	4.48	2.24	3.74	2.64	3.31	1.44	1.78	1.79	2.34	0.76	-1.35	1.48	2.27	1.02	-0.38	0.20	3.10	-0.24	1.33	1.47	1.67
ω_4 : **Wind speed (in km/h)**	.0077078	.0265455	.0333605***	.0001587	.0036461	-.0337671**	.0198626	.0125077	-.017204	-.0080312	.0487874*	.0220459	.0299275***	.020824	.0193993	.0255761*	-.0339608	.0262329**	-.0125298	.0308123**	.0019137
	(.0090766)	(.020641)	(.0127382)	(.0145262)	(.011688)	(.0159018)	(.0170543)	(.0105278)	(.0173248)	(.0178568)	(.026948)	(.0146675)	(.0099133)	(.0165704)	(.0174134)	(.0148801)	(.0313369)	(.0129572)	(.0253707)	(.0122429)	(.0099979)
	0.85	1.29	2.62	0.01	0.31	-2.12	1.16	1.19	-0.99	-0.45	1.81	1.50	3.02	1.26	1.11	1.72	-1.08	2.02	-0.49	2.52	0.19
ω_5 : **Rain duration (in mn)**	-.0001714*	-.000137	-.0004111**	-.0003141	-.000147	.000271	.0002184	-.0001278	.0000252	.0001249	.0004845**	.0003271**	-.0000133	-4.92e-07	.0006628***	.0008605***	.0000288	.0001483	.000307	.0005702**	.0004801***
	(.0000928)	(.0002102)	(.0001689)	(.0002048)	(.0001474)	(.0002313)	(.0001995)	(.0001236)	(.000171)	(.0001184)	(.000229)	(.0001643)	(.0001389)	(.0002287)	(.0001839)	(.000197)	(.0002156)	(.0001113)	(.0002232)	(.0002336)	(.0001554)
	-1.85	-0.65	-2.43	-1.53	-1.00	1.17	1.09	-1.03	0.15	1.05	2.12	1.99	-0.10	-0.00	3.60	4.37	0.13	1.33	1.38	2.44	3.09
Intercept	9.898566***	10.00303***	9.015941***	17.5505***	9.069166***	10.09496***	10.83547***	10.47039***	11.4382***	8.22279***	9.915295***	13.12047***	8.320395***	12.51052***	10.51224***	9.633728***	6.629342***	9.9045***	6.800509***	9.974172***	13.89796***
	(1.257759)	(1.050072)	(1.397416)	(2.094309)	(1.257953)	(1.908873)	(2.761709)	(1.645784)	(1.64673)	(1.640134)	(1.444111)	(1.25691)	(1.88912)	(1.48669)	(1.358688)	(1.299443)	(1.370349)	(.8719951)	(2.054727)	(1.160757)	(1.479088)
	7.87	9.53	6.45	8.38	7.21	5.29	3.92	6.36	6.95	5.01	6.87	10.44	4.40	8.42	7.74	7.41	4.84	11.36	3.31	8.59	9.40
Number of observations	377,964	97,431	97,261	109,225	233,945	88,848	114,649	214,992	112,185	130,689	74,708	210,408	192,591	138,002	213,798	187,149	51,065	285,908	87,372	165,065	284,612
Number of groups	2,656	512	731	616	1,196	480	586	1,302	722	721	449	1,260	1,059	655	1,129	945	270	1,820	511	748	1,399
R-squared for overall model : R^2_O	0.24	0.14	0.21	0.21	0.27	0.10	0.35	0.21	0.21	0.15	0.15	0.25	0.31	0.14	0.22	0.25	0.12	0.27	0.16	0.26	0.31
R-squared for between model : R^2_B	0.14	0.09	0.24	0.09	0.50	0.00	0.25	0.40	0.21	0.11	0.09	0.07	0.51	0.01	0.33	0.30	0.12	0.50	0.21	0.48	0.47
R-squared for within model : R^2_W	0.06	0.07	0.06	0.10	0.08	0.08	0.08	0.07	0.06	0.06	0.06	0.08	0.07	0.09	0.06	0.08	0.07	0.06	0.05	0.08	0.08
Panel-level standard deviation : σ_u	4.49	4.51	3.50	5.01	3.81	6.57	4.27	3.83	4.64	4.00	4.69	5.07	3.91	6.46	4.75	4.55	4.42	3.78	4.72	3.90	4.14
Standard deviation of ϵ_{it} : σ_ϵ	7.17	6.53	6.16	7.57	7.10	8.10	7.15	7.42	7.17	6.49	6.86	7.60	6.71	7.57	7.31	7.32	6.46	6.77	7.32	6.95	7.47
Intraclass correlation : ρ	0.28	0.32	0.24	0.30	0.22	0.40	0.26	0.21	0.30	0.28	0.32	0.31	0.25	0.42	0.30	0.28	0.32	0.24	0.29	0.24	0.24

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Tables 4.4 and 4.5 provide the following results on advertising audience :

1. One minute of advertising on regulated private channels watched by viewers the day before, in $t-1$, increases the amount of advertising watched on the same channels on day t by between 0.186 mn and 0.226 mn depending on the region (see Table 4.4). For advertising on regulated public channels, this coefficient varies between 0.152 mn and 0.249 mn depending on the region (see Table 4.5). These parameters measure the strength of habit formation relating to advertisements and show various behaviors across regions, see Dynan 2000.

2. When viewers watch television on a time-shifted basis for 1 mn, the advertising watched on regulated private channels decreases between 0.00314 mn and 0.0171 mn across regions. There is no effect for for Picardie, Basse-Normandie, Centre and Nord-Pas-de-Calais (see Table 4.4). For advertising on regulated public channels, this coefficient varies between 0.0025589 mn and 0.006227 mn depending on the region. There is no effect for Picardie, Centre, Bourgogne, Alsace, Franche-Comté, Aquitaine, Rhône-Alpes, Auvergne and PACA (see Table 4.5).

3. When viewers watch something other than TV channels on their TV set for 1 mn, the advertising they watch on regulated private channels decreases between 0.007 mn and 0.0149 mn across regions (see Table 4.4). For advertising on regulated public channels, this coefficient decreases between 0.0016553 mn and 0.0085076 mn depending on the region. There is no effect for Alsace (see Table 4.5).

4. ω_1 has a negative impact of the advertising watched. For an increase of one degree Celcius, the advertising watched on private regulated channels decreases between 0.059 mn and 0.150 mn depending on region (see Table 4.4). For the advertising watched on public regulated channels, this coefficient varies between -0.018 mn and -0.067 mn depending on region (see Table 4.5).

5. ω_2 has a negative impact of the advertising watched. For an increase of one mn of the sunshine duration, the advertising watched on private regulated channels decreases between 0.0007 mn and 0.002 mn depending on region (see Table 4.4). For the advertising watched on public regulated channels, this coefficient varies between -0.003 mn and -0.008 mn depending on region (see Table 4.5).

6. ω_3 has both a positive and negative impact on the advertising watched depending on regions. For an increase of one mm of the rainfall, the advertising watched on private regulated channels increased between 0.0166 mn and 0.0593 mn for a group of region (Ile-de-France, Picardie, Centre, Nord-Pas-de-Calais, Pays-de-la-Loire, Bretagne, Poitou-Charentes and Rhône-Alpes). For the other regions, rainfall has no impact on the advertising watched (see Table 4.4). For the advertising watched on public regulated channels, this coefficient varies between 0.007 mn and 0.030 mn for

a group of 11 regions. Finally, rainfall has no impact on advertising watched in the other regions (see Table 4.5).

7. ω_4 has both a positive and negative impact on the advertising watched depending on regions. For an increase of one km/h of the wind speed, the advertising watched on private regulated channels decreases between 0.028 mn and 0.124 mn for a group of region (Ile-de-France, Champagne-Ardennes, Bourgogne, Nord-Pas-de-Calais, Lorraine, Bretagne, Aquitaine, Midi-Pyrénées, Languedoc-Roussillon and PACA). For the other regions, wind speed has no impact on the advertising watched (see Table 4.4). For the program watched on public regulated channels, this coefficient increases between 0.025 mn and 0.048 mn for a group of region (Picardie, Basse-Normandie, Franche-Comté, Bretagne, Midi-Pyrénées, Rhône-Alpes and Languedoc-Roussillon). Wind-speed has no impact on advertising watched for the other regions (see Table 4.5).

8. ω_5 has both a positive and negative impact on the advertising watched depending on regions. For an increase of one mn of the rain duration, the advertising watched on private regulated channels increases between 0.0003562 mn and 0.0012591 mn. Rain duration has no impact in Picardie, Champagne-Ardennes, Centre, Pays-de-la-Loire and Poitou-Charentes (see Table 4.4). For the advertising watched on public regulated channels, this coefficient decreases between 0.0001714 mn and 0.0008605 mn for a group of regions (Ile-de-France, Picardie, Franche-Comté, Pays-de-la-Loire, Aquitaine, Midi-Pyrénées, Languedoc-Roussillon and PACA). ω_5 has no impact on the other regions (see Table 4.5).

Table 4.6 and 4.7 provides the following results on program audience :

1. One minute of program on regulated private channels watched by viewers the day before, in $t-1$, decreases the time of program watched on the same channels on day t by between 0.025 mn and 0.132 mn depending on the region (see Table 4.6). For program on regulated public channels, this coefficient varies between 0.176 mn and 0.222 mn depending on the region (see Table 4.7). These coefficients reflect the habit effect of watching programs regularly and show various behaviors across regions.

2. When viewers watch TV on a delayed basis for 1 mn, the time spent on program they watch on regulated private channels increases between 0.0222 mn and 0.128 mn (Table 4.6). For regulated public channels, this coefficient decreases from 0.042 mn to 0.135 mn depending on the region, except in Franche-Comté and Auvergne where there is no effect (Table 4.7).

3. When viewers watch something else than TV channels on their TV set for 1 mn, the program they watch on regulated private channels decreases between 0.061 mn and 0.129 mn (see Table 4.6). For programs watched on regulated public channels,

this coefficient varies between −0.072 mn and −0.173 depending on the regions (see Table 4.7).

4. ω_1 has a negative impact of the program watched. For an increase of one degree Celcius, the program watched on private regulated channels decreases from 0.065 mn to 0.497 mn depending on region. Temperature has no impact on program watched on regulated private channels in Alsace (Table 4.6). For the program watched on public regulated channels, this coefficient varies between −0.110 mn and −0.543 mn depending on region. Temperature has no impact on program watched on regulated public channels in Franche-Comté, Midi-Pyrénées, Auvergne and Languedoc-Roussillon (Table 4.7).

5. ω_2 has a negative impact of the program watched. For an increase of one mn of the sunshine duration, the program watched on private regulated channels decreases between −0.006 mn and 0.017 mn depending on region (see Table 4.6). For programs watched on public regulated channels, this coefficient varies between −0.004 mn and −0.013 mn depending on regions (see Table 4.7).

6. ω_3 has both a positive and negative impact on the program watched depending on regions and the program watched. For an increase of one mm of the rainfall, the program watched on private regulated channels increases in Nord-Pas-de-Calais (0.128 mn), Champagne-Ardennes (0.152 mn), Picardie (0.169 mn) and Aquitaine (0.199 mn). For the other regions, rainfall has no impact on the program watched (see Table 4.6). For an increase of one mm of the rainfall, the program watched on public regulated channels increases in Ile-de-France (0.205 mn), Picardie (0.342) and PACA (0.107 mn). The same increase implies a decrease of the program watched on public regulated channels for Franche-Comté (−0.250 mn), Aquitaine (−0.228 mn), Midi-Pyrénées (−0.199 mn) and Rhône-Alpes (−0.102 mn). Rainfall has no impact for the other regions (see Table 4.7).

7. ω_4 has a positive impact of the program watched. For an increase of one km/h, the program watched on private regulated channels increases between 0.127 mn and 0.987 mn depending on region (see Table 4.6). For the program watched on public regulated channels, this coefficient varies between 0.027 mn and 0.977 mn depending on regions, except for Alsace, Limousin and Auvergne where ω_4 has no effect (see Table 4.7).

8. ω_5 has a positive impact of the program watched. For an increase of one mn of the rain duration, the program watched on private regulated channels increases between 0.002 mn and 0.006 mn for a group of regions (Ile-de-France, Haute-Normandie, Lorraine, Pays-de-la-Loire, Bretagne, Poitou-Charentes, Midi-Pyrénées, Rhône-Alpes, Languedoc-Roussillon and PACA). For the other regions, rain duration has no impact

(see Table 4.6). For the program watched on public regulated channels, this coefficient varies between 0.003 mn and 0.0113 mn depending for a group of regions (Basse-Normandie, Bourgogne, Nord-Pas-de-Calais, Franche-Comté, Pays-de-la-Loire, Bretagne, Poitou-Charentes, Aquitaine, Midi-Pyrénées and Languedoc-Roussillon). For the other regions, rain duration has no impact (see Table 4.7).

TABLE 4.6 – By region : Time spent watching a program from a free private channel per Individual

	(1) (IDF)	(2) (C-A)	(3) (PIC)	(4) (H-N)	(5) (CEN)	(6) (B-N)	(7) (BOU)	(8) (N-P-C)	(9) (LOR)	(10) (ALS)	(11) (F-C)	(12) (P-D-L)	(13) (BRE)	(14) (P-C)	(15) (AQU)	(16) (M-P)	(17) (LIM)	(18) (R-A)	(19) (AUV)	(20) (L-R)	(21) (PACA)
$(t_3 - Q_3^R)_t$	.175551***	.1765533***	.1721784***	.177921***	.1971389***	.1876388***	.1699390***	.1851856***	.176211***	.1555931***	.1569392***	.1741314***	.1866123***	.1814112***	.172518***	.1893123***	.172879***	.1653104***	.1629196***	.1903542***	.1773683***
	(.0039988)	(.0090785)	(.0067867)	(.0094922)	(.0077107)	(.0087359)	(.007016)	(.0058683)	(.0070871)	(.0065828)	(.006936)	(.0063003)	(.0062487)	(.008382)	(.0069363)	(.0069609)	(.0115738)	(.0050312)	(.0101841)	(.0076936)	(.0051133)
	43.90	19.45	25.37	18.74	25.57	21.48	24.22	31.56	24.86	23.64	22.63	27.64	29.86	21.64	24.87	27.20	14.94	32.86	16.00	24.74	34.69
TS (in mn)	-.0423629***	-.0724327***	-.0253746**	-.0870048***	-.0726678***	-.1073981***	-.0688308***	-.0321621***	-.0786098***	-.0773823***	-.0554865***	-.0573607***	-.1328047**	-.1093759***	-.0783801***	-.0755976***	-.0842468***	-.0753332***	-.0922462***	-.1150761***	-.05269***
	(.0067332)	(.0128981)	(.0118516)	(.0155272)	(.0102426)	(.0379819)	(.0231593)	(.0117502)	(.0174875)	(.0136705)	(.0210979)	(.0108656)	(.0533225)	(.0184287)	(.012259)	(.0168881)	(.0296783)	(.0100591)	(.0228999)	(.017534)	(.0118583)
	-6.29	-5.62	-2.14	-5.60	-7.09	-2.83	-2.97	-2.74	-4.50	-5.66	-2.63	-5.28	-2.49	-5.94	-6.39	-4.48	-2.84	-7.49	-4.03	-6.56	-4.44
OTVU (in mn)	-.0614615***	-.0884321***	-.0637788***	-.1227729***	-.0958953***	-.1047687***	-.0732144***	-.0792348***	-.0788188***	-.0822148***	-.0820183***	-.0847984***	-.1102352***	-.1022837***	-.0902121***	-.0728469***	-.102351***	-.0694436***	-.1295169***	-.1055665***	-.0901055***
	(.0050794)	(.0151494)	(.0079573)	(.0129932)	(.009047)	(.0144812)	(.0107734)	(.0065409)	(.0079784)	(.0105509)	(.014368)	(.0082843)	(.0094856)	(.0091836)	(.0085935)	(.0094245)	(.0168427)	(.0061703)	(.0321731)	(.0104919)	(.006598)
	-12.10	-5.84	-8.02	-9.45	-10.60	-7.23	-6.80	-12.11	-9.88	-7.79	-5.71	-10.24	-11.62	-11.14	-10.50	-7.73	-6.08	-11.25	-4.03	-10.06	-13.66
ω_1 **: Temperature (in °C)**	-.0797637***	-.2926617***	-.3635046***	-.3307847***	-.1846537***	-.4977455***	-.2370121***	-.3003988***	-.2284782***	-.0394466	-.469243***	-.1808871***	-.3747186***	-.2749451***	-.2358794***	-.1814338***	-.167179*	-.0658621**	-.1429831**	-.1529897***	-.1272176***
	(.0282332)	(.0617451)	(.0589906)	(.0665911)	(.0412112)	(.0870222)	(.0583315)	(.0459667)	(.0563838)	(.0489508)	(.0701129)	(.0449125)	(.0517415)	(.0588052)	(.0507842)	(.0445115)	(.0908452)	(.0326298)	(.0588687)	(.0531312)	(.0469384)
	-2.83	-4.74	-6.16	-4.97	-4.48	-5.72	-4.06	-6.54	-4.05	-0.81	-6.69	-4.03	-7.24	-4.68	-4.64	-4.08	-1.84	-2.02	-2.43	-2.88	-2.71
ω_2 **: Sunshine duration (in mn)**	-.0068525***	-.0173194***	-.0097833***	-.0119751***	-.0108618***	-.0128931***	-.014891***	-.011409***	-.0135544***	-.0143925***	-.0149706***	-.0094275***	-.012383***	-.0126751***	-.0088428***	-.0130882***	-.0106337***	-.013999***	-.0138838***	-.0128334***	-.0117446***
	(.0004654)	(.0012194)	(.0010998)	(.0010835)	(.0007322)	(.0013193)	(.0011617)	(.0007704)	(.0010815)	(.0010615)	(.0014875)	(.0007373)	(.0008636)	(.0010193)	(.0008267)	(.0009151)	(.0015201)	(.0007215)	(.0013074)	(.0010743)	(.0007895)
	-14.72	-14.20	-8.90	-11.05	-14.83	-9.77	-12.82	-14.81	-12.53	-13.56	-10.06	-12.79	-14.34	-12.43	-10.70	-14.30	-7.00	-19.40	-10.62	-11.95	-14.88
ω_3 **: Rainfall (in mm)**	-.0038922	.1522092*	.1694415**	-.062286	.0675659	.1402422	.1015894	.1281635***	-.0731068	.0782592	.0964782	.0417481	.055189	-.0116074	.1996969***	.043544	.0273421	-.0142763	.0367231	.0026455	-.0274654
	(.0373206)	(.0891808)	(.0788064)	(.0915472)	(.052135)	(.0979909)	(.0690373)	(.0452822)	(.0635802)	(.0614245)	(.0719082)	(.0507902)	(.0547642)	(.0612428)	(.0534594)	(.0582637)	(.0916687)	(.0306685)	(.0683285)	(.0605868)	(.0357956)
	-0.10	1.71	2.15	-0.68	1.30	1.43	1.47	2.83	-1.15	1.27	1.34	0.82	1.01	-0.19	3.74	0.75	0.30	-0.47	0.54	0.04	-0.77
ω_4 **: Wind speed (in km/h)**	.2148087***	.6860728***	.8558744***	.8343305***	.5726418***	.55255***	.6597788***	.668815***	.4320751***	.4590051***	1.127049***	.7906139***	.9048175***	.7158323***	.8222652***	.9871376***	.5934114**	.7030762***	.5451622***	.5586073***	.5035967***
	(.0670723)	(.1490654)	(.110128)	(.1179993)	(.0909074)	(.1250941)	(.1677694)	(.0832096)	(.1390577)	(.135526)	(.1919558)	(.1143022)	(.0963539)	(.1194631)	(.15526)	(.1286987)	(.2529194)	(.1066271)	(.1836324)	(.110098)	(.0796951)
	3.20	4.60	7.77	7.07	6.30	4.42	3.93	8.04	3.11	3.39	5.87	6.92	9.39	5.99	5.30	7.67	2.35	6.59	2.97	5.07	6.32
ω_5 **: Rain duration (in mn)**	.0050508***	.0010949	.0021736	.0033646*	.0018576	-.001297	.0001349	-.0003331	.004101***	.0006659	.0014742	.0040035***	.0036285***	.0064538***	.0019189	.0024843*	.0032775	.0023416**	.0010853	.0062751***	.0060047***
	(.0007531)	(.0018102)	(.0015731)	(.0017242)	(.0012223)	(.0018298)	(.0013984)	(.0009936)	(.0012932)	(.0010941)	(.0017355)	(.0011289)	(.0012093)	(.001729)	(.0014487)	(.0014987)	(.0020035)	(.000953)	(.0017602)	(.0019262)	(.0013188)
	6.71	0.60	1.38	1.95	1.52	-0.71	0.10	-0.34	3.17	0.61	0.85	3.55	3.00	3.73	1.32	1.66	1.64	2.46	0.62	3.26	4.55
Intercept	109.8362***	113.4986***	154.3328***	89.1276***	140.1974***	164.976***	150.1175***	161.6839***	111.5982***	94.78596***	139.6137***	135.0324***	146.1639***	115.4539***	144.9381***	152.6865***	138.4439***	144.3596***	118.5683***	178.9199***	139.6801***
	(9.708204)	(15.08477)	(12.19899)	(16.43401)	(9.747067)	(13.32118)	(11.97451)	(9.873291)	(15.8828)	(17.65584)	(14.36499)	(15.46648)	(13.01553)	(15.37633)	(15.60116)	(12.86625)	(17.3796)	(11.77305)	(11.76653)	(11.9071)	(11.13498)
	11.31	7.52	12.65	5.42	14.38	12.38	12.54	16.38	7.03	5.37	9.72	8.73	11.23	7.51	9.29	11.87	7.97	12.26	10.08	15.03	12.54
Number of observations	1,299,588	293,617	371,992	315,276	683,147	242,661	326,124	701,448	355,539	403,930	225,595	625,260	553,773	369,763	575,238	502,314	139,266	893,941	244,025	403,628	760,731
Number of groups	3,083	554	806	712	1,311	528	655	1,490	854	844	506	1,406	1,179	707	1,237	1,054	297	2,076	556	828	1,565
R-squared for overall model : R_O^2	0.17	0.16	0.10	0.22	0.19	0.13	0.18	0.19	0.20	0.16	0.04	0.07	0.09	0.10	0.10	0.09	0.16	0.18	0.16	0.09	0.18
R-squared for between model : R_B^2	0.35	0.26	0.14	0.56	0.47	0.39	0.47	0.55	0.49	0.42	0.00	0.02	0.08	0.12	0.08	0.07	0.23	0.63	0.38	0.03	0.61
R-squared for within model : R_W^2	0.05	0.06	0.04	0.06	0.06	0.06	0.05	0.05	0.05	0.04	0.05	0.05	0.06	0.06	0.05	0.05	0.06	0.05	0.05	0.06	0.05
Panel-level standard deviation : σ_u	63.04	71.07	71.46	68.40	70.21	67.73	66.52	69.28	67.18	62.29	82.59	74.41	75.69	75.91	79.30	76.05	74.56	62.30	56.31	76.73	65.62
Standard deviation of ϵ_{it} : σ_ϵ	96.24	99.39	102.22	97.91	100.90	100.02	96.37	106.72	99.88	91.28	95.64	98.55	97.08	99.75	97.89	97.11	95.22	96.35	96.11	98.57	98.01
Intraclass correlation : ρ	0.30	0.34	0.33	0.33	0.33	0.31	0.32	0.30	0.31	0.32	0.43	0.36	0.38	0.37	0.40	0.38	0.38	0.29	0.26	0.38	0.31

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 4.7 – By region : Time spent watching a program from a free public channel per Individual

	(1) (IDF)	(2) (C-A)	(3) (PIC)	(4) (H-N)	(5) (CEN)	(6) (B-N)	(7) (BOU)	(8) (N-P-C)	(9) (LOR)	(10) (ALS)	(11) (F-C)	(12) (P-D-L)	(13) (BRE)	(14) (P-C)	(15) (AQU)	(16) (M-P)	(17) (LIM)	(18) (R-A)	(19) (AUV)	(20) (L-R)	(21) (PACA)
$(t_2 - Q_2^R)_t$	.1947869***	.1857552***	.1761021***	.2170153***	.2112217***	.1918651***	.2184179***	.1948573***	.2068703***	.180304***	.1828583***	.1945781***	.187645***	.2080762***	.1955414***	.211699***	.1854043***	.2033692***	.1888721***	.2131322***	.2227738***
	(.0058792)	(.0111077)	(.0087513)	(.020785)	(.0105529)	(.0142609)	(.012721)	(.0100954)	(.0158857)	(.0133015)	(.0095963)	(.0088895)	(.0086103)	(.0084314)	(.0063871)	(.0079121)	(.0129474)	(.0067369)	(.0195839)	(.0100652)	(.0073431)
	33.13	16.72	20.12	10.44	20.02	13.45	17.17	19.30	13.02	13.56	19.06	21.89	21.79	24.68	30.62	26.76	14.32	30.19	9.64	21.18	30.34
TS (in mn)	-.0823598***	-.0815782***	-.0538165***	-.1059845***	-.0772449***	-.1351757***	-.0735718***	-.0776823***	-.0552606**	-.053463***	-.0424626	-.090891***	-.0866614***	-.0703319***	-.0971169***	-.1049165***	-.1125164***	-.07262**	-.0249163	-.109798***	-.061311***
	(.0116809)	(.0230202)	(.0174971)	(.0350498)	(.0180256)	(.0297083)	(.0248605)	(.0157472)	(.0223447)	(.016213)	(.032938)	(.0184978)	(.0210035)	(.0185532)	(.0212561)	(.023548)	(.0270604)	(.0131409)	(.028796)	(.024554)	(.0170236)
	-7.05	-3.54	-3.08	-3.02	-4.29	-4.55	-2.96	-4.93	-2.47	-3.30	-1.29	-4.91	-4.13	-3.79	-4.57	-4.46	-4.16	-5.53	-0.87	-4.47	-3.60
OTVU (in mn)	-.0861392***	-.0854677***	-.0848835***	-.1399947***	-.0723177***	-.113287***	-.1057561***	-.0862777***	-.0815479***	-.1131095***	-.0860232***	-.0818182***	-.1115853***	-.1334363***	-.1049542***	-.1026819***	-.0964631***	-.0887526***	-.17369***	-.1523855***	-.1080391***
	(.0085492)	(.0123009)	(.0120547)	(.014331)	(.0095487)	(.0215387)	(.0198702)	(.0100986)	(.0111094)	(.0171769)	(.0220736)	(.0114546)	(.0118125)	(.0202883)	(.0135812)	(.0141587)	(.0199495)	(.0116392)	(.0637356)	(.013478)	(.0119192)
	-10.08	-6.95	-7.04	-9.77	-7.57	-5.26	-5.32	-8.54	-7.34	-6.58	-3.90	-7.14	-9.45	-6.58	-7.73	-7.25	-4.84	-7.63	-2.73	-11.31	-9.06
ω_1 : **Temperature (in °C)**	-.3797192***	-.3059384***	-.2387949**	-.4390054***	-.299175***	-.5438493***	-.242644***	-.3020856***	-.1852879**	-.2143047**	-.115457	-.4271858***	-.5053596***	-.3686874***	-.2521449***	-.0499771	-.2522798**	-.1108715**	-.0747447	-.0942464	-.2809817***
	(.0514344)	(.0994407)	(.1026737)	(.0997117)	(.0652371)	(.1185967)	(.0817746)	(.062093)	(.0912861)	(.0849415)	(.128906)	(.0766321)	(.0820941)	(.0986256)	(.0793033)	(.0592687)	(.10341)	(.0558162)	(.1025583)	(.0775056)	(.0802398)
	-7.38	-3.08	-2.33	-4.40	-4.59	-4.59	-2.97	-4.87	-2.03	-2.52	-0.90	-5.57	-6.16	-3.74	-3.18	-0.84	-2.44	-1.99	-0.73	-1.22	-3.50
ω_2 : **Sunshine duration (in mn)**	-.00489***	-.0126312***	-.0055346***	-.0102677***	-.0068645***	-.0056953***	-.0078225***	-.0069217***	-.0092437***	-.0108894***	-.0116874***	-.0053001***	-.007745***	-.0122192***	-.0067877***	-.0115672***	-.006148***	-.0131051***	-.0125239***	-.007866***7	-.0101313***
	(.0008287)	(.0021921)	(.0016609)	(.0017108)	(.0011561)	(.0020878)	(.0018289)	(.0011321)	(.0018778)	(.0016113)	(.0023151)	(.0013199)	(.0013751)	(.0022103)	(.0012508)	(.0015204)	(.0023587)	(.0013314)	(.0020198)	(.001591)	(.0013755)
	-5.90	-5.76	-3.33	-6.00	-5.94	-2.73	-4.28	-6.11	-4.92	-6.76	-5.05	-4.02	-5.63	-5.53	-5.43	-7.61	-2.61	-9.84	-6.20	-4.94	-7.37
ω_3 : **Rainfall (in mm)**	.205709***	.2097646	.3421627***	.1826914	.0384225	-.1139378	.0078469	.0195921	.1542767	.1328553	-.2505819**	-.0473964	.1037077	-.1088116	-.2282859***	-.1999247**	.1111316	-.1020305**	-.047254	-.0124151	.1073011**
	(.064417)	(.1527497)	(.1314616)	(.1320531)	(.0863841)	(.1444465)	(.1244985)	(.0681382)	(.1009825)	(.0952406)	(.118648)	(.0883754)	(.0844751)	(.1082757)	(.0836674)	(.0982353)	(.1105019)	(.0476344)	(.1178257)	(.0932186)	(.049106)
	3.19	1.37	2.60	1.38	0.44	-0.79	0.06	0.29	1.53	1.39	-2.11	-0.54	1.23	-1.00	-2.73	-2.04	1.01	-2.14	-0.40	-0.13	2.19
ω_4 : **Wind speed (in km/h)**	.7153273***	.6751308**	1.056169***	.9037547***	.5685646***	.6394696***	.4111482*	.7348006***	.919768***	.350211	.9622974***	.9777826***	.8970398***	.9089259***	1.027861***	.8294104***	.6503221	.665933***	.4339995	.6530286***	.5473217***
	(.1191316)	(.2774458)	(.1727404)	(.2004994)	(.1489748)	(.2129112)	(.2270448)	(.1187261)	(.2238836)	(.2268312)	(.305356)	(.1813507)	(.1510368)	(.2319757)	(.2540972)	(.1857004)	(.4249015)	(.1699943)	(.3210552)	(.1632817)	(.126946)
	6.00	2.43	6.11	4.51	3.82	3.00	1.81	6.19	4.11	1.54	3.15	5.39	5.94	3.92	4.05	4.47	1.53	3.92	1.35	4.00	4.31
ω_5 : **Rain duration (in mn)**	.0017157	.0028001	-.0020473	.0004458	.0026105	.0094264***	.0069413***	.0033142**	-.0006385	-.0025757	.0080861***	.0096628***	.005826***	.006828**	.0113988***	.0113405***	.0034243	.0012735	.0041137	.0092578***	.0032891
	(.0013663)	(.0028998)	(.0024899)	(.0023889)	(.0018025)	(.0030353)	(.0025633)	(.0014847)	(.0021373)	(.0017983)	(.0029794)	(.0020553)	(.0016174)	(.0028264)	(.0023162)	(.0024673)	(.0024815)	(.0015278)	(.0029379)	(.002992)	(.0020038)
	1.26	0.97	-0.82	0.19	1.45	3.11	2.71	2.23	-0.30	-1.43	2.71	4.70	3.60	2.42	4.92	4.60	1.38	0.83	1.40	3.09	1.64
Intercept	146.8553***	153.5325***	156.2603***	208.1304***	168.5767***	187.5896***	153.7961***	141.0138***	139.2308***	132.3267***	168.5427***	191.3103***	128.9024***	173.9757***	177.3071***	155.5101***	116.9926***	154.9612***	140.1376***	161.519***	180.0644***
	(14.26709)	(16.48756)	(16.08225)	(25.87039)	(12.69816)	(21.56003)	(34.00579)	(15.60188)	(20.69628)	(19.15155)	(19.39026)	(12.79156)	(19.53383)	(20.65621)	(13.55892)	(15.9022)	(19.0367)	(11.12375)	(31.32383)	(16.24651)	(14.37602)
	10.29	9.31	9.72	8.05	13.28	8.70	4.52	9.04	6.73	6.91	8.69	14.96	6.60	8.42	13.08	9.78	6.15	13.93	4.47	9.94	12.53
Number of observations	377,964	97,431	97,261	109,225	233,945	88,848	114,649	214,992	112,185	130,689	74,708	210,408	192,591	138,002	213,798	187,149	51,065	285,908	87,372	165,065	284,612
Number of groups	2,656	512	731	616	1,196	480	586	1,302	722	721	449	1,260	1,059	655	1,129	945	270	1,820	511	748	1,399
R-squared for overall model : R^2_O	0.27	0.12	0.11	0.23	0.26	0.23	0.23	0.27	0.25	0.20	0.14	0.20	0.31	0.21	0.21	0.29	0.13	0.27	0.09	0.25	0.32
R-squared for between model : R^2_B	0.34	0.09	0.01	0.23	0.35	0.03	0.17	0.53	0.42	0.37	0.07	0.05	0.54	0.03	0.24	0.59	0.19	0.47	0.07	0.39	0.60
R-squared for within model : R^2_W	0.06	0.06	0.07	0.08	0.07	0.06	0.09	0.06	0.07	0.07	0.08	0.06	0.06	0.07	0.07	0.07	0.07	0.06	0.08	0.08	0.07
Panel-level standard deviation : σ_u	64.14	63.37	65.77	66.63	59.75	78.12	60.02	51.85	62.81	53.71	64.85	75.11	59.52	79.76	68.77	61.05	56.06	58.48	73.12	63.31	60.16
Standard deviation of ϵ_{it} : σ_ϵ	94.89	89.00	86.53	96.69	91.77	98.76	89.55	91.26	96.60	89.19	91.08	94.80	88.92	93.72	94.72	93.32	85.66	92.10	96.57	93.16	95.60
Intraclass correlation : ρ	0.31	0.34	0.37	0.32	0.30	0.38	0.31	0.24	0.30	0.27	0.34	0.39	0.31	0.42	0.35	0.30	0.30	0.29	0.36	0.32	0.28

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

As predicted by the theoretical model, Proposition 4.3.3.3, the advertising audience is decreasing in wages, see Figure 4.3 below.

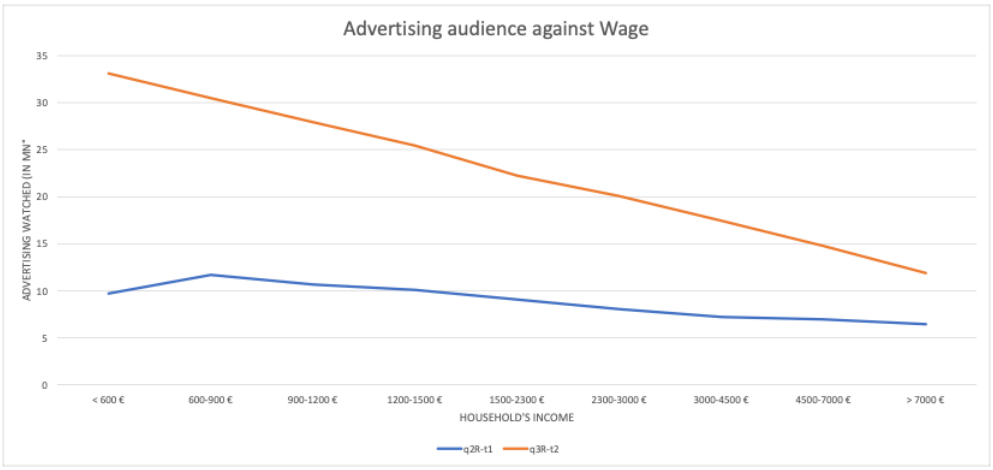


FIGURE 4.3 – Advertising Audience against Wages.
Source : authors calculation on Médiamétrie's database.

4.6 Conclusion

In the context of advertising duration regulation, this paper proposes a theoretical model of the general functioning of multi-sided media markets, where the regulator, the broadcasters, the producer/advertiser and the media users are strongly inter-connected. In equilibrium of the multi-sided media markets, it is shown that the representative media user's optimal time spent viewing advertising is independent on the aired advertising whether it is distributed by any private or public regulated or unregulated broadcaster. Whatever weather conditions, whether or not media users like or dislike advertising, the utility of the time spent viewing a regulated advertising is a constant. The producer/advertiser chooses to advertise or not his product whether it is advertised throughout a regulated or unregulated broadcaster. If he advertises it, the producer/advertiser's advertising spot duration is greater than the media user's time spent watching advertising. The number of repetition of the advertising spot is independent on the preference to media services. It depends on the preference for advertising given weather conditions, consequently on the taste for advertising. The broadcaster price for one spot of advertising varies whether it is regulated or unregulated and is independent on the preference for media services. It depends on the preference for advertising given weather conditions, which is dependent on the taste for advertising. Finally, the regulator chooses a welfare maximizing aired advertising on public regulated media that is dependent only on the preference for advertising given weather conditions. The welfare maximizing aired advertising can either be above or below the market solution. In addition, the regulator generically chooses a welfare maximizing aired advertising that could be lower or higher than the one the media users watch or the one the broadcasters air.

If the preference for advertising is a non available variable to advertisers, broadcasters or regulators, then we propose to use weather conditions in order to highlights its influence. A regional descriptive statistics analysis proves its existence. We have merged two panel data sets. The first one is the Médiamétrie's panel. It contains 15 million observations over the 2011-2017 period measuring the French TV daily viewing habits. The second one is the Météo's France panel which contains daily weather conditions over the same period. We use two proxies for the preference for advertising. The first one is the viewing habits of watching advertising (the one day lagged endogenous variable). Whatever the private or public regulated TV channel, viewing habits have a positive impact on the advertising audience. The second one is the time-shifted total audience (advertising and TV program) which has a negative impact on the minutes spent watching advertising. Our estimates confirm that media users do not value advertising in the same way in French regions. Such a result explains why some regulators operate a targeted advertising policy.

Consequently, the usual assumption that viewer dislike advertising cannot be maintained from a theoretical and empirical point of view in France. Something that is probably relevant for other countries and other media, so that advertisers, broadcasters and regulators should be aware of.

Conclusion

Ce travail doctoral s'intéresse à la modélisation économique et économétrique du comportement des utilisateurs de médias, et plus particulièrement celui des téléspectateurs. L'objectif de cette thèse est d'aider les acteurs de la télévision (chaînes, régies, agences, annonceurs) à mieux comprendre le comportement des téléspectateurs, en étudiant l'impact du contexte sur les audiences et les performances publicitaires : effet des interactions familiales, effet de la météorologie et effet de la régulation.

Après un premier chapitre résumant l'Histoire de la télévision en France, le deuxième chapitre s'intéresse à la modélisation économique des interactions familiales dans le cadre de l'audience conjointe chez les couples de téléspectateurs. Nous avions posé la question de savoir quel était le rôle que jouait le capital humain de chaque téléspectateur selon le moment de la journée dans sa décision de regarder seul ou à deux la télévision. La réponse est que la décision de regarder à deux la télévision depend du niveau du capital humain, de la différence de capital humain entre les époux, en particulier de celui des deux qui a le plus grand capital humain, du moment de la journée et du jour de la semaine. Lorsque les différences sont très grandes, ils ne regardent jamais ensemble. Lorsque le niveau de capital humain des deux époux est très élevé, ils regardent plus souvent ensemble la télévision.

Le troisième chapitre s'intéresse à la modélisation économique et empirique du temps consacré à utiliser un média. Nous avions posé la question suivante : la préférence pour regarder la télévision est-elle différente selon la région où habitent les téléspectateurs ? Pour répondre à cette question, ce chapitre montre que pour une hausse identique d'un paramètre météorologique donné, la préférence pour regarder la télévision n'est pas la même selon les régions. Ces différences en matière de préférence sont plus ou moins fortes selon le climat auquel ces régions sont soumises. Ainsi, le climat peut affecter les préférences des téléspectateurs, et devrait être une variable d'ajustement pour les acteurs du marché de la télévision en France, ce qui n'est pas le cas dans la réalité. Cette remarque est très importante dans le cadre de la performance publicitaire, notamment en matière de publicité ciblée.

Le quatrième chapitre propose un modèle théorique sur le fonctionnement général des médias multifaces où le régulateur, les diffuseurs, les producteurs/annonceurs et les utilisateurs de média interagissent. Nous avions posé deux questions. A condition météorologique donnée, quel est le rôle de la préférence pour la publicité et de la préférence pour l'utilisation de services médiatiques dans la détermination de l'équilibre d'un marché multi-faces des médias ? Les utilisateurs des médias aiment-ils la publicité ? A l'équilibre des marchés médias multi-faces, il est montré que le temps optimal passé par l'utilisateur média à regarder la publicité est indépendant de la publicité diffusée, qu'elle soit distribuée par un diffuseur privé ou public, réglementé ou non. Quelles que soient les conditions météorologiques, que les utilisateurs des médias aiment ou n'aiment pas la publicité, l'utilité du temps consacré à regarder une publicité réglementée est une constante. Le producteur/annonceur choisit de faire ou non de la publicité pour son produit, qu'il soit diffusé par un diffuseur réglementé ou non réglementé. S'il fait de la publicité, la durée du spot publicitaire du producteur/annonceur est supérieure au temps passé par l'utilisateur du média à regarder

la publicité. Le nombre de répétitions du spot publicitaire est indépendant de la préférence accordée aux services de médias. Il dépend de la préférence pour la publicité compte tenu des conditions météorologiques, donc de l'appétence pour la publicité. Le prix du diffuseur pour un spot publicitaire varie selon qu'il soit réglementé ou non et est indépendant de la préférence pour les médias. Il dépend de la préférence pour la publicité compte tenu des conditions météorologiques, qui dépend de l'appétence pour la publicité. Enfin, le régulateur choisit une publicité diffusée maximisant le bien-être sur les médias publics réglementés qui dépend uniquement de la préférence pour la publicité compte tenu des conditions météorologiques. La publicité diffusée maximisant le bien-être peut être supérieure ou inférieure à la solution de marché. En outre, le régulateur choisit généralement une publicité diffusée maximisant le bien-être qui peut être inférieure ou supérieure à celle que les utilisateurs des médias regardent ou à celle que les diffuseurs diffusent. En pratique, la préférence pour la publicité est une variable non disponible pour les annonceurs, les diffuseurs ou les régulateurs. Nous proposons d'utiliser les conditions météorologiques afin de mettre en évidence son influence. Une analyse statistique descriptive régionale prouve son existence. Nous avons fusionné deux ensembles de données de panel. Le premier est le panel de Médiamétrie. Il contient 23 millions d'observations sur la période 2011-2017 mesurant les habitudes d'écoute quotidienne de la télévision française. Le second est le panel de Météo France qui contient les conditions météorologiques quotidiennes sur la même période. Nous utilisons deux proxies pour la préférence pour la publicité. La première est l'habitude de regarder la publicité (la variable endogène décalée d'un jour). Quelle que soit la chaîne de télévision privée ou publique réglementée, les habitudes d'écoute ont un impact positif sur l'audience de la publicité. La seconde est l'audience totale décalée dans le temps (publicité et programme TV) qui a un impact opposé sur les minutes passées à regarder la publicité, selon qu'il s'agit d'une chaîne privée ou publique. Il est positif pour les chaînes privées, et négatif pour les chaînes publiques. Nos estimations confirment que les utilisateurs des médias peuvent apprécier la publicité. Un tel résultat explique pourquoi certains régulateurs appliquent une politique de publicité ciblée. Par conséquent, l'hypothèse habituelle selon laquelle les téléspectateurs n'aiment pas la publicité ne peut être maintenue d'un point de vue théorique et empirique en France.

De manière générale, cette thèse insiste sur la notion de préférence qui peut dépendre de plusieurs variables (le capital humain, le goût pour regarder un programme ou une publicité, la météorologie) et affecter les résultats d'audience de la télévision française, et donc les performances publicitaires. Ce résultat est probablement pertinent pour d'autres pays et d'autres médias, et les annonceurs, les diffuseurs et les régulateurs devraient en tenir compte dans leurs futures décisions. Les futures recherches pourraient s'intéresser à modéliser la préférence des téléspectateurs en fonction du genre de programmes, ou encore en fonction des étapes de la vie (célibataire, jeunes couples, jeunes parents ...).

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Annexes

A Annexes Chapitre 3

A.1 Information on panel rotation from 2011 to 2019

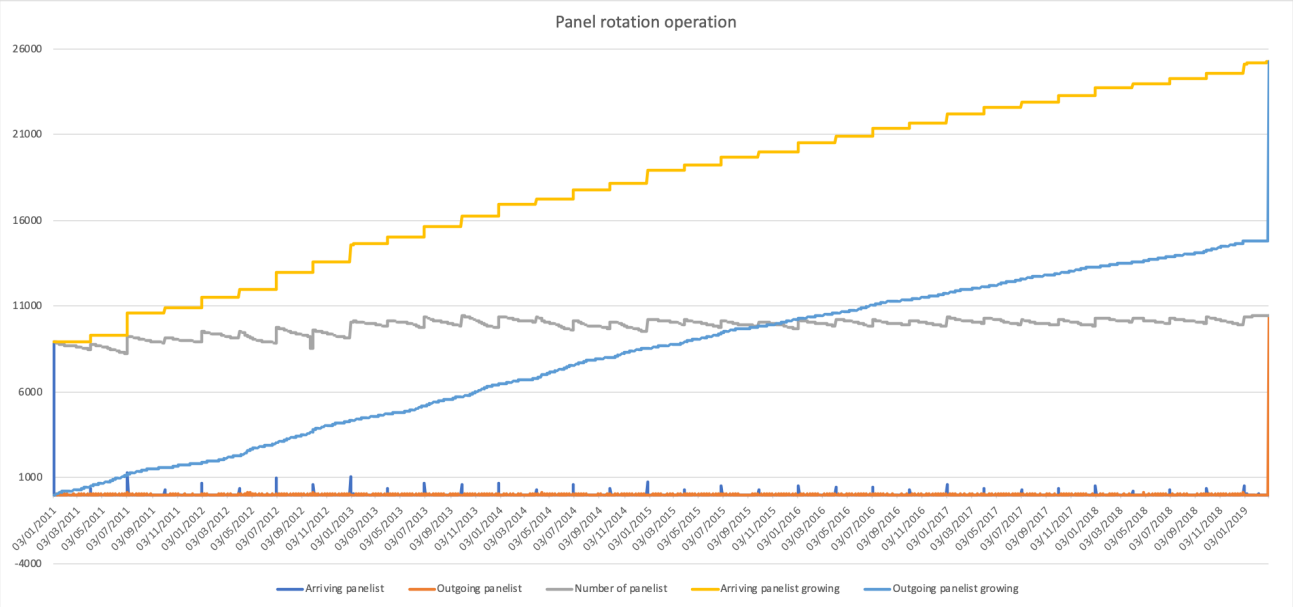

FIGURE A.1 – Panel rotation operation
Source : Author's calculation based on data from Médiamétrie.

A.2 Estimation methodology

The aim of the article is to study the effect of weather variables (which represents state of Nature in the theoretical model) on the time individuals spend watching live television, while controlling for both observable (gender, socio-professional category) and unobservable characteristics (preferences for a particular program, the presence of a movie theatre next panelist's home, household equipment, etc.). According to Torres-Reyna 2007, the fixed effects (FE) model is to be preferred to study the impact of variables that vary over time. The interest of this model is that it allows us to study the relationship between the explanatory variables and the variable of interest within an entity (here an individual). In this model, unobservable characteristics are assumed to have an effect or bias the variable of interest or the explanatory variables. This is why one of the assumptions of this model is that there is a correlation between the individual's error term and the explanatory variables. The use of this model makes it possible to control for these unobservable time-invariant effects in order to allow an assessment of the net effect of the explanatory variables on the outcome variable. According to Stock, Watson et al. 2012, if the unobservable effect is time-invariant, then any change in the dependent variable must be due to influences other than these fixed characteristics. The general formulation is written :

$$y_{it} = \alpha_i + \sum_{j=1}^{k} b_j x_{j,i,t} + u_{it}. \tag{A.1}$$

where α_i is the individual fixed effect, $x_{j,i,t}$ the independent variables and u_{it} the error term. The other estimator used by most economists is the one associated with the random effect model (RE). One of the strong assumptions of this model is that there is no correlation between unobservable individual fixed effects and the explanatory variables. In addition, the fixed effects are assumed to be random, whereas they are not in the fixed-effects model. One of the advantages of the random effect model is that it allows the estimation of time-invariant variables (such as gender), which the fixed effects model does not do by absorbing these variables via the constant. The general formulation is :

$$y_{it} = \sum_{j=1}^{k} b_j x_{j,i,t} + \epsilon_{it} \text{ with } \epsilon_{it} = \alpha_i + u_{it}. \tag{A.2}$$

Furthermore, since the consumption of live television represents a daily habit for most French people, it may be appropriate to use an autoregressive fixed-effects model (AFE) to introduce a delayed endogenous variable. This variable, in addition to measuring the "habit" phenomenon, makes it possible to calculate both short-term and long-term effects. The general formulation is written :

$$y_{it} = \alpha_i + \omega y_{i,t-1} + \sum_{j=1}^{k} b_j x_{j,i,t} + u_{it}. \tag{A.3}$$

Conversely, an autoregressive random effect model (ARE) can also be used :

$$y_{it} = \omega y_{i,t-1} + \sum_{j=1}^{k} b_j x_{j,i,t} + \epsilon_{it} \text{ with } \epsilon_{it} = \alpha_i + u_{it}. \tag{A.4}$$

In our paper, the estimation of the fixed effects model and the random effect model can be done using the Within estimator which is convergent when N and T tend towards infinity. As for the random effect model, estimation can be done with the estimator of the GLSs, which are also convergent when N and T tend towards infinity.

We use 6 different estimators and compare the results. The Between estimator (1), the Ordinary Least Squares with standard deviations corrected for heteroskedasticity problems (2), the Within estimator with standard deviations corrected for heteroskedasticity problems in a fixed-effects model (3), the GLS estimator with standard deviations corrected for heteroskedasticity problems in a random effect model (4) the Within estimator with standard deviations corrected for heteroskedasticity problems in an autoregressive fixed-effects model (5), the GLS estimator with standard deviations corrected for heteroskedasticity problems in autoregressive random effect model (6). The results are available in the following tables.

To determine which specification to choose (fixed effects model or random effect model, autoregressive fixed effet or autoregressive random effect), a Hausman test was performed for estimates (3) and (4), (5) and (6) [1].

The autoregressive random effect model and the autoregressive fixed effect model provides the highest results for R^2_O, R^2_B and R^2_W. However, the Hausman test rejects its use. Therefore, it justifies the use of the autoregressive fixed effect model.

1. The Hausman test requires to make these various regressions without correcting the standard deviations for heteroscedasticity problems.

	(1)	(2)	(3)	(4)	(5)	(6)
	(BE)	(MCO)	(FE)	(RE)	(AFE)	(ARE)
Lagged Live Daily TV viewing time					.409643***	.6211529***
					(.0019957)	(.0026082)
					205.27	238.15
Time-Shifting (in mn)						
	.140565***	.2297288***	.2537178***	.2542931***	.1632386***	.1023856***
	(.0530788)	(.0013234)	(.0079873)	(.0079771)	(.0059874)	(.0077979)
	2.65	173.59	31.77	31.88	27.26	13.13
OTVU (in mn)						
	.2182154***	-.0017148***	-.087327***	-.0870062***	-.0331083***	.0176421***
	(.0181577)	(.0004589)	(.0044394)	(.0044342)	(.0028854)	(.0023247)
	12.02	-3.74	-19.67	-19.62	-11.47	7.59
ω_1 **: Temperature (in °C)**						
	-3.051754	-.7171181***	-.6885856***	-.6887709***	-.3993763***	-.2617726***
	(2.382455)	(.0135228)	(.0154257)	(.0154162)	(.0102824)	(.0115664)
	-1.28	-53.03	-44.64	-44.68	-38.84	-22.63
ω_2 **: Sunshine duration (in mn)**						
	.0485162	-.0185876***	-.0190566***	-.0190553***	-.0150215***	-.012799***
	(.0640803)	(.0002138)	(.0002571)	(.0002571)	(.0002046)	(.0001933)
	0.76	-86.96	-74.14	-74.13	-73.41	-66.23
ω_3 **: Rainfall (in mm)**						
	-5.730461	.1230084***	.1249816***	.1249312***	.1389172***	.1451485***
	(3.973904)	(.0146567)	(.013879)	(.0138801)	(.0116174)	(.011732)
	-1.44	8.39	9.01	9.00	11.96	12.37
ω_4 **: Wind speed (in km/h)**						
	-.3924709	.1398952***	.3390928***	.3403686***	.2333757***	.0964487
	(.8555409)	(.0221271)	(.0783915)	(.0782237)	(.051732)	(.0681012)
	-0.46	6.32	4.33	4.35	4.51	1.42
ω_5 **: Rain duration (in mn)**						
	.0906995	.0067815***	.0063636***	.0063654***	.0060002***	.0059976***
	(.0891288)	(.0003668)	(.0003553)	(.0003553)	(.0002938)	(.0003063)
	1.02	18.49	17.91	17.91	20.43	19.58
Day of the week						
Monday						
	-45.46207	6.274233***	6.201646***	6.198156***	-7.719389***	-15.03073***
	(84.96047)	(.1392166)	(.2782341)	(.2782222)	(.3756754)	(.4623131)
	-0.54	45.07	22.29	22.28	-20.55	-32.51
Tuesday						
	5.203324	.3007715**	.141108	.1396689	-3.311933***	-5.079558***
	(107.9335)	(.1378062)	(.256773)	(.256764)	(.2632397)	(.2766993)
	0.05	2.18	0.55	0.54	-12.58	-18.36
Wednesday						
	119.0617	4.076427***	4.114445***	4.112413***	2.832518***	2.173529***
	(108.5191)	(.1389335)	(.2800621)	(.2800512)	(.2793053)	(.2846203)
	1.10	29.34	14.69	14.68	10.14	7.64
Thursday						
	-112.4135	-2.439325***	-2.612186***	-2.612157***	-5.192522***	-6.452022***
	(107.9998)	(.1374042)	(.2369407)	(.236934)	(.2773624)	(.3068934)
	-1.04	-17.75	-11.02	-11.02	-18.72	-21.02
Friday						
	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Saturday						
	44.56107	11.37848***	11.99279***	11.98998***	10.83272***	9.991593***
	(114.0279)	(.1459699)	(.4156512)	(.4156298)	(.4184346)	(.4274)
	0.39	77.95	28.85	28.85	25.89	23.38
Sunday						
	43.58957	31.70918***	32.55692***	32.55447***	26.55578***	23.1088***
	(122.9241)	(.1488836)	(.535664)	(.5356405)	(.4608861)	(.4527526)
	0.35	212.98	60.78	60.78	57.62	51.04
Gender						
Female						
	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Male						
	-11.70032***	-11.46292***	0	-21.28771***	0	-4.447624***
	(1.677626)	(.0807578)	(0)	(2.071002)	(0)	(.7213238)
	-6.97	-141.94		-10.28		-6.17

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

TABLE A.1 – Control variables - Comparison of Estimators of Live TV viewing time per Individual

	(1)	(2)	(3)	(4)	(5)	(6)
	(BE)	(MCO)	(FE)	(RE)	(AFE)	(ARE)
Age category						
4-10 years						
	22.36854***	21.5334***	46.90388***	41.8154***	27.58726***	8.001306***
	(3.433793)	(.1196025)	(2.694625)	(2.597047)	(1.596876)	(.7628058)
	6.51	180.04	17.41	16.10	17.28	10.49
11-14 years						
	28.068***	21.07485***	28.4327***	25.5757***	16.55848***	7.762405***
	(4.695454)	(.1388999)	(1.868596)	(1.826799)	(1.104129)	(.7188549)
	5.98	151.73	15.22	14.00	15.00	10.80
15-24 years						
	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
25-34 years						
	57.76017***	68.46438***	-17.34167***	-6.103388*	-10.17932***	25.46966***
	(5.330268)	(.2526131)	(3.630905)	(3.510621)	(2.145778)	(1.632669)
	10.84	271.02	-4.78	-1.74	-4.74	15.60
35-49 years						
	100.4999***	104.2068***	-36.7697***	-21.9681***	-21.59791***	39.20955***
	(5.234329)	(.2504103)	(4.051957)	(3.814506)	(2.39543)	(1.680797)
	19.20	416.14	-9.07	-5.76	-9.02	23.33
50-64 years						
	144.2098***	141.3847***	-33.40475***	-15.79613***	-19.8658***	53.60038***
	(5.431402)	(.2634818)	(4.585863)	(4.288869)	(2.709605)	(1.837037)
	26.55	536.60	-7.28	-3.68	-7.33	29.18
65 years and more						
	132.8674***	140.6676***	-17.03714***	1.986163	-10.04428***	53.44547***
	(7.146884)	(.3518566)	(5.260439)	(4.948538)	(3.113587)	(2.605256)
	18.59	399.79	-3.24	0.40	-3.23	20.51
Social-Professional Category						
Farmer						
	-60.52307***	-54.78451***	1.13673	1.468413	.5738478	-20.60077***
	(11.04954)	(.4224476)	(6.77855)	(6.974139)	(4.035342)	(3.799359)
	-5.48	-129.68	0.17	0.21	0.14	-5.42
Craftsmen-Traders-Contractor						
	-35.9221***	-32.92665***	2.031835	2.201609	1.087677	-12.41683***
	(7.149752)	(.3285149)	(4.374538)	(4.346423)	(2.597012)	(2.782153)
	-5.02	-100.23	0.46	0.51	0.42	-4.46
Higher professions						
	-54.02758***	-53.05712***	3.252664	2.767814	1.978145	-19.96064***
	(3.876034)	(.1707105)	(2.561049)	(2.541888)	(1.516696)	(1.326697)
	-13.94	-310.80	1.27	1.09	1.30	-15.05
Intermediate occupations						
	-32.29153***	-33.83856***	1.745366	1.371601	1.051275	-12.76381***
	(3.46407)	(.1587924)	(2.090094)	(2.077611)	(1.242575)	(1.243221)
	-9.32	-213.10	0.84	0.66	0.85	-10.27
Employee						
	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Skilled worker						
	-8.843449**	-9.031203***	1.485694	1.577563	.9055151	-3.338446**
	(4.118025)	(.2017767)	(2.837934)	(2.817897)	(1.686196)	(1.535812)
	-2.15	-44.76	0.52	0.56	0.54	-2.17
Unskilled worker						
	-.998301	-.0863534	-1.986756	-2.290513	-1.231894	-.0219677
	(5.876031)	(.3045506)	(3.637207)	(3.608571)	(2.16081)	(2.306555)
	-0.17	-0.28	-0.55	-0.63	-0.57	-0.01
Pensioner						
	-60.88224***	-29.696***	3.154924	5.349646	2.065895	-10.83454**
	(14.28124)	(.59686)	(6.679591)	(6.639151)	(3.951496)	(4.705734)
	-4.26	-49.75	0.47	0.81	0.52	-2.30
Student						
	-124.0044***	-81.93119***	7.049536	.2039786	4.046459	-30.72511***
	(14.57405)	(.5836823)	(5.963513)	(5.91165)	(3.526532)	(4.31716)
	-8.51	-140.37	1.18	0.03	1.15	-7.12
Other inactive						
	-28.71516**	-3.449528***	-2.968017	-1.971617	-1.74125	-1.272774
	(14.06947)	(.5973937)	(6.558258)	(6.537431)	(3.879176)	(4.75528)
	-2.04	-5.77	-0.45	-0.30	-0.45	-0.27

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

TABLE A.2 – Continued (2) : Control variables - Comparison of Estimators of Live TV viewing time per Individual

	(1)	(2)	(3)	(4)	(5)	(6)
	(BE)	(MCO)	(FE)	(RE)	(AFE)	(ARE)
Average weekly working time						
Unemployed person who has already worked						
	18.67732***	30.71746***	6.573037**	6.752005**	3.746017**	11.43942***
	(5.48211)	(.3374602)	(3.206161)	(3.192766)	(1.90543)	(2.457941)
	3.41	91.03	2.05	2.11	1.97	4.65
People looking for a first job						
	12.45755	-16.88738***	6.874874	3.546422	3.901742	-6.34886
	(21.25474)	(.9850787)	(9.363144)	(9.340094)	(5.487868)	(6.365833)
	0.59	-17.14	0.73	0.38	0.71	-1.00
Full-time worker						
	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Part-time worker : 0-9h59 per week						
	36.33356**	33.28476***	1.080241	1.725566	.3356956	12.54067**
	(16.76786)	(.7199687)	(6.163038)	(6.160545)	(3.65549)	(5.635187)
	2.17	46.23	0.18	0.28	0.09	2.23
Part-time worker : 10h-19h59 per week						
	6.039837	-6.349329***	.9783297	1.109531	.6523883	-2.369612
	(8.918153)	(.3660836)	(3.365397)	(3.366443)	(1.993302)	(2.442813)
	0.68	-17.34	0.29	0.33	0.33	-0.97
Part-time worker : 20h-29h59 per week						
	-3.255934	-8.263721***	-4.097478*	-4.069861*	-2.459036*	-3.166635**
	(5.730597)	(.2343442)	(2.375244)	(2.370255)	(1.409591)	(1.609011)
	-0.57	-35.26	-1.73	-1.72	-1.74	-1.97
Part-time worker : 30h-34h59 per week						
	-12.24548*	-12.60371***	-7.242563***	-7.247284***	-4.342563***	-4.751375***
	(6.710878)	(.2690334)	(2.485411)	(2.482509)	(1.468289)	(1.804841)
	-1.82	-46.85	-2.91	-2.92	-2.96	-2.63
Other inactive						
	87.55928***	47.6917***	7.895222	8.56705*	4.768639	17.83898***
	(13.51281)	(.5392681)	(5.113633)	(5.117487)	(3.019152)	(4.151263)
	6.48	88.44	1.54	1.67	1.58	4.30
Gross monthly household income						
Less than 600 euros						
	31.80053***	25.67038***	-6.566461	-5.397137	-3.273304	9.953433*
	(9.841678)	(.6720139)	(7.019988)	(7.006487)	(4.126902)	(5.585573)
	3.23	38.20	-0.94	-0.77	-0.79	1.78
From 600 to 900 euros						
	28.79416***	24.10959***	-10.59824***	-10.09928***	-6.32397***	9.140732***
	(7.583331)	(.4363882)	(3.368786)	(3.362435)	(1.999248)	(3.131692)
	3.80	55.25	-3.15	-3.00	-3.16	2.92
From 900 to 1200 euros						
	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
From 1200 to 1500 euros						
	-26.72194***	-19.25779***	.9916167	.6145845	.6090068	-7.222493***
	(5.922682)	(.291547)	(2.418331)	(2.414993)	(1.435357)	(1.952766)
	-4.51	-66.05	0.41	0.25	0.42	-3.70
From 1500 to 2300 euros						
	-36.75578***	-32.50585***	.2588683	-.3595358	.1970321	-12.1488***
	(4.822246)	(.2533143)	(2.394769)	(2.389474)	(1.420341)	(1.884032)
	-7.62	-128.32	0.11	-0.15	0.14	-6.45
From 2300 to 3000 euros						
	-55.85844***	-52.70836***	-.4632571	-1.358766	-.2676459	-19.84725***
	(4.880949)	(.2519432)	(2.459433)	(2.452267)	(1.457809)	(1.857348)
	-11.44	-209.21	-0.19	-0.55	-0.18	-10.69
From 3000 to 4500 euros						
	-75.06838***	-71.77893***	-2.425107	-3.635761	-1.41256	-27.01969***
	(4.797609)	(.248876)	(2.513339)	(2.503979)	(1.489257)	(1.845002)
	-15.65	-288.41	-0.96	-1.45	-0.95	-14.64
From 4500 to 7000 euros						
	-101.8774***	-93.06189***	-4.220718	-5.737292**	-2.41149	-35.05438***
	(5.181645)	(.2571431)	(2.630337)	(2.61838)	(1.558762)	(1.887463)
	-19.66	-361.91	-1.60	-2.19	-1.55	-18.57
More than 7000 euros						
	-116.6766***	-111.5246***	-3.68583	-5.497098*	-2.172774	-42.07415***
	(6.851676)	(.2894441)	(2.926583)	(2.912786)	(1.733431)	(2.088781)
	-17.03	-385.31	-1.26	-1.89	-1.25	-20.14

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

TABLE A.3 – Continued (3) : Control variables - Comparison of Estimators of Live TV viewing time per Individual

	(1)	(2)	(3)	(4)	(5)	(6)
	(BE)	(MCO)	(FE)	(RE)	(AFE)	(ARE)
Regions						
Ile-de-France						
	-2.598394	-9.856365***	-13.77851*	-15.23735*	-8.084465	-3.936533**
	(4.782407)	(.1865271)	(8.297278)	(7.788477)	(4.938408)	(1.699752)
	-0.54	-52.84	-1.66	-1.96	-1.64	-2.32
Champagne-Ardenne						
	9.49497	6.94855***	3.896376	5.722868	2.057191	2.587634
	(6.214774)	(.289625)	(11.52652)	(10.7944)	(6.805016)	(2.734845)
	1.53	23.99	0.34	0.53	0.30	0.95
Picardie						
	6.700486	.8739779***	-5.805385	-3.927747	-3.557806	.1678816
	(5.644786)	(.2577255)	(11.00579)	(10.05201)	(6.492775)	(2.143558)
	1.19	3.39	-0.53	-0.39	-0.55	0.08
Haute-Normandie						
	9.836072	-6.616449***	-22.8249	-23.2962*	-13.54072	-2.81746
	(6.200554)	(.2644239)	(14.94937)	(13.99367)	(8.946048)	(2.316573)
	1.59	-25.02	-1.53	-1.66	-1.51	-1.22
Centre						
	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Basse-Normandie						
	.7623437	-2.225383***	7.39245	3.855698	3.560156	-.9542574
	(6.282277)	(.2997151)	(16.28099)	(15.02373)	(9.556427)	(2.765944)
	0.12	-7.42	0.45	0.26	0.37	-0.35
Bourgogne						
	-1.147789	-8.454931***	-3.548255	-4.295091	-2.09121	-3.094384
	(5.946746)	(.2698615)	(15.13175)	(14.42728)	(9.016535)	(2.442261)
	-0.19	-31.33	-0.23	-0.30	-0.23	-1.27
Nord-Pas-de-Calais						
	19.76067***	19.83629***	13.49829	14.95377	8.113549	7.313469***
	(4.888838)	(.2256309)	(10.0849)	(9.169205)	(6.014268)	(2.108073)
	4.04	87.91	1.34	1.63	1.35	3.47
Lorraine						
	-7.456812	-10.5888***	3.0669	2.151871	1.495112	-4.21353*
	(5.571634)	(.251638)	(12.97723)	(11.90476)	(7.701918)	(2.282111)
	-1.34	-42.08	0.24	0.18	0.19	-1.85
Alsace						
	-32.48297***	-35.86035***	-26.15073*	-28.97464**	-15.38642*	-13.77103***
	(5.487168)	(.229894)	(13.57293)	(12.20893)	(8.065189)	(2.118262)
	-5.92	-155.99	-1.93	-2.37	-1.91	-6.50
Franche-Comté						
	-9.923549	-19.20479***	22.18655	17.61762	12.75261	-7.326405***
	(6.711872)	(.3020185)	(19.09949)	(17.35098)	(11.26246)	(2.797421)
	-1.48	-63.59	1.16	1.02	1.13	-2.62
Pays de la Loire						
	-2.377893	-4.520972***	9.700123	9.114503	5.575303	-1.674641
	(4.616021)	(.2134448)	(12.27803)	(11.37976)	(7.280785)	(1.915598)
	-0.52	-21.18	0.79	0.80	0.77	-0.87
Bretagne						
	-.003191	-4.602718***	-7.863293	-6.091037	-4.966931	-2.025447
	(5.07309)	(.2277968)	(11.70605)	(10.85408)	(6.996114)	(2.022812)
	-0.00	-20.21	-0.67	-0.56	-0.71	-1.00
Poitou-Charentes						
	2.133546	.2769645	10.05865	11.08709	6.060877	.3543057
	(6.105812)	(.271636)	(9.031782)	(8.569039)	(5.341073)	(2.529885)
	0.35	1.02	1.11	1.29	1.13	0.14
Aquitaine						
	2.176982	-5.611376***	-2.774177	-2.171745	-1.45612	-2.06234
	(6.342889)	(.2257042)	(9.775632)	(9.207083)	(5.778501)	(1.929345)
	0.34	-24.86	-0.28	-0.24	-0.25	-1.07
Midi-Pyrénées						
	-12.47927**	-13.3574***	-3.785922	-4.995328	-1.971392	-4.75079**
	(5.836447)	(.2277084)	(8.942906)	(8.35217)	(5.300782)	(2.054025)
	-2.14	-58.66	-0.42	-0.60	-0.37	-2.31
Limousin						
	2.149489	-19.69378***	-37.86585*	-36.7225*	-21.94028*	-7.528482**
	(8.422368)	(.3599508)	(20.76951)	(19.93021)	(12.11471)	(3.373773)
	0.26	-54.71	-1.82	-1.84	-1.81	-2.23
Rhône-Alpes						
	-13.18297**	-15.65305***	1.114707	-.9620591	.9672864	-5.763042***
	(6.00068)	(.1998863)	(9.591451)	(8.829929)	(5.692984)	(1.803677)
	-2.20	-78.31	0.12	-0.11	0.17	-3.20
Auvergne						
	-10.40657	-17.36829***	-.9854068	-2.43632	-.9532766	-6.330759**
	(6.334875)	(.2971198)	(12.20085)	(11.75608)	(7.13177)	(2.581462)
	-1.64	-58.46	-0.08	-0.21	-0.13	-2.45
Languedoc-Roussillon						
	-9.945619	-2.254966***	17.19726	16.29182	10.69528	-.283031
	(7.492119)	(.2637908)	(16.50358)	(15.64766)	(9.773397)	(2.392986)
	-1.33	-8.55	1.04	1.04	1.09	-0.12
Provence-Alpes-Côte d'Azur						
	-1.011226	2.96525***	-.4898652	-.2910095	.001186	2.002971
	(9.971514)	(.2163622)	(8.90177)	(8.297629)	(5.274667)	(1.971928)
	-0.10	13.71	-0.06	-0.04	0.00	1.02

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

TABLE A.4 – Continued (4) : Control variables - Comparison of Estimators of Live TV viewing time per Individual

	(1)	(2)	(3)	(4)	(5)	(6)
	(BE)	(MCO)	(FE)	(RE)	(AFE)	(ARE)
Internet connection mode						
No Internet acces	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Cable	-31.21775***	-34.32311***	5.419423*	5.337279*	3.156393*	-13.30801***
	(5.455864)	(.2653902)	(3.036534)	(3.022082)	(1.8069)	(2.247687)
	-5.72	-129.33	1.78	1.77	1.75	-5.92
ADSL	-43.71351***	-42.97759***	7.343796***	7.101309***	4.388055***	-16.3336***
	(3.808817)	(.1944033)	(2.303738)	(2.297086)	(1.371544)	(1.745121)
	-11.48	-221.07	3.19	3.09	3.20	-9.36
Fiber optics	-56.52586***	-49.06066***	.5857942	.3665431	.3086524	-18.82746***
	(5.47322)	(.2533856)	(2.808776)	(2.802852)	(1.67068)	(2.100829)
	-10.33	-193.62	0.21	0.13	0.18	-8.96
Other	-38.49639***	-40.78055***	2.333788	2.126004	1.371054	-15.45887***
	(7.585191)	(.3312786)	(2.887054)	(2.878305)	(1.720057)	(2.258)
	-5.08	-123.10	0.81	0.74	0.80	-6.85
Intercept	201.1184**	226.7485***	200.5084***	195.3222***	118.6788***	86.83509***
	(80.47855)	(.6274953)	(7.872218)	(7.674046)	(4.686962)	(3.325684)
	2.50	361.35	25.47	25.45	25.32	26.11
Number of observations	25,944,150	25,944,150	25,944,150	25,944,150	25,268,433	25,268,433
Number of groups	24,330		24,330	24,330	24,310	24,310
R-squared : R^2	0.36	0.18	0.02		0.18	
R-squared for overall model : R^2_O	0.05		0.01	0.00	0.43	0.50
R-squared for between model : R^2_B	0.36		0.09	0.02	0.88	0.95
R-squared for within model : R^2_W	0.00		0.02	0.02	0.18	0.18
Panel-level standard deviation : σ_u			165.32	120.47	97.90	0.00
Standard deviation of ϵ_{it} : σ_e			156.13	156.13	142.10	142.10
Intraclass correlation : ρ			0.53	0.37	0.32	0.00
Hausman Test : Prob > χ^2			0.000	0.000	0.000	0.000

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

TABLE A.5 – Continued (5) : Control variables - Comparison of Estimators of Live TV viewing time per Individual

	(1) (IDF)	(2) (C-A)	(3) (PIC)	(4) (H-N)	(5) (CEN)	(6) (B-N)	(7) (BOU)	(8) (N-P-C)	(9) (LOR)	(10) (ALS)	(11) (F-C)	(12) (P-D-L)	(13) (BRE)	(14) (P-C)	(15) (AQU)	(16) (M-P)	(17) (LIM)	(18) (R-A)	(19) (AUV)	(20) (L-R)	(21) (PACA)
Lagged Live Daily TV viewing time	.433008***	.4100313***	.3719027***	.4083145***	.4095752***	.3970986***	.3839361***	.3906805***	.4010332***	.3798196***	.3658819***	.3950521***	.3972698***	.4079932***	.4190063***	.4162481***	.3873793***	.394013***	.4112863***	.433738***	.4137685***
	(.0062164)	(.0108824)	(.0083464)	(.0124044)	(.0074693)	(.0125299)	(.0105692)	(.0069875)	(.0108099)	(.0085228)	(.0139939)	(.0073366)	(.006596)	(.0092929)	(.008383)	(.0079323)	(.011698)	(.0072213)	(.0120644)	(.0091897)	(.0068652)
	69.66	37.68	44.56	32.92	54.83	31.69	36.33	55.91	37.10	44.57	26.15	53.85	60.23	43.90	49.98	52.48	33.12	54.56	34.09	47.20	60.27
Time-Shifting (in mn)	.1911392***	.0962754***	.2123524***	.1656698***	.1573841***	.1184772***	.2425689***	.2231354***	.0990677***	.1476861***	.1472829***	.1917192***	.1220197**	.1370491***	.1494358***	.1435932***	.1424283***	.1532684***	.1599419***	.065233**	.1771776***
	(.0136122)	(.033346)	(.0262342)	(.0362432)	(.0227278)	(.0297745)	(.0350643)	(.0202921)	(.0238571)	(.0252654)	(.0403544)	(.022495)	(.050619)	(.0292598)	(.0217953)	(.0215418)	(.0352163)	(.0202129)	(.0368913)	(.0301807)	(.0202394)
	14.04	2.89	8.09	4.57	6.92	3.98	6.92	11.00	4.15	5.85	3.65	8.52	2.41	4.68	6.86	6.67	4.04	7.58	4.34	2.16	8.75
OTVU (in mn)	.0217019***	-.0614888***	-.00969	-.0596498***	-.026988**	-.0467977***	-.0774838***	-.0526834***	-.0461451***	-.0347376**	-.0515215***	-.0434516***	-.0777211***	-.0670563***	-.0569658***	-.0217618*	-.0402395	.0087955	-.1011263***	-.0799448***	-.0254193**
	(.0068756)	(.013709)	(.014899)	(.0164453)	(.0115029)	(.0227105)	(.0167869)	(.0100912)	(.0144823)	(.0150701)	(.0181121)	(.0125548)	(.0126128)	(.0160184)	(.012182)	(.0127553)	(.0251641)	(.009094)	(.0202216)	(.014625)	(.0112818)
	3.16	-4.49	-0.65	-3.63	-2.35	-2.06	-4.62	-5.22	-3.19	-2.31	-2.84	-3.46	-6.16	-4.19	-4.68	-1.71	-1.60	0.97	-5.00	-5.47	-2.25
ω_1 **: Temperature (in °C)**	-.3195886***	-.5873487***	-.619308***	-.6387506***	-.4800834***	-.8405978***	-.2758019***	-.612448***	-.4173009***	-.2409046***	-.4691561***	-.5112951***	-.6278257***	-.5112902***	-.4098785***	-.2631725***	-.351624***	-.2727286***	-.4218557***	-.2836119***	-.4864612***
	(.0240055)	(.0641602)	(.0525606)	(.061926)	(.0391691)	(.0708827)	(.0520656)	(.0435361)	(.0456433)	(.0392897)	(.0617602)	(.039476)	(.0490249)	(.0573461)	(.0455282)	(.0380904)	(.0737845)	(.0293214)	(.0590437)	(.0517316)	(.0451644)
	-13.31	-9.15	-11.78	-10.31	-12.26	-11.86	-5.30	-14.07	-9.14	-6.13	-7.60	-12.95	-12.81	-8.92	-9.00	-6.91	-4.77	-9.30	-7.14	-5.48	-10.77
ω_2 **: Sunshine duration (in mn)**	-.00752***	-.0195732***	-.0135851***	-.0150912***	-.0149878***	-.015475***	-.0194018***	-.0153325***	-.0168789***	-.015622***	-.0209195***	-.0137706***	-.0175186***	-.0161557***	-.0137082***	-.0168326***	-.014213***	-.0185788***	-.0194092***	-.0186762***	-.0162637***
	(.0003961)	(.0012935)	(.0009924)	(.0010853)	(.0007303)	(.0012865)	(.0012306)	(.0007522)	(.0011173)	(.0009646)	(.0014243)	(.0006944)	(.0008816)	(.0011507)	(.0008329)	(.0009292)	(.0014366)	(.0007347)	(.0013601)	(.0011101)	(.0008492)
	-18.98	-15.13	-13.69	-13.90	-20.52	-12.03	-15.77	-20.38	-15.11	-16.19	-14.69	-19.83	-19.87	-14.04	-16.46	-18.11	-9.89	-25.29	-14.27	-16.82	-19.15
ω_3 **: Rainfall (in mm)**	.0815338***	.2856526***	.3335926***	.0432507	.2781206***	-.0156007	.084895	.2195252***	.1020871*	.0804826*	.1146787*	.0510804	.0087374	.1607547**	.1887681***	-.0416669	.1544759**	.0207527	.1418938**	.1062301*	.03832
	(.0289878)	(.0806307)	(.070569)	(.078523)	(.0510844)	(.0807338)	(.0683116)	(.0448099)	(.0606542)	(.0478549)	(.0656542)	(.0422536)	(.0540438)	(.0634156)	(.051299)	(.0537604)	(.0767227)	(.0283039)	(.0621333)	(.0573554)	(.0341073)
	2.81	3.54	4.73	0.55	5.44	-0.19	1.24	4.90	1.68	1.68	1.75	1.21	0.16	2.53	3.68	-0.78	2.01	0.73	2.28	1.85	1.12
ω_4 **: Wind speed (in km/h)**	.3864752***	1.121433***	.8219701***	.8372536***	.6490102***	.6802948***	.8043569***	.8729387***	.7176996***	.607742***	.8466978***	1.035831***	1.05197***	.868648***	1.085694***	1.23863***	.489247**	.2574111***	.5231867***	.5542704***	-.1696697***
	(.056766)	(.1422439)	(.1011244)	(.1144421)	(.0846094)	(.121325)	(.1503725)	(.0769742)	(.1146317)	(.1176993)	(.1788083)	(.0933458)	(.0887915)	(.1168918)	(.1373181)	(.1211565)	(.2183772)	(.0947039)	(.1732759)	(.1201157)	(.0430917)
	6.81	7.88	8.13	7.32	7.67	5.61	5.35	11.34	6.26	5.16	4.74	11.10	11.85	7.43	7.92	10.22	2.24	2.72	3.02	4.61	-3.94
ω_5 **: Rain duration (in mn)**	.0054345***	.0047045***	.0030906**	.0055561***	.0011527	.0084928***	.0057563***	.0014984	.0047688***	.0036035***	.0067388***	.0074881***	.006892***	.0077787***	.0066598***	.0090943***	.0076801***	.0060926***	.005958***	.013605***	.0088027***
	(.0006534)	(.0016855)	(.0015735)	(.0016147)	(.0011688)	(.0018463)	(.001535)	(.0010526)	(.0012232)	(.0009196)	(.0017112)	(.0010638)	(.0012454)	(.0018011)	(.001265)	(.0014412)	(.0017586)	(.0008789)	(.0016419)	(.0019358)	(.0013318)
	8.32	2.79	1.96	3.44	0.99	4.60	3.75	1.42	3.90	3.92	3.94	7.04	5.53	4.32	5.26	6.31	4.37	6.93	3.63	7.03	6.61
Day of the week																					
Monday	-11.40469***	-9.238314***	-7.919548***	-5.737796***	-6.513263***	-7.826349***	-2.947735	-5.937254***	-8.034232***	-5.710493***	-9.925828***	-6.321396***	-8.44662***	-8.798848***	-7.750604***	-10.2072***	-7.940408***	-5.920633***	-2.57453	-7.317882***	-7.042294***
	(.9629538)	(2.476017)	(1.853047)	(1.894175)	(1.473625)	(2.291126)	(2.386641)	(1.476638)	(1.777688)	(1.613284)	(2.630212)	(1.584737)	(1.605924)	(2.14074)	(1.811998)	(1.801572)	(2.598196)	(1.106718)	(3.119061)	(1.855714)	(1.332698)
	-11.84	-3.73	-4.27	-3.03	-4.42	-3.42	-1.24	-4.02	-4.52	-3.54	-3.77	-3.99	-5.26	-4.11	-4.28	-5.67	-3.06	-5.35	-0.83	-3.94	-5.28
Tuesday	-1.877425***	-4.096768***	-6.974148***	-5.25211***	-2.95106***	-6.487636***	-.5411648	-4.37078***	-5.231254***	-1.908472*	-5.320178***	-2.269826**	-4.093859***	-2.530524*	-4.48778***	-5.139497***	-5.702332***	-1.23116	-3.144063	-3.589739***	-2.099806**
	(.6516254)	(1.871192)	(1.235556)	(1.475812)	(.9809131)	(1.84012)	(1.719955)	(1.063624)	(1.29733)	(1.084855)	(1.875052)	(1.082488)	(1.047871)	(1.480831)	(1.221235)	(1.351487)	(2.072972)	(.8133349)	(2.454285)	(1.276708)	(.8976937)
	-2.88	-2.19	-5.64	-3.56	-3.01	-3.53	-0.31	-4.11	-4.03	-1.76	-2.84	-2.10	-3.91	-1.71	-3.67	-3.80	-2.75	-1.51	-1.28	-2.81	-2.34
Wednesday	2.979134***	5.011406***	.0258506	5.307876***	4.12489***	3.811276**	4.09577**	4.201833***	-.9349376	-.5545881	.7939676	3.505617***	2.859673**	3.619602***	3.485535***	1.227375	.276825	4.180989***	2.05485	1.41079	2.357236**
	(.6821203)	(1.856201)	(1.339634)	(1.61399)	(1.102594)	(1.939492)	(1.74553)	(1.214624)	(1.352023)	(1.150421)	(1.920114)	(1.092448)	(1.27645)	(1.357653)	(1.277317)	(1.396731)	(1.97349)	(.8287361)	(2.420578)	(1.499217)	(1.003928)
	4.37	2.70	0.02	3.29	3.74	1.97	2.35	3.46	-0.69	-0.48	0.41	3.21	2.24	2.67	2.73	0.88	0.14	5.05	0.85	0.94	2.35
Thursday	-3.680046***	-3.857504***	-7.438962***	-7.245152***	-4.195407***	-8.294178***	-3.046974*	-6.331193***	-6.227384***	-2.894014**	-7.02816***	-5.892912***	-7.251009***	-5.998831***	-6.053898***	-7.090549***	-4.401599**	-3.925075***	-5.13153**	-4.650423***	-4.215869***
	(.7152388)	(1.756223)	(1.321751)	(1.515513)	(1.062693)	(2.027975)	(1.771407)	(1.119795)	(1.34917)	(1.203573)	(1.780178)	(1.094081)	(1.197222)	(1.658232)	(1.323155)	(1.282908)	(1.937435)	(.8777229)	(2.148511)	(1.430511)	(.9845687)
	-5.15	-2.20	-5.63	-4.78	-3.95	-4.09	-1.72	-5.65	-4.62	-2.40	-3.95	-5.39	-6.06	-3.62	-4.58	-5.53	-2.27	-4.47	-2.39	-3.25	-4.28
Friday	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Saturday	17.48586***	9.620546***	6.790689***	8.402296***	7.98204***	7.277771**	4.866518	9.053362***	7.306555***	6.484023***	13.86398***	5.976562***	7.252076***	14.18229***	12.37869***	11.31056***	14.52049***	12.04488***	0.056262***	9.430456***	14.11469***
	(1.233288)	(2.602093)	(2.073445)	(1.960014)	(1.662836)	(3.003234)	(3.050334)	(1.682405)	(1.939787)	(1.820831)	(2.442402)	(1.631605)	(1.765416)	(2.319969)	(1.569258)	(1.839473)	(2.902743)	(1.320053)	(2.342172)	(1.98191)	(1.566699)
	14.18	3.70	3.28	4.29	4.80	2.42	1.60	5.38	3.77	3.56	5.68	3.66	4.11	6.11	7.89	6.15	5.00	9.12	3.87	4.76	9.01
Sunday	29.10742***	29.8385***	23.01239***	24.76289***	24.76445***	22.89873***	26.5668***	24.18876***	21.59259***	28.12748***	24.95308***	26.39869***	30.25463***	28.41172***	26.11376***	24.33379***	22.72715***	28.8459***	20.06074***	25.37651***	27.52258***
	(1.223744)	(3.191497)	(2.454779)	(2.54194)	(1.767899)	(3.085825)	(2.882451)	(1.80382)	(2.352363)	(2.299806)	(3.192952)	(1.839849)	(2.067414)	(2.559528)	(1.80254)	(1.941336)	(2.830958)	(1.474674)	(3.44309)	(2.348405)	(1.629149)
	23.79	9.35	9.37	9.74	14.01	7.42	9.22	13.41	9.18	12.23	7.82	14.35	14.63	11.10	14.49	12.53	8.03	19.56	5.83	10.81	16.89
Gender																					
Female	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Male	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

TABLE A.6 – Control variables - By regions : Results of the autoregressive fixed-effects model corrected for heteroskedasticity problems

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)
	(IDF)	(C-A)	(PIC)	(H-N)	(CEN)	(B-N)	(BOU)	(N-P-C)	(LOR)	(ALS)	(F-C)	(P-D-L)	(BRE)	(P-C)	(AQU)	(M-P)	(LIM)	(R-A)	(AUV)	(L-R)	(PACA)
Age category																					
4-10 years	28.08892***	38.24787***	45.95553***	37.38133***	36.11631***	29.96119***	30.43291***	33.92557***	14.4477*	28.48141***	61.4704***	24.02161***	36.6832***	38.52357***	26.69545***	21.81803***	16.27937	19.50546***	27.7425***	41.77781***	26.0585***
	(4.118028)	(10.22392)	(7.873111)	(8.590752)	(7.397621)	(7.901319)	(8.940052)	(6.755275)	(8.635482)	(7.129272)	(9.246513)	(5.697642)	(6.302899)	(12.38574)	(5.331864)	(5.776565)	(11.61533)	(4.865176)	(9.198302)	(9.001857)	(5.297015)
	6.82	3.74	5.84	4.35	4.88	3.79	3.40	5.02	1.67	3.99	6.65	4.22	5.82	3.11	5.01	3.78	1.40	4.01	3.02	4.64	4.92
11-14 years	19.65808***	22.04699***	19.07382***	21.59337***	19.73083***	11.68528**	12.06938*	19.87768***	9.866085*	14.73162***	38.32963***	11.96683**	23.8113***	26.29706***	19.30699***	16.40789***	14.85319	15.94855***	10.97443	27.10604***	14.92797***
	(2.601496)	(5.136681)	(5.011995)	(5.979084)	(6.079704)	(5.327153)	(7.20472)	(5.924836)	(5.263112)	(4.444658)	(6.58086)	(4.876012)	(3.600259)	(4.815643)	(3.96439)	(3.239178)	(9.15281)	(3.323185)	(7.337098)	(7.145058)	(3.675837)
	7.56	4.29	3.81	3.61	3.25	2.19	1.68	3.35	1.87	3.31	5.82	2.45	6.61	5.46	4.87	5.07	1.62	4.80	1.50	3.79	4.06
15-24 years	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
25-34 years	-11.51872**	-39.78957**	-20.71615	8.641153	-18.82722***	-29.59423*	-29.02854**	-19.44526**	.9267294	-4.811306	-35.94877***	-11.9956	-13.61113	-25.98945*	-22.15666***	-15.8696*	-55.76119***	-17.04574**	18.53642**	-25.38092***	-2.741157
	(4.709512)	(16.86937)	(15.49366)	(9.584548)	(5.113692)	(16.05134)	(12.95029)	(8.451012)	(4.326181)	(7.275444)	(8.893432)	(7.927632)	(8.856974)	(14.60433)	(8.480561)	(9.122035)	(17.83696)	(8.120738)	(9.041819)	(5.611718)	(5.714309)
	-2.45	-2.36	-1.34	0.90	-3.68	-1.84	-2.24	-2.30	0.21	-0.66	-4.04	-1.51	-1.54	-1.78	-2.61	-1.74	-3.13	-2.10	2.05	-4.52	-0.48
35-49 years	-21.72566***	-34.93424*	-19.5665	-.5142693	-28.11924***	-39.35534***	-42.51616***	-33.70495***	-12.73329	-20.80915**	-58.20345***	-27.65953***	-27.63616***	-47.84352***	-33.85181***	-33.28664***	-64.1326***	-30.1117***	4.411375	-44.42928***	-25.80024***
	(5.4367)	(18.27473)	(16.76499)	(10.94154)	(6.473833)	(17.07605)	(14.11988)	(9.479172)	(7.90678)	(9.563076)	(12.37464)	(8.907369)	(10.02587)	(16.47587)	(10.3945)	(10.67828)	(19.83781)	(9.106719)	(12.23522)	(11.32659)	(8.478269)
	-4.00	-1.91	-1.17	-0.05	-4.34	-2.30	-3.01	-3.56	-1.61	-2.18	-4.70	-3.11	-2.76	-2.90	-3.26	-3.12	-3.23	-3.31	0.36	-3.92	-3.04
50-64 years	-22.69084***	-26.06618	-15.60878	-7.335742	-28.15027***	-31.13964	-30.95947*	-29.30534**	-16.81256	-16.07078	-64.05359***	-11.80749	-20.10427	-48.83963***	-39.07877***	-41.12151***	-53.60702**	-21.09531*	10.62946	-44.08164***	-25.68118***
	(6.272892)	(19.39399)	(17.98917)	(12.33344)	(8.496646)	(19.49411)	(16.54251)	(11.77956)	(11.03679)	(11.21432)	(15.09414)	(9.844802)	(13.02103)	(18.44133)	(11.38346)	(12.73087)	(23.52206)	(10.86356)	(16.43365)	(13.81326)	(9.597137)
	-3.62	-1.34	-0.87	-0.59	-3.31	-1.60	-1.87	-2.49	-1.52	-1.43	-4.24	-1.20	-1.54	-2.65	-3.43	-3.23	-2.28	-1.94	0.65	-3.19	-2.68
65 years and more	-8.778241	-23.93282	12.32314	-16.67004	-22.45827**	-10.15899	-20.75516	-14.31662	16.7554	-10.12618	-52.48611***	-9.390458	-12.83909	-35.12305*	-30.50135**	-17.54888	-59.81372**	-17.25476	12.27212	-26.10907*	-23.00698**
	(8.044596)	(20.12695)	(20.89458)	(19.66642)	(10.61978)	(21.51847)	(18.42372)	(15.09606)	(14.30256)	(12.71312)	(16.6989)	(11.90739)	(14.0155)	(21.27712)	(12.25441)	(16.07288)	(26.02572)	(12.12451)	(20.24799)	(15.07255)	(11.32608)
	-1.09	-1.19	0.59	-0.85	-2.11	-0.47	-1.13	-0.95	1.17	-0.80	-3.14	-0.79	-0.92	-1.65	-2.49	-1.09	-2.30	-1.42	0.61	-1.73	-2.03
Social-Professional Category																					
Farmer	0	-8.171115	0	0	0	16.38373	3.909708	-4.395449	-23.48866	19.66529	0	-21.98787	-4.016743	43.19406**	14.51996**	-7.369823	26.48339	-9.634761	17.22138***	.5245853	0
	(0)	(10.48859)	(0)	(0)	(0)	(13.55963)	(16.88013)	(10.43104)	(17.09226)	(12.85195)	(0)	(14.70878)	(14.47104)	(18.64534)	(5.961601)	(8.434246)	(20.12027)	(10.92213)	(6.399078)	(7.943992)	(0)
		-0.78				1.21	0.23	-0.42	-1.37	1.53		-1.49	-0.28	2.32	2.44	-0.87	1.32	-0.88	2.69	0.07	
Craftsmen-Traders-Contractor	-5.783013	4.36512	-10.26999	7.540478	-.7521026	16.77522	-3.406162	13.11048	-17.02161*	20.70782	24.37612***	2.043945	.5739377	38.85122*	3.824731	-10.77903	-2.216196	2.784235	3.82197	16.56099	-4.616361
	(7.643736)	(14.1176)	(11.14808)	(7.716976)	(11.56713)	(11.55317)	(8.449764)	(14.5463)	(9.834889)	(13.99532)	(6.631599)	(8.066975)	(8.932279)	(22.52318)	(8.074979)	(10.41898)	(19.65841)	(7.016499)	(15.46292)	(12.0801)	(9.431066)
	-0.76	0.31	-0.92	0.98	-0.07	1.45	-0.40	0.90	-1.73	1.48	3.68	0.25	0.06	1.72	0.47	-1.03	-0.11	0.40	0.25	1.37	-0.49
Higher professions	.9347834	-5.798746	-12.98719	.7686262	-2.87669	-4.826133	2.463948	11.38371*	-2.226408	7.377174	-28.1415*	-.2496568	7.709401	10.81434	1.220563	4.067019	7.328342	4.612041	-1.783152	5.832142	-11.24277*
	(3.517996)	(9.594939)	(9.126348)	(7.966665)	(5.301191)	(7.36996)	(6.839626)	(6.74802)	(8.701752)	(6.019893)	(14.3824)	(5.149357)	(5.729409)	(8.541428)	(6.031027)	(5.355496)	(11.48687)	(4.937784)	(8.550608)	(10.29781)	(6.385676)
	0.27	-0.60	-1.42	0.10	-0.54	-0.65	0.36	1.69	-0.26	1.23	-1.96	-0.05	1.35	1.27	0.20	0.76	0.64	0.93	-0.21	0.57	-1.76
Intermediate occupations	.4905209	-8.48216	-.542338	10.9228	2.063523	-2.280438	-.583045	3.372198	-8.437856	3.070031	-4.923846	-.9074448	-1.086971	2.116609	-4.933266	-.0490253	3.804053	2.983209	2.244116	12.22094*	-9.900294**
	(3.452639)	(10.09173)	(7.590778)	(6.828861)	(4.841456)	(9.815072)	(5.361836)	(4.602363)	(9.193639)	(5.035157)	(6.302259)	(4.418062)	(5.268782)	(5.313549)	(4.56435)	(5.43614)	(11.16655)	(3.450393)	(5.788862)	(6.768215)	(4.548915)
	0.14	-0.84	-0.07	1.60	0.43	-0.23	-0.11	0.73	-0.92	0.61	-0.78	-0.21	-0.21	0.40	-1.08	-0.01	0.34	0.86	0.39	1.81	-2.18
Employee	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Skilled worker	2.480549	-8.200578	15.8987	12.65097	-.7733257	4.83649	-2.438066	-8.11315	-1.712985	12.9081	5.708084	-2.257116	12.35365*	-4.844273	5.379382	-5.532446	-.7475018	5.548515	-1.796028	-2.836755	-5.0465
	(5.596371)	(9.688083)	(9.721613)	(10.27584)	(5.664428)	(12.38903)	(6.581266)	(6.323712)	(7.786372)	(7.96426)	(7.445019)	(8.277255)	(7.245986)	(9.52849)	(5.491239)	(8.805147)	(15.53572)	(6.058882)	(8.606519)	(13.24723)	(4.845898)
	0.44	-0.85	1.64	1.23	-0.14	0.39	-0.37	-1.28	-0.22	1.62	0.77	-0.27	1.70	-0.51	0.98	-0.63	-0.05	0.92	-0.21	-0.21	-1.04
Unskilled worker	-1.160986	-7.212247	6.398118	3.026056	-.5200849	6.830429	-14.2981**	-1.339609	8.743968	19.27554*	-.8285492	-4.998068	-.3717697	-2.331451	-.9939021	5.542936	-6.51919	6.109185	1.901263	-39.66076***	-2.53138
	(4.921311)	(10.35127)	(12.77685)	(10.19686)	(10.1305)	(11.46041)	(7.229208)	(7.770409)	(10.3342)	(10.33253)	(14.991)	(8.430115)	(7.402124)	(9.545537)	(5.63961)	(8.576513)	(19.38372)	(7.570148)	(6.151204)	(13.64419)	(5.70197)
	-0.24	-0.70	0.50	0.30	-0.05	0.60	-1.98	-0.17	0.85	1.87	-0.06	-0.59	-0.05	-0.24	-0.18	0.65	-0.34	0.81	0.31	-2.91	-0.44
Pensioner	14.36124	3.324187	-.8720839	22.8296*	25.54473	1.985649	-13.94997	-2.58527	-2.433528	22.82844**	-10.93547	17.90485	7.379831	33.27251	10.81718	-9.342926	-2.588494	13.11204	-62.75668*	-2.495271	-34.84864**
	(10.39648)	(20.29215)	(14.22587)	(12.35849)	(15.63456)	(20.29998)	(22.85948)	(20.81247)	(18.20087)	(11.23764)	(16.62932)	(13.82455)	(17.42315)	(22.75219)	(12.59098)	(17.79487)	(27.10129)	(10.48932)	(36.0472)	(15.74221)	(15.66723)
	1.38	0.16	-0.06	1.85	1.63	0.10	-0.61	-0.12	-0.13	2.03	-0.66	1.30	0.42	1.46	0.86	-0.53	-0.10	1.25	-1.74	-0.16	-2.22
Student	15.61255***	5.917165	34.57536***	17.23701	8.407391	36.43372**	9.783826	-16.63917	-2.837302	12.17224	16.14171	14.69838	1.945179	26.85417**	16.05642	2.358603	-3.785707	8.15695	-57.96011*	10.46527	-24.67389
	(6.057179)	(17.09527)	(11.12542)	(12.57081)	(10.41471)	(18.05791)	(14.32495)	(16.60617)	(13.441)	(8.532366)	(14.32765)	(11.00482)	(17.25349)	(10.97898)	(11.49841)	(16.08476)	(29.58902)	(7.823369)	(33.74176)	(14.14029)	(18.11075)
	2.58	0.35	3.11	1.37	0.81	2.02	0.68	-1.00	-0.21	1.43	1.13	1.34	0.11	2.45	1.40	0.15	-0.13	1.04	-1.72	0.74	-1.36
Other inactive	7.503541	-3.358601	3.399183	3.896425	28.89954**	9.347472	28.92406	-19.66656	-15.457	-7.040486	5.218412	13.3366	6.633535	22.09221	9.566612	.1839189	14.43977	3.26381	-30.77542	-5.268022	-41.2014**
	(8.455898)	(18.57646)	(11.61402)	(9.263227)	(13.33992)	(20.41347)	(19.72687)	(16.88741)	(16.08848)	(11.34514)	(17.602)	(12.27156)	(17.77921)	(22.58256)	(12.79947)	(16.18852)	(24.40432)	(8.779048)	(33.2803)	(14.70133)	(16.64808)
	0.89	-0.18	0.29	0.42	2.17	0.46	1.47	-1.16	-0.96	-0.62	0.30	1.09	0.37	0.98	0.75	0.01	0.59	0.37	-0.92	-0.36	-2.47

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

TABLE A.2 – Continued (2) : Control variables - By regions : Results of the autoregressive fixed-effects model corrected for heteroskedasticity problems

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)
	(IDF)	(C-A)	(PIC)	(H-N)	(CEN)	(B-N)	(BOU)	(N-P-C)	(LOR)	(ALS)	(F-C)	(P-D-L)	(BRE)	(P-C)	(AQU)	(M-P)	(LIM)	(R-A)	(AUV)	(L-R)	(PACA)
Average weekly working time																					
Unemployed person who has already worked	8.570377*	13.29627*	5.294559	3.790494	15.59749**	9.762777	-.1193646	-9.236632	6.903909	-4.117	13.49056	4.824885	11.87548	.5986444	3.854003	7.651902	2.266994	.7156483	-6.220326	-13.36448	13.82242**
	(4.703208)	(7.743815)	(9.636447)	(8.378189)	(6.888542)	(9.162054)	(8.054552)	(7.511846)	(7.892428)	(8.281367)	(8.913412)	(6.325758)	(11.1005)	(10.92591)	(6.021963)	(5.453899)	(15.72535)	(6.460046)	(13.43154)	(9.942434)	(6.139437)
	1.82	1.72	0.55	0.45	2.26	1.07	-0.01	-1.23	0.87	-0.50	1.51	0.76	1.07	0.05	0.64	1.40	0.14	0.11	-0.46	-1.34	2.25
People looking for a first job	.5490702	.6092221	41.10253*	2.367976	-43.17279*	-6.009895	-53.17669***	14.52732	-16.03982	21.70982	26.66872	-31.02267	-6.893253	-.7304576	-10.32548	-.6492607	-23.10856	18.56455	-25.86658	19.0992	-5.080117
	(8.87353)	(24.68671)	(23.93576)	(10.89221)	(24.40518)	(21.48617)	(14.22399)	(18.69893)	(16.00615)	(13.40718)	(23.04525)	(27.24782)	(22.23394)	(34.53663)	(14.91309)	(18.60061)	(31.71051)	(13.1657)	(48.59265)	(16.05022)	(25.91314)
	0.06	0.02	1.72	0.22	-1.77	-0.28	-3.74	0.78	-1.00	1.62	1.16	-1.14	-0.31	-0.02	-0.69	-0.03	-0.73	1.41	-0.53	1.19	-0.20
Full-time worker	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Part-time worker : 0-9h59 per week	-12.25247	-26.06766*	18.66599	-20.29392	-22.50447	23.58552	12.0954	35.7636**	11.7305	.8884235	-45.83086***	5.587383	-15.41306	9.211014	5.921155	7.680157	-15.06897	-3.981238	35.78939*	-1.579226	-5.932201
	(8.830134)	(13.34308)	(25.42839)	(26.60885)	(14.26625)	(18.4899)	(7.34725)	(16.47286)	(11.82709)	(21.65467)	(14.17852)	(11.82036)	(15.61147)	(7.514529)	(7.50542)	(10.77942)	(21.92412)	(8.20695)	(20.34329)	(19.77652)	(7.710539)
	-1.39	-1.95	0.73	-0.76	-1.58	1.28	1.65	2.17	0.99	0.04	-3.23	0.47	-0.99	1.23	0.79	0.71	-0.69	-0.49	1.76	-0.08	-0.77
Part-time worker : 10h-19h59 per week	-1.808061	-3.056028	24.09665**	-11.00698	-12.10743*	8.479874	-5.648972	8.005935	-11.84596	9.777565	23.95821	-4.181732	8.26741	-21.09011	7.277654	1.065619	11.02639	.8233658	12.30067	-16.04672	6.70453
	(5.637784)	(11.4674)	(11.82921)	(13.35674)	(6.914425)	(11.59784)	(9.702921)	(6.896509)	(12.50327)	(7.97813)	(19.62541)	(6.866509)	(8.210349)	(12.83568)	(5.341696)	(7.646986)	(22.1441)	(5.9242)	(24.36269)	(10.74439)	(5.2015)
	-0.32	-0.27	2.04	-0.82	-1.75	0.73	-0.58	1.16	-0.95	1.23	1.22	-0.61	1.01	-1.64	1.36	0.14	0.50	0.14	0.50	-1.49	1.29
Part-time worker : 20h-29h59 per week	-3.629165	-11.16132	9.792495	7.014144	-3.473966	-10.91975	4.307492	-4.554091	-7.860795	-5.04114	-12.31836*	-2.615835	-8.411669	-12.16045*	1.808618	8.056155	5.04297	-8.091502*	3.050129	-12.44015**	9.027269
	(2.79843)	(9.244533)	(6.592392)	(7.373227)	(4.525773)	(11.41913)	(5.313228)	(5.147223)	(9.212206)	(6.531133)	(6.60816)	(4.856906)	(5.932062)	(7.164489)	(4.301754)	(4.97025)	(15.70358)	(4.756041)	(11.80009)	(6.039783)	(5.634993)
	-1.30	-1.21	1.49	0.95	-0.77	-0.96	0.81	-0.88	-0.85	-0.77	-1.86	-0.54	-1.42	-1.70	0.42	1.62	0.32	-1.70	0.26	-2.06	1.60
Part-time worker : 30h-34h59 per week	-.2547319	6.714624	1.706961	4.602585	-.3945135	-4.9615	-3.661661	-13.64838***	-12.14144	7.503352	-8.690815	-1.859911	-9.734447*	-17.05143***	-4.80676	5.305853	-11.67927	-6.304937	.9350151	-8.808766	-3.088858
	(3.838286)	(6.14946)	(8.232475)	(7.382916)	(4.584417)	(7.307525)	(6.113662)	(4.940707)	(7.956215)	(7.367376)	(7.886859)	(5.7401)	(5.535647)	(6.076961)	(5.683847)	(7.224249)	(11.83824)	(6.385244)	(9.59978)	(5.614871)	(5.749829)
	-0.07	1.09	0.21	0.62	-0.09	-0.68	-0.60	-2.76	-1.53	1.02	-1.10	-0.32	-1.76	-2.81	-0.85	0.73	-0.99	-0.99	0.10	-1.57	-0.54
Other inactive	-8.034592	7.661784	-10.98132	-1.903929	-3.670979	-17.21115	2.692616	22.30666	.121744	1.618224	8.824629	-3.154634	11.74853	-19.65054*	3.273955	18.33152	32.97175**	2.141412	57.98563*	-1.992725	23.21871*
	(4.968413)	(13.07073)	(9.103758)	(6.037299)	(7.734552)	(10.78559)	(10.95324)	(15.07653)	(10.51938)	(6.328)	(11.56486)	(8.843394)	(13.91975)	(10.35828)	(10.50539)	(15.0056)	(13.99363)	(2.36)	(31.51608)	(12.54795)	(12.27324)
	-1.62	0.59	-1.21	-0.32	-0.47	-1.60	0.25	1.48	0.01	0.26	0.76	-0.36	0.84	-1.90	0.31	1.22	2.36	0.29	1.84	-0.16	1.89
Gross monthly household income																					
Less than 600 euros	9.933609	12.23945	-8.393278	20.2396	-2.489865	-9.237113	-1.95539	.5873439	-18.51024	23.29543	25.89739***	-33.37343***	-6.799111	-36.14519	-5.075934	2.848971	-7.168612	9.713413	-74.10184*	-31.59014	27.13246***
	(7.839929)	(17.5137)	(9.662113)	(13.48022)	(12.23447)	(16.00265)	(13.24712)	(11.98055)	(21.3844)	(43.88598)	(6.707856)	(10.21272)	(15.21811)	(52.50877)	(17.63659)	(8.9792)	(12.62907)	(6.167731)	(37.93614)	(21.48353)	(10.46227)
	1.27	0.70	-0.87	1.50	-0.20	-0.58	-0.15	0.05	-0.87	0.53	3.86	-3.27	-0.45	-0.69	-0.29	0.32	-0.57	1.57	-1.95	-1.47	2.59
From 600 to 900 euros	3.160708	-14.03206	4.806914	-11.12998	-9.10278	-39.55029*	15.75048**	-16.81**	-12.10216	-18.18994	-8.330311	-20.53062**	-15.30694**	-5.150593	-3.112864	8.393971*	-26.47279***	-6.367765	-14.41532	-.9108731	8.666573
	(6.378681)	(8.809615)	(12.4537)	(15.28538)	(10.78112)	(23.89882)	(7.204792)	(8.546818)	(14.51285)	(15.88749)	(7.726495)	(9.935186)	(7.093704)	(7.815526)	(8.438927)	(5.04371)	(7.674174)	(4.7917)	(13.28202)	(8.319873)	(7.086649)
	0.50	-1.59	0.39	-0.73	-0.84	-1.65	2.19	-1.97	-0.83	-1.14	-1.08	-2.07	-2.16	-0.66	-0.37	1.66	-3.45	-1.33	-1.09	-0.11	1.22
From 900 to 1200 euros	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
From 1200 to 1500 euros	.9762314	1.084937	-12.92373**	1.792261	5.982362	-3.324066	17.4195***	-1.844599	-4.985901	7.129969	-3.803943	-12.68207*	.4611498	13.97685**	4.275013	8.911232	-9.137859	-7.246492*	-13.25981	6.803695	7.628156
	(6.409954)	(5.451375)	(5.886339)	(7.871518)	(4.875834)	(9.844789)	(5.722604)	(4.968817)	(9.619114)	(8.454508)	(6.613685)	(6.554563)	(4.996852)	(5.797326)	(6.058826)	(5.764864)	(6.421184)	(3.855294)	(10.10045)	(6.237589)	(5.450438)
	0.15	0.20	-2.20	0.23	1.23	-0.34	3.04	-0.37	-0.52	0.84	-0.58	-1.93	0.09	2.41	0.71	1.55	-1.42	-1.88	-1.31	1.09	1.40
From 1500 to 2300 euros	-.6373858	1.977776	-9.022358*	-5.323112	5.23279	-5.190135	13.16331**	-2.626555	-5.619258	14.43602*	-1.647385	-9.624336	-4.424188	12.72187**	3.585713	14.74099***	-4.78349	-5.498754	-13.2789	-2.565679	2.446174
	(5.794629)	(5.899135)	(5.402102)	(10.58693)	(4.821142)	(10.16425)	(5.977295)	(5.131276)	(8.925163)	(8.485833)	(6.944694)	(6.86936)	(4.728521)	(6.219982)	(5.048767)	(5.697389)	(6.597312)	(3.971518)	(11.64271)	(5.43086)	(5.390452)
	-0.11	0.34	-1.67	-0.50	1.09	-0.51	2.20	-0.51	-0.63	1.70	-0.24	-1.40	-0.94	2.05	0.71	2.59	-0.73	-1.38	-1.14	-0.47	0.45
From 2300 to 3000 euros	.0711673	2.837651	-7.930268	-2.631013	6.24014	1.023553	12.89755**	-7.706168	-7.76392	12.42	-1.122371	-12.38216*	-8.312491*	15.19942**	6.497315	8.772288	-7.054171	-6.325332	-11.68799	.7687594	1.531492
	(5.774418)	(6.379847)	(5.719471)	(10.6051)	(4.922943)	(10.75302)	(6.07302)	(5.528746)	(8.979272)	(8.601269)	(7.161919)	(6.761459)	(4.849598)	(6.643479)	(5.202366)	(5.593243)	(7.368275)	(4.369769)	(11.88448)	(5.42375)	(5.620777)
	0.01	0.44	-1.39	-0.25	1.27	0.10	2.12	-1.39	-0.86	1.44	-0.16	-1.83	-1.71	2.29	1.25	1.57	-0.96	-1.45	-0.98	0.14	0.27
From 3000 to 4500 euros	1.0369	3.600897	-11.62998*	-2.700647	6.119173	-3.548745	13.07554*	-8.386116	-8.314851	13.78615	-.4167782	-16.14101**	-5.040018	14.75777**	6.599442	5.09523	-1.385385	-9.529653**	-12.98879	.6650075	-1.165725
	(5.813732)	(6.493315)	(5.971204)	(10.70024)	(5.091728)	(10.824)	(6.7205)	(5.714603)	(9.12085)	(8.724433)	(7.527896)	(6.880822)	(5.021055)	(6.630643)	(5.39995)	(5.837768)	(7.564671)	(4.3441)	(12.32842)	(6.060921)	(5.619012)
	0.18	0.55	-1.95	-0.25	1.20	-0.33	1.95	-1.47	-0.91	1.58	-0.06	-2.35	-1.00	2.23	1.22	0.87	-0.18	-2.19	-1.05	0.11	-0.21
From 4500 to 7000 euros	1.85165	-.9527154	-15.49353**	-1.84296	5.374583	-3.331402	12.25129	-13.7817**	-10.63083	10.69572	5.0605	-15.20781**	-3.401286	15.25495**	11.51557**	1.440878	-3.254185	-12.05598***	-16.32234	-2.332964	-2.254599
	(5.871552)	(6.900922)	(6.802271)	(10.87909)	(5.27034)	(11.10514)	(7.481091)	(6.260383)	(9.269551)	(8.84733)	(8.006182)	(7.063754)	(5.670503)	(7.769611)	(5.556641)	(6.278742)	(8.912502)	(4.507968)	(12.96877)	(6.348079)	(5.856925)
	0.32	-0.14	-2.28	-0.17	1.02	-0.30	1.64	-2.20	-1.15	1.21	0.63	-2.15	-0.60	1.96	2.07	0.23	-0.37	-2.67	-1.26	-0.37	-0.38
More than 7000 euros	1.310867	-8.718933	-2.950611	1.77324	-.7835549	6.06754	10.45014	-14.6842**	-8.793951	9.616378	-2.147055	-8.641421	-2.398254	25.20182***	15.76957**	-2.158127	-1.384999	-10.06419*	-21.57426	4.108663	-5.534592
	(5.97325)	(14.04819)	(7.677258)	(11.38319)	(7.288054)	(14.301)	(8.530335)	(7.28844)	(10.06777)	(8.853995)	(8.835577)	(7.749933)	(6.122532)	(8.458341)	(6.393552)	(8.408048)	(9.754403)	(5.188837)	(13.79553)	(7.512688)	(6.437077)
	0.22	-0.62	-0.38	0.16	-0.11	0.42	1.23	-2.01	-0.87	1.09	-0.24	-1.12	-0.39	2.98	2.47	-0.26	-0.14	-1.94	-1.56	0.55	-0.86

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

TABLE A.2 – Continued (3) : Control variables - By regions : Results of the autoregressive fixed-effects model corrected for heteroskedasticity problems

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)
	(IDF)	(C-A)	(PIC)	(H-N)	(CEN)	(B-N)	(BOU)	(N-P-C)	(LOR)	(ALS)	(F-C)	(P-D-L)	(BRE)	(P-C)	(AQU)	(M-P)	(LIM)	(R-A)	(AUV)	(L-R)	(PACA)
Internet connection mode																					
No Internet acces	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Cable	12.80881***	19.05263	-21.83108	5.51263	-3.929727	-16.23541*	-4.947027	-3.270546	6.673489	12.43389	13.15022	-3.940906	-.5543444	28.15198	1.040171	10.71548	-36.82177	11.17499**	-14.6402	-18.18044***	-3.066218
	(4.272766)	(12.315)	(18.84975)	(13.70504)	(9.280324)	(9.036366)	(8.72751)	(7.268385)	(12.62051)	(9.0383)	(9.869461)	(7.686656)	(9.176534)	(24.3494)	(5.612571)	(6.772214)	(24.70219)	(5.47252)	(11.99333)	(6.393393)	(7.448719)
	3.00	1.55	-1.16	0.40	-0.42	-1.80	-0.57	-0.45	0.53	1.38	1.33	-0.51	-0.06	1.16	0.19	1.58	-1.49	2.04	-1.22	-2.84	-0.41
ADSL	7.438677*	1.020856	2.562244	2.728911	4.693152	2.617013	3.533182	2.298269	12.65549**	9.629475	14.80809**	6.500581*	-.8334345	-10.01001	6.944239	8.606658	.6552318	6.238	.2737359	-6.819079	-1.365673
	(3.994642)	(5.805806)	(5.465447)	(6.620042)	(5.568887)	(7.423678)	(5.313438)	(6.810453)	(5.43197)	(7.620956)	(7.250154)	(3.874652)	(4.141792)	(9.54099)	(5.02381)	(6.042059)	(10.21925)	(4.279668)	(9.319345)	(6.110371)	(6.134808)
	1.86	0.18	0.47	0.41	0.84	0.35	0.66	0.34	2.33	1.26	2.04	1.68	-0.20	-1.05	1.38	1.42	0.06	1.46	0.03	-1.12	-0.22
Fiber optics	3.544454	-3.64548	-11.10943	11.35284	3.894534	4.281648	3.483988	-14.38622*	16.65186**	2.338295	6.342325	4.527797	-14.68581*	1.524644	-4.691741	.7735367	-34.85594	4.082784	26.23697**	-10.15012	-1.118729
	(4.254165)	(6.847695)	(8.956052)	(9.073846)	(6.927876)	(12.13741)	(8.272078)	(7.64813)	(7.038987)	(10.80656)	(8.885814)	(4.77771)	(7.592424)	(12.89865)	(6.172131)	(8.129181)	(27.40662)	(5.056814)	(11.23571)	(8.177317)	(6.923938)
	0.83	-0.53	-1.24	1.25	0.56	0.35	0.42	-1.88	2.37	0.22	0.71	0.95	-1.93	0.12	-0.76	0.10	-1.27	0.81	2.34	-1.24	-0.16
Other	3.136152	8.092457	4.137324	3.529557	-5.034254	18.3877***	7.126956	6.091607	-.0915892	18.96974*	25.49392***	1.75905	-4.195452	-19.04587	4.889154	1.772676	21.14653	2.336155	.704701	-14.63627	-12.06659
	(4.818376)	(7.042563)	(7.189221)	(7.576832)	(6.57732)	(6.945785)	(6.568966)	(7.716676)	(7.882488)	(10.08282)	(8.117637)	(4.903471)	(5.390958)	(12.20145)	(10.86812)	(6.432313)	(13.5025)	(4.540058)	(11.55537)	(13.80391)	(8.006235)
	0.65	1.15	0.58	0.47	-0.77	2.65	1.08	0.79	-0.01	1.88	3.14	0.36	-0.78	-1.56	0.45	0.28	1.57	0.51	0.06	-1.06	-1.51
Intercept	94.69027***	132.3007***	124.0541***	83.65449***	113.7782***	137.6681***	125.115***	133.2826***	122.8616***	77.20179***	125.5985***	122.0624***	122.3944***	151.2106***	124.0649***	102.7789***	133.7586***	126.7924***	123.0082***	160.7346***	144.6099***
	(8.828761)	(16.43521)	(14.09283)	(15.99362)	(10.00816)	(16.57961)	(14.16699)	(12.23111)	(12.49104)	(13.79498)	(14.6086)	(11.89394)	(10.79551)	(18.08182)	(11.01789)	(12.27532)	(24.25853)	(9.343083)	(15.90393)	(13.24383)	(9.947531)
	10.73	8.05	8.80	5.23	11.37	8.30	8.83	10.90	9.84	5.60	8.60	10.26	11.34	8.36	11.26	8.37	5.51	13.57	7.73	12.14	14.54
Number of observations	3,586,309	664,921	877,521	763,181	1,645,520	581,574	779,501	1,616,231	959,773	1,044,981	550,293	1,574,069	1,286,027	840,614	1,361,359	1,253,081	335,514	2,277,070	572,069	884,166	1,814,659
Number of groups	3,470	634	937	785	1,481	595	768	1,695	961	965	572	1,625	1,378	834	1,408	1,210	332	2,388	635	944	1,732
R-squared for overall model : R^2_O	0.43	0.37	0.33	0.43	0.41	0.38	0.36	0.42	0.46	0.40	0.21	0.42	0.40	0.39	0.38	0.39	0.33	0.41	0.45	0.39	0.44
R-squared for between model : R^2_B	0.89	0.70	0.69	0.90	0.86	0.71	0.74	0.83	0.94	0.84	0.28	0.86	0.81	0.75	0.77	0.77	0.59	0.87	0.94	0.74	0.89
R-squared for within model : R^2_W	0.21	0.19	0.16	0.18	0.18	0.18	0.17	0.17	0.18	0.16	0.16	0.17	0.18	0.19	0.20	0.19	0.18	0.17	0.20	0.21	0.19
Panel-level standard deviation : σ_u	87.91	103.87	110.07	97.64	100.34	113.95	115.86	108.51	97.45	91.90	129.99	95.72	105.61	115.72	104.58	99.51	127.14	94.83	84.08	104.44	101.86
Standard deviation of ϵ_{it} : σ_ε	139.54	145.12	147.70	140.68	145.36	143.02	143.77	152.87	142.06	127.19	140.10	138.71	139.47	146.90	141.17	137.56	133.48	139.50	141.85	146.05	144.47
Intraclass correlation : ρ	0.28	0.34	0.36	0.33	0.32	0.39	0.39	0.34	0.32	0.34	0.46	0.32	0.36	0.38	0.35	0.34	0.48	0.32	0.26	0.34	0.33

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

TABLE A.2 – Continued (4) : Control variables - By regions : Results of the autoregressive fixed-effects model corrected for heteroskedasticity problems

B Annexes Chapitre 4

B.1 Proof of Theorem 1

Prior to solving the system of the first order condition, it is useful to recall the following. Consider g, h two parameters, U a C^1 fonction depending on one x or two variables x, y and A, c two constants.

$$\frac{\partial U(A+gx)}{\partial x} + \frac{\partial U(A+h(y-x+c))}{\partial x} = gU'(A+gx) - hU'(A+h(y-x+c)) = 0,$$

$$\frac{\partial U(A+h(y-x+c))}{\partial y} = hU'(A+h(y-x+c)).$$

If $hU'(A+h(y-x+c)) = w/p$ then $gU'(A+gx) = w/p$.

In order to prove Theorem 3, let us write the first-order condition starting with the first derivative of the utility with respect to advertising time sharing, then program time sharing, leisure and Internet service provider. The system of the first-order condition is the following.

$$\begin{cases}
\frac{\partial U}{\partial q_0^R} = 0 \;\; g(\psi_a,\Omega)u'_{q_0^R}(A+g(\psi_a,\Omega)q_0^R) = h(\psi_m,\Omega)u'_{q_0^R}(A+h(\psi_m,\Omega)(\ell - t_4 + Q_0^R - q_0^R + Q_0^{NR} - q_0^{NR} + Q_2^R - q_2^R + Q_3^R - q_3^R + Q_3^{NR} - q_3^{NR})), & \text{(B.1)}\\
\frac{\partial U}{\partial q_0^{NR}} = 0 \;\; g(\psi_a,\Omega)u'_{q_0^{NR}}(A+g(\psi_a,\Omega)(q_0^{NR}-t_0) = h(\psi_m,\Omega)u'_{q_0^{NR}}(A+h(\psi_m,\Omega)(\ell - t_4 + Q_0^R - q_0^R + Q_0^{NR} - q_0^{NR} + Q_2^R - q_2^R + Q_3^R - q_3^R + Q_3^{NR} - q_3^{NR})), & \text{(B.2)}\\
\frac{\partial U}{\partial q_2^R} = 0 \;\; g(\psi_a,\Omega)u'_{q_2^R}(A+g(\psi_a,\Omega)(q_2^R-t_1) = h(\psi_m,\Omega)u'_{q_2^R}(A+h(\psi_m,\Omega)(\ell - t_4 + Q_0^R - q_0^R + Q_0^{NR} - q_0^{NR} + Q_2^R - q_2^R + Q_3^R - q_3^R + Q_3^{NR} - q_3^{NR})), & \text{(B.3)}\\
\frac{\partial U}{\partial q_3^R} = 0 \;\; g(\psi_a,\Omega)u'_{q_3^R}(A+g(\psi_a,\Omega)(q_3^R-t_2) = h(\psi_m,\Omega)u'_{q_3^R}(A+h(\psi_m,\Omega)(\ell - t_4 + Q_0^R - q_0^R + Q_0^{NR} - q_0^{NR} + Q_2^R - q_2^R + Q_3^R - q_3^R + Q_3^{NR} - q_3^{NR})), & \text{(B.4)}\\
\frac{\partial U}{\partial q_3^{NR}} = 0 \;\; g(\psi_a,\Omega)u'_{q_3^{NR}}(A+g(\psi_a,\Omega)(q_3^{NR}-t_3) = h(\psi_m,\Omega)u'_{q_3^{NR}}(A+h(\psi_m,\Omega)(\ell - t_4 + Q_0^R - q_0^R + Q_0^{NR} - q_0^{NR} + Q_2^R - q_2^R + Q_3^R - q_3^R + Q_3^{NR} - q_3^{NR})), & \text{(B.5)}\\
\frac{\partial U}{\partial t_0} = 0 \;\; h(\psi_m,\Omega)u'_{t_0}(A+h(\psi_m,\Omega)(t_0 - Q_0^R)) = g(\psi_a,\Omega)u'_{t_0}(A+g(\psi_a,\Omega)(q_0^{NR}-t_0)), & \text{(B.6)}\\
\frac{\partial U}{\partial \tau_0} = 0 \;\; h(\psi_m,\Omega)u'_{\tau_0}(A+h(\psi_m,\Omega)(\tau_0 - Q_0^{NR})) = h(\psi_m,\Omega)u'_{\tau_0}(A+h(\psi_m,\Omega)(t_1-\tau_0)), & \text{(B.7)}\\
\frac{\partial U}{\partial t_1} = 0 \;\; h(\psi_m,\Omega)u'_{t_1}(A+h(\psi_m,\Omega)(t_1 - \tau_0)) = g(\psi_a,\Omega)u'_{t_1}(A+g(\psi_a,\Omega)(q_2^R-t_1)), & \text{(B.8)}\\
\frac{\partial U}{\partial t_2} = 0 \;\; h(\psi_m,\Omega)u'_{t_2}(A+h(\psi_m,\Omega)(t_2 - Q_2^R)) = g(\psi_a,\Omega)u'_{t_2}(A+g(\psi_a,\Omega)(q_3^R-t_2)), & \text{(B.9)}\\
\frac{\partial U}{\partial t_3} = 0 \;\; h(\psi_m,\Omega)u'_{t_3}(A+h(\psi_m,\Omega)(t_3 - Q_3^R)) = g(\psi_a,\Omega)u'_{t_3}(A+g(\psi_a,\Omega)(q_3^{NR}-t_3)), & \text{(B.10)}\\
\frac{\partial U}{\partial \tau_3} = 0 \;\; h(\psi_m,\Omega)u'_{\tau_3}(A+h(\psi_m,\Omega)(\tau_3 - Q_3^{NR})) = h(\psi_m,\Omega)u'_{\tau_3}(A+h(\psi_m,\Omega)(t_4-\tau_3)), & \text{(B.11)}\\
\frac{\partial U}{\partial t_4} = 0 \;\; h(\psi_m,\Omega)u'_{t_4}(A+h(\psi_m,\Omega)(t_4 - \tau_3)) = h(\psi_m,\Omega)u'_{t_4}(\ell - t_4 + Q_0^R - q_0^R + Q_0^{NR} - q_0^{NR} + Q_2^R - q_2^R + Q_3^R - q_3^R + Q_3^{NR} - q_3^{NR}), & \text{(B.12)}\\
\frac{\partial U}{\partial \ell} = 0 \;\; h(\psi_m,\Omega)u'_{\ell}(A+h(\psi_m,\Omega)(\ell - t_4 + Q_0^R - q_0^R + Q_0^{NR} - q_0^{NR} + Q_2^R - q_2^R + Q_3^R - q_3^R + Q_3^{NR} - q_3^{NR})) = \frac{w}{p}, & \text{(B.13)}\\
\frac{\partial U}{\partial x_3} = 0 \;\; u'_{x_3}(x_3) = \frac{p_3}{p}. & \text{(B.14)}
\end{cases}$$

Note that $U'_{q_0^R}(.) = U'_{q_0^{NR}}(.) = U'_{q_2^R}(.) = U'_{q_3^R}(.) = U'_{q_3^{NR}}(.)$. Using Remark B.1 and relation (20), rewrite (8) as $g(\psi_a,\Omega)u'_{q_0^R}(A + g(\psi_a,\Omega)q_0^R) = \frac{w}{p}$. Define $v := u'^{-1}$ we have $g(\psi_a,\Omega)(q_0^R) = v(\frac{1}{g(\psi_a,\Omega)}\frac{w}{p}) - A$. Define $Y(g(\psi_a,\Omega),w,p) := \frac{1}{g(\psi_a,\Omega)}\Big[v(\frac{1}{g(\psi_a,\Omega)}\frac{w}{p}) - A\Big]$. We have

$$q_0^R = Y(g(\psi_a,\Omega),w,p). \tag{B.15}$$

Redo the exercise for the next 4 relations and obtain

$$q_0^{NR} - t_0 = Y(g(\psi_a,\Omega),w,p), \tag{B.16}$$

$$q_2^R - t_1 = Y(g(\psi_a,\Omega),w,p), \tag{B.17}$$

$$q_3^R - t_2 = Y(g(\psi_a,\Omega),w,p), \tag{B.18}$$

$$q_3^{NR} - t_3 = Y(g(\psi_a,\Omega),w,p). \tag{B.19}$$

Put relation (B.16) into relation (10) and obtain

$$h(\psi_m,\Omega)u'_{t_0}(A + h(\psi_m,\Omega)(t_0 - Q_0^R)) = g(\psi_a,\Omega)u'_{t_0}(A + h(\psi_m,\Omega)(Y(g(\psi_a,\Omega),w,p))).$$

Replace $Y(g(\psi_a,\Omega),w,p)$ by its definition

$$h(\psi_m,\Omega)u'_{t_0}(A+h(\psi_m,\Omega)(t_0-Q_0^R)) = g(\psi_a,\Omega)u'_{t_0}(A+g(\psi_a,\Omega)(\frac{1}{g(\psi_a,\Omega)}\left[v(\frac{1}{g(\psi_a,\Omega)}\frac{w}{p}) - A\right])).$$

Simplifying by $A, g(\psi_a,\Omega)$ and using $v := u'^{-1}$ we have

$$u'_{t_0}(A + h(\psi_m,\Omega)(t_0 - Q_0^R)) = \frac{1}{h(\psi_m,\Omega)}\frac{w}{p}.$$

$$h(\psi_m,\Omega)(t_0 - Q_0^R) = v\Big(\frac{1}{h(\psi_m,\Omega)}\frac{w}{p}\Big) - A.$$

Define $Z(h(\psi_m,\Omega),w,p) := \frac{1}{h(\psi_m,\Omega)}\Big[v(\frac{1}{h(\psi_m,\Omega)}\frac{w}{p}) - A\Big]$, we have

$$t_0 - Q_0^R = Z(h(\psi_m,\Omega),w,p). \tag{B.20}$$

Apply this methodology to relations (12), (13), (14) and (16) and find

$$t_1 - \tau_0 = Z(h(\psi_m,\Omega),w,p). \tag{B.21}$$

$$t_2 - Q_2^R = Z(h(\psi_m,\Omega),w,p). \tag{B.22}$$

$$t_3 - Q_3^R = Z(h(\psi_m, \Omega), w, p). \tag{B.23}$$

$$t_4 - \tau_3 = Z(h(\psi_m, \Omega), w, p). \tag{B.24}$$

Relations (11) and (15) can be rewritten as

$$\tau_0 - Q_0^{NR} = t_1 - \tau_0. \tag{B.25}$$

$$\tau_3 - Q_3^{NR} = t_4 - \tau_3. \tag{B.26}$$

Solving the system of relation from (B.15) to (B.26) and find the results of Theorem 3.

Proof. We now turn to prove Proposition 4.3.3.3. Define $\theta = g(\psi_a, \Omega), h(\psi_m, \Omega)$. We compute hereafter the expression of $Y(g(\psi_a, \Omega), w, p)$ and $Z(h(\psi_m, \Omega), w, p)$ for usual utility functions by using the previous definition of them.

1. $u(x, \theta) := \log(A + \theta x)$, where $\theta = g(\psi_a, \Omega)$ or $h(\psi_m, \Omega)$, we have $Y(g(\psi_a, \Omega), w, p) := \frac{p}{w} - \frac{A}{g(\psi_a, \Omega)}$ and $Z(h(\psi_m, \Omega), w, p) := \frac{p}{w} - \frac{A}{h(\psi_m, \Omega)}$. For $u(x_3) = \log(A + Bx_3)$ we have $x_3^\star = \frac{p}{p_3} - \frac{A}{B}$.

2. For $u(x) := (A+\theta x)^\alpha, 0 < \alpha < 1$ we have $Y(g(\psi_a, \Omega), w, p) := (g(\psi_a, \Omega))^{\frac{\alpha}{1-\alpha}} \left(\alpha \frac{p}{w}\right)^{\frac{1}{1-\alpha}} - \frac{A}{g(\psi_a, \Omega)}$ and $Z(h(\psi_m, \Omega), w, p) := h(\psi_m, \Omega)^{\frac{\alpha}{1-\alpha}} \left(\frac{\alpha p}{w}\right)^{\frac{1}{1-\alpha}} - \frac{A}{h(\psi_m, \Omega)}$. For $u(x_3) = (A + Bx_3)^\alpha$ we have $x_3^\star = B^{\frac{\alpha}{1-\alpha}} \left[\frac{\alpha p}{p_3}\right]^{\frac{1}{1-\alpha}} - \frac{A}{B}$.

3. For the quadratic utility function $u(x) := (A - \frac{\theta}{2}x)x$ we have $Y(g(\psi_a, \Omega), w, p) := \frac{1}{g(\psi_a, \omega_k)} \left[A - \frac{w}{p}\right]$ and $Z(h(\psi_m, \Omega), w, p) := \frac{1}{h(\psi_m, \Omega)} \left[A - \frac{w}{p}\right]$. For $u(x_3 = (\frac{B}{A} - \frac{x_3}{2A})x_3$ we have $x_3 = B - A\frac{p_3}{p}$.

4. For an exponential utility function $-\exp^{-(A+\theta x)}$ we have

   $Y(g(\psi_a, \Omega), w, p) := \frac{1}{g(\psi_a, \Omega)} \left[\log\left(g(\psi_a, \Omega)p\right) - \log w\right] - \frac{A}{g(\psi_a, \Omega)}$ and

   $Z(h(\psi_m, \Omega), w, p) := \frac{1}{h(\psi_m, \Omega)} \left[\log h(\psi_m, \Omega)p - \log w\right] - \frac{A}{h(\psi_m, \Omega)}$. For $u(x_3) = -\exp^{-(A+Bx_3)}$ we have $x_3^\star = \frac{1}{B} \log \frac{BP}{p_3} - \frac{A}{B}$.

From what we learn that both $Y(g(\psi_a, \Omega), w, p)$ and $Z(h(\psi_m, \Omega), w, p)$ are increasing in $g(\psi_a, \Omega)$, in $h(\psi_m, \Omega)$, in p and decreasing in w or equivalently decreasing in purchase power w/p.

B.2 Theorem 2 : example for usual utility and cost functions

B.2.1 The producer/advertiser

Application of the first step of subsection 4.3.5 Consider a quadratic cost function $TC_P = \frac{1}{2}C^2$. We have $C^{\star\star} = p$

Application of the second step of subsection 4.3.5 Consider the previous example where $C^{\star\star} = p^\star$ and the quadratic cost function $C_A(Q) = \frac{g}{2}(Q - (5Y(g(\psi_a, \Omega), w, p)))^2$. The solution is $Q^\star = \frac{p^{\star 2}}{g} + 5Y(g(\psi_a, \Omega), w, p)$. The optimal profit at this stage is $\Pi_{P/A}(C^{\star\star}, q^\star) = \frac{p^{\star 2}(g+p^{\star 2}+10gY(g(\psi_a,\Omega),w,p)))}{2g}$.

We now illustrate that for sufficiently high price $p^\star$ our methodology dominates the following one. Suppose the P/A solves

$$\max_{C,Q}(1+Q)pC - \frac{1}{2}C^2 - \frac{g}{2}(Q - (5Y(g(\psi_a, \Omega), w, p)))^2.$$

The optimal solutions are

$$C^\circ = \frac{gp^\star(1 + (5Y(g(\psi_a, \Omega), w, p)))}{g - p^{\star 2}},\ Q^\circ = \frac{p^{\star 2} + 5gY(g(\psi_a, \Omega), w, p))}{g - p^{\star 2}}.$$

The optimal profit is

$$\Pi(C^\circ, Q^\circ) = \frac{gp^\star(1 + (5Y(g(\psi_a, \Omega), w, p)))^2}{2(g - p^{\star 2})}.$$

The condition $\Pi_{P/A}(C^{\star\star}, q^\star) > \Pi(C^\circ, Q^\circ)$ $\frac{\left(5gp^\star Y(g(\psi_a,\Omega),w,p))+p^3\right)^2}{2g\left(p^{\star 2}-g\right)} > 0$ which is $p^{\star 2} > g$.

Application of the third step of subsection 4.3.5 Continuing with the same example as above, the problem is

$$\max_{\theta_0^R}\ \alpha_0^R\theta_0^R Q^\star p^{\star 2} - \frac{g}{2}(\theta_0^R Q^\star)^2 - p_{b_0}^R\theta_0^R Q^\star - \alpha_0^{NR}\theta_0^R p^{\star 2} Q^\star.$$

The first-order condition is

$$\alpha_0^R Q^\star p^{\star 2} - g\theta_0^R (Q^\star)^2 - p_{b_0}^R Q^\star - \alpha_0^{NR} p^{\star 2} Q^\star = 0.$$

Dividing by $Q^\star$, the solution is

$$\theta_0^{R\star} = \frac{(\alpha_0^R - \alpha_0^{NR})p^{\star 2} - p_{b_0}^R}{g\Big(p^{\star 2} + 5Y(g(\psi_a, \Omega), w, p)\Big)}$$ the condition $\theta_0^{R\star} \geq 1 \iff p_{b_0}^R < (\alpha_0^R - \alpha_0^{NR})p^{\star 2} - gQ^\star$.

As long as the price is not too high, the P/A accepts to be broadcast by b_0. Using the optimal expression of $Q^\star$ we have $Q_0^\star = \theta_0^\star Q^\star$ which gives

$$Q_0^{R\star} = \theta_0^{R\star} Q^\star = \frac{(\alpha_0^R - \alpha_0^{NR})p^{\star 2} - p_{b_0}^R}{g}. \tag{B.27}$$

Redo the same exercise for all other repetitions and find

$$Q_2^{R\star} = \theta_2^{R\star} Q^\star = \frac{(\alpha_2^R - \alpha_3^R)p^{\star 2} - p_{b_2}^R}{g}. \tag{B.28}$$

$$Q_3^{R\star} = \theta_3^{R\star} Q^\star = \frac{(\alpha_3^R - \alpha_3^{NR})p^{\star 2} - p_{b_3}^R}{g}. \tag{B.29}$$

$$Q_0^{NR\star} = \theta_0^{NR\star} Q^\star = \frac{(\alpha_0^{NR} - \alpha_2^R)p^{\star 2} - p_{b_0}^{NR}}{g}. \tag{B.30}$$

$$Q_3^{NR\star} = \theta_3^{NR\star} Q^\star = \frac{\alpha_3^{NR} p^{\star 2} - p_{b_3}^{NR}}{g}. \tag{B.31}$$

Note that each $Q_j^{R\star}, j = 0, 2, 3$ can be set to zero for some particular value of $p_{b_j}^R$ and that each $Q_{j'}^{NR\star}, j' = 0, 3$ can be set to zero for some particular value of $p_{b_j'}^{NR}$ according to Theorem 5.

B.2.2 The broadcaster

Application of Subsubsection 4.3.6.1 Continuing with the previous example, we now consider for simplicity a linear cost function for each broadcaster
$C_{b_j} = g_{b_j}\theta_j^{R\star}(p_{b_j}^R)Q^\star(p, Y(g(\psi_a, \Omega), w, p))$.

The regulated broadcaster $j = 0$ The profit of the regulated broadcaster 0 is

$$\max_{p_{b_0}^R} \; p_0^R + p_{b_0}^R \theta_0^{R\star} Q^\star - g_{b_0}\theta_0^{R\star} Q^\star$$

which can be rewritten using B.27 as

$$\max_{p_{b_0}^R} := p_0^R + \frac{p_{b_0}^R - g_{b_0}}{g}\left((\alpha_0^R - \alpha_0^{NR})p^{\star 2} - p_{b_0}^R\right).$$

which is a concave function of p_{b_0}. The solution is

$$p_{b_0}^{R\star} = \frac{1}{2}\left(g_{b_0} + (\alpha_0^R - \alpha_0^{NR})p^2\right) > 0.$$

The regulated Broadcasters $j = 2, 3$ One can easily check that the problem is the same for each broadcaster $j = 2, 3$. Solutions are

$$p_{b_2}^{R\star} = \frac{1}{2}\left(g_{b_2} + (\alpha_2^R - \alpha_3^R)p^2\right) > 0.$$

$$p_{b_3}^{R\star} = \frac{1}{2}\left(g_{b_3} + (\alpha_3^R - \alpha_3^{NR})p^2\right) > 0.$$

Note that all α_j^R are dependent on $Y(g(\psi_a, \Omega), w, p)$.

The unregulated Broadcasters $j' = 0, 3$

One can redo the exercise and obtain the same type of solutions

$$p_{b_0}^{NR\star} = \frac{1}{2}\left(g_{b_0} + (\alpha_0^{NR} - \alpha_2^R)p^2\right) > 0.$$

$$p_{b_3}^{NR\star} = \frac{1}{2}\left(g_{b_3} + \alpha_3^{NR}p^2\right) > 0.$$

Note that all $\alpha_{j'}^{NR}$ are dependent on $Y(g(\psi_a, \Omega), w, p)$.

B.2.3 The regulator

Application of Section 4.3.7 with a quadratic utility function Let us define $h(\psi_m, \Omega) := a\psi_m + b\omega_k$. The regulator maximizes the welfare function.

$$\max_{Q_0^{Rw}, Q_2^{Rw}, Q_3^{Rw}} \left(A - (a\psi_m + b\omega_k)\frac{\left(t_0^\star - Q_0^R\right)}{2}\right)\left(t_0^\star - Q_0^R\right) + \left(A - (a\psi_m + b\omega_k)\frac{\left(t_2^\star - Q_2^R\right)}{2}\right)\left(t_2^\star - Q_2^R\right)$$
$$+ \left(A - (a\psi_m + b\omega_k)\frac{\left(t_3^\star - Q_3^R\right)}{2}\right)\left(t_3^\star - Q_3^R\right)$$
$$+ \left(A - (a\psi_m + b\omega_k)\frac{\ell - t_4 + Q_0^{Rw} - q_0^R + Q_2^{Rw} - q_2^R + Q_3^{Rw} - q_3^R)}{2}\right)$$
$$\left(\ell - t_4 + Q_0^{Rw} - q_0^R + Q_2^{Rw} - q_2^R + Q_3^{Rw} - q_3^R)\right) + p_{b_0}^\star(Q_0^{Rw}) - C_{b_0}(Q_0^{Rw}) + p_{b_2}^\star(Q_2^{Rw}) - C_{b_2}(Q_2^{Rw}) + p_{b_3}^\star(Q_3^{Rw}) - C_{b_3}(Q_3^{Rw}).$$

Taking into account the solutions according to Theorem 3, all utilities are constant, so that the solution is

$$Q_0^{Rw} = \frac{p_{b_0}^\star(Y(g(\psi_a, \Omega), w, p))}{g_{b_0}}, \tag{B.32}$$

$$Q_2^{Rw} = \frac{p_{b_2}^\star(Y(g(\psi_a, \Omega), w, p))}{g_{b_2}}, \tag{B.33}$$

$$Q_3^{Rw} = \frac{p_{b_3}^\star(Y(g(\psi_a, \Omega), w, p))}{g_{b_3}}. \tag{B.34}$$

B.3 Panel rotation operation from 2011 to 2017

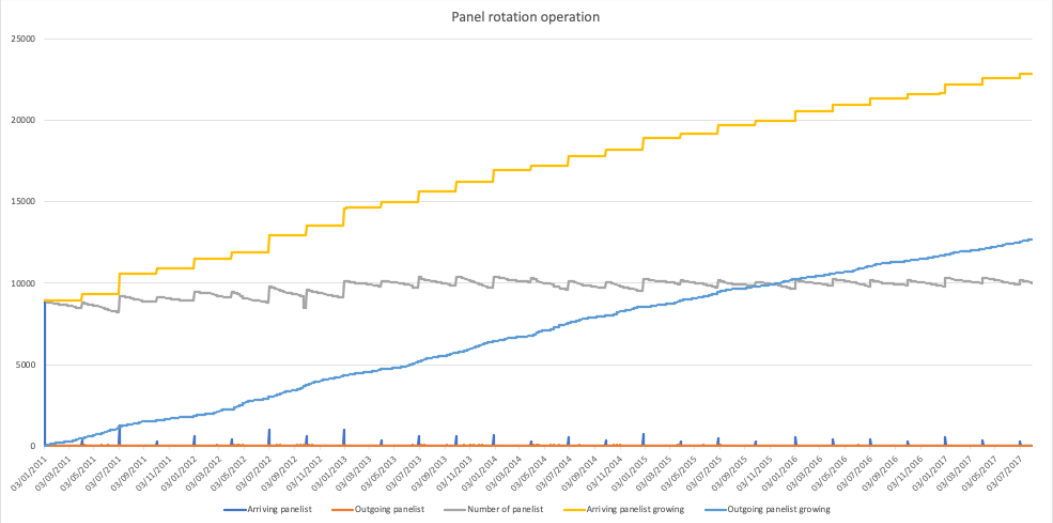

FIGURE B.1 – Panel rotation operation.
Source : Author's calculation based on Médiamétrie's data.

B.4 Econometric method

The aim of the article is to study the effect of weather conditions variables on the time individuals spend watching live television, while controlling for both observable (gender, socio-professional category) and unobservable characteristics (preferences for a particular program, the presence of a movie theatre next panelist's home, household equipment, etc.). According to TORRES-REYNA 2007, the fixed effects (FE) model is to be preferred to study the impact of variables that vary over time. The interest of this model is that it allows us to study the relationship between the explanatory variables and the variable of interest within an entity (here an individual). In this model, unobservable characteristics are assumed to have an effect or bias the variable of interest or the explanatory variables. This is why one of the assumptions of this model is that there is a correlation between the individual's error term and the explanatory variables. The use of this model makes it possible to control for these unobservable time-invariant effects in order to allow an assessment of the net effect of the explanatory variables on the outcome variable. According to STOCK, WATSON et al. 2012, if the unobservable effect is time-invariant, then any change in the dependent variable must be due to influences other than these fixed characteristics. The general formulation is written :

$$y_{it} = \alpha_i + \sum_{j=1}^{k} b_j x_{j,i,t} + u_{it}. \tag{B.35}$$

where α_i is the individual fixed effect, $x_{j,i,t}$ the independent variables and u_{it} the error term. The other estimator used by most economists is the one associated with the random effect model (RE). One of the strong assumptions of this model is that there is no correlation between unobservable individual fixed effects and the explanatory variables. In addition, the fixed effects are assumed to be random, whereas they are not in the fixed-effects model. One of the advantages of the random effect model is that it allows the estimation of time-invariant variables (such as gender), which the fixed effects model does not do by absorbing these variables via the constant. The general formulation is :

$$y_{it} = \sum_{j=1}^{k} b_j x_{j,i,t} + \epsilon_{it} \text{ with } \epsilon_{it} = \alpha_i + u_{it}. \tag{B.36}$$

Furthermore, since the consumption of live television represents a daily habit for most French people, it may be appropriate to use an autoregressive fixed-effects model (AFE) to introduce a delayed endogenous variable. This variable, in addition to measuring the "habit" phenomenon, makes it possible to calculate both short-term and long-term effects. The general formulation is written :

$$y_{it} = \alpha_i + \omega y_{i,t-1} + \sum_{j=1}^{k} b_j x_{j,i,t} + u_{it}. \tag{B.37}$$

Conversely, an autoregressive random effect model (ARE) can also be used :

$$y_{it} = \omega y_{i,t-1} + \sum_{j=1}^{k} b_j x_{j,i,t} + \epsilon_{it} \text{ with } \epsilon_{it} = \alpha_i + u_{it}. \tag{B.38}$$

In our paper, the estimation of the fixed effects model and the random effect model can be done using the Within estimator which is convergent when N and T tend towards infinity. As for the random effect model, estimation can be done with the estimator of the GLSs, which are also convergent when N and T tend towards infinity. First, we estimate the following model :

$$y_{hit} = \iota_j \mathrm{TS}_{it} + \kappa_j \mathrm{OTVU}_{it} + \sum_{k=1}^{5} \beta_{kjt} \omega_{kjt} + \sum_{a=1}^{K} \beta_a X_{ita} + \sum_{p=1}^{P} \beta_p \mathrm{Month}_{ip} + \sum_{d=1}^{D} \beta_d \mathrm{Day}_{id} + u_{it}. \tag{B.39}$$

using 6 different estimators in 4 configurations and comparing the results. The Between estimator (1, 7, 13, 19), the Ordinary Least Squares with standard deviations corrected for heteroskedasticity problems (2, 8, 14, 20), the Within estimator with standard deviations

corrected for heteroskedasticity problems in a fixed-effects model (3, 9, 15, 21), the GLS estimator with standard deviations corrected for heteroskedasticity problems in a random effect model (4, 10, 16, 22) the Within estimator with standard deviations corrected for heteroskedasticity problems in an autoregressive fixed-effects model (5, 11, 17, 23), the GLS estimator with standard deviations corrected for heteroskedasticity problems in autoregressive random effect model (6, 12, 18, 24). We estimate these 6 different estimators in the following configurations for continuous variables : in static (1, 2, 3, 4, 5, 6), by taking the first difference between day t and $t-1$ (7, 8, 9, 10, 11, 12), by taking the first difference between day t and $t-7$ (13, 14, 15, 16, 17, 18), by taking the first difference between day t and $t-365$ (19, 20, 21, 22, 23, 24). The results are available in the following tables.

To determine which specification to choose (fixed effects model or random effect model, autoregressive fixed effet or autoregressive random effect), a Hausman test was performed for estimates (3) and (4), (5) and (6), (9) and (10), (11) and (12), (15) and (16), (17) and (18), (21) and (22), (23) and (24) [1].

Whatever the dependent variable , the results in terms of R^2_O, R^2_B and R^2_W are better in the static configuration. In addition, the Hausman Test rejects the use of a random effect model in favor of a fixed effects model. In the static configuration, the autoregressive random effect model provides the highest results for R^2_O, R^2_B and R^2_W. However, the Hausman test rejects its use. Therefore, it justifies the use of the autoregressive fixed effect model

1. The Hausman test requires to make these various regressions without correcting the standard deviations for heteroscedasticity problems.

	Static						$t-(t-1)$						$t-(t-7)$						$t-(t-365)$					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)
	(BE1)	(MCO1)	(FE1)	(RE1)	(AFE1)	(ARE1)	(BE2)	(MCO2)	(FE2)	(RE2)	(AFE2)	(ARE2)	(BE3)	(MCO3)	(FE3)	(RE3)	(AFE3)	(ARE3)	(BE4)	(MCO4)	(FE4)	(RE4)	(AFE4)	(ARE4)
$(q_i^{t-t_2})_{t-1}$					.2130901***	.517637***					-.4548575***	-.4546867***					.0901071***	.0906239***					.1353313***	.1515503***
					(.001679)	(.003906)					(.0009403)	(.0009388)					(.0009403)	(.0009388)					(.0020956)	(.0021376)
					126.91	132.52					95.82	96.53					95.82	96.53					64.58	70.90
TS (in mn)																								
	-.0595541***	-.0227124***	-.0064056***	-.006453***	-.0073519***	-.0139102***	.0111107**	-.0064864***	-.0065008***	-.0064864***	-.0052242***	-.0052009***	.0256638***	-.0107245***	-.0107398***	-.0107245***	-.0124678***	-.0124515***	-.0186712***	-.0060558***	-.0054049***	-.0054683***	-.0069675***	-.0075062***
	(.0055784)	(.0001775)	(.0007316)	(.0007299)	(.0006767)	(.0009563)	2.38	-32.02	-13.73	-13.70	-12.42	-12.37	(.0045325)	(.0002194)	(.0004947)	(.0004943)	(.0005614)	(.0005608)	(.0049792)	(.0002676)	(.0009602)	(.0009576)	(.0009703)	(.0009535)
	-10.68	-127.98	-8.76	-8.84	-10.87	-14.55	2.38	-32.02	-13.73	-13.70	-12.42	-12.37	5.66	-48.89	-21.71	-21.70	-22.21	-22.20	-3.75	-22.63	-5.63	-5.71	-7.18	-7.87
OTVU (in mn)																								
	-.0017031	-.0105969***	-.0130699***	-.0130291***	-.0114502***	-.0068897***	-.0077636***	-.0051719***	-.0051735***	-.0051719***	-.0044351***	-.00442***	-.0030117**	-.0076263***	-.0076312***	-.0076263***	-.0088968***	-.0088864***	-.0247937***	-.017089***	-.016484***	-.016588***	-.015897***	-.0162138***
	(.0019571)	(.000069)	(.0003732)	(.0003722)	(.0003414)	(.0003401)	(.0012217)	(.0000968)	(.0002859)	(.0002857)	(.0002608)	(.0002607)	(.0012389)	(.0000987)	(.0003005)	(.0003002)	(.0003421)	(.0003414)	-.0247937***	-.017089***	-.016484***	-.016588***	-.015897***	-.0162138***
	-0.87	-153.58	-35.02	-35.00	-33.54	-20.26	-6.35	-53.45	-18.10	-18.10	-17.00	-16.95	-2.43	-77.29	-25.40	-25.40	-26.01	-26.03	(.0014319)	(.000113)	(.0005355)	(.0005339)	(.0005445)	(.0005386)
ω_1 **: Temperature (in °C)**																								
	-.2254141	-.1249853***	-.1221621***	-.1221406***	-.1026702***	-.0653333***	-.3545385***	-.0293749***	-.029325***	-.0293749***	-.0364866***	-.0365172***	.181482***	-.0779388***	-.0779868***	-.0779388***	-.075172***	-.0750823***	-.1557973***	-.0875182***	-.0869894***	-.0871614***	-.0764134***	-.0762609***
	(.1792728)	(.0021041)	(.002095)	(.0020947)	(.0019863)	(.0021406)	(.052385)	(.0032756)	(.0033033)	(.0033008)	(.00333)	(.0033277)	(.0332846)	(.0017118)	(.0022311)	(.0022292)	(.0024313)	(.0024275)	(.0591837)	(.002419)	(.0028581)	(.0028572)	(.0030971)	(.0030747)
	-1.26	-59.40	-58.31	-58.31	-51.69	-30.52	-6.77	-8.97	-8.88	-8.90	-10.96	-10.97	5.45	-45.53	-34.95	-34.96	-30.92	-30.93	-2.63	-36.18	-30.44	-30.51	-24.67	-24.80
ω_2 **: Sunshine duration (in mn)**																								
	.0130182***	-.0013585***	-.0015666***	-.0015654***	-.0014739***	-.0011206***	.003139***	-.0017491***	-.0017503***	-.0017491***	-.0016027***	-.0016016***	-.0085063***	-.001757***	-.0017569***	-.001757***	-.0017131***	-.0017134***	-.0035429***	-.0017711***	-.0017612***	-.0017646***	-.0017123***	-.0017039***
	(.003511)	(.0000339)	(.0000341)	(.0000341)	(.0000352)	(.0000344)	(.0005472)	(.0000337)	(.0000427)	(.0000427)	(.0000398)	(.0000398)	(.0005173)	(.000027)	(.0000389)	(.0000389)	(.0000435)	(.0000434)	(.0008834)	(.0000385)	(.0000498)	(.0000498)	(.000056)	(.0000559)
	3.71	-40.06	-45.91	-45.88	-41.85	-32.58	5.74	-51.90	-40.98	-40.97	-40.24	-40.24	-16.44	-65.16	-45.18	-45.21	-39.38	-39.44	-4.01	-46.00	-35.34	-35.40	-30.57	-30.50
ω_3 **: Rainfall (in mm)**																								
	.0627317	.0128692***	.0124647***	.012489***	.0168103***	.0203228***	.2005412***	.0138253***	.0138193***	.0138253***	.0076477***	.0077527***	.3368088***	.0149542***	.0149563***	.0149542***	.0194929***	.0194244***	.1529066**	.0157664***	.0158964***	.0159447***	.0163065***	.0161625***
	(.2317188)	(.0023093)	(.0019769)	(.001977)	(.002134)	(.0022447)	(.0411693)	(.002026)	(.0023177)	(.002317)	(.0021267)	(.0021262)	(.0428639)	(.0018393)	(.0022614)	(.0022605)	(.0026037)	(.0026008)	(.0707978)	(.0025723)	(.0028392)	(.0028406)	(.0032829)	(.0032854)
	0.27	5.57	6.31	6.32	7.88	9.05	4.87	6.82	5.96	5.97	3.60	3.65	7.86	8.13	6.61	6.62	7.49	7.47	2.16	6.13	5.60	5.61	4.97	4.92
ω_4 **: Wind speed (in km/h)**																								
	-.1710808	.0061709	-.002586	-.0026301	-.0051008	-.0031599	.7295174***	.0521888***	.0520869***	.0521888***	.0801392***	.0801857***	.3781549***	.0685187***	.0685109***	.0685187***	.0650756***	.0652593***	.426361***	.0777314***	.0767553***	.0773753***	.0700589***	.0700498***
	(.4610039)	(.0048643)	(.0043334)	(.0043334)	(.004364)	(.0045002)	(.0955709)	(.0053368)	(.0058066)	(.0058039)	(.0056146)	(.0056133)	(.0839516)	(.0038739)	(.0047193)	(.0047193)	(.004716)	(.0052568)	(.1244053)	(.0054376)	(.0066268)	(.0066823)	(.0072968)	(.0073383)
	-0.37	1.27	-0.60	-0.61	-1.17	-0.70	7.63	9.78	8.97	8.99	14.27	14.28	4.50	17.69	14.52	14.53	12.38	12.43	3.43	14.30	11.58	11.58	9.60	9.55
ω_5 **: Rain duration (in mn)**																								
	-.0080566	.0003879***	.0004434***	.0004427***	.0004571***	.0004145***	-.0093819***	.000265***	.0002658***	.000265***	.0000712	.0000699	-.0173827***	.0003605***	.0003612***	.0003605***	.0003498***	.0003489***	-.0034802**	.0002056***	.0002035***	.0001996***	.0002505***	.000251***
	(.0056172)	(.0000561)	(.0000467)	(.0000467)	(.0000504)	(.0000535)	(.0009058)	(.0000495)	(.000057)	(.000057)	(.0000516)	(.0000516)	(.0009529)	(.0000442)	(.0000542)	(.0000541)	(.0000619)	(.0000618)	(.0015929)	(.0000623)	(.000068)	(.000068)	(.0000784)	(.0000783)
	-1.43	6.91	9.49	9.48	9.07	7.74	-10.36	5.35	4.66	4.65	1.38	1.36	-18.24	8.15	6.67	6.66	5.65	5.64	-2.18	3.30	2.99	2.94	3.20	3.21
Day of the week																								
Monday																								
	-4.532206*	.80483***	.9107335***	.910757***	.2612232***	-.8041752***	-1.335135***	-2.198852***	-2.19401***	-2.198852***	-.8134672***	-.8202057***	.865486***	.0346093	.0341644***	.0346093***	.0147926	.016538	-.2975824	-2.471405***	-2.446323***	-2.449757***	-3.246656***	-3.324931***
	(2.525579)	(.022262)	(.0481736)	(.0481694)	(.0598572)	(.0784256)	(.4304638)	(.0265684)	(.1194926)	(.1192628)	(.1143641)	(.1141706)	(.4124224)	(.0247295)	(.0111082)	(.0110329)	(.0145348)	(.0144034)	(.8507564)	(.0367381)	(.1420585)	(.1419402)	(.1780588)	(.1788113)
	-1.79	36.15	18.91	18.91	4.36	-10.25	-3.10	-82.76	-18.36	-18.44	-7.11	-7.18	2.10	1.40	3.08	3.14	1.02	1.15	-0.35	-67.27	-17.22	-17.26	-18.23	-18.59
Tuesday																								
	-1.319024	-.1252941***	-.0746572*	-.0741676*	-.2638432***	-.6338792***	-.8387596*	-1.023099***	-1.022322***	-1.023099***	-1.869035***	-1.870742***	1.405967***	.0267089	.0259246**	.0267089**	.0099054	.0124373	-4.324742***	-.9902773***	-.9740664***	-.9759039***	-.6228314***	-.609854***
	(2.617015)	(.0220291)	(.0397163)	(.0397139)	(.0463075)	(.0528137)	(.4445483)	(.0235858)	(.06748)	(.0673993)	(.0803318)	(.0801103)	(.4433857)	(.0245972)	(.0110235)	(.0109628)	(.0140778)	(.014008)	(.9339381)	(.0342028)	(.0829025)	(.0828504)	(.1002553)	(.1008094)
	-0.50	-5.69	-1.88	-1.87	-5.70	-12.00	-1.89	-43.38	-15.15	-15.18	-23.27	-23.35	3.17	1.09	2.35	2.44	0.70	0.89	-4.63	-28.95	-11.75	-11.78	-6.21	-6.05
Wednesday																								
	-2.215441	.1616195***	.2406725***	.2406227***	.2749345***	.2318129***	.5109561	.3692874***	.368805***	.3692874***	-.0118523	-.0159556	.6604398	.0300852	.0297326***	.0300852***	.0309726**	.0323787**	.7011752	.1166881***	.1274414*	.125904*	.3816226***	.3837477***
	(2.628264)	(.0220328)	(.0444574)	(.0444545)	(.0504505)	(.0533552)	(.4522696)	(.0235635)	(.0613449)	(.0612893)	(.0721334)	(.0720432)	(.42945)	(.0244947)	(.0108583)	(.0107927)	(.0139945)	(.0139308)	(.9477938)	(.0339942)	(.0748057)	(.0747617)	(.0887504)	(.0889205)
	-0.84	7.34	5.41	5.41	5.45	4.34	1.13	15.67	6.01	6.03	-0.16	-0.22	1.54	1.23	2.74	2.79	2.21	2.32	0.74	3.43	1.70	1.68	4.30	4.32
Thursday																								
	3.912714	-.0653721***	-.060416	-.0596888	-.0534596	-.1510418**	.7673347	-.2045951***	-.2048878**	-.2045951**	.1260782*	.1237362*	-2.666186***	.0249168	.0244013**	.0249168**	.034047**	.0351612**	-2.437891**	-.1886415***	-.1752663*	-.1767761*	.0990285	.0837656
	(2.86755)	(.0220882)	(.0435519)	(.0435486)	(.0544571)	(.0646425)	(.5024746)	(.0236631)	(.0836069)	(.083533)	(.0666377)	(.0665749)	(.4702317)	(.0246715)	(.0108223)	(.0107827)	(.0139968)	(.0139458)	(1.008571)	(.0341945)	(.1014286)	(.1013803)	(.1290989)	(.1304008)
	1.36	-2.96	-1.39	-1.37	-0.98	-2.34	1.53	-8.65	-2.45	-2.45	1.89	1.86	-5.67	1.01	2.25	2.31	2.43	2.52	-2.42	-5.52	-1.73	-1.74	0.77	0.64
Friday																								
	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Saturday																								
	7.29328***	.3970973***	.3460849***	.3453045***	.1875036**	.2056581***	.7448583	.1544033***	.1611271*	.1544033*	.1068466	.108253	-.832072**	.0647224**	.0682228***	.0647224***	.0443347***	.0430578***	-1.618168*	.384099***	.3793863***	.3794044***	.2205054*	.2312536*
	(2.681558)	(.0228133)	(.0647824)	(.0647787)	(.0754497)	(.0796407)	(.4586105)	(.0259132)	(.0906606)	(.0905119)	(.0924532)	(.0923797)	(.4170505)	(.0268371)	(.0121847)	(.0120932)	(.016145)	(.0160659)	(.8953479)	(.0361209)	(.1081634)	(.1080773)	(.1339484)	(.13485)
	2.72	17.41	5.34	5.33	2.49	2.58	1.62	5.96	1.78	1.71	1.16	1.17	-2.00	2.41	5.60	5.35	2.75	2.68	-1.81	10.63	3.51	3.51	1.65	1.71
Sunday																								
	-22.17563***	2.983807***	3.283554***	3.280783***	3.73557***	3.592162***	.0395089	3.555846***	3.569747***	3.555846***	3.855604***	3.848828***	.3893646	.0452651*	.0466975***	.0452651***	.0231812	.0188791	1.392428*	3.163615***	3.185184***	3.180817***	3.705699***	3.683057***
	(2.312317)	(.0231929)	(.0837771)	(.0837743)	(.0901856)	(.0845945)	(.3752056)	(.0263154)	(.0906)	(.090293)	(.1025534)	(.1023461)	(.3700979)	(.0267718)	(.0118953)	(.0117932)	(.0164195)	(.0162287)	(.8140698)	(.0368641)	(.1097692)	(.1096349)	(.1327366)	(.1330432)
	-9.59	128.65	39.19	39.16	41.42	42.46	0.11	135.12	39.40	39.38	37.60	37.61	1.05	1.69	3.93	3.84	1.41	1.16	1.71	85.82	29.02	29.01	27.92	27.68
Gender																								
Female																								
	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Male																								
	-3.344507***	-4.353902***	0	-4.147811***	0	-2.318209***	.0453683	-.0179923	0	-.0179923**	0	.0216595**	-.0554152	-.0062227	0	-.0062227	0	.0141534	-.4265628***	-.3669767***	0	-.3546905***	0	-.2817642***
	(.1882111)	(.0127833)	(0)	(.2036176)	(0)	(.139459)	(.0392904)	(.0144581)	(0)	(.0081499)	(0)	(.0092939)	(.0488928)	(.0144125)	(0)	(.0072415)	(0)	(.0091682)	(.0990156)	(.020278)	(0)	(.0837611)	(0)	(.0620568)
	-17.77	-340.59		-20.37		-16.62	1.15	-1.24		-2.21		2.33	-1.13	-0.43		-0.86		1.54	-4.31	-18.10		-4.23		-4.54

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

TABLE B.1 – Control variables - Estimator comparison - Time spent watching ad from free private channel

	Static						$t-(t-1)$						$t-(t-7)$						$t-(t-365)$					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)
	(BE1)	(MCO1)	(FE1)	(RE1)	(AFE1)	(ARE1)	(BE2)	(MCO2)	(FE2)	(RE2)	(AFE2)	(ARE2)	(BE3)	(MCO3)	(FE3)	(RE3)	(AFE3)	(ARE3)	(BE4)	(MCO4)	(FE4)	(RE4)	(AFE4)	(ARE4)
Age category																								
4-10 years																								
	-1.93032***	-2.347714***	1.430537***	.8271797**	.9751908***	-1.334893***	.0559436	-.0352531	-.015514	-.0352531	.1443596**	.1182488***	.3153618***	.0589726	.0718528	.0589726**	.0261516	.0469569	-.2853042	-.2617673***	-.1691722	-.3290361	-.1781441	-.2883095*
	(.3822789)	(.0266983)	(.3500824)	(.3306128)	(.3195253)	(.1829187)	(.0808536)	(.0379906)	(.0567668)	(.0230995)	(.066261)	(.0276954)	(.1009172)	(.0393104)	(.0612886)	(.0237853)	(.0917488)	(.0355803)	(.2094087)	(.0551578)	(.4021679)	(.2111059)	(.4455052)	(.1619715)
	-5.05	-87.93	4.09	2.50	3.05	-7.30	0.69	-0.93	-0.27	-1.53	2.18	4.27	3.12	1.50	1.17	2.48	0.29	1.32	-1.36	-4.75	-0.42	-1.56	-0.40	-1.78
11-14 years																								
	1.053216**	-.4650755***	.6950135***	.3575786	.3417774	-.4112873**	-.0602291	.0182338	-.0297911	.0182338	.048865	.1082161***	.2324334*	.0373986	.0006642	.0373986	-.065703	-.0008672	-.1194901	-.0184731	.0631616	-.0458072	-.0681386	-.089101
	(.5008417)	(.0302891)	(.2637805)	(.2547165)	(.2429823)	(.1859171)	(.1044644)	(.0425762)	(.0404774)	(.0251981)	(.0480386)	(.030394)	(.1305758)	(.0441626)	(.0466987)	(.0265663)	(.0691637)	(.040598)	(.2577384)	(.0596073)	(.2771773)	(.1957792)	(.3073371)	(.1738978)
	2.10	-15.35	2.63	1.40	1.41	-2.21	-0.58	0.43	-0.74	0.72	1.02	3.56	1.78	0.85	0.01	1.41	-0.95	-0.02	-0.46	-0.31	0.23	-0.23	-0.22	-0.51
15-24 years																								
	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
25-34 years																								
	2.977256***	2.395879***	-1.357279**	-.1173978	-1.084178**	.8925384**	-.1410308	.0811427	.1145123	.0811427**	.1388704	.1521381***	-.07127	.0191404	.0650689	.0191404	.0890638	.1092189*	-.2031028	-.0034599	.458016	.3817219	.4197679	-.0876617
	(.5999884)	(.0545985)	(.5842047)	(.5270806)	(.5321358)	(.3606095)	(.1270806)	(.0717566)	(.083314)	(.0391715)	(.1063285)	(.0483715)	(.1606172)	(.0738815)	(.0969425)	(.0396406)	(.1195035)	(.0557424)	(.3603429)	(.1136127)	(.746282)	(.4337422)	(.766774)	(.4047333)
	4.96	43.88	-2.32	-0.22	-2.04	2.48	-1.11	1.13	1.37	2.07	1.31	3.15	-0.44	0.26	0.67	0.48	0.75	1.96	-0.56	-0.03	0.61	0.88	0.55	-0.22
35-49 years																								
	3.249529***	2.492161***	-2.431112***	-.9959666*	-1.950998***	.7935912**	-.077154	.0859104	.1000507	.0859104**	.1230683	.2129113***	-.0427301	.0285466	.0911985	.0285466	.1004337	.1087988**	.3325842	.6096245***	.6804795	.8249439*	.5873341	.4311672
	(.5928728)	(.0540252)	(.6054253)	(.5321882)	(.5461098)	(.3710616)	(.1257339)	(.0708123)	(.0856082)	(.0385207)	(.1083238)	(.0480107)	(.1585555)	(.0729487)	(.0990289)	(.0388555)	(.1227308)	(.0545532)	(.3557903)	(.1116166)	(.7833834)	(.4289948)	(.8019605)	(.4002541)
	5.48	46.13	-4.02	-1.87	-3.57	2.14	-0.61	1.21	1.17	2.23	1.14	4.43	-0.27	0.39	0.92	0.73	0.82	1.99	0.93	5.46	0.87	1.92	0.73	1.08
50-64 years																								
	2.61435***	1.299226***	-1.756074***	-.2724155	-1.487615***	.0731515	-.0470682	.1209383*	.0841203	.1209383***	.1338309	.2897795***	.0499602	.0279539	.0928683	.0279539	.1119298	.1155421**	.752239**	.9043433***	.2010614	.7671944*	.176552	.7319199*
	(.6179599)	(.0550583)	(.6424667)	(.5602167)	(.5731428)	(.3886076)	(.1307401)	(.0714113)	(.0882954)	(.0388142)	(.1106275)	(.0480622)	(.1647512)	(.0734773)	(.1024116)	(.038954)	(.1262774)	(.0546163)	(.3656228)	(.1121652)	(.8363226)	(.4456408)	(.8437571)	(.4030547)
	4.23	23.60	-2.73	-0.49	-2.60	0.19	-0.36	1.69	0.95	3.12	1.21	6.03	0.30	0.38	0.91	0.72	0.89	2.12	2.06	8.06	0.24	1.72	0.21	1.82
65 years and more																								
	-3.026335***	-3.44159***	-1.478829**	-.0282809	-1.327609**	-2.357853***	.0316054	.1092729	.0761044	.1092729***	.1318934	.3067067***	-.0286651	.045457	.1234278	.045457	.1430088	.1593082***	.6056591	.7244954***	.3676584	.9968658*	.3623476	.6140248
	(.8043033)	(.0624002)	(.6872634)	(.6034346)	(.6058028)	(.4857702)	(.169167)	(.076721)	(.0901467)	(.0410388)	(.1123214)	(.0501927)	(.2119181)	(.0784726)	(.1048752)	(.0409406)	(.1291037)	(.0567282)	(.4561941)	(.1193777)	(.9009366)	(.520001)	(.8954436)	(.425664)
	-3.76	-55.15	-2.15	-0.05	-2.19	-4.85	0.19	1.42	0.84	2.66	1.17	6.11	-0.14	0.58	1.18	1.11	1.11	2.81	1.33	6.07	0.41	1.92	0.40	1.44
Social-Professional Category																								
Farmer																								
	-6.783133***	-5.527174***	-3.338118**	-3.357515**	-2.772267*	-2.727825***	-.3280544	-.0298699	.1131714	-.0298699	-.0992574	-.0091444	.1845266	-.0088859	-.0536	-.0088859	.1617716	-.0194392	.1902599	-.3174336***	-2.537101	-.771378	-1.915306	-.2664006
	(1.255971)	(.0629856)	(1.638509)	(1.584197)	(1.422624)	(.7460934)	(.2619173)	(.07)	(.1200516)	(.0327804)	(.1606031)	(.0366533)	(.3246308)	(.0693262)	(.1029702)	(.0331596)	(.1775685)	(.0401907)	(.6171208)	(.0928355)	(1.949682)	(.7255781)	(1.950027)	(.2068044)
	-5.40	-87.75	-2.04	-2.12	-1.95	-3.66	-1.25	-0.43	0.94	-0.91	-0.62	-0.25	0.57	-0.13	-0.52	-0.27	0.91	-0.48	0.31	-3.42	-1.30	-1.06	-0.98	-1.29
Craftsmen-Traders-Contractor																								
	-3.641857***	-3.670366***	-.0487804	-.1198407	-.0830163	-1.764574***	.2108596	-.0444638	-.0059066	-.0444638	-.0201891	-.0558997*	.1228505	-.0145667	.0606594	-.0145667	.0406588	-.0193548	-.2436489	-.4071122***	.3322482	.1202713	.0929855	-.5289989***
	(.7887468)	(.0472611)	(.4825244)	(.4754741)	(.4137414)	(.4652066)	(.1661349)	(.0531348)	(.0536632)	(.0294667)	(.0691877)	(.0338851)	(.2055286)	(.0522259)	(.0631401)	(.0243425)	(.080312)	(.0320537)	(.4010278)	(.072393)	(.6462794)	(.44015)	(.6463825)	(.1971889)
	-4.62	-77.66	-0.10	-0.25	-0.20	-3.79	1.27	-0.84	-0.11	-1.51	-0.29	-1.65	0.60	-0.28	0.96	-0.60	0.51	-0.60	-0.61	-5.62	0.51	0.27	0.14	-2.68
Higher professions																								
	-5.945182***	-5.808315***	.5897846**	.396794	.5376316**	-2.74579***	.0090274	-.0310065	.0167514	-.0310065*	.0138641	-.0383326*	.0731164	-.0195421	-.0198709	-.0195421	.0314702	-.0150709	-.3034115	-.3152533***	.80843*	.2910242	.7108941*	-.2910422**
	(.434437)	(.025715)	(.2958956)	(.2908432)	(.2580925)	(.2253464)	(.0911875)	(.0311571)	(.0355535)	(.0177463)	(.0415187)	(.0204155)	(.113128)	(.0308625)	(.0406417)	(.0154685)	(.0522354)	(.0203262)	(.2230852)	(.0430634)	(.4133626)	(.2637471)	(.4181389)	(.1250262)
	-13.68	-225.87	1.99	1.36	2.08	-12.18	0.10	-1.00	0.47	-1.75	0.33	-1.88	0.65	-0.63	-0.49	-1.26	0.60	-0.74	-1.36	-7.32	1.96	1.10	1.70	-2.33
Intermediate occupations																								
	-4.004166***	-3.696317***	.4204847*	.3142686	.3505182*	-1.743837***	-.0527855	-.0334517	.01757	-.0334517**	.0310663	-.0180034	.0898382	-.0106513	.0227179	-.0106513	.0291688	-.0200535	-.2122929	-.2941537***	.2779034	.0441885	.1936995	-.2804539**
	(.3824631)	(.0233762)	(.2402258)	(.2371994)	(.2090344)	(.2054916)	(.0799481)	(.027398)	(.0266656)	(.0147073)	(.0314936)	(.0163496)	(.0993206)	(.0272926)	(.0315195)	(.0130984)	(.038623)	(.0169848)	(.1966143)	(.0382835)	(.3362942)	(.2379548)	(.3397682)	(.1137485)
	-10.47	-158.12	1.75	1.32	1.68	-8.49	-0.66	-1.22	0.66	-2.27	0.99	-1.10	0.90	-0.39	0.72	-0.81	0.76	-1.18	-1.08	-7.68	0.83	0.19	0.57	-2.47
Employee																								
	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Skilled worker																								
	.4204393	-.1428077***	-.0294833	.0004148	.0317599	-.0591587	-.0885981	-.0327613	.0464473	-.0327613*	.0457325	-.0212464	-.0096176	.0135437	.0264678	.0135437	.0760741	.0018298	.400031*	.0489821	.1945094	.1995026	.1857338	.0530064
	(.4519909)	(.0289325)	(.3265496)	(.3222937)	(.2792274)	(.2478703)	(.094715)	(.0335045)	(.0340451)	(.0179433)	(.0382086)	(.0194287)	(.1173923)	(.0335387)	(.0391307)	(.0160116)	(.0492594)	(.0202967)	(.2368241)	(.0466855)	(.4190822)	(.2976685)	(.4076909)	(.1405313)
	0.93	-4.94	-0.09	0.00	0.11	-0.24	-0.94	-0.98	1.36	-1.83	1.20	-1.09	-0.08	0.40	0.68	0.85	1.54	0.09	1.69	1.05	0.46	0.67	0.46	0.38
Unskilled worker																								
	.904675	.7663471***	.4756636	.4874189	.4048329	.3665725	.0624049	-.0073242	.0260663	-.0073242	.0865448	-.0253606	-.0658874	.050577	.0743617	.050577**	.1372096**	.0429633	.8769239**	.6346279***	.9276899	.9473313**	.8374367	.5134661**
	(.6547276)	(.0463667)	(.4393604)	(.4350904)	(.3716003)	(.3921381)	(.1373823)	(.0519117)	(.0474053)	(.0260307)	(.0564938)	(.0285585)	(.1715142)	(.0521867)	(.0498119)	(.0248919)	(.0633526)	(.0309302)	(.3485112)	(.0742537)	(.5840604)	(.4492915)	(.5513711)	(.2361618)
	1.38	16.53	1.08	1.12	1.09	0.93	0.45	-0.14	0.55	-0.28	1.53	-0.89	-0.38	0.97	1.49	2.03	2.17	1.39	2.52	8.55	1.59	2.11	1.52	2.17
Pensioner																								
	-8.48138***	-6.456767***	-.9867377	-1.123257	-.9908245	-3.299835***	-.5998552	.0053643	-.0109034	.0053643	-.0759533	-.0266255	-.0381099	-.0480062	-.0687566	-.0480062	-.1537094	-.1057765	-.7759857	-.453213***	-.2012753	-.0320902	-.4070655	-.4522322
	(1.832447)	(.1069214)	(.7335901)	(.7246021)	(.6288056)	(.8465416)	(.3838401)	(.1177038)	(.0692616)	(.046854)	(.0791867)	(.0532679)	(.4765348)	(.1176931)	(.0863902)	(.0561918)	(.1095935)	(.0692169)	(.7795524)	(.1488126)	(.9283546)	(.7192753)	(.861798)	(.4109855)
	-4.63	-60.39	-1.35	-1.55	-1.58	-3.90	-1.56	0.05	-0.16	0.11	-0.96	-0.50	-0.08	-0.41	-0.80	-0.85	-1.40	-1.53	-1.00	-3.05	-0.22	-0.04	-0.47	-1.10
Student																								
	-11.92916***	-10.17692***	-.5976908	-1.49867**	-.9184373	-5.453523***	-.8741867**	-.0136189	.0523162	-.0136189	-.0355252	.0042084	-.180836	-.0631404	-.0737138	-.0631404	.0688899	-.0175932	-.3614288	-.0701539	1.205107	.709914	.7772094	-.209707
	(1.880052)	(.1155312)	(.6720363)	(.6691981)	(.597854)	(.8458299)	(.394675)	(.1348204)	(.0925877)	(.0600017)	(.1100798)	(.0708291)	(.4897784)	(.136112)	(.1097504)	(.0680045)	(.1471109)	(.089743)	(.8111326)	(.1811342)	(.9349877)	(.76731)	(.9501666)	(.5590441)
	-6.35	-88.09	-0.89	-2.24	-1.54	-6.45	-2.21	-0.10	0.57	-0.23	-0.32	0.06	-0.37	-0.46	-0.67	-0.93	0.47	-0.20	-0.45	-0.39	1.29	0.93	0.82	-0.38
Other inactive																								
	-1.725961	-1.342076***	-1.581078**	-1.542871**	-1.515441**	-.8887924	-.5050528	-.0378848	-.0862007	-.0378848	-.1257133	-.0745577	-.014685	-.0502462	-.0712653	-.0502462	-.1067346	-.0934393	-1.237436	-.3558262**	-.1039688	-.1439507	-.2205325	-.3730062
	(1.811471)	(.1078303)	(.7347855)	(.7301421)	(.6295858)	(.8544132)	(.3795048)	(.118553)	(.0717685)	(.0476907)	(.0835644)	(.0547049)	(.4705225)	(.118673)	(.0888462)	(.0569297)	(.1118283)	(.0697793)	(.7632219)	(.1503612)	(.9367286)	(.7503872)	(.8731683)	(.4208705)
	-0.95	-12.45	-2.15	-2.11	-2.41	-1.04	-1.33	-0.32	-1.20	-0.79	-1.50	-1.36	-0.03	-0.42	-0.80	-0.88	-0.95	-1.34	-1.62	-2.37	-0.11	-0.19	-0.25	-0.89

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

TABLE B.1 – Continued (2) : Control variables - Estimator comparison - Time spent watching ad from free private channel

	Static						$t-(t-1)$						$t-(t-7)$						$t-(t-365)$					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)
	(BE1)	(MCO1)	(FE1)	(RE1)	(AFE1)	(ARE1)	(BE2)	(MCO2)	(FE2)	(RE2)	(AFE2)	(ARE2)	(BE3)	(MCO3)	(FE3)	(RE3)	(AFE3)	(ARE3)	(BE4)	(MCO4)	(FE4)	(RE4)	(AFE4)	(ARE4)
Average weekly working time																								
Unemployed person who has already worked																								
	1.15962*	2.212292***	.4549495	.4986766	.3321226	1.270458***	-.0899378	.0034068	.0297226	.0034068	.0684149	.0141191	-.1449883	-.0305112	-.0221548	-.0305112	-.0431153	-.0470455	-.9768411***	-.8171336***	-1.325941**	-1.239376***	-1.25389**	-.7621254***
	(.5918228)	(.0472572)	(.3624811)	(.3594998)	(.3158345)	(.3796052)	(.1244185)	(.0516104)	(.0381799)	(.0248667)	(.0441949)	(.0259188)	(.1547504)	(.0518184)	(.0463194)	(.0253246)	(.0576472)	(.032527)	(.3506015)	(.0818502)	(.5377108)	(.4451647)	(.5155853)	(.2894072)
	1.96	46.81	1.26	1.39	1.05	3.35	-0.72	0.07	0.78	0.14	1.55	0.54	-0.94	-0.59	-0.48	-1.20	-0.75	-1.45	-2.79	-9.98	-2.47	-2.78	-2.43	-2.63
People looking for a first job																								
	.7717723	3.856927***	2.620815**	2.383844*	2.294117**	2.496805**	.0442855	-.0454862	.2300443	-.0454862	.3100594	-.1164445	1.329816**	.0649335	.3037171	.0649335	.411689	.0449921	2.408938*	-.8926584**	-2.78332	-2.219856	-3.097963	-1.733815
	(2.487893)	(.1926288)	(1.263031)	(1.241442)	(1.15461)	(1.140552)	(.5226856)	(.238049)	(.1656325)	(.1160039)	(.2104745)	(.1657762)	(.6485507)	(.2443914)	(.1894516)	(.1315628)	(.2882439)	(.1827002)	(1.302175)	(.3861682)	(2.61512)	(2.275637)	(2.88893)	(1.831339)
	0.31	20.02	2.08	1.92	1.99	2.19	0.08	-0.19	1.39	-0.39	1.47	-0.70	2.05	0.27	1.60	0.49	1.43	0.25	1.85	-2.31	-1.06	-0.98	-1.07	-0.95
Full-time worker																								
	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Part-time worker : 0-9h59 per week																								
	6.033345***	3.56256***	-.4671894	-.433243	-.4912185	1.740736	.0310037	.0443879	.0316492	.0443879	.0686673	.1006069**	-.1786757	.0133825	.0285496	.0133825	.1645072	.0823345	-.5994318	-1.392108***	-1.163827	-1.073551	-1.184744	-1.491353***
	(1.882534)	(.1117926)	(.8006954)	(.8021887)	(.6809627)	(1.060492)	(.3989768)	(.1133235)	(.0881512)	(.0465887)	(.0891813)	(.0500288)	(.491711)	(.1125822)	(.0828024)	(.0449565)	(.1086331)	(.0573529)	(.8483207)	(.1496336)	(1.10439)	(.9518044)	(1.057785)	(.5653689)
	3.20	31.87	-0.58	-0.54	-0.72	1.64	0.08	0.39	0.36	0.95	0.77	2.01	-0.36	0.12	0.34	0.30	1.51	1.44	-0.71	-9.30	-1.05	-1.13	-1.12	-2.64
Part-time worker : 10h-19h59 per week																								
	-1.560519	-1.065441***	-.2838841	-.2921256	-.2016427	-.500887	.0566168	-.0128948	-.0340216	-.0128948	-.0113749	.040178	.0453343	.0158829	-.0552057	.0158829	-.1227287*	-.0220155	-.8404432*	-.2357298***	.2136823	.1418944	.2727376	-.253479
	(.9699361)	(.0557764)	(.3894282)	(.3879535)	(.3258524)	(.4315538)	(.2012653)	(.0644145)	(.0414909)	(.0309306)	(.0524188)	(.0330946)	(.2496213)	(.0637843)	(.0538361)	(.0307636)	(.0690129)	(.0376125)	(.4707231)	(.0877586)	(.5456485)	(.4704022)	(.5247333)	(.2956295)
	-1.61	-19.10	-0.73	-0.75	-0.62	-1.16	0.28	-0.20	-0.82	-0.42	-0.22	1.21	0.18	0.25	-1.03	0.52	-1.78	-0.59	-1.79	-2.69	0.39	0.30	0.52	-0.86
Part-time worker : 20h-29h59 per week																								
	-1.150724*	-1.325275***	.0177501	.0177045	.0875273	-.6217355**	-.0158322	.0229381	.0486933	.0229381	.0450338	.0425167**	-.0315607	.001372	.0122168	.001372	-.0855054*	-.0122146	-.4380094	-.0951675*	.0069797	.0068083	.012018	-.1180838
	(.620138)	(.0368802)	(.3018418)	(.3004269)	(.2594336)	(.3105803)	(.1293295)	(.0421821)	(.0307991)	(.0196033)	(.0369925)	(.0210798)	(.1601158)	(.0416615)	(.0380534)	(.0200618)	(.0501836)	(.0256135)	(.3035847)	(.0567412)	(.3384134)	(.2786025)	(.3257378)	(.1654456)
	-1.86	-35.93	0.06	0.06	0.34	-2.00	-0.12	0.54	1.58	1.17	1.22	2.02	-0.20	0.03	0.32	0.07	-1.70	-0.48	-1.44	-1.68	0.02	0.02	0.04	-0.71
Part-time worker : 30h-34h59 per week																								
	-.9343748	-1.343854***	-.946282***	-.9511465***	-.7872168***	-.5755157*	-.2823284*	.0218693	-.0231273	.0218693	-.0041614	.046491*	-.1910214	-.0153198	-.0016403	-.0153198	-.0773949	-.016143	-.0922313	-.3471023***	-.8296689*	-.7045073*	-.9470074**	-.3109664
	(.7327287)	(.0418907)	(.322949)	(.3206233)	(.2860183)	(.3108577)	(.1540035)	(.0506315)	(.0354022)	(.0236411)	(.040553)	(.0262713)	(.1928215)	(.0501145)	(.0440794)	(.0246971)	(.0538395)	(.0306516)	(.3936462)	(.0722372)	(.4722818)	(.3941863)	(.4440105)	(.2122456)
	-1.28	-32.08	-2.93	-2.97	-2.75	-1.85	-1.83	0.43	-0.65	0.93	-0.10	1.77	-0.99	-0.31	-0.04	-0.62	-1.44	-0.53	-0.23	-4.81	-1.76	-1.79	-2.13	-1.47
Other inactive																								
	7.152891***	5.641488***	1.472927**	1.540155***	1.456474***	3.091802***	.56426	.0223622	.1170891*	.0223622	.160852**	.0537698	-.0058506	.0486205	.0938737	.0486205	.1524806	.0769896	.3785505	.1483804	-.2609982	-.1642876	-.0161632	.1921537
	(1.766267)	(.1022086)	(.5929797)	(.5934443)	(.5140312)	(.7757725)	(.3701512)	(.1137641)	(.0608032)	(.0443476)	(.0685908)	(.0509781)	(.458819)	(.1138688)	(.0787613)	(.0547829)	(.1020565)	(.0676237)	(.7267467)	(.1419809)	(.7107948)	(.6384958)	(.662883)	(.3869364)
	4.05	55.20	2.48	2.60	2.83	3.99	1.52	0.20	1.93	0.50	2.35	1.05	-0.01	0.43	1.19	0.89	1.49	1.14	0.52	1.05	-0.37	-0.26	-0.02	0.50
Gross monthly household income																								
Less than 600 euros																								
	4.175045***	3.295955***	-.2950492	-.1184832	-.1160103	1.689955*	-.0591572	.0295011	.0068842	.0295011	-.1294732*	-.0054965	.2959152	.0153371	-.0309989	.0153371	-.0682692	-.0108162	1.512026**	.7657992***	.1530341	.3977521	.0767329	.7133169
	(1.045194)	(.0976436)	(.7461493)	(.7390442)	(.6182208)	(.954974)	(.220374)	(.0932277)	(.0674581)	(.0417135)	(.0753418)	(.0459836)	(.2744106)	(.0938322)	(.0826379)	(.0465403)	(.0930361)	(.0520753)	(.6249825)	(.1462343)	(1.035432)	(.8607155)	(.9282422)	(.5994964)
	3.99	33.75	-0.40	-0.16	-0.19	1.77	-0.27	0.32	0.10	0.71	-1.72	-0.12	1.08	0.16	-0.38	0.33	-0.73	-0.21	2.42	5.24	0.15	0.46	0.08	1.19
From 600 to 900 euros																								
	3.181447***	2.060894***	-.6540052*	-.582898	-.5811134*	1.013501*	.0828932	-.0336868	-.0302533	-.0336868	-.0076993	-.0416526	.1387969	.0418398	-.0077518	.0418398	-.0136863	.0231351	.2146765	.2169746**	-.359315	-.1865494	-.1921883	.1680453
	(.8151663)	(.0628846)	(.3694618)	(.3668014)	(.3101752)	(.5443691)	(.1709171)	(.0592552)	(.0363247)	(.0292903)	(.0381731)	(.0381528)	(.2140294)	(.0582555)	(.043284)	(.028852)	(.0476194)	(.0327615)	(.4808889)	(.0865105)	(.5432508)	(.4894724)	(.512564)	(.3276353)
	3.90	32.77	-1.77	-1.59	-1.87	1.86	0.48	-0.57	-0.83	-1.15	-0.20	-1.09	0.65	0.72	-0.18	1.45	-0.29	0.71	0.45	2.51	-0.66	-0.38	-0.37	0.51
From 900 to 1200 euros																								
	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
From 1200 to 1500 euros																								
	-1.95152***	-2.116474***	-.0120936	-.083821	-.0248101	-1.025539***	.1976494	.0499449	-.0126981	.0499449***	.001139	.0344035*	-.243336	-.008405	-.0495724*	-.008405	-.0864017**	-.0273051	-.2327044	.1608233***	.3493217	.3055324	.2625037	.0627439
	(.6303567)	(.0424816)	(.2818365)	(.2804988)	(.2394612)	(.3481391)	(.1324226)	(.0427883)	(.024067)	(.019083)	(.0259178)	(.0202506)	(.1642733)	(.0420864)	(.0298402)	(.0203166)	(.0358628)	(.0242584)	(.3454847)	(.0615972)	(.392367)	(.3452222)	(.3700748)	(.225246)
	-3.10	-49.82	-0.04	-0.30	-0.10	-2.95	1.49	1.17	-0.53	2.62	0.04	1.70	-1.48	-0.20	-1.66	-0.41	-2.41	-1.13	-0.67	2.61	0.89	0.89	0.71	0.28
From 1500 to 2300 euros																								
	-4.794034***	-4.857475***	.0054383	-.1212363	-.0227887	-2.384504***	.4498246***	.0630992*	-.0474919*	.0630992***	-.0480525*	.0460786**	-.1976335	-.0136651	-.0621174**	-.0136651	-.0855474**	-.0146151	-.0625209	-.0689397	.289634	.2001184	.1937728	-.150227
	(.5162781)	(.036822)	(.2837741)	(.2812836)	(.2414694)	(.3307736)	(.1083461)	(.0370665)	(.0259491)	(.0166963)	(.028311)	(.0180615)	(.1348226)	(.036488)	(.0302726)	(.0174024)	(.0359414)	(.020451)	(.2837735)	(.0534831)	(.378921)	(.3139143)	(.3591477)	(.1848476)
	-9.29	-131.92	0.02	-0.43	-0.09	-7.21	4.15	1.70	-1.83	3.78	-1.70	2.55	-1.47	-0.37	-2.05	-0.79	-2.38	-0.71	-0.22	-1.29	0.76	0.64	0.54	-0.81
From 2300 to 3000 euros																								
	-6.812899***	-6.596813***	-.2113831	-.3939115	-.2156943	-3.196985***	.4517694***	.0696015*	-.0615453**	.0696015***	-.0540461*	.0508914***	-.0767563	.001763	-.0405785	.001763	-.0708835*	.002616	-.0191175	-.0761514	.3789582	.2479703	.2497294	-.1632565
	(.5238409)	(.0369153)	(.2962263)	(.2929295)	(.253161)	(.3281385)	(.1097495)	(.0376311)	(.027823)	(.0173198)	(.0306859)	(.0189194)	(.1365715)	(.0370923)	(.0326519)	(.0178459)	(.0394538)	(.0212328)	(.2855449)	(.0542043)	(.4063456)	(.3264953)	(.3892617)	(.1877666)
	-13.01	-178.70	-0.71	-1.34	-0.85	-9.74	4.12	1.85	-2.21	4.02	-1.76	2.69	-0.56	0.05	-1.24	0.10	-1.80	0.12	-0.07	-1.40	0.93	0.76	0.64	-0.87
From 3000 to 4500 euros																								
	-9.308607***	-8.782685***	-.2660928	-.5108476*	-.2650599	-4.272529***	.4169725***	.0779029**	-.0622011**	.0779029***	-.0426279	.0768561***	-.154089	.0003795	-.0512862	.0003795	-.0835352**	-.0114073	-.043924	-.1241361**	.2512683	.126724	.1849675	-.1979279
	(.5174711)	(.0366841)	(.306394)	(.3026076)	(.2625715)	(.3265303)	(.1084888)	(.0376003)	(.0290563)	(.0172636)	(.0321562)	(.0187885)	(.1350945)	(.0371139)	(.0345193)	(.0179266)	(.0421623)	(.0214519)	(.2825355)	(.0541853)	(.4149828)	(.324695)	(.3977573)	(.1862323)
	-17.99	-239.41	-0.87	-1.69	-1.01	-13.08	3.84	2.07	-2.14	4.51	-1.33	4.09	-1.14	0.01	-1.49	0.02	-1.98	-0.53	-0.16	-2.29	0.61	0.39	0.47	-1.06
From 4500 to 7000 euros																								
	-11.50153***	-10.73582***	-.3652471	-.6784788**	-.3449221	-5.228969***	.5125209***	.0784075*	-.0611632*	.0784075***	-.0257188	.0707378***	-.2025526	.0198419	-.0220571	.0198419	-.0553496	.0207528	-.0026206	-.2336693***	.3126102	.138772	.1077214	-.4303101**
	(.5672035)	(.0387928)	(.32864)	(.3241197)	(.2832646)	(.3398003)	(.1188376)	(.0411025)	(.033041)	(.0200152)	(.0369791)	(.0218542)	(.1481924)	(.0406944)	(.039394)	(.0202637)	(.048973)	(.0248991)	(.3058219)	(.0588627)	(.4375231)	(.3351826)	(.4245466)	(.1960044)
	-20.28	-276.75	-1.11	-2.09	-1.22	-15.39	4.31	1.91	-1.85	3.92	-0.70	3.24	-1.37	0.49	-0.56	0.98	-1.13	0.83	-0.01	-3.97	0.71	0.41	0.25	-2.20
More than 7000 euros																								
	-13.4348***	-12.90064***	-.2807478	-.6431467	-.2745634	-6.219678***	.3589768**	.0656548	-.0969396**	.0656548**	-.1197508**	.0679108**	-.2900251	-.0248134	-.0984834*	-.0248134	-.1684799**	-.0206325	-.1525514	-.2703321***	.1576592	-.023334	.0373015	-.3959144
	(.7724498)	(.0471397)	(.4039687)	(.3988718)	(.365482)	(.4002418)	(.1620984)	(.0539614)	(.0461556)	(.0285457)	(.0536989)	(.0335787)	(.2022515)	(.0538985)	(.058626)	(.0288921)	(.0775181)	(.0375033)	(.4102449)	(.07569)	(.5100103)	(.3915917)	(.5155775)	(.2481288)
	-17.39	-273.67	-0.69	-1.61	-0.75	-15.54	2.21	1.22	-2.10	2.30	-2.23	2.02	-1.43	-0.46	-1.68	-0.86	-2.17	-0.55	-0.37	-3.57	0.31	-0.06	0.07	-1.60

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

TABLE B.1 – Continued (3) : Control variables - Estimator comparison - Time spent watching ad from free private channel

	Static						$t-(t-1)$						$t-(t-7)$						$t-(t-365)$					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)
	(BE1)	(MCO1)	(FE1)	(RE1)	(AFE1)	(ARE1)	(BE2)	(MCO2)	(FE2)	(RE2)	(AFE2)	(ARE2)	(BE3)	(MCO3)	(FE3)	(RE3)	(AFE3)	(ARE3)	(BE4)	(MCO4)	(FE4)	(RE4)	(AFE4)	(ARE4)
Regions																								
Ile-de-France																								
	-.4179772	-1.099706***	-.3061962	-.7059378	-.3405604	-.5528698	-.0507272	-.0178014	.0458014	-.0178014	-.0343525	.0060049	-.0367744	.0439717	-.1067703	.0439717**	.0452935	.0411519*	-.026971	.1344266***	-.1070332	.0409959	-.25791	.1408002
	(.4781)	(.0301971)	(1.01639)	(.8824243)	(.8399841)	(.3403677)	(.0918234)	(.0339753)	(.1087047)	(.0191154)	(.1029835)	(.0198314)	(.1142668)	(.0340732)	(.1087442)	(.0170928)	(.1435202)	(.0216635)	(.2290736)	(.0476097)	(.7930685)	(.2059682)	(.7460665)	(.1417804)
	-0.87	-36.42	-0.30	-0.80	-0.41	-1.62	-0.55	-0.52	0.42	-0.93	-0.33	0.30	-0.32	1.29	-0.98	2.57	0.32	1.90	-0.12	2.82	-0.13	0.20	-0.35	0.99
Champagne-Ardenne																								
	-.507966	-1.726906***	-.4763233	-.4146591	-.8808651	-.135297	.1184935	.033399	.0093958	.033399	.0032556	.0627342*	-.4139504**	.0278051	-.0468253	.0278051	.1169821	.040952	-.1590007	.1627623**	.671579	.0817944	.2186072	.2196369
	(.711475)	(.0449023)	(1.318)	(1.14152)	(1.096675)	(.4929288)	(.1390805)	(.050462)	(.1365447)	(.0279456)	(.1763226)	(.033894)	(.172872)	(.0499502)	(.1480345)	(.0235963)	(.1987306)	(.0311317)	(.3463055)	(.070428)	(2.27629)	(.491954)	(2.198473)	(.2163804)
	-0.71	-3.85	-0.36	-0.36	-0.80	-0.27	0.85	0.66	0.07	1.20	0.02	1.85	-2.39	0.56	-0.32	1.18	0.59	1.32	-0.46	2.31	0.30	0.17	0.10	1.02
Picardie																								
	.8922245	.572488***	.9560407	1.031193	.6041902	.2623448	.1863132	.0033147	-.0773213	.0033147	-.1147944	.0001272	-.0403605	-.0088366	-.0539768	-.0088366	.1957836	-.0088131	.377777	.4686244***	-.2024449	.3903811	-.560671	.3821501**
	(.6316137)	(.0420724)	(1.232007)	(1.054929)	(1.010331)	(.4425072)	(.1225997)	(.0479162)	(.1125889)	(.0268348)	(.1275161)	(.0317297)	(.1518483)	(.0479624)	(.1352919)	(.02275)	(.1839698)	(.0286185)	(.3039797)	(.0676917)	(1.400805)	(.3156237)	(1.3116)	(.1909709)
	1.41	13.61	0.78	0.98	0.60	0.59	1.52	0.07	-0.69	0.12	-0.90	0.00	-0.27	-0.18	-0.40	-0.39	1.06	-0.31	1.24	6.92	-0.14	1.24	-0.43	2.00
Haute-Normandie																								
	.9525657	-.5562897***	-.7842448	-.89703	-.7679877	-.4148828	-.0471353	-.0452564	.0034052	-.0452564	-.1860626	-.0032616	-.1096497	.0497049	.0078577	.0497049**	.1939435	.0539007*	.7169294**	.8107212***	2.923403	.9603808***	2.538093	.7116626***
	(.6855948)	(.0432218)	(1.239625)	(1.078834)	(1.012789)	(.4613733)	(.1276109)	(.0488474)	(.1331872)	(.0278749)	(.1677198)	(.0352479)	(.1583494)	(.0489194)	(.1903268)	(.0246122)	(.2049932)	(.0312969)	(.3258538)	(.0681748)	(1.819738)	(.3728337)	(1.750883)	(.1976089)
	1.39	-12.87	-0.63	-0.83	-0.76	-0.90	-0.37	-0.93	0.03	-1.62	-1.11	-0.09	-0.69	1.02	0.04	2.02	0.95	1.72	2.20	11.89	1.61	2.58	1.45	3.60
Centre																								
	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Basse-Normandie																								
	-.6420451	-1.47866***	3.31968*	2.215949	1.97047	-.7300882	.1253705	.0379736	-.05585	.0379736	-.2791147	.0436669	.0222469	.0332258	-.2415561	.0332258	.59397	.0803628***	.223634	.116056	-.5077766	.0799059	-.838732	.1596292
	(.7462)	(.0467289)	(1.94852)	(1.534087)	(1.436669)	(.4927579)	(.1405363)	(.0529126)	(.1064962)	(.026615)	(.1974473)	(.0284992)	(.1742199)	(.0525901)	(.2805821)	(.0260487)	(.3695151)	(.0297521)	(.3484135)	(.0750926)	(1.427125)	(.2906057)	(1.23804)	(.2429017)
	-0.86	-31.64	1.70	1.44	1.37	-1.48	0.89	0.72	-0.52	1.43	-1.41	1.53	0.13	0.63	-0.86	1.28	1.61	2.70	0.64	1.55	-0.36	0.27	-0.68	0.66
Bourgogne																								
	-.1998965	-.862037***	-.5939494	-.7298158	-.9544793	-.5606331	-.0625791	.0206049	-.3422652	.0206049	-.4141833**	-.0224954	.2352415	-.0268929	-.456545***	-.0268929	.1056131	.0026423	-.2435748	.1426017**	-3.07767*	-.3773937	-2.865985**	.0473121
	(.7047973)	(.0427271)	(1.582344)	(1.416144)	(1.334016)	(.4489252)	(.1323546)	(.0482839)	(.3260705)	(.026817)	(.2112617)	(.029851)	(.1640675)	(.0482501)	(.1613554)	(.0247763)	(.2406394)	(.0315599)	(.32285)	(.0665905)	(1.638794)	(.3806554)	(1.426238)	(.178124)
	-0.28	-20.18	-0.38	-0.52	-0.72	-1.25	-0.47	0.43	-1.05	0.77	-1.96	-0.75	1.43	-0.56	-2.83	-1.09	0.44	0.08	-0.75	2.14	-1.88	-0.99	-2.01	0.27
Nord-Pas-de-Calais																								
	1.873987***	2.107106***	-.8656996	-.0873595	-.8205303	1.035606**	-.0552765	.0256772	.0115642	.0256772	-.052625	.0366931	.0571486	.0048524	-.0535449	.0048524	.2371206	.031863	.5466411**	.8093267***	.5830521	.5406445*	1.010107	.7850763***
	(.5787106)	(.0364461)	(1.648853)	(1.333712)	(1.380646)	(.4096328)	(.1040515)	(.0406027)	(.135018)	(.0220479)	(.1732599)	(.0228809)	(.129238)	(.040606)	(.1719865)	(.0191086)	(.2286397)	(.0247479)	(.2602738)	(.0575783)	(2.635496)	(.3025489)	(2.865516)	(.1860932)
	3.24	57.81	-0.53	-0.07	-0.59	2.53	-0.53	0.63	0.09	1.16	-0.30	1.60	0.44	0.12	-0.31	0.25	1.04	1.29	2.10	14.06	0.22	1.79	0.35	4.22
Lorraine																								
	-1.525724**	-2.143418***	-1.059793	-.9717891	-1.183979	-1.136694***	.0735135	-.0143956	.0970731	-.0143956	.0329285	.0198651	.1887583	.0354228	-.11741	.0354228	.1490248	.0470317	.1395057	.1655454**	.3343956	.1120656	.1601412	.1179199
	(.6323451)	(.0408441)	(1.410218)	(1.238029)	(1.194825)	(.4344972)	(.1209068)	(.0469705)	(.1079568)	(.0255427)	(.1226945)	(.0273678)	(.1502495)	(.0468721)	(.1276169)	(.0236998)	(.1758529)	(.0290076)	(.3063943)	(.0657189)	(1.393034)	(.3149142)	(1.343329)	(.2059033)
	-2.41	-52.48	-0.75	-0.78	-0.99	-2.62	0.61	-0.31	0.90	-0.56	0.27	0.73	1.26	0.76	-0.92	1.49	0.85	1.62	0.46	2.52	0.24	0.36	0.12	0.57
Alsace																								
	-4.227391***	-5.045267***	-1.329172	-1.896864	-1.158692	-2.535319***	.0347395	-.026923	-.1624533	-.026923	-.2314569*	.0189235	.018682	-.0014913	-.155084	-.0014913	.0588399	.0314026	.030437	.0218928	-.854631	-.1415687	-1.096869	.0539544
	(.714626)	(.0372116)	(1.347728)	(1.166284)	(1.121386)	(.4339109)	(.1216227)	(.0415469)	(.1296848)	(.0216968)	(.1270374)	(.0237326)	(.1510853)	(.0414335)	(.1489869)	(.0207887)	(.1847482)	(.0256201)	(.3012065)	(.0568697)	(.9732014)	(.230586)	(.9140909)	(.1840516)
	-5.92	-135.58	-0.99	-1.63	-1.03	-5.84	0.29	-0.65	-1.25	-1.24	-1.82	0.80	0.12	-0.04	-1.04	-0.07	0.32	1.23	0.10	0.38	-0.88	-0.61	-1.20	0.29
Franche-Comté																								
	-2.169777**	-2.699531***	4.180594*	3.087857	3.396568*	-1.398335***	.0722595	-.0178326	.0626087	-.0178326	-.049004	-.0111778	.1844092	.0081957	-.1222194	.0081957	.0076145	.061601**	.6633326*	.2760045***	.2224048	.4169997	-.2822714	.3763742
	(.8985871)	(.0470301)	(2.322909)	(2.004156)	(1.960727)	(.5062847)	(.1429991)	(.0521024)	(.1771227)	(.0264571)	(.2100201)	(.0310663)	(.1774745)	(.0519042)	(.164672)	(.0262367)	(.1990294)	(.0301668)	(.3610015)	(.0716291)	(2.189685)	(.3901194)	(2.166522)	(.2300796)
	-2.41	-57.40	1.80	1.54	1.73	-2.76	0.51	-0.34	0.35	-0.67	-0.23	-0.36	1.04	0.16	-0.74	0.31	0.04	2.04	1.84	3.85	0.10	1.07	-0.13	1.64
Pays de la Loire																								
	-1.606607***	-1.157384***	.9043695	.5574464	.5442548	-.5816666	.0925203	.030999	.1317123	.030999	.1631832	.0240734	.0268175	.0112914	.014536	.0112914	.2186744	.0679857***	.0660431	.2636057***	2.021675**	.4691315*	1.387873	.2560319
	(.51707)	(.0352749)	(1.320561)	(1.139637)	(1.08872)	(.4164622)	(.1052523)	(.0395165)	(.1145264)	(.0226387)	(.1288721)	(.0254543)	(.130618)	(.0395286)	(.1221973)	(.0191238)	(.1702719)	(.0246837)	(.2618291)	(.0554976)	(1.026953)	(.2422107)	(.9657294)	(.1639527)
	-3.11	-32.81	0.68	0.49	0.50	-1.40	0.88	0.78	1.15	1.37	1.27	0.95	0.21	0.29	0.12	0.59	1.28	2.75	0.25	4.75	1.97	1.94	1.44	1.56
Bretagne																								
	-.585624	-1.118879***	-1.372557	-1.216885	-1.236208	-.6962529*	.0619545	.0109957	-.0181639	.0109957	-.0424927	.0342459	.1604883	.0094156	.0309611	.0094156	.2356741	.0276872	-.03708	.0034207	-1.530552*	-.2853479	-1.287622	-.0477588
	(.6045578)	(.0365404)	(1.341342)	(1.169417)	(1.098565)	(.4096725)	(.1100502)	(.0404227)	(.1109383)	(.022542)	(.1273641)	(.0221266)	(.1367228)	(.0405086)	(.1299294)	(.0202905)	(.1699708)	(.0249858)	(.276172)	(.0567148)	(.896529)	(.2355104)	(.8660369)	(.1661329)
	-0.97	-30.62	-1.02	-1.04	-1.13	-1.70	0.56	0.27	-0.16	0.49	-0.33	1.55	1.17	0.23	0.24	0.46	1.39	1.11	-0.13	0.06	-1.71	-1.21	-1.49	-0.29
Poitou-Charentes																								
	-1.243679*	-1.256262***	.137648	.3172924	-.2393109	-.6732338	.1934877	-.0049719	-.0824547	-.0049719	-.1197128	.028138	-.0706252	.03578	-.1095644	.03578	.1149231	.0743419***	.3768317	.2160626***	.0310794	.2007297	-.2195282	.2385424
	(.6683706)	(.0411368)	(1.125662)	(1.000519)	(.9152541)	(.4562648)	(.1285709)	(.0456509)	(.1225357)	(.0248449)	(.1503179)	(.025467)	(.1593442)	(.0457431)	(.164375)	(.0223906)	(.1966194)	(.0278105)	(.3165824)	(.0630136)	(1.499468)	(.3510779)	(1.410184)	(.1922123)
	-1.86	-30.54	0.12	0.32	-0.26	-1.48	1.50	-0.11	-0.67	-0.20	-0.80	1.10	-0.44	0.78	-0.67	1.60	0.58	2.67	1.19	3.43	0.02	0.57	-0.16	1.24
Aquitaine																								
	-1.980916***	-1.740442***	-.0872269	-.341134	-.3333351	-.9258851**	-.0049661	-.0223152	-.0428648	-.0223152	.0113457	.0085241	.1017852	.0167362	-.2550912*	.0167362	-.0478403	.050479**	-.0633851	.2057814***	-1.570455	-.0461284	-1.534999	.2320468
	(.7154335)	(.0364677)	(1.079495)	(.937741)	(.8815134)	(.406441)	(.1089492)	(.0396364)	(.1189631)	(.0220509)	(.1344789)	(.0226262)	(.1352955)	(.0395106)	(.131593)	(.0196254)	(.1700692)	(.0242915)	(.26769)	(.0557397)	(1.255295)	(.2654504)	(1.128855)	(.1629748)
	-2.77	-47.73	-0.08	-0.36	-0.38	-2.28	-0.05	-0.56	-0.36	-1.01	0.08	0.38	0.75	0.42	-1.94	0.85	-0.28	2.08	-0.24	3.69	-1.25	-0.17	-1.36	1.42
Midi-Pyrénées																								
	-3.567908***	-3.416863***	.0412873	-.5153979	-.2567412	-1.654041***	.0396714	.0058715	-.1351066	.0058715	-.2345058	.0102841	.2114259	.0031495	-.2720511	.0031495	-.1234369	.0246789	.1706218	.3663317***	-1.691192	.2362571	-1.488089	.2847143
	(.6671048)	(.0369178)	(1.163512)	(1.000412)	(1.004396)	(.4231386)	(.1140459)	(.0407429)	(.1369935)	(.0213538)	(.1930894)	(.0256136)	(.1415833)	(.0407357)	(.1656867)	(.0192464)	(.1811462)	(.0252224)	(.2830696)	(.056755)	(1.44005)	(.2757129)	(1.443275)	(.1822781)
	-5.35	-92.55	0.04	-0.52	-0.26	-3.91	0.35	0.14	-0.99	0.27	-1.21	0.40	1.49	0.08	-1.64	0.16	-0.68	0.98	0.60	6.45	-1.17	-0.86	-1.03	1.56
Limousin																								
	-2.791966***	-3.828839***	-4.103102**	-4.163062***	-3.332724**	-2.02873***	-.0289953	.0180855	-.05598	.0180855	-.0704772	.0443351	.0737462	.0327019	.0502568	.0327019	.0754008	.0608723	.4723364	.2398503***	-5.853812*	-1.096602	-4.662849	.3446484
	(.9448338)	(.0578765)	(1.951982)	(1.806838)	(1.640089)	(.7076072)	(.1785126)	(.061602)	(.2602592)	(.0321016)	(.2773966)	(.0349194)	(.224019)	(.0617051)	(.1991058)	(.0331166)	(.2679161)	(.0407758)	(.4553748)	(.0846442)	(2.986888)	(.8932296)	(3.084798)	(.2543353)
	-2.95	-66.16	-2.10	-2.30	-2.03	-2.87	-0.16	0.29	-0.22	0.56	-0.25	1.27	0.33	0.53	0.25	0.99	0.28	1.49	1.04	2.83	-1.96	-1.23	-1.51	1.36
Rhône-Alpes																								
	-3.679108***	-2.866898***	.2314777	-.2353449	-.0269027	-1.465072***	.0104249	-.0164068	-.0391127	-.0164068	-.0979756	.0186594	.0771697	.013487	-.2346536*	.013487	-.0376418	.0321208	.0909912	.2076989***	1.217799	.2915191	1.237849	.2364242
	(.6535028)	(.0324116)	(1.082156)	(.9208191)	(.8939012)	(.3667416)	(.09685)	(.0359453)	(.0988921)	(.0198602)	(.1167314)	(.0204965)	(.1202818)	(.0359436)	(.1259705)	(.017423)	(.157834)	(.0225234)	(.2415709)	(.0502093)	(1.054903)	(.2176731)	(.9627193)	(.1486095)
	-5.63	-88.45	0.21	-0.26	-0.03	-3.99	0.11	-0.46	-0.40	-0.83	-0.84	0.91	0.64	0.38	-1.86	0.77	-0.24	1.43	0.24	4.14	1.15	1.34	1.29	1.59
Auvergne																								
	-4.689318***	-4.91919***	1.852662	1.106296	1.384232	-2.506867**	-.0397909	-.0186226	-.0810961	-.0186226	.0040295	-.0208187	-.1247097	-.0206161	-.2020919	-.0206161	-.0873122	.0404847	.4448723	.4333611***	.9681214	.4425539	.4876327	.3615353
	(.8039079)	(.044503)	(1.549386)	(1.360968)	(1.184926)	(.4600236)	(.140069)	(.0505298)	(.1330427)	(.0301024)	(.1431648)	(.032772)	(.1750765)	(.050173)	(.1502023)	(.0253405)	(.2194687)	(.0317827)	(.3534762)	(.072465)	(1.896802)	(.4213765)	(1.825393)	(.2237476)
	-5.83	-110.54	1.20	0.81	1.17	-5.45	-0.28	-0.37	-0.61	-0.62	0.03	-0.64	-0.71	-0.41	-1.35	-0.81	-0.40	1.27	1.26	5.98	0.51	1.05	0.27	1.62
Languedoc-Roussillon																								
	-3.617629***	-2.208167***	4.415601**	3.593536***	3.487387**	-1.111768**	2463689**	.0124806	-.0054341	.0124806	-.1055354	.0224561	-.0798788	.0449686	.3299017*	.0449686**	7030045***	.0624937**	.1122647	.4155904***	3.886684**	.9386017***	3.735085**	.4228918**
	(.7110706)	(.0398157)	(2.038965)	(1.792204)	(1.66396)	(.4535756)	(.1223664)	(.0438654)	(.1560943)	(.021775)	(.1753222)	(.0237915)	(.1520012)	(.0437259)	(.1958883)	(.0210728)	(.2428799)	(.0258482)	(.3081036)	(.0616225)	(1.662511)	(.3572958)	(1.577466)	(.1814714)
	-5.09	-55.46	2.17	2.01	2.10	-2.45	2.01	0.28	-0.03	0.57	-0.60	0.94	-0.53	1.03	1.68	2.13	2.89	2.42	0.36	6.74	2.34	2.63	2.37	2.33
Provence-Alpes-Côte d'Azur																								
	-3.859068***	-1.455134***	1.019932	.6727263	.3618273	-.6572335*	-.1163735	-.0053033	-.0282249	-.0053033	.0140578	.0242141	-.0795458	.0071311	-.0455724	.0071311	.2044884	.0135943	.1612628	.42285***	-.8208509	.1615922	-.9588233	.4211705***
	(.7603296)	(.0338325)	(1.100337)	(.9577149)	(.9019606)	(.3807669)	(.1032555)	(.0372897)	(.101912)	(.0201801)	(.1222881)	(.0212628)	(.1283013)	(.0372919)	(.1303034)	(.0179008)	(.1748729)	(.0231623)	(.2555737)	(.0519788)	(1.104012)	(.2490871)	(1.069289)	(.1607262)
	-5.08	-43.01	0.93	0.70	0.40	-1.73	-1.13	-0.14	-0.28	-0.26	0.11	1.14	-0.62	0.19	-0.35	0.40	1.17	0.59	0.63	8.14	-0.74	0.65	-0.90	2.62

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

TABLE B.1 – Continued (4) : Control variables - Estimator comparison - Time spent watching ad from free private channel

	Static						$t-(t-1)$						$t-(t-7)$						$t-(t-365)$					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)
	(BE1)	(MCO1)	(FE1)	(RE1)	(AFE1)	(ARE1)	(BE2)	(MCO2)	(FE2)	(RE2)	(AFE2)	(ARE2)	(BE3)	(MCO3)	(FE3)	(RE3)	(AFE3)	(ARE3)	(BE4)	(MCO4)	(FE4)	(RE4)	(AFE4)	(ARE4)
Internet connection mode																								
No Internet acces	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Cable	-1.260403**	-1.245684***	-.5052095	-.5141424	-.5024105*	-.3751108	-.0529844	-.0079336	-.0235864	-.0079336	.0161912	.0092429	-.2398328	.0095632	-.0284247	.0095632	-.0698362	-.0219545	-.0750304	.2918495***	.328917	.2808791	.1926209	.2976247
	(.5771422)	(.0348659)	(.3355314)	(.3313622)	(.2871517)	(.3489259)	(.1206825)	(.0378628)	(.0363682)	(.019657)	(.0401633)	(.0223025)	(.14973)	(.0371516)	(.0434976)	(.01916)	(.0532084)	(.0228518)	(.310518)	(.05506)	(.4743145)	(.3408108)	(.4551054)	(.1887905)
	-2.18	-35.73	-1.51	-1.55	-1.75	-1.08	-0.44	-0.21	-0.65	-0.40	0.40	0.41	-1.60	0.26	-0.65	0.50	-1.31	-0.96	-0.24	5.30	0.69	0.82	0.42	1.58
ADSL	-.6806894*	-.3976578***	.1880762	.1721307	.1449808	.0280084	.0429405	.0258664	.0212405	.0258664**	.036569*	.000454	-.253514**	.0101802	.0297441	.0101802	.0329068	-.0026961	-.5332242**	.0627195*	.4974606*	.2888199	.4585507*	.075384
	(.4043925)	(.0238482)	(.2122134)	(.2104147)	(.174622)	(.2619131)	(.0846053)	(.0227143)	(.0187834)	(.0107847)	(.0208322)	(.0115035)	(.1048287)	(.0220287)	(.0246898)	(.0100919)	(.0299439)	(.0119399)	(.2167273)	(.0322324)	(.2880181)	(.2209515)	(.2649692)	(.1068017)
	-1.68	-16.67	0.89	0.82	0.83	0.11	0.51	1.14	1.13	2.40	1.76	0.04	-2.42	0.46	1.20	1.01	1.10	-0.23	-2.46	1.95	1.73	1.31	1.73	0.71
Fiber optics	-.9083321	-.97439***	-.6800075**	-.7126584**	-.4501855	-.1248902	.1899716	.0242049	.0397417	.0242049	.0441003	-.0186106	-.5415533***	.0081903	.0244137	.0081903	.039873	.006494	-.4985728	-.1877306***	.1705058	.0349831	-.0377783	-.2120095
	(.6632914)	(.041285)	(.3398946)	(.3374443)	(.296628)	(.3730363)	(.1387278)	(.0464937)	(.0355096)	(.0229282)	(.0395341)	(.0249336)	(.1721361)	(.0459836)	(.0429821)	(.0228271)	(.0533033)	(.0300103)	(.3402719)	(.0628138)	(.427426)	(.3393622)	(.4278773)	(.2326105)
	-1.37	-23.60	-2.00	-2.11	-1.52	-0.33	1.37	0.52	1.12	1.06	1.12	-0.75	-3.15	0.18	0.57	0.36	0.75	0.22	-1.47	-2.99	0.40	0.10	-0.09	-0.91
Other	.4984237	-.8425689***	-.4376134	-.4423049	-.3302342	-.3346597	-.303051*	.0267484	.0047819	.0267484	.0165162	.0009611	-.4317522**	-.0025863	.0299445	-.0025863	-.0252939	.0181798	-.7746016*	-.0847454	.2921703	.1488589	.3263069	-.0153709
	(.8204445)	(.0471065)	(.3346838)	(.3326655)	(.2820433)	(.3809487)	(.172846)	(.0502477)	(.0366628)	(.0251022)	(.0414046)	(.0269825)	(.2130134)	(.049937)	(.0391188)	(.025761)	(.0484551)	(.0333242)	(.4428258)	(.0726177)	(.385086)	(.3336771)	(.3659651)	(.2293157)
	0.61	-17.89	-1.31	-1.33	-1.17	-0.88	-1.75	0.53	0.13	1.07	0.40	0.04	-2.03	-0.05	0.77	-0.10	-0.52	0.55	-1.75	-1.17	0.76	0.45	0.89	-0.07
Intercept	28.5207***	28.73514***	18.76595***	18.2223***	16.37262***	14.79565***	-.5753994	-.0844917	-.0102432	-.0844917	-.1169028	-.3271822***	.0796195	1.070478***	1.154904***	1.070478***	.7168502***	.7849139***	1.827491*	.273574*	-.2680694	-.3880452	-.2027006	.1421528
	(2.928858)	(.0912578)	(1.051728)	(.9287303)	(.8948145)	(.6165355)	(.4015641)	(.1060861)	(.1247363)	(.071184)	(.1457505)	(.0762247)	(.4548191)	(.1117873)	(.1390289)	(.0689002)	(.1811248)	(.0852084)	(.9527759)	(.1525761)	(1.111398)	(.6102304)	(1.104015)	(.4879851)
	9.74	314.88	17.84	19.62	18.30	24.00	-1.43	-0.80	-0.08	-1.19	-0.80	-4.29	0.18	9.58	8.31	15.54	3.96	9.21	1.92	1.79	-0.24	-0.64	-0.18	0.29
Number of observations	12,922,039	12,922,039	12,922,039	12,922,039	10,286,856	10,286,856	10,280,284	10,280,284	10,280,284	10,280,284	8,594,887	8,594,887	9,636,853	9,636,853	9,636,853	9,636,853	7,071,750	7,071,750	6,229,385	6,229,385	6,229,385	6,229,385	4,521,383	4,521,383
Number of groups	21,760		21,760	21,760	21,426	21,426	21,422		21,422	21,422	20,926	20,926	21,151		21,151	21,151	20,233	20,233	16,014		16,014	16,014	15,194	15,194
R-squared : R^2		0.09						0.01						0.00						0.01				
R-squared for overall model : R^2_O	0.01		0.00	0.02	0.26	0.33	0.00		0.01	0.01	0.21	0.21	0.00		0.00	0.00	0.01	0.01	0.00		0.01	0.01	0.03	0.04
R-squared for between model : R^2_B	0.23		0.01	0.01	0.65	0.89	0.06		0.00	0.00	0.13	0.13	0.08		0.00	0.00	0.04	0.05	0.06		0.01	0.03	0.12	0.27
R-squared for within model : R^2_W	0.00		0.02	0.02	0.06	0.06	0.00		0.01	0.01	0.21	0.21	0.00		0.00	0.00	0.01	0.01	0.00		0.01	0.01	0.03	0.03
Panel-level standard deviation : σ_u			15.01	12.56	12.12	0.00			2.76	0.00	3.34	0.00			3.42	0.00	4.27	0.00			6.08	3.42	6.72	0.00
Standard deviation of ϵ_{it} : σ_ϵ			17.14	17.14	17.10	17.10			21.95	21.95	19.73	19.73			21.16	21.16	21.31	21.31			23.74	23.74	23.91	23.91
Intraclass correlation : ρ			0.43	0.35	0.33	0.00			0.02	0.00	0.03	0.00			0.03	0.00	0.04	0.00			0.06	0.02	0.07	0.00
Hausman Test : Prob > χ^2			0.43	0.35	0.33	0.00			0.02	0.00	0.03	0.00			0.03	0.00	0.04	0.00			0.06	0.02	0.07	0.00
Hausman Test : Prob > χ^2			0.0000	0.0000	0.0000	0.0000			0.5880	0.5880	0.0002	0.0002			1.0000	1.0000	0.9997	0.9997			0.0000	0.0000	0.0000	0.0000

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

TABLE B.1 – Continued (5) : Control variables - Estimator comparison - Time spent watching ad from free private channel

	Static						$t-(t-1)$						$t-(t-7)$						$t-(t-365)$					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)
	(BE1)	(MCO1)	(FE1)	(RE1)	(AFE1)	(ARE1)	(BE2)	(MCO2)	(FE2)	(RE2)	(AFE2)	(ARE2)	(BE3)	(MCO3)	(FE3)	(RE3)	(AFE3)	(ARE3)	(BE4)	(MCO4)	(FE4)	(RE4)	(AFE4)	(ARE4)
$(q_2^R - t_1)_{t-1}$					.2226697*** (.0034526) 64.49	.5442485*** (.0072323) 75.25					-.460354*** (.0016196) -284.24	-.459908*** (.001616) -284.59					.0844447*** (.0015688) 53.83	.0853648*** (.0015628) 54.62					.1153036*** (.0054441) 21.18	.1385219*** (.0055646) 24.89
TS (in mn)	-.0063551*** (.0016729) -3.80	-.0051327*** (.0001052) -48.79	-.0016643*** (.0002804) -5.94	-.0017229*** (.0002794) -6.17	-.0024074*** (.0003498) -6.88	-.0036645*** (.0006591) -5.56	-.0005389 (.0012075) -0.45	-.0014525*** (.0001529) -9.50	-.0014593*** (.0002878) -5.07	-.0014525*** (.0002868) -5.06	-.001541*** (.0003018) -5.11	-.0015385*** (.0003006) -5.12	-.0062784*** (.0012495) -5.02	-.0020601*** (.0001623) -12.70	-.0020559*** (.0002896) -7.10	-.0020601*** (.0002884) -7.14	-.0032562*** (.0004326) -7.53	-.0032558*** (.0004299) -7.57	.0004346 (.0016608) 0.26	-.0016895*** (.0002033) -8.31	-.0016181*** (.00042) -3.85	-.0016895*** (.0004242) -3.98	-.0028695*** (.000608) -4.72	-.0029249*** (.0006064) -4.82
OTVU (in mn)	-.0010809* (.000605) -1.79	-.0026355*** (.0000435) -60.53	-.0028705*** (.0001964) -14.61	-.0028886*** (.0001952) -14.80	-.0031994*** (.0002497) -12.81	-.0018113*** (.0002969) -6.10	.0021536*** (.0004426) 4.87	-.0009574*** (.0000791) -12.11	-.00097*** (.0001908) -5.08	-.0009574*** (.0001897) -5.05	-.0012504*** (.0002224) -5.62	-.0012432*** (.0002208) -5.63	-.0010046** (.0004145) -2.42	-.0023147*** (.0000783) -29.58	-.0023267*** (.0001835) -12.68	-.0023147*** (.0001824) -12.69	-.0033009*** (.0002859) -11.55	-.0032641*** (.0002831) -11.53	-.0028814*** (.0005172) -5.57	-.0053944*** (.0000935) -57.67	-.0052501*** (.0004872) -10.78	-.0053944*** (.0004718) -11.43	-.0066624*** (.0007004) -9.51	-.0066145*** (.0006542) -10.11
ω_1 **: Temperature (in °C)**	-.008778 (.0386843) -0.23	-.0401481*** (.001256) -31.96	-.0446563*** (.001216) -36.73	-.044598*** (.0012146) -36.72	-.0402353*** (.0014353) -28.03	-.0170699*** (.0019774) -8.63	-.0121929 (.0208935) -0.58	-.003011 (.002366) -1.27	-.0030657 (.0023253) -1.32	-.003011 (.0023189) -1.30	-.011393*** (.0025618) -4.45	-.0116276*** (.0025535) -4.55	-.0010198 (.0111009) -0.09	-.0308992*** (.0012174) -25.38	-.0309249*** (.0015248) -20.28	-.0308992*** (.0015205) -20.32	-.032022*** (.0020695) -15.47	-.0320961*** (.0020586) -15.59	-.0483738*** (.0164316) -2.94	-.0323604*** (.0017917) -18.06	-.031554*** (.0020868) -15.12	-.0323604*** (.0021234) -15.24	-.0336389*** (.0028856) -11.66	-.0333273*** (.0028839) -11.56
ω_2 **: Sunshine duration (in mn)**	.0013279** (.0006542) 2.03	-.0003801*** (.0000202) -18.78	-.0004871*** (.0000207) -23.49	-.0004851*** (.0000207) -23.41	-.0005194*** (.0000268) -19.39	-.0003644*** (.000026) -14.04	-.0002288 (.0002162) -1.06	-.0006544*** (.0000244) -26.79	-.0006559*** (.0000321) -20.42	-.0006544*** (.000032) -20.43	-.0006652*** (.0000351) -18.96	-.0006675*** (.000035) -19.09	-.0004035** (.0001678) -2.40	-.0007452*** (.0000194) -38.43	-.0007479*** (.0000297) -25.14	-.0007452*** (.0000297) -25.13	-.0008237*** (.0000414) -19.88	-.0008205*** (.0000412) -19.91	.0003369 (.0002555) 1.32	-.0006351*** (.0000286) -22.22	-.0006268*** (.0000394) -15.92	-.0006351*** (.0000396) -16.04	-.0007085*** (.0000541) -13.10	-.0007084*** (.0000539) -13.13
ω_3 **: Rainfall (in mm)**	-.0776088 (.0474412) -1.64	.0083933*** (.0013331) 6.30	.0106876*** (.0011772) 9.08	.0106746*** (.0011779) 9.06	.0132075*** (.001581) 8.35	.0109708*** (.001664) 6.59	.0849732*** (.0140178) 6.06	.0048498*** (.0014363) 3.38	.0047216*** (.0017018) 2.77	.0048498*** (.0016974) 2.86	.0045439** (.001809) 2.51	.0045884** (.0018045) 2.54	.0153927 (.0116178) 1.32	.0112484*** (.0012775) 8.81	.0112364*** (.0015771) 7.12	.0112484*** (.0015726) 7.15	.0126365*** (.0022037) 5.73	.0127042*** (.0021951) 5.79	.0163518 (.0176824) 0.92	.0074599*** (.0018835) 3.96	.0072493*** (.0021751) 3.33	.0074599*** (.0021791) 3.42	.011514*** (.0030705) 3.75	.0114876*** (.0030558) 3.76
ω_4 **: Wind speed (in km/h)**	-.1860892** (.0931313) -2.00	.0015164 (.0028722) 0.53	.0069704*** (.0025222) 2.76	.0068423*** (.0025211) 2.71	.008223** (.0032806) 2.51	.0075577** (.003622) 2.09	.1575691*** (.0348799) 4.52	.0333331*** (.0038196) 8.73	.0333202*** (.0041436) 8.04	.0333331*** (.0041305) 8.07	.0269999*** (.0044446) 6.07	.0268546*** (.0044314) 6.06	-.0052031 (.0251718) -0.21	.0170079*** (.0027154) 6.26	.0169195*** (.003329) 5.08	.0170079*** (.0033186) 5.13	.0155882*** (.0045989) 3.39	.0156669*** (.0045755) 3.42	.0963495*** (.0362447) 2.66	.0018265 (.0039996) 0.46	.0038782 (.0048592) 0.80	.0018265 (.00487) 0.38	.0027805 (.0067158) 0.41	-.0002948 (.0066776) -0.04
ω_5 **: Rain duration (in mn)**	.0006598 (.0011171) 0.59	.0000631* (.000033) 1.91	.0001046*** (.000028) 3.74	.0001043*** (.000028) 3.73	.0001315*** (.0000375) 3.51	.0001359*** (.0000399) 3.40	-.0026316*** (.0003322) -7.92	.0001667*** (.0000359) 4.65	.0001712*** (.0000419) 4.09	.0001667*** (.0000418) 3.99	.0000669 (.0000442) 1.51	.0000641 (.0000441) 1.45	-.0010822*** (.0002679) -4.04	.0000599* (.0000313) 1.91	.0000616 (.0000382) 1.61	.0000599 (.0000381) 1.57	.0001105** (.0000538) 2.05	.0001078** (.0000536) 2.01	-.0002572 (.000423) -0.61	.0002535*** (.0000462) 5.49	.0002525*** (.0000529) 4.78	.0002535*** (.0000529) 4.80	.0002439*** (.0000733) 3.33	.0002486*** (.0000729) 3.41
Day of the week																								
Monday	-.4034275 (.4512796) -0.89	.0763975*** (.0137624) 5.55	.1721657*** (.0196752) 8.75	.1706666*** (.0196654) 8.68	.3174212*** (.0383207) 8.28	.6451355*** (.0641743) 10.05	.3311293** (.1628079) 2.03	1.140437*** (.0200439) 56.90	1.144093*** (.0944935) 12.11	1.140437*** (.0940303) 12.13	.8231755*** (.0984357) 8.36	.8152825*** (.0974157) 8.37	.225903 (.1506192) 1.50	.0062475 (.0177066) 0.35	.006152 (.008826) 0.70	.0062475 (.0087355) 0.72	-.0007503 (.0148914) -0.05	-.0015882 (.014611) -0.11	-1.152054*** (.2464949) -4.67	.7624402*** (.0280108) 27.22	.7802362*** (.1113898) 7.00	.7624402*** (.1110666) 6.86	1.171323*** (.1837477) 6.37	1.200762*** (.1838615) 6.53
Tuesday	.388704 (.4771878) 0.81	-.2219511*** (.0136314) -16.28	-.2096541*** (.0197944) -10.59	-.2097832*** (.0197916) -10.60	-.3836752*** (.0294764) -13.02	-.565881*** (.0349393) -16.20	.1547843 (.1658341) 0.93	-.6976846*** (.0162116) -43.04	-.6951721*** (.0419428) -16.57	-.6976846*** (.0418353) -16.68	.1189339* (.0608741) 1.95	.113005* (.060112) 1.88	.2915685* (.1572031) 1.85	-.0022258 (.0175204) -0.13	-.0034346 (.0088459) -0.39	-.0022258 (.0087827) -0.25	-.0208735* (.01234) -1.69	-.0193485 (.0122066) -1.59	.0195008 (.2632477) 0.07	-.7118655*** (.0245955) -28.94	-.7070702*** (.0535528) -13.20	-.7118655*** (.0535243) -13.30	-1.223455*** (.0870147) -14.06	-1.254227*** (.0895501) -14.01
Wednesday	-.5914577 (.4534363) -1.30	-.1199796*** (.013631) -8.80	-.0501066** (.0205714) -2.44	-.0511306** (.0205663) -2.49	-.0839818*** (.0289087) -2.91	-.0916483*** (.0307205) -2.98	.6719746*** (.1675838) 4.01	.0044962 (.0162462) 0.28	.0044199 (.0348892) 0.13	.0044962 (.034741) 0.13	-.2305377*** (.0450635) -5.12	-.2353043*** (.044846) -5.25	.0556517 (.1494396) 0.37	.0012073 (.0176304) 0.07	.0005004 (.0088276) 0.06	.0012073 (.0087833) 0.14	.0037805 (.0126969) 0.30	.0053093 (.0126144) 0.42	.260115 (.2591289) 1.00	-.0391668 (.0246504) -1.59	-.0430318 (.0461025) -0.93	-.0391668 (.0460556) -0.85	-.0493389 (.0637736) -0.77	-.0423699 (.0637539) -0.66
Thursday	1.44383*** (.490425) 2.94	-.0975333*** (.0137247) -7.11	.1252479*** (.0198812) -6.30	-.1249557*** (.019879) -6.29	-.2532183*** (.0307776) -8.23	-.3064837*** (.0363623) -8.43	.3324924* (.176089) 1.89	-.3288325*** (.0163359) -20.13	-.3280684*** (.0455853) -7.20	-.3288325*** (.0454662) -7.23	-.196842*** (.0408356) -4.82	-.1996247*** (.0407375) -4.90	.2154824 (.1641284) 1.31	.0085639 (.0178634) 0.48	.0078602 (.0087438) 0.90	.0085639 (.0086858) 0.99	.010337 (.0123752) 0.84	.0115659 (.0123308) 0.94	-.3317239 (.2640882) -1.26	-.3223731*** (.0247217) -13.04	-.3249052*** (.0570492) -5.70	-.3223731*** (.0569164) -5.66	-.4406814*** (.0851498) -5.18	-.4465268*** (.0861807) -5.18
Friday	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Saturday	.7127753* (.4182961) 1.70	.2351326*** (.0139782) 16.82	.2478089*** (.042288) 5.86	.2462459*** (.0422652) 5.83	-.1031176 (.0649841) -1.59	-.0447466 (.0691497) -0.65	1.136473*** (.1759778) 6.46	-.1393931*** (.0191432) -7.28	-.1534771** (.0782599) -1.96	-.1393931* (.077837) -1.79	-.2779003*** (.0857652) -3.24	-.2681914*** (.0853801) -3.14	.0576184 (.1399574) 0.41	-.000869 (.0196481) -0.04	.0013825 (.0102827) 0.13	-.000869 (.0100844) -0.09	-.0182583 (.0152551) -1.20	-.0204725 (.0151621) -1.35	-.216978 (.2579817) -0.84	-.1380701*** (.0272879) -5.06	-.1401784 (.0983824) -1.42	-.1380701 (.0974969) -1.42	-.6904446*** (.1480531) -4.66	-.6804443*** (.1482815) -4.59
Sunday	-2.322369*** (.390072) -5.95	-.6495844*** (.01313) -49.47	-.4441791*** (.0599504) -7.41	-.4487015*** (.0599245) -7.49	-.9979911*** (.0845086) -11.81	-1.088357*** (.0769233) -14.15	.4374707*** (.13858) 3.16	-1.212459*** (.0192771) -62.90	-1.243244*** (.0766233) -16.23	-1.212459*** (.075131) -16.14	-1.509591*** (.1065882) -14.16	-1.492609*** (.1058463) -14.10	.0632125 (.1297805) 0.49	.0195222 (.0189561) 1.03	.0197244* (.0103062) 1.91	.0195222* (.0100358) 1.95	.0165192 (.0155116) 1.06	.0099206 (.0151067) 0.66	-.4459168** (.214725) -2.08	-1.480722*** (.0274499) -53.94	-1.492884*** (.0942942) -15.83	-1.480722*** (.0917989) -16.13	-2.233682*** (.1378788) -16.20	-2.219582*** (.1358901) -16.33
Gender																								
Female	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Male	-.2479637*** (.0609445) -4.07	-.7113952*** (.0078144) -91.04	0 (0)	-.463186*** (.0688535) -6.73	0 (0)	-.406134*** (.1010411) -4.02	-.0042165 (.0319891) -0.13	.0131484 (.0105906) 1.24	0 (0)	.0131484* (.0069315) 1.90	0 (0)	.0126628 (.0081426) 1.56	.0091118 (.032045) 0.28	-.0048469 (.0103953) -0.47	0 (0)	-.0048469 (.0058473) -0.83	0 (0)	.0008906 (.0086586) 0.10	.1233826** (.0538787) 2.29	.0408939*** (.0152501) 2.68	0 (0)	.0408939 (.0564439) 0.72	0 (0)	.0715588 (.069516) 1.03

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

TABLE B.2 – Control variables - Estimator comparison - Time spent watching ad from free public channel

	Static						$t-(t-1)$						$t-(t-7)$						$t-(t-365)$					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)
	(BE1)	(MCO1)	(FE1)	(RE1)	(AFE1)	(ARE1)	(BE2)	(MCO2)	(FE2)	(RE2)	(AFE2)	(ARE2)	(BE3)	(MCO3)	(FE3)	(RE3)	(AFE3)	(ARE3)	(BE4)	(MCO4)	(FE4)	(RE4)	(AFE4)	(ARE4)
Age category																								
4-10 years																								
	.4342295***	.3397479***	.6934399***	.2831187**	.6727018***	-.0173454	-.1306793*	.0076025	.1050761*	.0076025	.0313865	.0367787	-.0116267	-.0517348	-.0012859	-.0517348**	.0026507	-.033012	-.0529661	-.1884552***	.8508729***	-.1884552*	.1001012	-.3263933
	(.1249176)	(.0154795)	(.163462)	(.1287277)	(.210045)	(.0934036)	(.0697083)	(.0335649)	(.0625957)	(.0257986)	(.0920425)	(.0359329)	(.0701794)	(.0341004)	(.066141)	(.0256677)	(.1528832)	(.0547734)	(.1235178)	(.0510643)	(.2736381)	(.112209)	(.4994125)	(.2407298)
	3.48	21.95	4.24	2.20	3.20	-0.19	-1.87	0.23	1.68	0.29	0.34	1.02	-0.17	-1.52	-0.02	-2.02	0.02	-0.60	-0.43	-3.69	3.11	-1.68	0.20	-1.36
11-14 years																								
	-.1775401	-.2591716***	.1744588	-.0948619	.1382156	-.2679434***	-.1299801	-.0062234	.0672752	-.0062234	.0394168	.0546462	-.1453884*	-.0758461**	-.0148649	-.0758461***	.0011655	-.0424668	.0825693	-.2050357***	.1826537	-.2050357*	-.4991728	-.2021427
	(.1609352)	(.017013)	(.1161762)	(.0994417)	(.1610355)	(.0914102)	(.087122)	(.0371349)	(.0497114)	(.0287082)	(.0708196)	(.0398116)	(.088144)	(.0376834)	(.0514232)	(.0282808)	(.1316125)	(.0611607)	(.1477733)	(.0548425)	(.2047828)	(.1155467)	(.4010373)	(.2493735)
	-1.10	-15.23	1.50	-0.95	0.86	-2.93	-1.49	-0.17	1.35	-0.22	0.56	1.37	-1.65	-2.01	-0.29	-2.68	0.01	-0.69	0.56	-3.74	0.89	-1.77	-1.24	-0.81
15-24 years																								
	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
25-34 years																								
	.7016798***	.8607388***	-.1959784	.6344804***	.0981559	.4130449**	-.2155814*	.0245171	.003563	.0245171	.0485508	.0183058	-.0521444	-.0298325	-.000356	-.0298325	.0266094	-.0581438	-.3864801*	-.438671***	.8393893*	-.438671	1.344605**	-.9075476
	(.196481)	(.0290781)	(.2249355)	(.204738)	(.3072259)	(.1983832)	(.1111297)	(.0566438)	(.0756979)	(.0398058)	(.112052)	(.0533305)	(.1114904)	(.056999)	(.0792799)	(.0356106)	(.1373718)	(.0693906)	(.2204314)	(.0991547)	(.4631653)	(.4809592)	(.6459324)	(.9637893)
	3.57	29.60	-0.87	3.10	0.32	2.08	-1.94	0.43	0.05	0.62	0.43	0.34	-0.47	-0.52	-0.00	-0.84	0.19	-0.84	-1.75	-4.42	1.81	-0.91	2.08	-0.94
35-49 years																								
	.8964723***	1.312469***	-.9126962***	.1677788	-.5817383*	.6361917***	-.2609956**	.0166934	-.022554	.0166934	.0451655	.0170069	.0930631	-.023184	-.0245261	-.023184	.0076439	-.0381897	-.2474701	-.4043459***	.808209	-.4043459	1.347192*	-1.001293
	(.1939925)	(.0287192)	(.2548298)	(.2155617)	(.3334946)	(.1991385)	(.1099322)	(.0557339)	(.0779187)	(.0394207)	(.1121885)	(.0529628)	(.1103135)	(.0560763)	(.0811206)	(.0348197)	(.1428314)	(.0676327)	(.2179247)	(.0976269)	(.4924872)	(.4832138)	(.7041542)	(.9671766)
	4.62	45.70	-3.58	0.78	-1.74	3.19	-2.37	0.30	-0.29	0.42	0.40	0.32	0.84	-0.41	-0.30	-0.67	0.05	-0.56	-1.14	-4.14	1.64	-0.84	1.91	-1.04
50-64 years																								
	2.202807***	2.715191***	-1.114552***	.2288658	-.8264465**	1.247514***	-.1577165	.0170331	-.0318404	.0170331	-.0019866	.0357106	.0483341	-.0226774	-.0422265	-.0226774	-.0448124	-.0362196	-.2468709	-.2092162**	.7065894	-.2092162	1.234739*	-.7197281
	(.2019572)	(.0292466)	(.2937088)	(.2463239)	(.3652402)	(.2090382)	(.1134478)	(.0558357)	(.0794872)	(.0392937)	(.1116819)	(.0525268)	(.113686)	(.0561317)	(.0818895)	(.0347162)	(.1428618)	(.0671722)	(.2218845)	(.0976782)	(.5145751)	(.4856633)	(.7231899)	(.9698927)
	10.91	92.84	-3.79	0.93	-2.26	5.97	-1.39	0.31	-0.40	0.43	-0.02	0.68	0.43	-0.40	-0.52	-0.65	-0.31	-0.54	-1.11	-2.14	1.37	-0.43	1.71	-0.74
65 years and more																								
	3.312291***	4.102029***	-.9878579***	.4914445*	-.8009035**	1.832294***	-.2239768	.0089026	-.0271734	.0089026	-.0107826	.0513298	.0446368	-.0356924	-.068619	-.0356924	-.0319153	-.0409579	-.1055972	-.0088164	.6530168	-.0088164	1.111883	-.4798257
	(.2609225)	(.0332391)	(.3246096)	(.2727441)	(.3878842)	(.2581642)	(.1409557)	(.0587866)	(.0811279)	(.0404682)	(.1124456)	(.0536001)	(.1405879)	(.0590027)	(.0835545)	(.0359406)	(.1446944)	(.0683321)	(.2610407)	(.1014486)	(.5403134)	(.4944046)	(.7515541)	(.9747758)
	12.69	123.41	-3.04	1.80	-2.06	7.10	-1.59	0.15	-0.33	0.22	-0.10	0.96	0.32	-0.60	-0.82	-0.99	-0.22	-0.60	-0.40	-0.09	1.21	-0.02	1.48	-0.49
Social-Professional Category																								
Farmer																								
	-1.24027***	-1.203437***	-.4111076	-.4776331	-.9500555	-.6551477*	.0523936	.0389901	-.0769935	.0389901	-.2325327	.0625534	-.3024555	.0334516	.2145759	.0334516	.6166519**	.1200035***	.1367082	.2137994***	-.6503605	.2137994	-2.199826	.2832249
	(.4021063)	(.0336245)	(.5768058)	(.4996946)	(.6184541)	(.3956702)	(.2026851)	(.0489412)	(.133394)	(.0426839)	(.1854314)	(.0473002)	(.1999036)	(.0496924)	(.1553567)	(.0305813)	(.3076384)	(.0461923)	(.3248528)	(.0678078)	(1.240995)	(.2049657)	(1.577617)	(.2692511)
	-3.08	-35.79	-0.71	-0.96	-1.54	-1.66	0.26	0.80	-0.58	0.91	-1.25	1.32	-1.51	0.67	1.38	1.09	2.00	2.60	0.42	3.15	-0.52	1.04	-1.39	1.05
Craftsmen-Traders-Contractor																								
	-.478046*	-.5799567***	.0456771	.0250553	.2028326	-.2228254	-.0319945	.0307952	.106278*	.0307952	.0804306	-.0552014	.0551075	-.0253435	-.1588716**	-.0253435	-.1663923	.002942	.2542812	.0297096	-.4538974	.0297096	-.3594523	-.0839955
	(.2542709)	(.0248209)	(.2756873)	(.262976)	(.3278747)	(.242473)	(.1311114)	(.0382259)	(.0621174)	(.0251661)	(.0637416)	(.0352868)	(.1308216)	(.0369676)	(.0657805)	(.023467)	(.1182784)	(.0371143)	(.2128258)	(.0551015)	(.4667089)	(.1841389)	(.6443331)	(.2386827)
	-1.88	-23.37	0.17	0.10	0.62	-0.92	-0.24	0.81	1.71	1.22	1.26	-1.56	0.42	-0.69	-2.42	-1.08	-1.41	0.08	1.19	0.54	-0.97	0.16	-0.56	-0.35
Higher professions																								
	-.2783303**	-.1593931***	-.1152001	-.1716699	-.1570717	.0698167	.1072841	.0400864	.0003454	.0400864**	.009183	-.0144034	.0133771	-.0072326	-.0244704	-.0072326	-.0092535	-.0354213	.0344246	.006541	-.1560002	.006541	-.3873983	-.0618462
	(.1402467)	(.0158978)	(.1665794)	(.1562626)	(.1940361)	(.1524586)	(.0730985)	(.0258688)	(.0397758)	(.0189616)	(.0476757)	(.0226406)	(.0730392)	(.0255257)	(.0385622)	(.016586)	(.0662661)	(.0285156)	(.1199721)	(.037189)	(.2891938)	(.113702)	(.4370425)	(.1685239)
	-1.98	-10.03	-0.69	-1.10	-0.81	0.46	1.47	1.55	0.01	2.11	0.19	-0.64	0.18	-0.28	-0.63	-0.44	-0.14	-1.24	0.29	0.18	-0.54	0.06	-0.89	-0.37
Intermediate occupations																								
	-.2601026**	-.2766439***	-.0306706	-.0622157	-.0063342	-.1358553	.0447295	.021007	.0237768	.021007	-.0051799	.0210836	.0139637	-.0157862	-.0396569	-.0157862	-.0287405	-.0355755*	-.0577081	-.0178216	.0340964	-.0178216	-.1281429	.0018445
	(.1232504)	(.0127319)	(.1346973)	(.1306511)	(.1551124)	(.1271714)	(.0635158)	(.0199283)	(.0290075)	(.0143023)	(.0351841)	(.0174787)	(.0631796)	(.0197555)	(.0274012)	(.0121765)	(.0427589)	(.0197783)	(.1042216)	(.0286969)	(.2389873)	(.0873054)	(.3627889)	(.1267733)
	-2.11	-21.73	-0.23	-0.48	-0.04	-1.07	0.70	1.05	0.82	1.47	-0.15	1.21	0.22	-0.80	-1.45	-1.30	-0.67	-1.80	-0.55	-0.62	0.14	-0.20	-0.35	0.01
Employee																								
	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Skilled worker																								
	-.1656009	-.3911353***	-.0080974	-.0002223	-.0023523	-.2268178	.1071318	.0111572	.0379362	.0111572	.0416389	.0001881	-.073769	-.0201754	-.0429004	-.0201754	-.0314656	-.0012466	-.1910155	-.0554538	-.4451265*	-.0554538	-.7195389**	-.0320033
	(.1455542)	(.0155608)	(.1931952)	(.1831856)	(.2195984)	(.1643926)	(.0752957)	(.0234428)	(.0355677)	(.0151428)	(.0439836)	(.0193904)	(.0749782)	(.0233376)	(.0380125)	(.0139417)	(.0638994)	(.0238198)	(.1258165)	(.0340128)	(.2571581)	(.1148122)	(.3409427)	(.1526379)
	-1.14	-25.14	-0.04	-0.00	-0.01	-1.38	1.42	0.48	1.07	0.74	0.95	0.01	-0.98	-0.86	-1.13	-1.45	-0.49	-0.05	-1.52	-1.63	-1.73	-0.48	-2.11	-0.21
Unskilled worker																								
	-.1224427	-.4519472***	.136552	.1475314	.0571864	-.3014013	.1575587	-.0061609	-.0056538	-.0061609	.0191597	-.0059442	-.1166535	.0115891	-.025223	.0115891	-.0359074	.0634795**	.1488007	-.0251793	-.4643498	-.0251793	-.6999029*	.0133206
	(.2122927)	(.0223839)	(.2351064)	(.2261892)	(.2656061)	(.1929733)	(.1113062)	(.0337057)	(.042641)	(.0243702)	(.0514355)	(.0267829)	(.1102973)	(.0335244)	(.0411455)	(.0184259)	(.0691686)	(.0299281)	(.1836636)	(.0500651)	(.2923661)	(.2091508)	(.396346)	(.2827358)
	-0.58	-20.19	0.58	0.65	0.22	-1.56	1.42	-0.18	-0.13	-0.25	0.37	-0.22	-1.06	0.35	-0.61	0.63	-0.52	2.12	0.81	-0.50	-1.59	-0.12	-1.77	0.05
Pensioner																								
	1.299267**	-.1854954***	.016602	.313656	.0257572	-.2193756	-.3053583	-.029607	-.0161304	-.029607	.0503978	-.0421157	-.3874976	-.0530921	-.0845752	-.0530921	-.1213808	-.0565122	.0606516	-.4084142***	-.550453	-.4084142	-.9579826	-.5890908
	(.5910394)	(.0588613)	(.4589013)	(.4464613)	(.4495739)	(.4864696)	(.2973319)	(.0783559)	(.0669286)	(.0409557)	(.0914315)	(.0510169)	(.2888231)	(.0756404)	(.0664321)	(.0398915)	(.0980991)	(.0586273)	(.4137391)	(.1002813)	(.4962615)	(.4040389)	(.6335893)	(.4694759)
	2.20	-3.15	0.04	0.70	0.06	-0.45	-1.03	-0.38	-0.24	-0.72	0.55	-0.83	-1.34	-0.70	-1.27	-1.33	-1.24	-0.96	0.15	-4.07	-1.11	-1.01	-1.51	-1.25
Student																								
	-.1543395	-1.937706***	-.468907	-1.039333**	-.4886835	-1.081904**	-.3728876	-.0025561	.031919	-.0025561	.0353481	-.0281674	-.3186284	-.0232542	-.0511303	-.0232542	-.2247484	-.0410819	-.2152893	-.5136463***	-.4998912	-.5136463	-.8213647	-1.051963
	(.6086337)	(.0633872)	(.4869178)	(.4488834)	(.5869019)	(.4855548)	(.3089089)	(.0959037)	(.0992925)	(.0580093)	(.1317772)	(.0752948)	(.3024222)	(.0941553)	(.098752)	(.0545808)	(.1798847)	(.0958117)	(.4489226)	(.1393164)	(.7266882)	(.6148308)	(1.216854)	(1.05517)
	-0.25	-30.35	-0.96	-2.32	-0.83	-2.23	-1.21	-0.03	0.32	-0.04	0.27	-0.37	-1.05	-0.25	-0.52	-0.43	-1.25	-0.43	-0.48	-3.69	-0.69	-0.84	-0.67	-1.00
Other inactive																								
	.6181001	-.5796445***	-.1088681	.0174211	-.0775174	-.4130438	-.2362714	-.0496321	-.0510059	-.0496321	-.0338828	-.0757949	-.3960754	-.0602973	-.0848374	-.0602973	-.0733953	-.04294	.0073844	-.2518434**	.0984503	-.2518434	-.1886897	-.3775014
	(.5844511)	(.0586793)	(.4088433)	(.4030543)	(.4131677)	(.4886704)	(.2939538)	(.0782555)	(.0679868)	(.041884)	(.0908881)	(.0515311)	(.2850988)	(.0754513)	(.0665079)	(.0400586)	(.0990375)	(.058741)	(.4065305)	(.1001569)	(.4879322)	(.4092038)	(.6538575)	(.4784909)
	1.06	-9.88	-0.27	0.04	-0.19	-0.85	-0.80	-0.63	-0.75	-1.18	-0.37	-1.47	-1.39	-0.80	-1.28	-1.51	-0.74	-0.73	0.02	-2.51	0.20	-0.62	-0.29	-0.79

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

TABLE B.2 – Continued (2) : Control variables - Estimator comparison - Time spent watching ad from free public channel

	Static						$t-(t-1)$						$t-(t-7)$						$t-(t-365)$					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)
	(BE1)	(MCO1)	(FE1)	(RE1)	(AFE1)	(ARE1)	(BE2)	(MCO2)	(FE2)	(RE2)	(AFE2)	(ARE2)	(BE3)	(MCO3)	(FE3)	(RE3)	(AFE3)	(ARE3)	(BE4)	(MCO4)	(FE4)	(RE4)	(AFE4)	(ARE4)
Average weekly working time																								
Unemployed person who has already worked																								
	.4562341**	1.521762***	.326078	.3843566*	.324612	.9740475***	.0100273	-.0260827	-.0756205**	-.0260827	-.0209551	.00948	.0203454	-.0025632	-.0065939	-.0025632	.0426205	.0157971	-.4713215**	-.5360968***	-.0346711	-.5360968**	.0388767	-.52967*
	(.1925293)	(.0268228)	(.2126661)	(.2146649)	(.2642029)	(.2816303)	(.1007112)	(.0359638)	(.0373072)	(.0261856)	(.0501775)	(.026283)	(.1004771)	(.0350389)	(.0364511)	(.0224664)	(.0598565)	(.0297161)	(.1910656)	(.0599174)	(.2629374)	(.2360738)	(.3678286)	(.2787773)
	2.37	56.73	1.53	1.79	1.23	3.46	0.10	-0.73	-2.03	-1.00	-0.42	0.36	0.20	-0.07	-0.18	-0.11	0.71	0.53	-2.47	-8.95	-0.13	-2.27	0.11	-1.90
People looking for a first job																								
	-.1507802	.6307813***	-.2758687	-.403966	-.4999625	.3329241	-1.062494***	.0203515	-.0809349	.0203515	-.0772491	-.0440033	.3737184	-.0918902	.1206465	-.0918902	.6562933	-.0619469	-.2106929	-.0262946	-.4570881	-.0262946	-.155004	-.5407553
	(.8093625)	(.0944231)	(.5299754)	(.5147946)	(.6297259)	(.6076077)	(.4101656)	(.1614142)	(.1380721)	(.0874712)	(.1870474)	(.122194)	(.4077419)	(.157088)	(.1725538)	(.0733821)	(.399391)	(.1947648)	(.758103)	(.258651)	(.6013966)	(1.013153)	(.8160319)	(1.701781)
	-0.19	6.68	-0.52	-0.78	-0.79	0.55	-2.59	0.13	-0.59	0.23	-0.41	-0.36	0.92	-0.58	0.70	-1.25	1.64	-0.32	-0.28	-0.10	-0.76	-0.03	-0.19	-0.32
Full-time worker																								
	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Part-time worker : 0-9h59 per week																								
	-.3184358	1.222928***	.4673115	.5947876	.4196228	.6553905	-.0496259	.0037067	-.0531578	.0037067	-.0624196	-.0187446	-.0131621	-.0349961	-.0398914	-.0349961	-.0872547	-.0243809	.3396118	.1172454	-.0013619	.1172454	.0918476	.2054207
	(.6287624)	(.0621508)	(.3835212)	(.4005449)	(.3874279)	(.8438233)	(.314899)	(.0706945)	(.061997)	(.0381302)	(.0767697)	(.0444531)	(.3061563)	(.06576)	(.0697124)	(.0343452)	(.0880327)	(.0433007)	(.4218818)	(.093566)	(.4822908)	(.3232603)	(.6324238)	(.3057026)
	-0.51	19.68	1.22	1.48	1.08	0.78	-0.16	0.05	-0.86	0.10	-0.81	-0.42	-0.04	-0.53	-0.57	-1.02	-0.99	-0.56	0.80	1.25	-0.00	0.36	0.15	0.67
Part-time worker : 10h-19h59 per week																								
	.1632771	.4066869***	-.0659714	.0068089	-.0675978	.1260122	.1310657	-.0072967	-.0058132	-.0072967	-.0798708	.0185079	-.2424786	.0032133	-.0363328	.0032133	-.0906887	-.0591451	-.1327758	-.2494359***	-.5350979**	-.2494359	-.4773324	-.2803571
	(.3117499)	(.0295899)	(.1758841)	(.1730362)	(.1819047)	(.2509805)	(.1619052)	(.0428684)	(.0421037)	(.0247502)	(.0521577)	(.0308767)	(.1576891)	(.0419506)	(.0497722)	(.0276863)	(.0729345)	(.0401367)	(.250726)	(.06011)	(.2632613)	(.1603321)	(.3239595)	(.1800815)
	0.52	13.74	-0.38	0.04	-0.37	0.50	0.81	-0.17	-0.14	-0.29	-1.53	0.60	-1.54	0.08	-0.73	0.12	-1.24	-1.47	-0.53	-4.15	-2.03	-1.56	-1.47	-1.56
Part-time worker : 20h-29h59 per week																								
	.2348156	.1775542***	-.1536018	-.1198523	-.1175414	.1928107	.0441769	.02843	-.0325808	.02843	-.053246	.0127686	-.0202434	.0147859	.0190171	.0147859	.0358636	.0123041	-.0215036	.0349956	-.3174862	.0349956	-.2708641	.0903748
	(.1994032)	(.0199864)	(.1678337)	(.1643287)	(.2030738)	(.1788852)	(.101787)	(.030649)	(.0330886)	(.0207478)	(.0431329)	(.0241061)	(.1014388)	(.0297537)	(.0322766)	(.0165462)	(.0512928)	(.0267881)	(.1615603)	(.0424839)	(.2726146)	(.1599184)	(.4168414)	(.2216001)
	1.18	8.88	-0.92	-0.73	-0.58	1.08	0.43	0.93	-0.98	1.37	-1.23	0.53	-0.20	0.50	0.59	0.89	0.70	0.46	-0.13	0.82	-1.16	0.22	-0.65	0.41
Part-time worker : 30h-34h59 per week																								
	-.4503915*	-.5217363***	-.3885154**	-.3595680**	-.311079	-.320276**	.1092171	.0378518	.0353716	.0378518	-.0497785	.0419016	.051719	.0065171	.0166878	.0065171	.0283741	.0069964	-.0484261	-.0836419	-.2004226	-.0836419	-.0391862	.0098802
	(.2367185)	(.0215922)	(.1663703)	(.1609381)	(.2012922)	(.1503906)	(.1213615)	(.0359353)	(.0382008)	(.024464)	(.0482134)	(.0330168)	(.1207693)	(.0353725)	(.0378846)	(.0218105)	(.0639033)	(.0349535)	(.2099131)	(.0522865)	(.2735602)	(.1252203)	(.4309328)	(.1847629)
	-1.90	-24.16	-2.34	-2.23	-1.55	-2.13	0.90	1.05	0.93	1.55	-1.03	1.27	0.43	0.18	0.44	0.30	0.44	0.20	-0.23	-1.60	-0.73	-0.67	-0.09	0.05
Other inactive																								
	-.0452067	1.551009***	.1394606	.2363745	.0516583	.8924769*	.3648703	.0586422	.0116541	.0586422	-.0338729	.0589757	.3694743	.0494788	.0256068	.0494788	.0483353	.042204	-.0232459	.1969136**	-.3695226	.1969136	-.2707897	.336842
	(.5703205)	(.0564735)	(.3483819)	(.3491747)	(.3480584)	(.4576268)	(.2861802)	(.0756857)	(.0617323)	(.0398457)	(.0917422)	(.0497864)	(.277458)	(.0730528)	(.0589908)	(.0380674)	(.0871228)	(.0563995)	(.3881766)	(.095821)	(.3993622)	(.3962983)	(.5335011)	(.4662178)
	-0.08	27.46	0.40	0.68	0.15	1.95	1.27	0.77	0.19	1.47	-0.37	1.18	1.33	0.68	0.43	1.30	0.55	0.75	-0.06	2.06	-0.93	0.50	-0.51	0.72
Gross monthly household income																								
Less than 600 euros																								
	-.365597	-.4465558***	.0928676	.0913864	.1046058	-.2641199	-.2288609	-.0068436	-.0476303	-.0068436	-.0708355	-.00635	-.0116263	-.0457075	-.0222256	-.0457075	.0209663	-.038021	-.1854041	-.0987909	.7535563	-.0987909	.8599771	-.1281915
	(.3373412)	(.0505999)	(.4114153)	(.4019865)	(.4009324)	(.4389199)	(.1769292)	(.0555305)	(.0481861)	(.0298455)	(.0511173)	(.0370776)	(.1799086)	(.0527653)	(.0454827)	(.0280461)	(.0490723)	(.0323628)	(.3351596)	(.0829803)	(.5791155)	(.3227812)	(.6958081)	(.3832421)
	-1.08	-8.83	0.23	0.23	0.26	-0.60	-1.29	-0.12	-0.99	-0.23	-1.39	-0.17	-0.06	-0.87	-0.49	-1.63	0.43	-1.17	-0.55	-1.19	1.30	-0.31	1.24	-0.33
From 600 to 900 euros																								
	.4907913*	1.072449***	-.1970329	-.1795782	-.1235662	.4807956*	.0698721	.0277047	.0350101	.0277047	.0433424	-.0082187	.2970777**	.0055411	.0143546	.0055411	.0580229**	.0387659*	-.1981092	.0038181	.2126112	.0038181	.3805421	-.0766165
	(.2643738)	(.0319255)	(.2657389)	(.2644616)	(.2473908)	(.2573009)	(.1357972)	(.0354373)	(.0257412)	(.0217974)	(.0280238)	(.0265091)	(.1363155)	(.0338032)	(.0251347)	(.0170264)	(.0289567)	(.0200104)	(.2453453)	(.0531488)	(.3408921)	(.2168591)	(.3549042)	(.2218145)
	1.86	33.59	-0.74	-0.68	-0.50	1.87	0.51	0.78	1.36	1.27	1.55	-0.31	2.18	0.16	0.57	0.33	2.00	1.94	-0.81	0.07	0.62	0.02	1.07	-0.35
From 900 to 1200 euros																								
	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
From 1200 to 1500 euros																								
	-.3560587*	-.2159283***	-.0111557	-.0335946	.0033855	-.0661261	.074808	.0382819	.0462604***	.0382819***	.0198835	.0092689	-.0309663	.0007053	.0082474	.0007053	.0435939	.0225677	-.3660967**	-.1141435***	-.0639016	-.1141435	-.0376944	-.119406
	(.2028959)	(.0227662)	(.1772886)	(.175006)	(.1729326)	(.2087297)	(.1042688)	(.0263272)	(.0171473)	(.013794)	(.0193462)	(.0152384)	(.104874)	(.0253005)	(.0207193)	(.0130109)	(.0265962)	(.0167482)	(.1824167)	(.0384852)	(.2365288)	(.1616715)	(.2567849)	(.1694516)
	-1.75	-9.48	-0.06	-0.19	0.02	-0.32	0.72	1.45	2.70	2.78	1.03	0.61	-0.30	0.03	0.40	0.05	1.64	1.35	-2.01	-2.97	-0.27	-0.71	-0.15	-0.70
From 1500 to 2300 euros																								
	-.3871659**	-.7007787***	.0380414	-.0071968	-.009774	-.3619497*	-.0481465	.0298556	.0243365	.0298556***	.0289054	.0139981	-.1229504	-.0022631	.0183259	-.0022631	.0710265**	.0194361	-.2777383*	-.1757001***	-.0771173	-.1757001	-.0787861	-.2185672
	(.1666095)	(.0195806)	(.1694008)	(.1648875)	(.1661118)	(.1908168)	(.0861337)	(.0228344)	(.0184396)	(.0112515)	(.0209749)	(.0125212)	(.0864092)	(.0219804)	(.0213094)	(.0111299)	(.0288356)	(.0146823)	(.1498269)	(.0331232)	(.2287541)	(.1393214)	(.2511862)	(.1436646)
	-2.32	-35.79	0.22	-0.04	-0.06	-1.90	-0.56	1.31	1.32	2.65	1.38	1.12	-1.42	-0.10	0.86	-0.20	2.46	1.32	-1.85	-5.30	-0.34	-1.26	-0.31	-1.52
From 2300 to 3000 euros																								
	-.876757***	-1.15447***	.0654186	-.0133317	.0400202	-.5724145***	.0147128	.0303895	.0345078	.0303895**	.0194727	-.0107198	-.0513592	.0081488	.0213413	.0081488	.071175**	.0330684**	-.1319	-.0987272***	-.0958331	-.0987272	-.0780215	-.1291877
	(.1689276)	(.0198865)	(.1765297)	(.1707321)	(.1750693)	(.1987588)	(.0871833)	(.02369)	(.0211482)	(.0119038)	(.0243988)	(.013206)	(.0874135)	(.022769)	(.0235147)	(.0117897)	(.0323352)	(.0156952)	(.1514088)	(.0343014)	(.2421806)	(.1420359)	(.2737601)	(.1494824)
	-5.19	-58.05	0.37	-0.08	0.23	-2.88	0.17	1.28	1.63	2.55	0.80	-0.81	-0.59	0.36	0.91	0.69	2.20	2.11	-0.87	-2.88	-0.40	-0.70	-0.28	-0.86
From 3000 to 4500 euros																								
	-1.020942***	-1.563482***	-.0947862	-.1918565	-.104875	-.827212***	.054385	.0400909*	.0336174	.0400909***	.0323037	.0036499	-.1205512	.0120265	.0263425	.0120265	.0880624**	.0351857**	-.2226301	-.0970325***	-.0524815	-.0970325	.0378695	-.0844113
	(.1669315)	(.019676)	(.1838156)	(.176781)	(.1837863)	(.1896896)	(.0863397)	(.0238591)	(.0233976)	(.0124904)	(.0271994)	(.0140131)	(.0867497)	(.0230665)	(.0257404)	(.0122384)	(.0367452)	(.0166495)	(.1502295)	(.0345851)	(.2464581)	(.1394216)	(.281789)	(.1474429)
	-6.12	-79.46	-0.52	-1.09	-0.57	-4.36	0.63	1.68	1.44	3.21	1.19	0.26	-1.39	0.52	1.02	0.98	2.40	2.11	-1.48	-2.81	-0.21	-0.70	0.13	-0.57
From 4500 to 7000 euros																								
	-1.228452***	-1.436316***	-.080138	-.1971498	-.0630374	-.6952153***	.0407992	.0442048	.0087132	.0442048***	.0500907	.0089326	-.0745525	.021359	.0403579	.021359	.1086392**	.0320858	-.2277334	-.2134736***	.0229439	-.2134736	.1676273	-.2396399
	(.1828852)	(.0216434)	(.1942584)	(.1860612)	(.2020706)	(.2053414)	(.0951313)	(.028308)	(.0286018)	(.016277)	(.0358012)	(.0186003)	(.0956479)	(.0277306)	(.0326673)	(.0161622)	(.0486358)	(.0240312)	(.1638528)	(.0412253)	(.2826391)	(.1535103)	(.3543176)	(.1768041)
	-6.72	-66.36	-0.41	-1.06	-0.31	-3.39	0.43	1.56	0.30	2.72	1.40	0.48	-0.78	0.77	1.24	1.32	2.23	1.34	-1.39	-5.18	0.08	-1.39	0.47	-1.36
More than 7000 euros																								
	-1.804257***	-1.888255***	-.1914623	-.3367288*	-.1572882	-.8892037***	-.0847355	.0463836	.0626976	.0463836	.1524786**	.0049754	.0947086	.038347	-.0022866	.038347	.0353947	.0318264	.0798442	-.1354643**	.2406091	-.1354643	.5390708	-.2073084
	(.2503831)	(.0296405)	(.21008)	(.2009883)	(.225843)	(.248133)	(.1331756)	(.0459617)	(.0531045)	(.0298944)	(.0653858)	(.0342907)	(.1329231)	(.0456805)	(.05095)	(.027556)	(.0956967)	(.0498674)	(.2279409)	(.0649877)	(.3908482)	(.2167061)	(.5699986)	(.3322508)
	-7.21	-63.71	-0.91	-1.68	-0.70	-3.58	-0.64	1.01	1.18	1.55	2.33	0.15	0.71	0.84	-0.04	1.39	0.37	0.64	0.35	-2.08	0.62	-0.63	0.95	-0.62

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

TABLE B.2 – Continued (3) : Control variables - Estimator comparison - Time spent watching ad from free public channel

	Static						$t-(t-1)$						$t-(t-7)$						$t-(t-365)$					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)
	(BE1)	(MCO1)	(FE1)	(RE1)	(AFE1)	(ARE1)	(BE2)	(MCO2)	(FE2)	(RE2)	(AFE2)	(ARE2)	(BE3)	(MCO3)	(FE3)	(RE3)	(AFE3)	(ARE3)	(BE4)	(MCO4)	(FE4)	(RE4)	(AFE4)	(ARE4)
Regions																								
Ile-de-France	-.0667476	-.1148852***	-.710303	-.6383243*	-.8269091*	.0385427	.0039368	.0104334	.0670613	.0104334	.03849	-.0101867	-.0981822	-.0088932	.0561272	-.0088932	-.0132297	-.0346475	-.1025718	-.1181417***	-1.944557***	-.1181417	-2.390697***	-.031878
	(.1469313)	(.0170162)	(.4658643)	(.3258415)	(.497561)	(.2017707)	(.0739333)	(.0241325)	(.0747427)	(.015255)	(.1003114)	(.0176004)	(-1.32	(-0.37	(0.65	(-0.63	(-0.12	(-1.52	(.1240498)	(.0344315)	(.6660625)	(.1301978)	(.6317931)	(.1568902)
	-0.45	-6.75	-1.52	-1.96	-1.66	0.19	0.05	0.43	0.90	0.68	0.38	-0.58							-0.83	-3.43	-2.92	-0.91	-3.78	-0.20
Champagne-Ardenne	-.2946422	-.6180535***	1.783761*	1.300464*	2.11012*	-.3028683	-.1859627*	-.0233556	-.0199255	-.0233556	.0685874	-.0124414	-.0524454	-.0016866	-.0088237	-.0016866	-.0316914	-.0142014	.1975508	.0672563	2.017614	.0672563	2.978162	.1555069
	(.2205847)	(.0235643)	(1.059445)	(.75507)	(1.244195)	(.2535132)	(.1102549)	(.0330249)	(.1194079)	(.0238321)	(.1865027)	(.0281183)	(-0.47	(-0.05	(-0.07	(-0.08	(-0.14	(-0.44	(.1841602)	(.0463638)	(2.253355)	(.1753011)	(2.778523)	(.2150221)
	-1.34	-26.23	1.68	1.72	1.70	-1.19	-1.69	-0.71	-0.17	-0.98	0.37	-0.44							1.07	1.45	0.90	0.38	1.07	0.72
Picardie	-.1377611	-.9252207***	1.074338*	.5435775	1.309576*	-.5192124**	-.1033934	.0070266	.0081138	.0070266	-.0649465	.0133644	-.0469578	-.0188945	.0241548	-.0188945	-.0641365	-.0512767*	.0611385	-.1348901***	.4933319	-.1348901	.3587092	-.0679034
	(.1939982)	(.0216942)	(.6212834)	(.3797354)	(.675329)	(.2295202)	(.0980125)	(.0316621)	(.1214034)	(.0220339)	(.1440823)	(.0252153)	(-0.48	(-0.61	(0.21	(-1.07	(-0.41	(-1.79	(.1645635)	(.046074)	(.8975944)	(.1503279)	(.1152445)	(.1917744)
	-0.71	-42.65	1.73	1.43	1.94	-2.26	-1.05	0.22	0.07	0.32	-0.45	0.53							0.37	-2.93	0.55	-0.85	0.31	-0.35
Haute-Normandie	.5489764***	.8528235***	-2.075941***	-1.477612***	-1.781058***	.5196511	-.142085	-.0210185	2.751634**	-.0210185	4.329767***	-.0404172	-.1727764*	-.0396412	-.1170584	-.0396412**	.0712069	-.0516605*	.0343119	.0691194	-.662114	.0691194	1.194668	.1287595
	(.2062887)	(.0252005)	(.6355555)	(.4453378)	(.6482325)	(.3160173)	(.1041932)	(.0346227)	(.1131)	(.0201864)	(.1664152)	(.0254187)	(-1.66	(-1.16	(-0.91	(-2.08	(0.37	(-1.85	(.1793437)	(.0499683)	(1.038259)	(.202894)	(1.242037)	(.2453422)
	2.66	33.84	-3.27	-3.32	-2.75	1.64	-1.36	-0.61	2.43	-1.04	2.60	-1.59							0.19	1.38	-0.64	0.34	0.96	0.52
Centre	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Basse-Normandie	.5821318***	1.081915***	.6465437	.2762907	.4268262	.7248045	-.0667385	.0070571	-.0501536	.0070571	-.0671822	-.0191083	.0823175	.0034422	.0747729	.0034422	-.2677161	.0308225	.1389961	.1238899**	-1.868173*	.1238899	-2.885132***	.1392672
	(.2252225)	(.0313187)	(.5497061)	(.3746436)	(.7256436)	(.5184088)	(.112221)	(.0401399)	(.2405476)	(.0223713)	(.2332665)	(.0282535)	(.1122381)	(.0377794)	(.1292486)	(.0201084)	(.2016714)	(.0296698)	(.18531)	(.0594588)	(1.070339)	(.2061476)	(1.077104)	(.2358731)
	2.58	34.55	1.18	0.74	0.59	1.40	-0.59	0.18	-0.21	0.32	-0.29	-0.68	0.73	0.09	0.58	0.17	-1.33	1.04	0.75	2.08	-1.75	0.60	-2.68	0.59
Bourgogne	-.1739196	.0755482***	-.7311319	-.527071	-.5509042	.1136079	-.0272547	.0043469	.1113571	.0043469	.3393943	-.0262316	-.0702391	-.0254341	-.1046419	-.0254341	-.1082705	-.0518287*	-.0035402	-.0075418	-1.213639	-.0075418	-1.021604	.0404868
	(.2131929)	(.024448)	(.6397796)	(.4595488)	(.6796038)	(.3496289)	(.1064063)	(.0327202)	(.1365316)	(.0199553)	(.210755)	(.0224461)	(.1061635)	(.0317621)	(.1155882)	(.0170092)	(.1552191)	(.0273474)	(.1733123)	(.0459289)	(.8229559)	(.1673967)	(.8496828)	(.1987844)
	-0.82	3.09	-1.14	-1.15	-0.81	0.32	-0.26	0.13	0.82	0.22	1.61	-1.17	-0.66	-0.80	-0.91	-1.50	-0.70	-1.90	-0.02	-0.16	-1.47	-0.05	-1.20	0.20
Nord-Pas-de-Calais	.6236979***	.5139612***	-.6709539	-.0587671	-.8433482*	.2643727	-.1155278	-.0060451	-.0097373	-.0060451	.0587923	.0054535	-.0028384	.0035042	-.1295277	.0035042	.0151724	-.0064442	.062188	-.233835***	-1.374568*	-.233835	-1.963821*	-.2686875
	(.1701429)	(.0194312)	(.4441885)	(.249804)	(.4908078)	(.214623)	(.0839408)	(.028123)	(.1212208)	(.0169533)	(.1432365)	(.0199674)	(-0.03	(0.13	(-0.94	(0.22	(0.07	(-0.26	(.1405501)	(.0403514)	(.8336612)	(.143804)	(1.098008)	(.1679985)
	3.67	26.45	-1.51	-0.24	-1.72	1.23	-1.38	-0.21	-0.08	-0.36	0.41	0.27							0.44	-5.79	-1.65	-1.63	-1.79	-1.60
Lorraine	.0225836	-.3224293***	1.176373	.7269534	1.362996	-.2374927	-.1439472	-.0251349	.0382148	-.0251349	.1543124	-.0056091	-.0551048	.0028105	-.0111549	.0028105	-.0600609	-.0233365	.1125957	-.1622896***	-.3071804	-.1622896	-.2981694	-.0922424
	(.1941135)	(.0234192)	(1.1051)	(.7380736)	(1.076482)	(.2593289)	(.0988378)	(.0334736)	(.1113376)	(.0227139)	(.1120141)	(.0237722)	(-0.56	(0.09	(-0.10	(0.15	(-0.45	(-0.84	(.1674625)	(.0479308)	(.9471173)	(.176985)	(1.046549)	(.2175055)
	0.12	-13.77	1.06	0.98	1.27	-0.92	-1.46	-0.75	0.34	-1.11	1.38	-0.24							0.67	-3.39	-0.32	-0.92	-0.28	-0.42
Alsace	-.7767656***	-.9637371***	-.5543739	-.6344525	-.3385473	-.3930089	-.1008269	.0067833	.0684395	.0067833	.0520659	.0085973	-.0777484	-.0129838	.026301	-.0129838	-.0475169	-.0271179	-.029988	-.0467097	-.3739375	-.0467097	-.9730078	.0763616
	(.2059172)	(.0211781)	(.6875223)	(.473028)	(.7589212)	(.2585641)	(.0991635)	(.0300623)	(.1092594)	(.0187237)	(.1074343)	(.0221927)	(-0.79	(-0.44	(0.24	(-0.81	(-0.31	(-1.04	(.1642961)	(.0416033)	(.7265745)	(.1522714)	(.848033)	(.1894917)
	-3.77	-45.51	-0.81	-1.34	-0.45	-1.52	-1.02	0.23	0.63	0.36	0.48	0.39							0.41	-1.12	-0.51	-0.31	-1.15	0.40
Franche-Comté	-.6074078**	-.6943913***	-1.174475	-1.076597	-1.180595	-.2864797	-.2094208*	.0085942	.029643	.0085942	.0714247	-.004394	.0528572	.0178039	.0530122	.0178039	.1253235	-.0205594	.0534101	.0733926	1.167651	.0733926	1.453629	.2303843
	(.2506746)	(.0275385)	(2.381438)	(1.72162)	(2.248691)	(.3398389)	(.1153033)	(.0377875)	(.0913099)	(.0326228)	(.0938149)	(.0383593)	(.1148182)	(.0371811)	(.089216)	(.0213948)	(.125544)	(.0343908)	(.195149)	(.0533759)	(1.112508)	(.1697118)	(.9933756)	(.2016317)
	-2.42	-25.22	-0.49	-0.63	-0.53	-0.84	-1.82	0.23	0.32	0.26	0.76	-0.11	0.46	0.48	0.59	0.83	1.00	-0.60	0.27	1.38	1.05	0.43	1.46	1.14
Pays de la Loire	.2517452	.9862434***	.546332	.5323617	.8306816	.6364904**	-.1273321	-.0131041	.0624694	-.0131041	.1046526	-.0278316	-.0809106	-.0089896	-.1160554	-.0089896	-.1185154	-.0324137	-.138257	-.004874	1.649664**	-.004874	2.160859**	.0442054
	(.163669)	(.0209341)	(.8332564)	(.5651632)	(.8306697)	(.2730153)	(.0842813)	(.0283347)	(.0940227)	(.0179357)	(.1016428)	(.0215622)	(.0842721)	(.0279891)	(.105217)	(.0160498)	(.1445075)	(.0244487)	(.1407028)	(.0407161)	(.8248261)	(.1459521)	(.9076982)	(.1706579)
	1.54	47.11	0.66	0.94	1.00	2.33	-1.51	-0.46	0.66	-0.73	1.03	-1.29	-0.96	-0.32	-1.10	-0.56	-0.82	-1.33	-0.98	-0.12	2.00	-0.03	2.38	0.26
Bretagne	.2061053	-.2485389***	-.0932773	.1513812	-.2575903	-.1604848	-.0967458	-.0178581	-.0108097	-.0178581	-.0551501	-.0044818	-.0558784	.0070724	-.1134605	.0070724	-.1199219	.0053378	-.0215169	-.0225814	-.1865187	-.0225814	-.0270176	.0744847
	(.1800567)	(.0196084)	(.4486534)	(.3211651)	(.498057)	(.2305503)	(.0881328)	(.0271517)	(.0743771)	(.0193229)	(.0915209)	(.023407)	(.088119)	(.0268479)	(.1248167)	(.0158742)	(.1505895)	(.0246362)	(.1480215)	(.0384195)	(.6764329)	(.1537171)	(.7743555)	(.1852922)
	1.14	-12.68	-0.21	0.47	-0.52	-0.70	-1.10	-0.66	-0.15	-0.92	-0.60	-0.19	-0.63	0.26	-0.91	0.45	-0.80	0.22	-0.15	-0.59	-0.28	-0.15	-0.03	0.40
Poitou-Charentes	.2485523	.9393631***	.5830031	.8209518*	.4294768	.6735877*	-.1533025	-.0058027	.194785	-.0058027	.3685701**	-.009677	-.0402181	-.0041058	.1384523	-.0041058	.2470231	-.0042301	-.0656919	.1345718***	.8399891	.1345718	2.585081**	.2548666
	(.2044704)	(.0259338)	(.6163185)	(.4398013)	(.6592395)	(.3644175)	(.1019343)	(.0320935)	(.1271966)	(.0192396)	(.1728032)	(.0213757)	(.1026813)	(.0316672)	(.1201681)	(.0166861)	(.2073712)	(.0270348)	(.1689537)	(.0451703)	(1.09034)	(.1917522)	(1.312955)	(.2341303)
	1.22	36.22	0.95	1.87	0.65	1.85	-1.50	-0.18	1.53	-0.30	2.13	-0.45	-0.39	-0.13	1.15	-0.25	1.19	-0.16	-0.39	2.98	0.77	0.70	1.97	1.09
Aquitaine	.0085211	.4002575***	1.059729	.9231099*	1.048616	.1989403	-.0707266	-.0184456	.1197327	-.0184456	.2667199**	-.0255908	-.1020691	-.0169744	-.0225355	-.0169744	.2148734	-.0111604	.0915519	.0520785	-.5544386	.0520785	-.7500964	.1748161
	(.1965105)	(.0202646)	(.7224584)	(.5034824)	(.7708784)	(.2172515)	(.0870246)	(.0276791)	(.0935265)	(.0176862)	(.1113577)	(.018972)	(.0868824)	(.0275239)	(.0924128)	(.0162263)	(.1313732)	(.0246638)	(.143231)	(.0398269)	(.8965661)	(.1462483)	(.8215257)	(.1625325)
	0.04	19.75	1.47	1.83	1.36	0.92	-0.81	-0.67	1.28	-1.04	2.40	-1.35	-1.17	-0.62	-0.24	-1.05	1.64	-0.45	0.64	1.31	-0.62	0.36	-0.91	1.08
Midi-Pyrénées	.1083361	.2577743***	.2793257	.2959841	.3236876	.1053772	-.0315578	-.0036636	.0560525	-.0036636	.2260843**	-.0179832	-.0440075	-.003292	-.0800852	-.003292	-.0137077	-.0352454	-.0514288	-.0218377	-.6374098	-.0218377	-1.04603	.0089902
	(.1926671)	(.0209768)	(.5284119)	(.3389384)	(.6211949)	(.2243876)	(.091275)	(.0287365)	(.0944815)	(.0185303)	(.1137997)	(.0222994)	(.0916846)	(.0285041)	(.1113)	(.0163036)	(.1411364)	(.0248962)	(.1515682)	(.0405033)	(1.012344)	(.1480967)	(1.146287)	(.1735647)
	0.56	12.29	0.53	0.87	0.52	0.47	-0.35	-0.13	0.59	-0.20	1.99	-0.81	-0.48	-0.12	-0.72	-0.20	-0.10	-1.42	-0.34	-0.54	-0.63	-0.15	-0.91	0.05
Limousin	.0712171	-.8644911***	-.3095478	-.3172706	-.1576749	-.5212548*	-.1876613	-.0174403	.1529579	-.0174403	.3865647**	.0271639	-.1754558	.0157117	-.169736	.0157117	-.1138021	.0058221	.1202566	-.1818037***	.2109604	-.1818037	-.0888337	-.0932309
	(.286823)	(.0289701)	(1.034408)	(.7796796)	(.9450057)	(.3023124)	(.1422591)	(.0413957)	(.1563987)	(.0274313)	(.1597449)	(.0340129)	(.1430497)	(.0407321)	(.1485471)	(.0218476)	(.161635)	(.0335743)	(.2415599)	(.0589378)	(1.288531)	(.2310977)	(1.189529)	(.2634844)
	0.25	-29.84	-0.30	-0.41	-0.17	-1.72	-1.32	-0.42	0.98	-0.64	2.42	0.80	-1.23	0.39	-1.14	0.72	-0.70	0.17	0.50	-3.08	0.16	-0.79	-0.07	-0.35
Rhône-Alpes	-.5511795***	-.7375057***	.522106	.2059457	.6392041	-.3893572**	-.1453463*	-.0272188	.0043456	-.0272188	.2014883**	-.031514	-.043197	-.0002834	.0718162	-.0002834	.0955275	-.0057774	-.0760857	-.2130837***	.125115	-.2130837*	.4384966	-.1503136
	(.176551)	(.0175441)	(.6876889)	(.4778201)	(.7428839)	(.1904494)	(.077939)	(.0248665)	(.0807993)	(.0165565)	(.0945093)	(.0198657)	(.0778658)	(.024625)	(.0896121)	(.0141841)	(.1244136)	(.023256)	(.1304461)	(.0353486)	(.8593029)	(.1267129)	(.9825226)	(.1508171)
	-3.12	-42.04	0.76	0.43	0.86	-2.04	-1.86	-1.09	0.05	-1.64	2.13	-1.59	-0.55	-0.01	0.80	-0.02	0.77	-0.25	-0.58	-6.03	0.15	-1.68	0.45	-1.00
Auvergne	-.1398546	-.3170402***	.2089109	.0275387	.2266923	-.1403649	-.1478063	.0165502	.0570442	.0165502	.1328625	-.0017046	-.0507205	-.0028431	-.0058231	-.0028431	-.0947224	-.0035518	-.0022847	-.2656252***	-.5928029	-.2656252	-.226517	-.2891103
	(.2340539)	(.0267488)	(.6534875)	(.5056279)	(.6699252)	(.2882671)	(.1113449)	(.037621)	(.0993538)	(.021402)	(.1058506)	(.0239524)	(.1122365)	(.0362469)	(.1249795)	(.019231)	(.1667343)	(.0317239)	(.1885478)	(.0535771)	(1.251213)	(.1899336)	(.1348318)	(.2251358)
	-0.60	-11.85	0.32	0.05	0.34	-0.49	-1.33	0.44	0.57	0.77	1.26	-0.07	-0.45	-0.08	-0.05	-0.15	-0.57	-0.11	-0.01	-4.96	-0.47	-1.40	-0.17	-1.28
Languedoc-Roussillon	-.1192974	-.5743569***	1.150529	.8260053*	1.267925	-.3340383	-.0926017	.0106584	.2765987*	.0106584	.1984257	.0207933	-.0948941	.0010828	.1899932	.0010828	.0090372	-.0002669	.1852173	-.2767353***	1.246652	-.2767353*	1.217946	-.2875721
	(.2038054)	(.0216067)	(.8127966)	(.4874157)	(.9591482)	(.2421213)	(.0973974)	(.0288962)	(.149369)	(.0178136)	(.1856531)	(.0206257)	(.0974377)	(.02863)	(.1456017)	(.0162327)	(.2334473)	(.0249635)	(.1637421)	(.0412031)	(1.121399)	(.1602001)	(1.470525)	(.1872044)
	-0.59	-26.58	1.42	1.69	1.32	-1.38	-0.95	0.37	1.85	0.60	1.07	1.01	-0.97	0.04	1.30	0.07	0.04	-0.01	1.13	-6.72	1.11	-1.73	0.83	-1.54
Provence-Alpes-Côte d'Azur	.1168678	.7546137***	-.6680393	-.274842	-.795626	.4701191**	-.0729744	-.0333583	-.0405929	-.0333583*	.0115958	-.0370522*	-.2200634***	-.0071613	-.0359061	-.0071613	-.048301	-.0043708	-.014244	-.1097918***	-2.018492**	-.1097918	-2.226944*	-.1006395
	(.1950186)	(.0190808)	(.5912523)	(.4124509)	(.6182609)	(.2177581)	(.0828225)	(.0259037)	(.0849426)	(.0172768)	(.0994859)	(.0212778)	(-2.66	(-0.28	(-0.40	(-0.50	(-0.34	(-0.19	(.1370601)	(.0366528)	(.9864826)	(.1416741)	(1.137076)	(.1625335)
	0.60	39.55	-1.13	-0.67	-1.29	2.16	-0.88	-1.29	-0.48	-1.93	0.12	-1.74							-0.10	-3.00	-2.05	-0.77	-1.96	-0.62

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

TABLE B.2 – Continued (4) : Control variables - Estimator comparison - Time spent watching ad from free public channel

	Static						$t-(t-1)$						$t-(t-7)$						$t-(t-365)$					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)
	(BE1)	(MCO1)	(FE1)	(RE1)	(AFE1)	(ARE1)	(BE2)	(MCO2)	(FE2)	(RE2)	(AFE2)	(ARE2)	(BE3)	(MCO3)	(FE3)	(RE3)	(AFE3)	(ARE3)	(BE4)	(MCO4)	(FE4)	(RE4)	(AFE4)	(ARE4)
Internet connection mode																								
No Internet acces	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Cable	-1.469271***	-1.043617***	.1875093	.1561562	.1692898	-.4108954*	.0178578	-.0193803	.0075078	-.0193803	.0596175	-.0735022***	-.0121094	.0198758	.0342738	.0198758	.1022491**	.0117881	-.3302487**	-.1680857***	-.0011665	-.1680857	-.3304178	-.4174903**
	(.186324)	(.0213469)	(.1742108)	(.1699604)	(.1816858)	(.2392079)	(.0959362)	(.0285649)	(.0324214)	(.0184515)	(.0464328)	(.0264026)	(.0959296)	(.0280175)	(.0338838)	(.0160309)	(.0508515)	(.0242405)	(.1646051)	(.043277)	(.297556)	(.1275391)	(.4028401)	(.1754354)
	-7.89	-48.89	1.08	0.92	0.93	-1.72	0.19	-0.68	0.23	-1.05	1.28	-2.78	-0.13	0.71	1.01	1.24	2.01	0.49	-2.01	-3.88	-0.00	-1.32	-0.82	-2.38
ADSL	-1.318495***	-1.106441***	.1466594	.1109073	.0629397	-.4391323***	.022076	.0017328	-.0125889	.0017328	.0018283	-.0171513*	.0324693	-.0082802	-.0214389	-.0082802	-.035684	-.0254329***	-.1683208	-.1470635***	-.0501923	-.1470635*	-.1406655	-.1884551**
	(.1290583)	(.0129709)	(.1450338)	(.1422602)	(.1446967)	(.140807)	(.065139)	(.0146562)	(.016012)	(.0084307)	(.0181278)	(.0094405)	(.0649624)	(.0140476)	(.0177325)	(.0070451)	(.0231373)	(.0094047)	(.1098447)	(.0208261)	(.1779847)	(.0756947)	(.2022959)	(.0783276)
	-10.22	-85.30	1.01	0.78	0.43	-3.12	0.34	0.12	-0.79	0.21	0.10	-1.82	0.50	-0.59	-1.21	-1.18	-1.54	-2.70	-1.53	-7.06	-0.28	-1.94	-0.70	-2.41
Fiber optics	-1.634798***	-1.469209***	-.0372791	-.0901252	.1284779	-.5226972**	.323439***	.021945	.0275466	.021945	-.0307038	-.0411046	.0537587	-.0094766	-.0240991	-.0094766	-.0652981	-.0749016**	.1883018	-.1338213***	.2226437	-.1338213	.0103528	-.2527909
	(.2137594)	(.0246288)	(.2163903)	(.2121952)	(.2326829)	(.2281633)	(.110401)	(.0362217)	(.0367559)	(.0235507)	(.041651)	(.025225)	(.1105318)	(.0355233)	(.0388111)	(.0207773)	(.052571)	(.0316201)	(.1808574)	(.0509633)	(.3403752)	(.1858798)	(.4532152)	(.2468504)
	-7.65	-59.65	-0.17	-0.42	0.55	-2.29	2.93	0.61	0.75	0.93	-0.74	-1.63	0.49	-0.27	-0.62	-0.46	-1.24	-2.37	1.04	-2.63	0.65	-0.72	0.02	-1.02
Other	-1.14411***	-1.098773***	-.0300497	-.05339	-.1542388	-.5482478***	.0570488	.0049075	-.0113972	.0049075	.0281553	-.0121862	.1378107	-.0023148	-.0156158	-.0023148	-.0132154	.0018926	-.0996134	-.2556542***	-.5506318**	-.2556542	-.7875899***	-.3940543**
	(.2616957)	(.0237584)	(.1887455)	(.1870347)	(.1944075)	(.1838043)	(.1344607)	(.0324282)	(.0263132)	(.0178467)	(.0304085)	(.0230478)	(.130965)	(.0315619)	(.0282433)	(.0176529)	(.0405088)	(.0260819)	(.2302547)	(.0478485)	(.2449744)	(.1559701)	(.2931007)	(.1827658)
	-4.37	-46.25	-0.16	-0.29	-0.79	-2.98	0.42	0.15	-0.43	0.27	0.93	-0.53	1.05	-0.07	-0.55	-0.13	-0.33	0.07	-0.43	-5.34	-2.25	-1.64	-2.69	-2.16
Intercept	7.316449***	9.038527***	10.14936***	7.161747***	9.696142***	4.87279***	-.1017219	.2280418***	.2499123**	.2280418***	.0972494	.2241788***	-.2190073	.5897713***	.6368636***	.5897713***	.554945***	.5634362***	-.0494563	-.0958959	-.2585006	-.0958959	-.4956803	.3753425
	(.6534556)	(.0568794)	(.4435978)	(.3805836)	(.5080459)	(.3509505)	(.2520847)	(.0840229)	(.1081977)	(.0583479)	(.1410143)	(.0726761)	(.2576258)	(.0871702)	(.11683)	(.059327)	(.1781023)	(.0947632)	(.4322609)	(.1278901)	(.8643082)	(.5428952)	(1.097217)	(1.011972)
	11.20	158.91	22.88	18.82	19.09	13.88	-0.40	2.71	2.31	3.91	0.69	3.08	-0.85	6.77	5.45	9.94	3.12	5.95	-0.11	-0.75	-0.30	-0.18	-0.45	0.37
Number of observations	5,816,879	5,816,879	5,816,879	5,816,879	3,467,867	3,467,867	3,464,974	3,464,974	3,464,974	3,464,974	2,457,087	2,457,087	3,279,663	3,279,663	3,279,663	3,279,663	1,865,289	1,865,289	2,011,921	2,011,921	2,011,921	2,011,921	1,134,046	1,134,046
Number of groups	21,266		21,266	21,266	19,069	19,069	19,064		19,064	19,064	16,308	16,308	18,674		18,674	18,674	13,859	13,859	13,627		13,627	13,627	9,525	9,525
R-squared : R^2		0.10						0.01						0.00						0.01				
R-squared for overall model : R^2_O	0.06		0.00	0.04	0.26	0.36	0.00		0.01	0.01	0.22	0.22	0.00		0.00	0.00	0.01	0.01	0.00		0.01	0.01	0.02	0.04
R-squared for between model : R^2_B	0.20		0.00	0.06	0.37	0.75	0.03		0.00	0.00	0.17	0.17	0.02		0.00	0.00	0.01	0.01	0.05		0.00	0.01	0.02	0.08
R-squared for within model : R^2_W	0.00		0.01	0.01	0.07	0.06	0.00		0.01	0.01	0.22	0.22	0.00		0.00	0.00	0.01	0.01	0.00		0.01	0.01	0.03	0.03
Panel-level standard deviation : σ_u			4.74	3.77	4.15	0.00			2.07	0.00	2.36	0.00			2.03	0.00	2.97	0.00			3.22	0.00	4.26	0.00
Standard deviation of ϵ_{it} : σ_e			6.72	6.72	7.18	7.18			9.19	9.19	8.56	8.56			8.77	8.77	9.35	9.35			9.93	9.93	10.68	10.68
Intraclass correlation : ρ			0.33	0.24	0.25	0.00			0.05	0.00	0.07	0.00			0.05	0.00	0.09	0.00			0.10	0.00	0.14	0.00
Hausman Test : Prob > χ^2			0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000			1.0000	1.0000	1.0000	1.0000			0.0000	0.0000	0.0000	0.0000

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

TABLE B.2 – Continued (5) : Control variables - Estimator comparison - Time spent watching ad from free public channel

	Static						$t-(t-1)$						$t-(t-7)$						$t-(t-365)$					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)
	(BE1)	(MCO1)	(FE1)	(RE1)	(AFE1)	(ARE1)	(BE2)	(MCO2)	(FE2)	(RE2)	(AFE2)	(ARE2)	(BE3)	(MCO3)	(FE3)	(RE3)	(AFE3)	(ARE3)	(BE4)	(MCO4)	(FE4)	(RE4)	(AFE4)	(ARE4)
$(t_3 - Q_3^{(t)})_t$					.1817063***	.4354954***					-.4626563***	-.4624715***					.0819141***	.0823984***					.1083311***	.1239111***
					(.0015834)	(.0036121)					(.0006378)	(.0006447)					(.0008891)	(.000888)					(.0021051)	(.0021856)
					114.76	120.57					-725.37	-717.39					92.13	92.79					51.46	56.69
TS (in mn)																								
	-.2784149***	-.1364545***	-.0655889***	-.0658904***	-.0697348***	-.0986011***	-.0514041*	-.0569479***	-.057028***	-.0569479***	-.0432107***	-.0431199***	.070793***	-.0901845***	-.0902629***	-.0901845***	-.0994072***	-.0993149***	-.1055614***	-.0567528***	-.0523743***	-.0527395***	-.0605666***	-.064553***
	(.0279655)	(.0009737)	(.0044529)	(.0044428)	(.0042752)	(.0061734)	(.0276229)	(.0011545)	(.0029915)	(.0029904)	(.0026028)	(.0026013)	(.0233235)	(.0012416)	(.0032112)	(.003209)	(.0035354)	(.0035316)	(.0278578)	(.0015299)	(.0067014)	(.006677)	(.00692)	(.0067316)
	-9.96	-140.14	-14.73	-14.83	-16.31	-15.97	-1.86	-49.33	-19.06	-19.04	-16.60	-16.58	3.04	-72.63	-28.11	-28.10	-28.12	-28.12	-3.79	-37.10	-7.82	-7.90	-8.75	-9.59
OTVU (in mn)																								
	-.0441043***	-.0815387***	-.0922547***	-.0921011***	-.0847943***	-.0590815***	-.0730999***	-.0484144***	-.04844***	-.0484144***	-.040788***	-.0406898***	.0007229	-.0565634***	-.0565915***	-.0565634***	-.0639935***	-.0639375***	-.1517551***	-.1252496***	-.1219606***	-.1225971***	-.1236511***	-.1250692***
	(.0098114)	(.0003782)	(.0022213)	(.0022151)	(.0021102)	(.0021102)	(.0072323)	(.0005473)	(.0015441)	(.001543)	(.001423)	(.0014223)	(.0063751)	(.0005558)	(.001658)	(.0016567)	(.0019215)	(.0019177)	(.0080111)	(.0006412)	(.0033664)	(.0033494)	(.0036279)	(.0035373)
	-4.50	-215.62	-41.53	-41.58	-40.18	-28.00	-10.11	-88.47	-31.37	-31.38	-28.66	-28.61	0.11	-101.77	-34.13	-34.14	-33.30	-33.34	-18.94	-195.32	-36.23	-36.60	-34.08	-35.36
ω_1 **: Temperature (in °C)**																								
	.4715878	-.2470335***	-.235172***	-.2349179***	-.1962223***	-.1299833***	-1.280761***	-.1591013***	-.1591551***	-.1591013***	-.2000666***	-.2003211***	1.03791***	-.3525489***	-.3529671***	-.3525489***	-.3412632***	-.3407957***	.1466511	-.4686599***	-.4672771***	-.4678457***	-.4274132***	-.4241998***
	(.8987234)	(.0115678)	(.0111195)	(.0111892)	(.0111856)	(.0125988)	(.3101242)	(.0192868)	(.019082)	(.0190692)	(.0194658)	(.0194507)	(.1712775)	(.0099036)	(.0127894)	(.012779)	(.0141762)	(.0141515)	(.3311217)	(.0141824)	(.0167906)	(.0167882)	(.0187689)	(.0186275)
	0.52	-21.36	-21.01	-21.00	-17.54	-10.32	-4.13	-8.25	-8.34	-8.34	-10.28	-10.30	6.06	-35.60	-27.60	-27.59	-24.07	-24.08	0.44	-33.05	-27.83	-27.87	-22.77	-22.77
ω_2 **: Sunshine duration (in mn)**																								
	.075811***	-.0106413***	-.0117718***	-.0117623***	-.0114225***	-.0092792***	.0247192***	-.0123279***	-.0123312***	-.0123279***	-.0112986***	-.0112944***	-.0264195***	-.0117157***	-.0117203***	-.0117157***	-.0118674***	-.0118591***	-.0099562**	-.0130307***	-.0130104***	-.0130148***	-.0130299***	-.0129346***
	(.017601)	(.0001818)	(.0001934)	(.0001934)	(.0002037)	(.0001996)	(.0032396)	(.0001956)	(.0002461)	(.000246)	(.0002327)	(.0002325)	(.002662)	(.0001538)	(.0002222)	(.0002221)	(.0002538)	(.0002534)	(.0049423)	(.0002207)	(.0002828)	(.0002829)	(.0003231)	(.0003224)
	4.31	-58.52	-60.86	-60.83	-56.07	-46.50	7.63	-63.03	-50.11	-50.12	-48.56	-48.58	-9.92	-76.16	-52.74	-52.75	-46.76	-46.80	-2.01	-59.04	-46.00	-46.00	-40.33	-40.13
ω_3 **: Rainfall (in mm)**																								
	.3686097	.0527727***	.0522915***	.0524527***	.0728503***	.0850839***	.8456251***	.0138154	.0138664	.0138154	-.0084819	-.0085	2.10763***	.0359234***	.0359849***	.0359234***	.0622972***	.062334***	.6054354	.0762964***	.0756979***	.0763944***	.0776602***	.0776621***
	(1.161643)	(.0123909)	(.0113186)	(.0113182)	(.012365)	(.0127969)	(.2437262)	(.011784)	(.0137013)	(.0136971)	(.0126722)	(.0126678)	(.2205709)	(.0105601)	(.0129176)	(.0129122)	(.0149833)	(.0149673)	(.3961002)	(.0147883)	(.0167455)	(.0167495)	(.0195536)	(.0195898)
	0.32	4.26	4.62	4.63	5.89	6.65	3.47	1.17	1.01	1.01	-0.67	-0.67	9.56	3.40	2.79	2.78	4.16	4.16	1.53	5.16	4.52	4.56	3.97	3.96
ω_4 **: Wind speed (in km/h)**																								
	-2.193037	.6655979***	.6226196***	.6223173***	.5674829***	.4362153***	2.049268***	.506747***	.5070531***	.506747***	.5948784***	.5952552***	2.788558***	.7729277***	.7725916***	.7729277***	.7581168***	.7595393***	2.012048***	.6325782***	.6340077***	.6328882***	.6174512***	.6072562***
	(2.311086)	(.026403)	(.0250343)	(.0250399)	(.0259201)	(.0267338)	(.5657886)	(.0313335)	(.034014)	(.0339959)	(.0330145)	(.0330002)	(.4320019)	(.0224118)	(.027812)	(.0277956)	(.0315838)	(.0315387)	(.6960237)	(.0316669)	(.0384238)	(.0385729)	(.0433695)	(.0436269)
	-0.95	25.21	24.87	24.85	21.89	16.32	3.62	16.17	14.91	14.91	18.02	18.04	6.45	34.49	27.78	27.81	24.00	24.08	2.89	19.98	16.50	16.41	14.24	13.92
ω_5 **: Rain duration (in mn)**																								
	-.0536286*	.0019294***	.0023095***	.0023042***	.0026417***	.0024095***	-.0161028***	.0025764***	.0025784***	.0025764***	.0017169***	.0017203***	-.0646397***	.0031709***	.0031747***	.0031709***	.0032516***	.0032423***	-.0223788**	.0021802***	.0021584***	.0021502***	.0027607***	.0027769***
	(.0281599)	(.0003078)	(.0002717)	(.0002717)	(.0002956)	(.0003083)	(.0053623)	(.0002924)	(.0003405)	(.0003405)	(.0003085)	(.0003083)	(.0049034)	(.0002583)	(.0003113)	(.0003111)	(.0003585)	(.0003581)	(.0089122)	(.0003649)	(.0004085)	(.0004085)	(.0004721)	(.0004718)
	-1.90	6.27	8.50	8.48	8.94	7.82	-3.00	8.81	7.57	7.57	5.57	5.58	-13.18	12.28	10.20	10.19	9.07	9.05	-2.51	5.97	5.28	5.26	5.85	5.89
Day of the week																								
Monday																								
	-28.5304**	-.6233173***	.0074762	.0062906	-4.659223***	-11.23085***	-18.38924***	-23.74615***	-23.73068***	-23.74615***	-17.43227***	-17.46286***	3.966289*	.1404227	.1477883**	.1404227**	.285534***	.2934319***	-23.02489***	-24.86544***	-24.77311***	-24.78618***	-30.27118***	-30.68576***
	(12.66113)	(.1187826)	(.2864037)	(.2863574)	(.3623494)	(.4449916)	(2.548387)	(.1546255)	(.7206591)	(.7193967)	(.6752869)	(.6740399)	(2.122262)	(.141398)	(.0626451)	(.0622819)	(.0829811)	(.0822774)	(4.759818)	(.2110897)	(.8437181)	(.8430452)	(1.064905)	(1.069527)
	-2.25	-5.25	0.03	0.02	-12.86	-25.24	-7.22	-153.57	-32.93	-33.01	-25.81	-25.91	1.87	0.99	2.36	2.25	3.44	3.57	-4.84	-117.80	-29.36	-29.40	-28.43	-28.69
Tuesday																								
	-8.862115	-3.285335***	-2.922473***	-2.91941***	-3.312965***	-4.955734***	-7.372939***	-6.965398***	-6.959005***	-6.965398***	-13.27664***	-13.28964***	3.490197	-.000307	.0014419	-.000307	.0684945	.0683823	-16.59444***	-6.613022***	-6.509712***	-6.5266***	-3.970493***	-3.876776***
	(13.11952)	(.1181762)	(.2740865)	(.2740499)	(.3301501)	(.3696554)	(2.631769)	(.1372436)	(.4953107)	(.4948901)	(.5242815)	(.5229283)	(2.281595)	(.1415511)	(.0626843)	(.0622885)	(.0806462)	(.0802042)	(5.225204)	(.1955322)	(.5965211)	(.5961251)	(.741831)	(.7469591)
	-0.68	-27.80	-10.66	-10.65	-10.03	-13.41	-2.80	-50.75	-14.05	-14.07	-25.32	-25.41	1.53	-0.00	0.02	-0.00	0.85	0.85	-3.18	-33.82	-10.91	-10.95	-5.35	-5.19
Wednesday																								
	-15.99223	-.3944185***	.0874659	.0866587	.2068131	-.5907439*	2.26388	-.678957***	-.6765691*	-.678957*	.1151814	.0804081	-.5269031	.072486	.0748674	.072486	.1857452**	.189671**	-28.53677***	-.5898063***	-.5308999	-.5449924	.1356719	-.0081369
	(13.1759)	(.1187549)	(.267504)	(.2674687)	(.3093442)	(.3230719)	(2.677479)	(.1381171)	(.3778811)	(.3774711)	(.4507185)	(.4500655)	(2.209884)	(.141997)	(.0620597)	(.0616589)	(.0810393)	(.0805506)	(5.302724)	(.1954512)	(.4574983)	(.4571938)	(.5424058)	(.5420285)
	-1.21	-3.32	0.33	0.32	0.67	-1.83	0.85	-4.92	-1.79	-1.80	0.26	0.18	-0.24	0.51	1.21	1.18	2.29	2.35	-5.38	-3.02	-1.16	-1.19	0.25	-0.02
Thursday																								
	23.94496*	-4.488653***	-4.419976***	-4.413704***	-5.022865***	-6.362958***	-19.60832***	-8.52221***	-8.522593***	-8.52221***	-4.700684***	-4.721611***	4.928519**	.0533515	.0510612	.0533515	.1728871**	.1759796**	-26.77617***	-8.374376***	-8.333722***	-8.340465***	-7.806636***	-8.001095***
	(14.37549)	(.1188417)	(.2992454)	(.299217)	(.3740924)	(.4277212)	(2.974698)	(.1387666)	(.5678821)	(.5675151)	(.4450125)	(.4445911)	(2.41974)	(.1424164)	(.0615956)	(.0613233)	(.0805739)	(.0802455)	(5.642761)	(.1969531)	(.6726594)	(.6722986)	(.8513264)	(.8596425)
	1.67	-37.77	-14.77	-14.75	-13.43	-14.88	-6.59	-61.41	-15.01	-15.02	-10.56	-10.62	2.04	0.37	0.83	0.87	2.15	2.19	-4.75	-42.52	-12.39	-12.41	-9.17	-9.31
Friday																								
	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Saturday																								
	40.53479***	8.166729***	7.836388***	7.831847***	6.891001***	5.987625***	-1.201218	3.135782***	3.161579***	3.135782***	6.764123***	6.780621***	-3.737888*	.2079086	.2161864***	.2079086***	.1457644	.1407128	-24.78453***	5.497823***	5.533413***	5.522235***	4.654268***	4.556127***
	(13.44308)	(.1259734)	(.3977362)	(.3977132)	(.481128)	(.525475)	(2.715018)	(.1539442)	(.6532431)	(.6532502)	(.5839027)	(.5834265)	(2.146078)	(.1583735)	(.0705404)	(.0700609)	(.0955034)	(.0951669)	(5.009299)	(.2113525)	(.7744334)	(.7739425)	(.9802255)	(.9877175)
	3.02	64.83	19.70	19.69	14.32	11.39	-0.44	20.37	4.84	4.80	11.58	11.62	-1.74	1.31	3.06	2.97	1.53	1.48	-4.95	26.01	7.15	7.14	4.75	4.61
Sunday																								
	-112.0197***	18.38266***	20.03662***	20.01804***	21.17332***	17.68474***	-7.999568***	11.20976***	11.25692***	11.20976***	16.97545***	16.9628***	5.742165***	.1445658	.1440619**	.1445658**	.1442869	.1329141	-10.70458**	9.509779***	9.638317***	9.608935***	10.35626***	9.963785***
	(11.59201)	(.1252606)	(.4878269)	(.4878153)	(.5441157)	(.5260666)	(2.221253)	(.1556501)	(.5676052)	(.5654809)	(.6411494)	(.6401794)	(1.904467)	(.1543216)	(.0671522)	(.0666845)	(.0936589)	(.0926339)	(4.554564)	(.2152246)	(.6789453)	(.6779881)	(.8257455)	(.8266682)
	-9.66	146.76	41.07	41.04	38.91	33.62	-3.60	72.02	19.83	19.82	26.48	26.50	3.02	0.94	2.15	2.17	1.54	1.43	-2.35	44.19	14.20	14.17	12.54	12.05
Gender																								
Female																								
	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Male																								
	-14.98373***	-18.90649***	0	-19.65806***	0	-11.61597***	.2668529	-.0093572	0	-.0093572	0	.1679129***	-.1105381	.0621201	0	.0621201	0	.1354735**	-1.045944*	-.7107899***	0	-.3973174	0	-.4780742
	(.9435321)	(.0694718)	(0)	(1.045204)	(0)	(.7965231)	(.2326028)	(.0852439)	(0)	(.0495373)	(0)	(.0532602)	(.2515948)	(.0836618)	(0)	(.040949)	(0)	(.0528077)	(.5539734)	(.1182239)	(0)	(.445465)	(0)	(.3691718)
	-15.88	-272.15		-18.81		-14.58	1.15	-0.11		-0.19		3.15	-0.44	0.74		1.52		2.57	-1.89	-6.01		-0.89		-1.29

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

TABLE B.3 – Control variables - Estimator comparison - Time spent watching program from free private channel

	Static						$t-(t-1)$						$t-(t-7)$						$t-(t-365)$					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)
	(BE1)	(MCO1)	(FE1)	(RE1)	(AFE1)	(ARE1)	(BE2)	(MCO2)	(FE2)	(RE2)	(AFE2)	(ARE2)	(BE3)	(MCO3)	(FE3)	(RE3)	(AFE3)	(ARE3)	(BE4)	(MCO4)	(FE4)	(RE4)	(AFE4)	(ARE4)
Age category																								
4-10 years																								
	-13.32087***	-18.45206***	3.534317**	-2.24337	3.184654*	-11.34085***	.5621833	.3868634*	.2848013	.3868634***	.7708354**	.8541266***	.9235494*	.3259945	.6024679*	.3259945**	.9159608*	.3147935*	-1.226751	-.792304***	.4694804	-.3839709	.8900576	-.7632567
	(1.916425)	(.1389825)	(1.769077)	(1.658566)	(1.70618)	(1.066725)	(.4786609)	(.205363)	(.2765785)	(.117552)	(.3382682)	(.1514927)	(.5193046)	(.2103464)	(.3344613)	(.1272188)	(.4910454)	(.1905869)	(1.171601)	(.2918655)	(2.152331)	(1.083775)	(2.471664)	(.9770968)
	-6.95	-132.77	2.00	-1.35	1.87	-10.63	1.17	1.88	1.03	3.29	2.28	5.64	1.78	1.55	1.80	2.56	1.87	1.65	-1.05	-2.71	0.22	-0.35	0.36	-0.78
11-14 years																								
	1.782612	-6.195029***	3.541524***	.2224856	2.577999**	-4.789957***	.498091	.3042611	.0495671	.3042611**	.1392593	.520146***	-.0101413	.0608803	.135804	.0608803	.0554691	-.1263475	.9936655	1.545322***	.637714	.7115048	.3457634	1.213674
	(2.5108)	(.1585333)	(1.346605)	(1.296061)	(1.306194)	(1.096332)	(.618439)	(.2307057)	(.2052436)	(.1284714)	(.2580178)	(.1651247)	(.6719232)	(.2369867)	(.2579821)	(.1452973)	(.3848282)	(.218635)	(1.441997)	(.3174017)	(1.503873)	(1.037312)	(1.715474)	(1.028758)
	0.71	-39.08	2.63	0.17	1.97	-4.37	0.81	1.32	0.24	2.37	0.54	3.15	-0.02	0.26	0.53	0.42	0.14	-0.58	0.69	4.87	0.42	0.69	0.20	1.18
15-24 years																								
	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
25-34 years																								
	19.30679***	14.18637***	-12.32383***	.4474412	-10.90698***	6.281767***	1.138229	.8332351**	.6526851	.8332351***	.6693023	.8063607***	.0329111	-.0223989	.493656	-.0223989	.9458449	.2658702	-2.959241	-1.286129**	7.413108*	1.99707	7.059486	-1.49299
	(3.007838)	(.2845682)	(2.859228)	(2.679083)	(2.731928)	(2.005544)	(.7523292)	(.3933342)	(.4147803)	(.1975013)	(.5681999)	(.2536955)	(.8265117)	(.4012864)	(.5472658)	(.224392)	(.7046066)	(.3069653)	(2.016049)	(.611275)	(4.136946)	(2.36593)	(4.395788)	(2.576003)
	6.42	49.85	-4.31	0.17	-3.99	3.13	1.51	2.12	1.57	4.22	1.18	3.18	0.04	-0.06	0.90	-0.10	1.34	0.87	-1.47	-2.10	1.79	0.84	1.61	-0.58
35-49 years																								
	28.27885***	21.8036***	-20.89371***	-5.563476**	-18.37807***	9.662699***	1.622752**	.9389642**	.5317044	.9389642***	.5466851	1.307033***	.3151151	.0907709	.5574815	.0907709	1.138815	.4404135	1.758467	3.521087***	10.95037**	5.96674**	10.49535**	2.896561
	(2.972166)	(.2815948)	(3.02066)	(2.715546)	(2.848891)	(2.03472)	(.7443567)	(.3885385)	(.4255827)	(.1975727)	(.5796621)	(.2526356)	(.8159025)	(.3963474)	(.5610704)	(.2172033)	(.7221238)	(.2960627)	(1.990578)	(.6015132)	(4.296529)	(2.324427)	(4.550637)	(2.569524)
	9.51	77.43	-6.92	-2.05	-6.45	4.75	2.18	2.42	1.25	4.75	0.94	5.17	0.39	0.23	0.99	0.42	1.58	1.49	0.88	5.85	2.55	2.57	2.31	1.13
50-64 years																								
	37.80567***	28.75376***	-18.68347***	-1.638312	-17.10159***	12.78375***	1.258894	.9344644**	.4153571	.9344644***	.4317128	1.529011***	.8198926	.2292879	.5044647	.2292879	.9499544	.5948035**	4.825021**	6.834899***	10.57996**	7.422581***	10.15202**	6.497409**
	(3.097932)	(.2872484)	(3.270143)	(2.887933)	(3.041238)	(2.116391)	(.7739937)	(.3931102)	(.4389788)	(.1968489)	(.5918591)	(.2528966)	(.8477846)	(.4003818)	(.5797818)	(.2185914)	(.7376185)	(.2968929)	(2.045589)	(.606191)	(4.548156)	(2.388738)	(4.757292)	(2.580527)
	12.20	100.10	-5.71	-0.57	-5.62	6.04	1.63	2.38	0.95	4.75	0.73	6.05	0.97	0.57	0.87	1.05	1.29	2.00	2.36	11.28	2.33	3.11	2.13	2.52
65 years and more																								
	24.75084***	23.87742***	-12.92096***	4.884154	-12.58313***	9.504442***	.9949216	.8865999**	.4117343	.8865999***	.4920259	1.644709***	1.464836	.3360754	.3962122	.3360754	.9336142	.7706902**	6.723069***	8.11736***	11.92189**	9.529868***	11.42867**	7.777307***
	(4.032101)	(.3298709)	(3.555618)	(3.15008)	(3.260034)	(2.624536)	(1.001484)	(.432216)	(.4536457)	(.2121518)	(.605806)	(.2654699)	(1.090498)	(.4362459)	(.5989226)	(.23325)	(.7576491)	(.3124884)	(2.552318)	(.6580315)	(4.868587)	(2.752949)	(5.040563)	(2.695579)
	6.14	72.38	-3.63	1.55	-3.86	3.62	0.99	2.05	0.91	4.18	0.81	6.20	1.34	0.77	0.66	1.44	1.23	2.47	2.63	12.34	2.45	3.46	2.27	2.89
Social-Professional Category																								
Farmer																								
	-34.00532***	-26.43098***	-12.9313**	-12.84254**	-10.65583*	-15.90828***	-3.541911**	-.1986314	.4183493	-.1986314	-.5938105	.2145354	.3384819	.0320006	1.007143	.0320006	.5695186	.0146121	2.648573	-.9582025*	-8.469783	-1.263967	-6.019983	-.7414067
	(6.296382)	(.3261243)	(6.152582)	(5.972117)	(5.438312)	(3.240499)	(1.550575)	(.4127777)	(.5249191)	(.2119894)	(.635167)	(.2322936)	(1.6705)	(.399923)	(.6361231)	(.2033106)	(1.128458)	(.2239159)	(3.452672)	(.540973)	(8.755947)	(3.021885)	(8.658848)	(1.450789)
	-5.40	-81.05	-2.10	-2.15	-1.96	-4.91	-2.28	-0.48	0.80	-0.94	-0.93	0.92	0.20	0.08	1.58	0.16	0.50	0.07	0.77	-1.77	-0.97	-0.42	-0.70	-0.51
Craftsmen-Traders-Contractor																								
	-16.44151***	-15.42109***	-.3923055	-.6000552	-.344119	-8.099809***	1.454364	-.0132811	-.0318407	-.0132811	-.284457	-.297489	-.3968068	-.1330112	.1617865	-.1330112	.8237248**	-.0116402	-1.363359	-1.678724***	.9759388	-.1031384	-.5862992	-2.381426*
	(3.954113)	(.2563606)	(2.557256)	(2.525036)	(2.290406)	(2.630231)	(.9835347)	(.3118349)	(.3013475)	(.180557)	(.3777807)	(.2065695)	(1.057619)	(.2998627)	(.3614828)	(.1441489)	(.420038)	(.1829503)	(2.243673)	(.417019)	(3.498982)	(2.328655)	(3.550836)	(1.364833)
	-4.16	-60.15	-0.15	-0.24	-0.15	-3.08	1.48	-0.04	-0.11	-0.07	-0.75	-1.44	-0.38	-0.44	0.45	-0.92	1.96	-0.06	-0.61	-4.03	0.28	-0.04	-0.17	-1.74
Higher professions																								
	-27.17872***	-25.30155***	.8967354	-.1604666	.902826	-13.63254***	-.4036648	-.1703928	-.0391335	-.1703928*	-.1685569	-.2440284**	-.0432577	-.0954385	-.0644704	-.0954385	.1736029	-.0780317	-.813267	-.7755579***	3.646678	1.359296	3.172161	-1.124536
	(2.177902)	(.1386179)	(1.476551)	(1.449532)	(1.32348)	(1.240333)	(.5398386)	(.179523)	(.1951054)	(.0941428)	(.240163)	(.1132081)	(.5821395)	(.175749)	(.2332045)	(.0867625)	(.3044189)	(.1177217)	(1.248119)	(.2440621)	(2.245496)	(1.361725)	(2.387627)	(.6969432)
	-12.48	-182.53	0.61	-0.11	0.68	-10.99	-0.75	-0.95	-0.20	-1.81	-0.70	-2.16	-0.07	-0.54	-0.28	-1.10	0.57	-0.66	-0.65	-3.18	1.62	1.00	1.33	-1.61
Intermediate occupations																								
	-16.78416***	-15.13558***	.8429752	.2385871	.7966064	-7.967272***	.0222551	-.1082745	.093677	-.1082745	-.1038642	-.129506	.1586683	-.0574608	.0919245	-.0574608	-.0507135	-.144225	-.5632634	-1.348213***	-.4203843	-1.010837	-1.278638	-1.649595**
	(1.917348)	(.1245985)	(1.30107)	(1.280295)	(1.174923)	(1.160058)	(.4733004)	(.1548771)	(.1459757)	(.0775017)	(.1769213)	(.0924493)	(.5110888)	(.1527695)	(.1752858)	(.073232)	(.2239623)	(.0958943)	(1.100019)	(.2136312)	(1.809432)	(1.226135)	(1.873047)	(.6552086)
	-8.75	-121.47	0.65	0.19	0.68	-6.87	0.05	-0.70	0.64	-1.40	-0.59	-1.40	0.31	-0.38	0.52	-0.78	-0.23	-1.50	-0.51	-6.31	-0.23	-0.82	-0.68	-2.52
Employee																								
	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Skilled worker																								
	3.76732*	.2299478	.3839857	.5724073	.7979445	.3956735	-.2374952	-.1761004	.2169515	-.1761004*	.1961537	-.0840051	-.3612872	.0043931	.0101795	.0043931	.1402434	-.0219653	2.857692**	.3835603	-.8393555	-.1646163	-.7052588	.3294129
	(2.265903)	(.1548559)	(1.787695)	(1.760193)	(1.580034)	(1.371612)	(.5607216)	(.1913024)	(.188761)	(.0979469)	(.2219837)	(.1131347)	(.6040828)	(.1888866)	(.2190712)	(.0885501)	(.2761643)	(.1128422)	(1.324985)	(.2632319)	(2.236468)	(1.512873)	(2.244354)	(.8038571)
	1.66	1.48	0.21	0.33	0.51	0.29	-0.42	-0.92	1.15	-1.80	0.88	-0.74	-0.60	0.02	0.05	0.05	0.51	-0.19	2.16	1.46	-0.38	-0.11	-0.31	0.41
Unskilled worker																								
	3.819636	2.068738***	.1903987	.1519146	.1479946	1.301753	.0975802	.0094342	.1576122	.0094342	.2246654	-.1511895	-.3451086	.1193986	.0237854	.1193986	-.0702155	.0376319	4.119788**	2.244355***	.7646512	1.834455	.5617623	1.527348
	(3.282254)	(.2410455)	(2.224281)	(2.197475)	(1.942359)	(2.098416)	(.8133161)	(.2891252)	(.2371191)	(.1352235)	(.3032863)	(.1582327)	(.882586)	(.2864517)	(.2730914)	(.1299575)	(.3509885)	(.1694171)	(1.949853)	(.4084437)	(3.054536)	(2.297378)	(3.00348)	(1.360489)
	1.16	8.58	0.09	0.07	0.08	0.62	0.12	0.03	0.66	0.07	0.74	-0.96	-0.39	0.42	0.09	0.92	-0.20	0.22	2.11	5.49	0.25	0.80	0.19	1.12
Pensioner																								
	-27.1507***	-23.13573***	-11.33006**	-10.2742**	-11.00023***	-14.60955***	-.2998045	-.0570692	-.1405371	-.0570692	-.3765678	-.0306844	-3.090182	-.7698606	-.8711623*	-.7698606***	-1.250487**	-1.080149***	1.324673	-8.093171***	-9.161681**	-7.192176**	-10.20709**	-8.662733***
	(9.18635)	(.5398315)	(4.42993)	(4.391553)	(4.015784)	(4.470886)	(2.27237)	(.6330798)	(.3545247)	(.2284997)	(.4375931)	(.2749193)	(2.452175)	(.6261447)	(.4503467)	(.2841656)	(.5875079)	(.3743781)	(4.361446)	(.8056079)	(4.583315)	(3.602154)	(4.525803)	(2.976573)
	-2.96	-42.86	-2.56	-2.34	-2.74	-3.27	-0.13	-0.09	-0.40	-0.25	-0.86	-0.11	-1.26	-1.23	-1.93	-2.71	-2.13	-2.89	0.30	-10.05	-2.00	-2.00	-2.26	-2.91
Student																								
	-55.33904***	-54.00865***	-6.164615	-14.70536***	-8.15038**	-34.40959***	-.6949253	-.0313277	-.4005497	-.0313277	-1.01653*	.2381928	-1.820499	-.8271349	-.8200679	-.8271349**	.2095328	-.6444848	5.693402	-4.187324***	-2.281428	-1.578644	-4.273076	-5.153244
	(9.424999)	(.5844782)	(4.25463)	(4.252205)	(3.991124)	(4.545347)	(2.336514)	(.7216302)	(.4539469)	(.2938685)	(.5693296)	(.3666648)	(2.520324)	(.7224999)	(.5780878)	(.3545556)	(.8229208)	(.4846613)	(4.538131)	(.969713)	(4.871163)	(3.952554)	(5.233249)	(3.828373)
	-5.87	-92.40	-1.45	-3.46	-2.04	-7.57	-0.30	-0.04	-0.88	-0.11	-1.79	0.65	-0.72	-1.14	-1.42	-2.33	0.25	-1.33	1.25	-4.32	-0.47	-0.40	-0.82	-1.35
Other inactive																								
	-4.427727	-5.136113***	-9.286837**	-8.570641*	-9.495218**	-4.457192	.0216101	-.0563776	-.4959371	-.0563776	-.6650149	-.0934781	-3.490471	-.8900508	-1.026228**	-.8900508***	-1.045662*	-1.124535***	1.581645	-6.213038***	-6.801974	-5.767935	-7.135396	-7.092415**
	(9.081191)	(.542578)	(4.563472)	(4.542982)	(4.129801)	(4.564096)	(2.246705)	(.6338783)	(.3563821)	(.2584464)	(.4578337)	(.2866961)	(2.421236)	(.6271796)	(.444082)	(.2825496)	(.5830547)	(.3736159)	(4.27008)	(.8085465)	(4.781856)	(3.806951)	(4.749507)	(3.060341)
	-0.49	-9.47	-2.04	-1.89	-2.30	-0.98	0.01	-0.09	-1.39	-0.22	-1.45	-0.33	-1.44	-1.42	-2.31	-3.15	-1.79	-3.01	0.37	-7.68	-1.42	-1.52	-1.50	-2.32

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

TABLE B.3 – Continued (2) : Control variables - Estimator comparison - Time spent watching program from free private channel

	Static						$t-(t-1)$						$t-(t-7)$						$t-(t-365)$					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)
	(BE1)	(MCO1)	(FE1)	(RE1)	(AFE1)	(ARE1)	(BE2)	(MCO2)	(FE2)	(RE2)	(AFE2)	(ARE2)	(BE3)	(MCO3)	(FE3)	(RE3)	(AFE3)	(ARE3)	(BE4)	(MCO4)	(FE4)	(RE4)	(AFE4)	(ARE4)
Average weekly working time																								
Unemployed person who has already worked																								
	8.25632***	16.42124***	3.164612	3.469354*	2.496597	10.9876***	-.7248587	.0574373	.0578377	.0574373	.2470067	.1416435	-.3370036	-.0050693	-.0001654	-.0050693	-.0506692	-.1628578	-3.602496*	-6.004207***	-10.49923***	-9.143045***	-11.12331***	-5.922144***
	(2.966902)	(.2533592)	(2.012705)	(1.989082)	(1.840561)	(2.190808)	(.7365693)	(.296707)	(.2036511)	(.1299764)	(.2388232)	(.1486897)	(.7963218)	(.2934145)	(.250739)	(.1336216)	(.3316764)	(.1758753)	(1.961548)	(.4701874)	(3.006344)	(2.415783)	(3.117177)	(1.589126)
	2.78	64.81	1.57	1.74	1.36	5.02	-0.98	0.19	0.28	0.44	1.03	0.95	-0.42	-0.02	-0.00	-0.04	-0.15	-0.93	-1.84	-12.77	-3.49	-3.78	-3.57	-3.73
People looking for a first job																								
	-2.092038	11.31033***	13.10365*	10.37202	11.9281*	9.785238	-5.494084*	-.024268	.7828114	-.024268	.1979424	-1.011249	9.172623***	.7762088	2.907073***	.7762088	3.805481***	1.19383	-1.059555	-4.135571**	-15.64218	-11.89755	-17.07578	-7.710498
	(12.47221)	(.9677714)	(7.004613)	(6.962298)	(6.592599)	(6.229153)	(3.094349)	(1.276015)	(.8747656)	(.6415676)	(1.098024)	(.8196648)	(3.337342)	(1.288987)	(1.117303)	(.6730409)	(1.316205)	(.8136273)	(7.285417)	(2.017063)	(13.30022)	(11.3009)	(15.398)	(9.289546)
	-0.17	11.69	1.87	1.49	1.81	1.57	-1.78	-0.02	0.89	-0.04	0.18	-1.23	2.75	0.60	2.60	1.15	2.89	1.47	-0.15	-2.05	-1.18	-1.05	-1.11	-0.83
Full-time worker																								
	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Part-time worker : 0-9h59 per week																								
	27.19518***	17.51454***	-2.118934	-1.585479	-2.054494	9.783138*	.4521598	.1246767	.1375008	.1246767	.1694139	.4927511*	-.2801035	.0823149	.2831189	.0823149	.9299124*	.0876274	-6.313126	-10.00791***	-7.536613	-7.130702	-8.851578	-11.0062***
	(9.437442)	(.5721252)	(3.57494)	(3.609461)	(3.237233)	(5.728288)	(2.36198)	(.633569)	(.3604934)	(.2414034)	(.3817653)	(.266234)	(2.530269)	(.619569)	(.4527896)	(.2439551)	(.5369557)	(.2581304)	(4.746191)	(.8278307)	(5.945022)	(5.079173)	(5.886648)	(3.152401)
	2.88	30.61	-0.59	-0.44	-0.63	1.71	0.19	0.20	0.38	0.52	0.44	1.85	-0.11	0.13	0.63	0.34	1.73	0.34	-1.33	-12.09	-1.27	-1.40	-1.50	-3.49
Part-time worker : 10h-19h59 per week																								
	-4.250965	-2.477657***	.5387561	.6060374	.7141029	-1.07827	.3851485	.0858572	-.0541006	.0858572	.2655604	.4689598***	-.3667024	.0741231	.1098177	.0741231	.0680319	.015829	-3.738754	-1.082224**	1.771373	1.189229	2.385953	-.9309659
	(4.862445)	(.2959204)	(1.963588)	(1.956274)	(1.71522)	(2.350591)	(1.19151)	(.3661786)	(.2151097)	(.1597461)	(.2663965)	(.1686801)	(1.284513)	(.3555358)	(.2970239)	(.1692265)	(.3699884)	(.2129626)	(2.633605)	(.4907413)	(2.795866)	(2.363207)	(2.827151)	(1.648258)
	-0.87	-8.37	0.27	0.31	0.42	-0.46	0.32	0.23	-0.25	0.54	1.00	2.78	-0.29	0.21	0.37	0.44	0.18	0.07	-1.42	-2.21	0.63	0.50	0.84	-0.56
Part-time worker : 20h-29h59 per week																								
	-6.179147**	-5.68248***	.6252444	.6358093	.8723917	-3.150011**	.139077	.114444	.1370473	.114444	.4324217**	.3026758**	.0596178	.0790357	.136358	.0790357	-.2779539	-.112531	-1.908409	-.7414674**	-.0440498	-.0007579	.3115151	-1.016087
	(3.108851)	(.1901601)	(1.496487)	(1.48656)	(1.338761)	(1.603714)	(.7656431)	(.2337927)	(.1541242)	(.1022487)	(.204265)	(.119992)	(.8239314)	(.2284569)	(.1980559)	(.1103087)	(.2768749)	(.1423327)	(1.698498)	(.3117047)	(1.812835)	(1.446591)	(1.768528)	(.9033805)
	-1.99	-29.88	0.42	0.43	0.65	-1.96	0.18	0.49	0.89	1.12	2.12	2.52	0.07	0.35	0.69	0.72	-1.00	-0.79	-1.12	-2.38	-0.02	-0.00	0.18	-1.12
Part-time worker : 30h-34h59 per week																								
	-3.916022	-5.140876***	-3.363161**	-3.360022**	-2.83287*	-2.549116	-1.351855	.1550792	.0012439	.1550792	.2345299	.3423162**	-.1712737	-.1598143	-.0389602	-.1598143	-.415875	-.2078772	.3725556	-.7577362*	-3.260826	-2.561028	-3.898581*	-.6979371
	(3.673286)	(.2243984)	(1.600511)	(1.587033)	(1.465922)	(1.826022)	(.9117155)	(.2832343)	(.1807561)	(.1281173)	(.2314942)	(.1471753)	(.9922296)	(.2793845)	(.2463845)	(.137753)	(.3132424)	(.175813)	(2.202375)	(.3965897)	(2.163976)	(1.763501)	(2.133167)	(1.129549)
	-1.07	-22.91	-2.10	-2.12	-1.93	-1.40	-1.48	0.55	0.01	1.21	1.01	2.33	-0.17	-0.57	-0.16	-1.16	-1.33	-1.18	0.17	-1.91	-1.51	-1.45	-1.83	-0.62
Other inactive																								
	33.74214***	31.21895***	10.62973***	11.32091***	10.99635***	20.39419***	.9086584	.239812	.6774146**	.239812	.9514854**	.266459	2.222469	.7768077	1.027805***	.7768077***	1.315741**	.9106483**	-5.18842	5.157391***	4.695785	4.415086	6.015331*	5.792758**
	(8.854578)	(.5121992)	(3.836492)	(3.846292)	(3.54167)	(4.157288)	(2.191331)	(.6038967)	(.3060198)	(.2152272)	(.3712125)	(.2601612)	(2.361012)	(.5989217)	(.3939113)	(.270156)	(.5301829)	(.3600884)	(4.066008)	(.7575333)	(3.528739)	(3.180993)	(3.538673)	(2.853998)
	3.81	60.95	2.77	2.94	3.10	4.91	0.41	0.40	2.21	1.11	2.56	1.02	0.94	1.30	2.61	2.88	2.48	2.53	-1.28	6.81	1.33	1.39	1.70	2.03
Gross monthly household income																								
Less than 600 euros																								
	12.46094**	17.10814***	4.910801	5.986522	4.098007	10.43446*	-.5531164	-.0131481	.1549004	-.0131481	-.1189419	-.1866339	2.679313*	.3152597	.8235557*	.3152597	.3726622	.1903484	5.196983	5.385958***	2.203444	2.777856	1.39655	5.329256
	(5.239726)	(.5163099)	(4.076641)	(4.041221)	(3.556363)	(5.799636)	(1.304635)	(.5443302)	(.3786507)	(.2268456)	(.4149359)	(.2592094)	(1.412075)	(.5314011)	(.4324988)	(.2579116)	(.4791223)	(.2854327)	(3.496657)	(.8568603)	(5.604147)	(4.629856)	(5.475476)	(4.245654)
	2.38	33.14	1.20	1.48	1.15	1.80	-0.42	-0.02	0.41	-0.06	-0.29	-0.72	1.90	0.59	1.90	1.22	0.78	0.67	1.49	6.29	0.39	0.60	0.26	1.26
From 600 to 900 euros																								
	15.8951***	13.25691***	-2.1818	-1.676376	-1.932226	7.859451***	.5405205	-.2031806	-.0719655	-.2031806	.106377	-.1788088	-.0616276	-.0440704	-.0705839	-.0440704	-.1489155	-.2081788	-6.732204**	-.5943646	.2633361	.3558869	1.190603	-.277376
	(4.086559)	(.3288302)	(2.03145)	(2.019707)	(1.794539)	(2.867608)	(1.011845)	(.3488649)	(.1941561)	(.1560881)	(.2377083)	(.2027912)	(1.101362)	(.3350969)	(.2320209)	(.1575051)	(.2721251)	(.1788312)	(2.690481)	(.5046248)	(2.960609)	(2.648925)	(2.843395)	(1.8517)
	3.89	40.32	-1.07	-0.83	-1.08	2.74	0.53	-0.58	-0.37	-1.30	0.45	-0.88	-0.06	-0.13	-0.30	-0.28	-0.55	-1.16	-2.50	-1.18	0.09	0.13	0.42	-0.15
From 900 to 1200 euros																								
	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
From 1200 to 1500 euros																								
	-11.45494***	-8.605058***	1.42541	.9454408	1.113158	-5.008918***	1.6629**	.0732684	-.2117409*	.0732684	-.044026	.050693	-1.347813	-.0330563	-.1211464	-.0330563	-.2105832	-.1127696	-3.615417*	-1.098628***	.7783994	.2646947	.5328618	-1.305155
	(3.160079)	(.2245656)	(1.540642)	(1.532792)	(1.341631)	(1.910567)	(.7839543)	(.249922)	(.1283905)	(.1036519)	(.1452455)	(.1140466)	(.845325)	(.2413606)	(.1701627)	(.1142009)	(.2052761)	(.1345146)	(1.93292)	(.357015)	(2.120978)	(1.841946)	(2.089712)	(1.280551)
	-3.62	-38.32	0.93	0.62	0.83	-2.62	2.12	0.29	-1.65	0.71	-0.30	0.44	-1.59	-0.14	-0.71	-0.29	-1.03	-0.84	-1.87	-3.08	0.37	0.14	0.25	-1.02
From 1500 to 2300 euros																								
	-22.58397***	-19.85268***	2.331984	1.470978	2.069739	-11.50667***	2.327891***	.2123576	-.1657624	.2123576**	-.0716344	.1856141*	-1.149406*	-.0615971	-.2503515	-.0615971	-.2206418	-.1182465	-2.227272	-1.223684***	2.641372	1.6084	2.465143	-1.286893
	(2.588184)	(.1939413)	(1.558086)	(1.543497)	(1.35939)	(1.781999)	(.6414194)	(.2170166)	(.1425536)	(.0902912)	(.1613171)	(.1017551)	(.6937764)	(.2099789)	(.1720468)	(.100782)	(.2073733)	(.1168973)	(1.587658)	(.3101708)	(2.141904)	(1.732706)	(2.144685)	(1.095409)
	-8.73	-102.36	1.50	0.95	1.52	-6.46	3.63	0.98	-1.16	2.35	-0.44	1.82	-1.66	-0.29	-1.46	-0.61	-1.06	-1.01	-1.40	-3.95	1.23	0.93	1.15	-1.17
From 2300 to 3000 euros																								
	-31.60191***	-29.585***	1.490461	.247477	1.353873	-17.06052***	2.429484***	.2842091	-.1661099	.2842091***	-.0443456	.2941477***	-.1948196	.0742239	-.1644127	.0742239	-.0850708	.0905578	-.3600111	-1.059625***	2.67824	1.511306	2.186994	-1.316178
	(2.626098)	(.1944219)	(1.601318)	(1.581378)	(1.405011)	(1.76538)	(.6497274)	(.2196907)	(.150292)	(.0960857)	(.1732998)	(.1061468)	(.7027759)	(.2129354)	(.1857032)	(.1029936)	(.2251102)	(.1208315)	(1.597569)	(.3132735)	(2.315119)	(1.817004)	(2.352983)	(1.107431)
	-12.03	-152.17	0.93	0.16	0.96	-9.66	3.74	1.29	-1.11	2.96	-0.26	2.77	-0.28	0.35	-0.89	0.72	-0.38	0.75	-0.23	-3.38	1.16	0.83	0.93	-1.19
From 3000 to 4500 euros																								
	-44.35923***	-40.17806***	1.308382	-.3365458	1.135673	-23.17696***	1.955944***	.2712851	-.213521	.2712851***	-.0646924	.3677539***	-.6017282	.0034549	-.3159981	.0034549	-.3647079	-.1507134	-1.695647	-1.040907***	2.917466	1.61965	2.913496	-1.070682
	(2.594165)	(.1934019)	(1.638116)	(1.615629)	(1.439587)	(1.751017)	(.6422639)	(.2195634)	(.1578176)	(.0937507)	(.1826515)	(.1061536)	(.6951757)	(.2131174)	(.1952895)	(.1032815)	(.2391406)	(.1221793)	(1.580732)	(.3133334)	(2.338662)	(1.789794)	(2.364709)	(1.092678)
	-17.10	-207.74	0.80	-0.21	0.79	-13.24	3.05	1.24	-1.35	2.89	-0.35	3.46	-0.87	0.02	-1.62	0.03	-1.53	-1.23	-1.07	-3.32	1.25	0.90	1.23	-0.98
From 4500 to 7000 euros																								
	-53.69602***	-49.70729***	-.1668778	-2.247725	-.2668463	-28.66449***	2.129428***	.2815219	-.2414011	.2815219***	.0891568	.3416666***	-.4289694	.1030118	-.1762798	.1030118	-.1309413	.0526708	-1.205763	-2.594932***	1.651047	.3277364	.973289	-3.158122***
	(2.843482)	(.2055832)	(1.745289)	(1.717791)	(1.545053)	(1.830459)	(.7035302)	(.2404043)	(.1814602)	(.1083884)	(.2109112)	(.1238312)	(.7625755)	(.2344231)	(.2234073)	(.1176861)	(.2792156)	(.144486)	(1.711015)	(.3403287)	(2.457672)	(1.843459)	(2.514239)	(1.146162)
	-18.88	-241.79	-0.10	-1.31	-0.17	-15.66	3.03	1.17	-1.33	2.60	0.42	2.76	-0.56	0.44	-0.79	0.88	-0.47	0.36	-0.70	-7.62	0.67	0.18	0.39	-2.76
More than 7000 euros																								
	-64.77306***	-62.0846***	-.7877536	-3.241099*	-.7551932	-35.46702***	1.974849**	.2884578	-.2634406	.2884578*	-.1534029	.4652019**	-.8735164	.1207162	-.1867622	.1207162	-.8090003*	.0563305	.3205753	-1.634393***	.9416898	.0601492	.1331837	-2.536287*
	(3.872414)	(.2544601)	(1.988311)	(1.956879)	(1.8224)	(2.255464)	(.9596382)	(.3186811)	(.2561669)	(.1629469)	(.3060272)	(.1932364)	(1.040755)	(.31352)	(.3330541)	(.1678285)	(.4467095)	(.2144688)	(2.295241)	(.4391959)	(2.759005)	(2.054917)	(2.93039)	(1.422877)
	-16.73	-243.99	-0.40	-1.66	-0.41	-15.72	2.06	0.91	-1.03	1.77	-0.50	2.41	-0.84	0.39	-0.56	0.72	-1.81	0.26	0.14	-3.72	0.34	0.03	0.05	-1.78

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

TABLE B.3 – Continued (3) : Control variables - Estimator comparison - Time spent watching program from free private channel

	Static						$t-(t-1)$						$t-(t-7)$						$t-(t-365)$					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)
	(BE1)	(MCO1)	(FE1)	(RE1)	(AFE1)	(ARE1)	(BE2)	(MCO2)	(FE2)	(RE2)	(AFE2)	(ARE2)	(BE3)	(MCO3)	(FE3)	(RE3)	(AFE3)	(ARE3)	(BE4)	(MCO4)	(FE4)	(RE4)	(AFE4)	(ARE4)
Regions																								
Ile-de-France	-2.158907	-3.661767***	-10.05008*	-11.36038**	-9.987113**	-2.019506	.0081723	-.1784807	-.923024*	-.1784807*	-.468264	-.1482065	-.6717552	.0856175	.1502229	.0856175	.5700675	.038524	-.7244701	.2404835	-1.141075	-.9317722	-.285872	.3969808
	(2.396792)	(.1607129)	(5.827385)	(4.967123)	(4.937601)	(1.931529)	(.5436034)	(.1946449)	(.559395)	(1.057326)	(.6379818)	(.1130932)	(.5879992)	(.1918349)	(.6915945)	(.0981626)	(1.001223)	(.1283345)	(1.281623)	(.2691492)	(4.897508)	(1.110057)	(4.59496)	(.8254457)
	-0.90	-22.78	-1.72	-2.29	-2.02	-1.05	0.02	-0.92	-1.65	-1.69	-0.73	-1.31	-1.14	0.45	0.22	0.87	0.57	0.30	-0.57	0.89	-0.23	-0.84	-0.06	0.48
Champagne-Ardenne	-.2987616	2.70443***	-2.408632	-.7081204	-5.04447	1.71028	.0520929	-.0347583	-.4790145	-.0347583	.0038228	.1791208	-.6954744	.072167	-.0010852	.072167	.5986444	.0226946	-1.072426	2.185363***	13.1369	1.673893	15.02042*	2.723979**
	(3.566738)	(.2397451)	(6.919838)	(5.801977)	(5.804433)	(2.858468)	(.82337)	(.2870444)	(.8203151)	(.1488757)	(1.006151)	(.1706465)	(.8895727)	(.280991)	(1.001526)	(.1344931)	(1.306012)	(.1809048)	(1.937513)	(.3961313)	(8.581312)	(1.834539)	(8.015408)	(1.195469)
	-0.08	11.28	-0.35	-0.12	-0.87	0.60	0.06	-0.12	-0.58	-0.23	0.00	1.05	-0.78	0.26	-0.00	0.54	0.46	0.13	-0.55	5.52	1.53	0.91	1.87	2.28
Picardie	6.537657**	4.860466***	-1.96788	-.1523758	-4.045247	2.590857	.7914188	.0017734	-1.654018**	.0017734	-1.455544*	-.1385487	-1.22985	.0263497	.6871424	.0263497	2.057053	-.1020208	.1907415	2.179108***	-3.218855	-.1791346	-2.903006	2.558634**
	(3.16638)	(.2210139)	(7.551675)	(6.390863)	(6.546907)	(2.41877)	(.7258016)	(.2703372)	(.72739)	(.1455247)	(.7495116)	(.1682435)	(.7813878)	(.2663813)	(.8433631)	(.1304394)	(1.316898)	(.1615235)	(1.700708)	(.3772581)	(6.840422)	(1.627076)	(6.526064)	(1.137527)
	2.06	21.99	-0.26	-0.02	-0.62	1.07	1.09	0.01	-2.27	0.01	-1.94	-0.82	-1.57	0.10	0.81	0.20	1.56	-0.63	0.11	5.78	-0.47	-0.11	-0.44	2.25
Haute-Normandie	5.90971*	-.0788457	-17.20918*	-16.83794**	-15.77302**	-.3829106	-.0878462	-.1526917	-.9944469	-.1526917	-1.206445	-.1901966	-1.953214**	.0217039	1.395174	.0217039	2.182374*	.1318839	3.269788*	3.283443***	5.469799	2.428612	4.115756	3.038296**
	(3.436996)	(.2280775)	(9.073973)	(7.768557)	(7.728753)	(2.624187)	(.7554686)	(.2769336)	(.7663323)	(1.501183)	(.9065506)	(.1874725)	(.8148415)	(.2729468)	(1.075021)	(.1337245)	(1.241417)	(.173001)	(1.823089)	(.3846158)	(10.12236)	(1.867321)	(9.662141)	(1.296661)
	1.72	-0.35	-1.90	-2.17	-2.04	-0.15	-0.12	-0.55	-1.30	-1.02	-1.33	-1.01	-2.40	0.08	1.30	0.16	1.76	0.76	1.79	8.54	0.54	1.30	0.43	2.34
Centre	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Basse-Normandie	1.537499	-.3429593	8.188049	1.724919	2.850137	-.1835023	.2472634	.159432	-.5163748	.159432	-1.995573	.192044	-.4255525	.0436383	.7075444	.0436383	1.349185	-.0745731	-.2188784	-.5288448	-29.23101***	-2.677627	-31.75854***	-.0214995
	(3.74082)	(.2491487)	(9.620606)	(7.712091)	(7.368454)	(2.656349)	(.8319884)	(.307671)	(.9572544)	(.1661867)	(1.908908)	(.2006125)	(.8965088)	(.3019029)	(1.474768)	(.1376684)	(1.848701)	(.1704225)	(1.949306)	(.4294743)	(8.622043)	(1.755032)	(7.881556)	(1.298709)
	0.41	-1.38	0.85	0.22	0.39	-0.07	0.30	0.52	-0.54	0.96	-1.05	0.96	-0.47	0.14	0.48	0.32	0.73	-0.44	-0.11	-1.23	-3.39	-1.53	-4.03	-0.02
Bourgogne	-4.979536	-6.334838***	-17.43955**	-15.9748**	-17.01124**	-3.985632	.3572106	.2125643	-1.009952	.2125643	-1.624043*	-.0949706	.0144936	.0073133	-.6473305	.0073133	.8648224	.0899504	-1.800781	2.118941***	-7.321585	-.1156382	-9.809247	1.968405*
	(3.533262)	(.2232716)	(8.3332)	(7.301922)	(6.852238)	(2.596182)	(.7835517)	(.2716473)	(.7999727)	(.1372648)	(.8777105)	(.156003)	(.8442663)	(.2676243)	(.9009583)	(.1281394)	(1.444807)	(.1679456)	(1.806284)	(.3708123)	(8.839551)	(1.796794)	(8.232723)	(1.078372)
	-1.41	-28.37	-2.09	-2.19	-2.48	-1.54	0.46	0.78	-1.26	1.55	-1.85	-0.61	0.02	0.03	-0.72	0.06	0.60	0.54	-1.00	5.71	-0.83	-0.06	-1.19	1.83
Nord-Pas-de-Calais	11.29546***	9.820509***	-5.55969	-.8012163	-4.60915	5.536434**	.0095714	.0927104	.1165042	.0927104	.5093239	.1759285	-.6521613	.0243854	1.312277	.0243854	2.077256	.1119122	1.058447	3.548109***	18.76586	2.460663*	23.64809*	4.038489***
	(2.901169)	(.1905282)	(8.259057)	(6.444171)	(7.254426)	(2.222652)	(.6159947)	(.2299524)	(.711098)	(.1173971)	(.8765246)	(.1234832)	(.6650387)	(.2258185)	(1.148905)	(.1074525)	(1.497083)	(.1399342)	(1.456182)	(.3205286)	(12.48855)	(1.45271)	(13.57469)	(1.076395)
	3.89	51.54	-0.67	-0.12	-0.64	2.49	0.02	0.40	0.16	0.79	0.68	1.42	-0.98	0.11	1.14	0.23	1.39	0.80	0.73	11.07	1.50	1.69	1.74	3.75
Lorraine	-2.264267	-3.806308***	-5.775907	-4.634968	-7.115417	-1.985729	.073836	.0567519	-.0950206	.0567519	.3868721	.2273849	.2605109	.0877051	-.2506382	.0877051	.9296732	.0271998	-.2646085	.9588114***	7.502372	.2581796	9.168307	.9618983
	(3.170047)	(.2204932)	(7.753732)	(6.468393)	(6.725561)	(2.568776)	(.7157799)	(.2697636)	(.7715992)	(.1359088)	(.8114643)	(.1470882)	(.7731609)	(.2644918)	(.8678261)	(.1306828)	(1.206678)	(.1630683)	(1.714217)	(.3711061)	(7.027874)	(1.591832)	(6.929895)	(1.204119)
	-0.71	-17.26	-0.74	-0.72	-1.06	-0.77	0.10	0.21	-0.12	0.42	0.48	1.55	0.34	0.33	-0.29	0.67	0.77	0.17	-0.15	2.58	1.07	0.16	1.32	0.80
Alsace	-16.0616***	-16.91965***	-17.72221**	-18.58943***	-15.94838**	-9.400795***	.3748469	-.0485532	-1.415372*	-.0485532	-1.412283*	.1477212	.0528454	.1361515	.1034748	.1361515	.1448951	.1652447	1.109567	.2554174	-5.225052	-1.331019	-4.421862	.4678366
	(3.582534)	(.2025267)	(8.213918)	(6.818993)	(7.112517)	(2.373916)	(.7200178)	(.2479252)	(.730668)	(.1290202)	(.7493004)	(.1338378)	(.7774615)	(.2426565)	(.8806247)	(.1142351)	(1.185858)	(.1510296)	(1.685192)	(.3347049)	(7.414002)	(1.45829)	(7.32464)	(1.051739)
	-4.48	-83.54	-2.16	-2.73	-2.24	-3.96	0.52	-0.20	-1.94	-0.38	-1.88	1.10	0.07	0.56	0.12	1.19	0.12	1.09	0.66	0.76	-0.70	-0.91	-0.60	0.44
Franche-Comté	-8.876042**	-8.266333***	2.657755	-.3787322	.8978205	-5.024217*	-.3004805	-.1673826	-.4931988	-.1673826	.061097	-.0991914	1.030337	.440698	2.38664***	.440698***	2.345103*	.3764027**	3.668151*	1.152788***	3.125417	1.335578	3.192791	1.788104
	(4.504761)	(.2558883)	(11.82075)	(9.58411)	(10.42554)	(2.882091)	(.8465681)	(.3085848)	(.8598307)	(.1670538)	(1.05151)	(.189435)	(.9132567)	(.3013563)	(.9211234)	(.1280513)	(1.826153)	(.1794446)	(2.019734)	(.4209881)	(9.373747)	(1.602698)	(9.063271)	(1.184771)
	-1.97	-32.30	0.22	-0.04	0.09	-1.74	-0.35	-0.54	-0.57	-1.00	0.06	-0.52	1.13	1.46	2.59	2.90	1.83	2.10	1.82	2.74	0.33	0.83	0.35	1.51
Pays de la Loire	-6.220675**	-1.767324***	.8803124	.1905606	-1.698163	-.7863031	1.001005	.1078593	-.9203911	.1078593	-.5118848	.108724	-.170071	.1255226	.5004839	.1255226	1.505988	.3721012***	-.6751475	1.243623***	16.89259***	2.027394	15.26629**	1.440447
	(2.592154)	(.1855833)	(7.297758)	(6.146414)	(6.100101)	(2.202085)	(.6231034)	(.2267118)	(.7348774)	(.1188637)	(.7742326)	(.1353806)	(.6721403)	(.2227531)	(.7927962)	(.1065826)	(1.1491)	(.1416232)	(1.464883)	(.313402)	(6.312953)	(1.357988)	(6.218829)	(.9351968)
	-2.40	-9.52	0.12	0.03	-0.28	-0.36	1.61	0.48	-1.25	0.91	-0.66	0.80	-0.25	0.56	0.63	1.18	1.31	2.63	-0.46	3.97	2.68	1.49	2.45	1.54
Bretagne	2.087145	-2.250049***	-6.296517	-4.585219	-6.846236	-1.833622	.8869686	.0271777	-1.144342*	.0271777	-1.433512*	.155838	.7155915	.1867157	1.428599	.1867157*	1.365782	.1723509	-1.011268	.785166**	-14.35729***	-2.148754*	-12.58576***	.9511227
	(3.030745)	(.1941349)	(7.371511)	(6.171907)	(6.362402)	(2.293523)	(.6515078)	(.2317302)	(.6348751)	(.1217658)	(.8242967)	(.1252514)	(.7035544)	(.228361)	(.9483437)	(.111515)	(1.11868)	(.1432695)	(1.545129)	(.3215573)	(4.799737)	(1.271596)	(4.71772)	(.9891225)
	0.69	-11.59	-0.85	-0.74	-1.08	-0.80	1.36	0.12	-1.80	0.22	-1.74	1.24	1.02	0.82	1.51	1.67	1.22	1.20	-0.65	2.44	-2.99	-1.69	-2.67	0.96
Poitou-Charentes	-4.165359	-2.924574***	-3.096424	-.1517175	-5.027402	-2.007213	1.002017	.0241904	-.7614111	.0241904	-1.112689	-.0360511	1.440158	.3317257	.6414851	3.317257***	1.247699	.3658611**	.0203401	.8526699**	4.459364	.9665094	3.816185	1.175134
	(3.350649)	(.2209197)	(6.360352)	(5.465819)	(5.356895)	(2.425747)	(.7611519)	(.2658665)	(.650014)	(.1417536)	(.8188466)	(.15523)	(.8199607)	(.2600354)	(.9707863)	(.1264945)	(1.178995)	(.163137)	(1.771217)	(.3635363)	(7.693335)	(1.704181)	(7.559602)	(1.07956)
	-1.24	-13.24	-0.49	-0.03	-0.94	-0.83	1.32	0.09	-1.17	0.17	-1.36	-0.23	0.18	1.27	0.66	2.62	1.06	2.24	0.01	2.35	0.58	0.57	0.50	1.09
Aquitaine	-8.188854**	-1.916839***	-11.88891**	-9.970092**	-12.62609**	-1.202934	-.0807977	-.009024	-1.062231	-.009024	-.6351315	-.0648795	-.612305	.0489687	-.1911591	.0489687	.2686199	.1111823	-.7161836	.9790608***	-5.010711	-.6226314	-5.03016	1.371226
	(3.586582)	(.1941868)	(5.873492)	(5.042454)	(4.942798)	(2.21195)	(.6449894)	(.2312355)	(.7122112)	(.1660305)	(.7602209)	(.1420335)	(.6962099)	(.2268183)	(.7997408)	(.1086794)	(1.163157)	(.1397118)	(1.497674)	(.3215147)	(7.217397)	(1.4282)	(6.207301)	(.9429011)
	-2.28	-9.87	-2.02	-1.98	-2.55	-0.54	-0.13	-0.04	-1.49	-0.05	-0.84	-0.46	-0.88	0.22	-0.24	0.45	0.23	0.80	-0.48	3.05	-0.69	-0.44	-0.81	1.45
Midi-Pyrénées	-12.66955***	-7.632175***	-2.298894	-3.684164	-3.289563	-3.858722*	.4330804	.0500764	-.9216478	.0500764	-.9945915	-.1583644	.5880472	.13492	-.1712742	.13492	.4456069	.1406332	-.3809967	2.335355***	1.015633	1.1347	3.270604	2.087333*
	(3.344303)	(.1976874)	(6.505457)	(5.486213)	(5.724533)	(2.291064)	(.6751624)	(.2383148)	(.7778804)	(.1253647)	(1.000911)	(.1442811)	(.7285661)	(.2351488)	(.8766191)	(.1150146)	(1.198947)	(.1528473)	(1.58372)	(.3273547)	(6.218085)	(1.327325)	(6.036002)	(1.120483)
	-3.79	-38.61	-0.35	-0.67	-0.57	-1.68	0.64	0.21	-1.18	0.40	-0.99	-1.10	0.81	0.57	-0.20	1.17	0.37	0.92	-0.24	7.13	0.16	0.85	0.54	1.86
Limousin	-2.587213	-4.883594***	-30.71567***	-28.41392***	-26.73998***	-2.61182	-.5934367	.1934383	-.7447644	.1934383	.1901011	.1764276	.2239224	.2251165	1.882138	.2251165	2.296829	.4982795**	3.51456	2.771031***	-11.31231	-.2635545	-6.236921	3.723237**
	(4.736603)	(.3125556)	(10.36517)	(9.514023)	(8.975461)	(3.746472)	(1.056812)	(.3690326)	(1.479037)	(.1773632)	(1.663162)	(.1895002)	(1.152767)	(.3634529)	(1.221577)	(.1722801)	(1.474501)	(.2184227)	(2.547735)	(.5024216)	(10.68571)	(2.828894)	(11.18232)	(1.67282)
	-0.55	-15.62	-2.96	-2.99	-2.98	-0.70	-0.56	0.52	-0.50	1.09	0.11	0.93	0.19	0.62	1.54	1.31	1.56	2.28	1.38	5.52	-1.06	-0.09	-0.56	2.23
Rhône-Alpes	-17.06833***	-9.754009***	-3.682927	-5.495747	-4.059408	-5.60903***	.8723061	-.1589159	-.317078	-.1589159	.0316001	-.0255878	-.187298	.01943	.6993032	.01943	.9461855	.0912338	-.1345262	.7356358**	9.438236	.8039319	10.8299*	.8900671
	(3.276114)	(.1715754)	(6.371099)	(5.234599)	(5.446273)	(1.973938)	(.573361)	(.2074242)	(.5955808)	(.1097562)	(.6941232)	(.1172652)	(.6189516)	(.2036681)	(.7845311)	(.0963975)	(1.085333)	(.1283584)	(1.351543)	(.2862701)	(6.757861)	(1.247465)	(6.336067)	(.8760111)
	-5.21	-56.85	-0.58	-1.05	-0.75	-2.84	1.52	-0.77	-0.53	-1.45	0.05	-0.22	-0.30	0.10	0.89	0.20	0.87	0.71	-0.10	2.57	1.40	0.64	1.71	1.02
Auvergne	-16.75623***	-13.33655***	-3.186787	-5.176335	-4.228404	-7.750509***	-.1310222	-.2677828	-.964348	-.2677828	-.1289921	-.3378666*	-.4732894	.0507315	-.0004451	.0507315	-.4478205	.0537388	1.732896	2.64595***	7.341896	1.834501	6.612952	2.392051*
	(4.030119)	(.2429594)	(8.511679)	(7.553184)	(6.848606)	(2.579616)	(.8292222)	(.3002108)	(.8027417)	(.1680243)	(.8287661)	(.2043024)	(.9009167)	(.2920986)	(.9947446)	(.1469698)	(1.414395)	(.1932926)	(1.977631)	(.4206951)	(8.380546)	(1.792601)	(8.123326)	(1.247963)
	-4.16	-54.89	-0.37	-0.69	-0.62	-3.00	-0.16	-0.89	-1.20	-1.59	-0.16	-1.65	-0.53	0.17	-0.00	0.35	-0.32	0.28	0.88	6.29	0.88	1.02	0.81	1.92
Languedoc-Roussillon	-16.97587***	-9.649669***	11.34057	9.052606	8.396781	-5.721682**	1.43165**	-.0097846	-.7791347	-.0097846	-1.138235	.1229626	-.9299902	.2690978	2.889876***	2.690978***	3.722483***	3.050362**	-2.187911	.8255438**	11.23926	1.286554	10.67885	1.396384
	(3.56471)	(.2153105)	(9.997438)	(8.513315)	(8.28961)	(2.572465)	(.7244205)	(.256267)	(.7458605)	(.1251905)	(.9509891)	(.1347437)	(.7821747)	(.2524515)	(.9615208)	(.1200038)	(1.377826)	(.1549945)	(1.72378)	(.3571408)	(7.953318)	(1.499755)	(7.409616)	(1.063748)
	-4.76	-44.82	1.13	1.06	1.01	-2.22	1.98	-0.04	-1.04	-0.08	-1.20	0.91	-1.19	1.07	3.01	2.24	2.70	1.97	-1.27	2.31	1.41	0.86	1.44	1.31
Provence-Alpes-Côte d'Azur	-19.06597***	.0773152	-2.105333	-1.971794	-5.234829	.8577605	-.7161598	-.0543276	-.9662701*	-.0543276	-.2811877	.0582998	-1.079539	.0421706	.945971	.0421706	1.572806	.0316333	-.6679299	1.714655***	-4.48452	-.1196127	-4.313484	2.072235**
	(3.811654)	(.1804316)	(6.109384)	(5.152094)	(5.149037)	(2.087179)	(.6112822)	(.2161295)	(.5601131)	(.1137617)	(.667853)	(.1199025)	(.6602188)	(.2126194)	(.8247409)	(.1028152)	(1.172765)	(.1343222)	(1.429886)	(.2969069)	(5.502548)	(1.223359)	(5.228785)	(.8813602)
	-5.00	0.43	-0.34	-0.38	-1.02	0.41	-1.17	-0.25	-1.73	-0.48	-0.42	0.49	-1.64	0.20	1.15	0.41	1.34	0.24	-0.47	5.77	-0.81	-0.10	-0.82	2.35

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

TABLE B.3 – Continued (4) : Control variables - Estimator comparison - Time spent watching program from free private channel

	Static						$t-(t-1)$						$t-(t-7)$						$t-(t-365)$					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)
	(BE1)	(MCO1)	(FE1)	(RE1)	(AFE1)	(ARE1)	(BE2)	(MCO2)	(FE2)	(RE2)	(AFE2)	(ARE2)	(BE3)	(MCO3)	(FE3)	(RE3)	(AFE3)	(ARE3)	(BE4)	(MCO4)	(FE4)	(RE4)	(AFE4)	(ARE4)
Internet connection mode																								
No Internet acces	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Cable	-19.79836***	-19.39639***	-1.253265	-1.443641	-2.005837	-9.957982***	-.7791561	-.247798	-.1840515	-.247798*	-.0356673	-.153543	.4427203	.0825023	-.1038029	.0825023	.0418107	-.0033525	-5.090332***	-.9889105***	3.027493	1.021644	1.924963	-.9088944
	(2.893306)	(.1965768)	(1.805176)	(1.779852)	(1.61476)	(2.078392)	(.714452)	(.2314523)	(.1981732)	(.1328562)	(.2367853)	(.137536)	(.7704877)	(.2243678)	(.2450097)	(.1101709)	(.3061979)	(.1345678)	(1.737289)	(.3328646)	(2.576978)	(1.814941)	(2.611472)	(1.032242)
	-6.84	-98.67	-0.69	-0.81	-1.24	-4.79	-1.09	-1.07	-0.93	-1.87	-0.15	-1.12	0.57	0.37	-0.42	0.75	0.14	-0.02	-2.93	-2.97	1.17	0.56	0.74	-0.88
ADSL	-19.51585***	-18.08106***	1.256393	.9190741	.8728797	-9.304677***	-.1399866	.0419678	.0890693	.0419678	.1166863	-.0605797	-.328015	.0248727	.1604468	.0248727	.2719678	-.0253817	-5.955665***	-1.64441***	2.557962	.701169	2.293188	-1.432749**
	(2.027284)	(.1349579)	(1.209372)	(1.198597)	(1.050038)	(1.534755)	(.5008716)	(.1442549)	(.1205564)	(.0939858)	(.1305183)	(.0792939)	(.5394322)	(.1370113)	(.1393229)	(.0605367)	(.1726234)	(.0722807)	(1.212548)	(.2042228)	(1.721528)	(1.292685)	(1.647781)	(.6910677)
	-9.63	-133.98	1.04	0.77	0.83	-6.06	-0.28	0.29	0.74	0.45	0.89	-0.76	-0.61	0.18	1.15	0.41	1.58	-0.35	-4.91	-8.05	1.49	0.54	1.39	-2.07
Fiber optics	-20.58173***	-20.39974***	-2.813328	-3.252096*	-2.248263	-9.973041***	-.5955553	-.0906441	.1151248	-.0906441	.0628851	-.2908812**	-.9155227	-.0240716	.041368	-.0240716	.3169272	-.0332752	-5.084522***	-2.369974***	2.163769	.4336669	.8183709	-2.780549**
	(3.325186)	(.222995)	(1.90675)	(1.892958)	(1.739457)	(2.204558)	(.8212817)	(.2670459)	(.2033803)	(.1404904)	(.2354833)	(.1441142)	(.8857859)	(.2612196)	(.2373212)	(.1262187)	(.3066892)	(.1700706)	(1.903756)	(.3613691)	(2.425105)	(1.874801)	(2.50346)	(1.281514)
	-6.19	-91.48	-1.48	-1.72	-1.29	-4.52	-0.73	-0.34	0.57	-0.65	0.27	-2.02	-1.03	-0.09	0.17	-0.19	1.03	-0.20	-2.67	-6.56	0.89	0.23	0.33	-2.17
Other	-15.58818***	-19.22616***	-1.715283	-1.960043	-1.35422	-10.91873***	-1.610963	-.0515651	.0451233	-.0515651	.1404033	-.0431225	-1.640154	-.357214	-.1141082	-.357214**	.0887993	-.1427497	-5.087238**	-1.555352***	.0751361	-.9028565	.4510419	-.9537958
	(4.113019)	(.2535301)	(1.733483)	(1.72396)	(1.53655)	(2.081433)	(1.023265)	(.2992964)	(.2023655)	(.1544013)	(.2220324)	(.1688092)	(1.096134)	(.2921357)	(.2172849)	(.1414286)	(.2647287)	(.1752519)	(2.477525)	(.4347686)	(2.250972)	(1.946604)	(2.229507)	(1.475295)
	-3.79	-75.83	-0.99	-1.14	-0.88	-5.25	-1.57	-0.17	0.22	-0.33	0.63	-0.26	-1.50	-1.22	-0.53	-2.53	0.34	-0.81	-2.05	-3.58	0.03	-0.46	0.20	-0.65
Intercept	181.7662***	185.1198***	157.5589***	141.805***	142.2793***	112.0591***	4.680062**	2.487473***	3.831397***	2.487473***	.3968122	-1.146911**	-10.50851***	-3.181356***	-3.713293***	-3.181356***	-5.172514***	-3.561436***	12.94255**	.3260906	-10.77969*	-4.511516	-12.00753*	-1.214046
	(14.68283)	(.5195865)	(5.818113)	(5.105857)	(5.048769)	(3.325376)	(2.377298)	(.6347818)	(.7232074)	(.4487126)	(.8102614)	(.4665109)	(2.340429)	(.6587775)	(.8747968)	(.4217761)	(1.188515)	(.5134958)	(5.330598)	(.890741)	(6.503765)	(3.361065)	(6.653451)	(3.075275)
	12.38	356.28	27.08	27.77	28.18	33.70	1.97	3.92	5.30	5.54	0.49	-2.46	-4.49	-4.83	-4.24	-7.54	-4.35	-6.94	2.43	0.37	-1.66	-1.34	-1.80	-0.39
Number of observations	12,922,039	12,922,039	12,922,039	12,922,039	10,286,856	10,286,856	10,280,284	10,280,284	10,280,284	10,280,284	8,594,887	8,594,887	9,636,853	9,636,853	9,636,853	9,636,853	7,071,750	7,071,750	6,229,385	6,229,385	6,229,385	6,229,385	4,521,383	4,521,383
Number of groups	21,760		21,760	21,760	21,426	21,426	21,422		21,422	21,422	20,926	20,926	21,151		21,151	21,151	20,233	20,233	16,014		16,014	16,014	15,194	15,194
R-squared : R^2		0.11						0.01						0.00						0.02				
R-squared for overall model : R^2_O	0.02		0.00	0.03	0.17	0.27	0.00		0.01	0.01	0.22	0.22	0.00		0.00	0.00	0.01	0.01	0.00		0.01	0.02	0.03	0.03
R-squared for between model : R^2_B	0.30		0.05	0.05	0.44	0.82	0.05		0.00	0.00	0.17	0.17	0.06		0.00	0.00	0.03	0.04	0.06		0.01	0.02	0.06	0.19
R-squared for within model : R^2_W	0.00		0.02	0.02	0.05	0.04	0.00		0.01	0.01	0.22	0.22	0.00		0.00	0.00	0.01	0.01	0.00		0.01	0.01	0.03	0.03
Panel-level standard deviation : σ_u			80.57	62.67	67.46	0.00			16.19	0.00	16.43	0.00			17.40	0.00	23.14	0.00			34.42	17.90	38.75	0.00
Standard deviation of ϵ_{it} : σ_ϵ			97.42	97.42	98.53	98.53			128.16	128.16	115.35	115.35			121.71	121.71	123.85	123.85			137.12	137.12	140.04	140.04
Intraclass correlation : ρ			0.41	0.29	0.32	0.00			0.02	0.00	0.02	0.00			0.02	0.00	0.03	0.00			0.06	0.02	0.07	0.00
Hausman Test : Prob > χ^2			0.0000	0.0000	0.0000	0.0000			1.0000	1.0000	0.0257	0.0257			1.0000	1.0000	1.0000	1.0000			0.0000	0.0000	0.0000	0.0000

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

TABLE B.3 – Continued (5) : Control variables - Estimator comparison - Time spent watching program from free private channel

	Static						$t-(t-1)$						$t-(t-7)$						$t-(t-365)$					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)
	(BE1)	(MCO1)	(FE1)	(RE1)	(AFE1)	(ARE1)	(BE2)	(MCO2)	(FE2)	(RE2)	(AFE2)	(ARE2)	(BE3)	(MCO3)	(FE3)	(RE3)	(AFE3)	(ARE3)	(BE4)	(MCO4)	(FE4)	(RE4)	(AFE4)	(ARE4)
$(t_2 - Q_2^H)_t$					.2071756*** (.0024372) 85.01	.5009205*** (.0064758) 77.35					-.4584852*** (.0011464) -399.94	-.457893*** (.0011439) -400.27					.0942135*** (.0016666) 56.53	.0954617*** (.0016629) 57.41					.1098834*** (.0037239) 29.51	.1273275*** (.0037954) 33.55
TS (in mn)	-.187831*** (.0215073) -8.73	-.111162*** (.0013749) -80.85	-.0687905*** (.0038476) -17.88	-.070058*** (.0038064) -18.41	-.0799162*** (.0048704) -16.41	-.0825491*** (.0095633) -8.63	-.0600462*** (.0173579) -3.46	-.0717461*** (.0019801) -36.23	-.0718881*** (.004433) -16.22	-.0717461*** (.0044178) -16.24	-.0596954*** (.0043768) -13.64	-.0595435*** (.0043655) -13.64	-.0517354*** (.0184656) -2.80	-.093883*** (.0021266) -44.15	-.0940249*** (.0041136) -22.86	-.093883*** (.0040961) -22.92	-.112267*** (.0058588) -19.16	-.1121054*** (.0058285) -19.23	-.0364678 (.024653) -1.48	-.0705413*** (.0026853) -26.27	-.0702467*** (.0060401) -11.63	-.0705413*** (.0061123) -11.54	-.088016*** (.0083008) -10.60	-.0874889*** (.008333) -10.50
OTVU (in mn)	-.04308*** (.0077784) -5.54	-.0921495*** (.0005828) -158.10	-.0939443*** (.0028952) -32.45	-.0943081*** (.0028787) -32.76	-.1013043*** (.0035701) -28.38	-.069411*** (.0042361) -16.39	-.0261954*** (.0063623) -4.12	-.0653056*** (.0010307) -63.36	-.0656719*** (.0023495) -27.95	-.0653056*** (.0023361) -27.95	-.0631784*** (.0026462) -23.88	-.0628015*** (.0026299) -23.88	-.0136976** -.0136976** -2.24	-.0815367*** -.0815367*** -79.35	-.0819743*** -.0819743*** -33.56	-.0815367*** -.0815367*** -33.58	-.101913*** -.101913*** -28.12	-.1009366*** -.1009366*** -28.12	-.0859481*** (.0076766) -11.20	-.1503085*** (.0012357) -121.64	-.1486601*** (.0066572) -22.33	-.1503085*** (.0064743) -23.22	-.1732576*** (.008835) -19.61	-.1718748*** (.0083716) -20.53
ω_1 **: Temperature (in °C)**	.8578171* (.4973398) 1.72	-.2343735*** (.0161533) -14.51	-.2755514*** (.0150065) -18.36	-.2747028*** (.0149821) -18.34	-.2491769*** (.0179906) -13.85	-.1158361*** (.0193758) -5.98	.0591852 (.3003329) 0.20	-.268236*** (.031137) -8.61	-.2684324*** (.0310107) -8.66	-.268236*** (.0309272) -8.67	-.3113933*** (.033784) -9.22	-.3137653*** (.0336703) -9.32	-.1429319 (.1640581) -0.87	-.3315314*** (.0157484) -21.05	-.3320655*** (.0194733) -17.05	-.3315314*** (.0194114) -17.08	-.315586*** (.0257428) -12.26	-.3149197*** (.0256029) -12.30	.3300466 (.2439071) 1.35	-.3496563*** (.0233483) -14.98	-.3458233*** (.0267773) -12.91	-.3496563*** (.0268367) -13.03	-.3691904*** (.0352425) -10.48	-.3644688*** (.0349177) -10.44
ω_2 **: Sunshine duration (in mn)**	.0196888** (.0084111) 2.34	-.0065931*** (.0002596) -25.40	-.0080432*** (.0002629) -30.60	-.0080102*** (.0002627) -30.49	-.0084789*** (.0003395) -24.98	-.0067513*** (.0003356) -20.12	.0045396 (.0031082) 1.46	-.0104476*** (.0003188) -32.77	-.0104871*** (.0004074) -25.74	-.0104476*** (.0004063) -25.71	-.009854*** (.0004299) -22.92	-.0098845*** (.0004285) -23.07	-.0076886*** (.0024805) -3.10	-.0107985*** (.0002502) -43.15	-.0108302*** (.0003588) -30.19	-.0107985*** (.0003577) -30.19	-.0111174*** (.0004788) -23.22	-.0110846*** (.0004764) -23.27	.0054023 (.0037929) 1.42	-.0110201*** (.0003746) -29.42	-.0111071*** (.0004928) -22.54	-.0110201*** (.0004922) -22.39	-.0118955*** (.0006448) -18.45	-.0116402*** (.000642) -18.13
ω_3 **: Rainfall (in mm)**	-.2800264 (.6099208) -0.46	.0298396* (.0171352) 1.74	.0513333*** (.0151055) 3.40	.0514503*** (.0151124) 3.40	.0566553*** (.0196208) 2.89	.046609** (.0207092) 2.25	1.12881*** (.2014987) 5.60	-.0087393 (.0186987) -0.47	-.0090779 (.0217696) -0.42	-.0087393 (.0217155) -0.40	-.022395 (.0227673) -0.98	-.0224366 (.0227028) -0.99	.1204827 (.1716965) 0.70	-.0373529** (.0166753) -2.24	-.0384490** (.0193541) -1.99	-.0373529* (.0193036) -1.94	-.0772234*** (.0264429) -2.92	-.0756814*** (.026347) -2.87	-.0424756 (.2624736) -0.16	-.0085998 (.0244734) -0.35	-.010499 (.0273335) -0.38	-.0085998 (.0273664) -0.31	-.0012433 (.0367304) -0.03	-.0033503 (.0367114) -0.09
ω_4 **: Wind speed (in km/h)**	-1.372529 (1.19733) -1.15	.6289038*** (.036719) 17.13	.6626943*** (.0338896) 19.55	.6608475*** (.0338708) 19.51	.6587385*** (.0423231) 15.56	.5315184*** (.0429921) 12.36	.6270651 (.5013795) 1.25	.7608976*** (.0497322) 15.30	.7608163*** (.0545336) 13.95	.7608976*** (.0543848) 13.99	.6999241*** (.0583538) 11.99	.6978811*** (.0581818) 11.99	1.541558*** (.3720091) 4.14	.7602119*** (.0352553) 21.56	.7588375*** (.0432719) 17.54	.7602119*** (.043148) 17.62	.7872924*** (.0575251) 13.69	.7861737*** (.0572601) 13.73	.4187735 (.5380084) 0.78	.7188565*** (.051919) 13.85	.7308373*** (.0628417) 11.63	.7188565*** (.0629982) 11.41	.7857820*** (.0853979) 9.20	.7705186*** (.0850501) 9.06
ω_5 **: Rain duration (in mn)**	-.0158842 (.014362) -1.11	.0024297*** (.0004263) 5.70	.002954*** (.0003624) 8.15	.0029447*** (.0003623) 8.13	.0040198*** (.0004772) 8.42	.0037054*** (.0005035) 7.36	-.0152578*** (.0047749) -3.20	.0036755*** (.0004671) 7.87	.0036799*** (.0005293) 6.95	.0036755*** (.0005281) 6.96	.0026475*** (.0005496) 4.82	.0026168*** (.0005482) -5.41	-.021414*** (.0039597) 12.37	.0050678*** (.0004098) 10.56	.0051054*** (.0004834) 10.51	.0050678*** (.0004822) 10.44	.0067892*** (.0006504) 10.42	.0067532*** (.000648) -2.23	-.0139805** (.0062795) 7.35	.0044536*** (.0006058) 6.73	.0044406*** (.0006598) 6.76	.0044536*** (.000659) 5.33	.0047046*** (.0008826) 5.53	.0048638*** (.0008798)
Day of the week																								
Monday	-4.95792 (5.801814) -0.85	-.4906183*** (.1675097) -2.93	.4462648 (.3602573) 1.24	.4255254 (.3600711) 1.18	-5.327725*** (.5424325) -9.82	-8.905503*** (.7101971) -12.54	1.336995 (2.340274) 0.57	-21.77136*** (.2568933) -84.75	-21.91512*** (1.092144) -20.07	-21.77136*** (1.085005) -20.07	-21.95745*** (1.161657) -18.90	-21.93749*** (1.146695) -19.13	-3.744446* (2.225971) -1.68	.003371 (.2196078) 0.02	.0266089 (.1166538) 0.23	.003371 (.1155474) 0.03	.0469839 (.1912162) 0.25	-.0053041 (.187937) -0.03	-29.77737*** (3.658917) -8.14	-25.80282*** (.3602722) -71.62	-26.04757*** (1.325483) -19.65	-25.80282*** (1.31723) -19.59	-33.62548*** (2.041485) -16.47	-33.38803*** (2.024192) -16.49
Tuesday	-12.11417** (6.134899) -1.97	-.9621724*** (.1685556) -5.71	-.5897672* (.3104414) -1.90	-.5985759* (.3103829) -1.93	-2.317807*** (.4470962) -5.18	-4.453361*** (.524902) -8.48	11.08967*** (2.383775) 4.65	-6.859615*** (.213679) -32.10	-6.89801*** (.6941987) -9.94	-6.859615*** (.6914907) -9.92	-10.91352*** (.8928772) -12.22	-10.86566*** (.8832838) -12.30	4.195361* (2.323273) 1.81	-.1535809 (.2236855) -0.69	-.1618669 (.1195227) -1.35	-.1535809 (.1186884) -1.29	-.2630655 (.1617251) -1.63	-.254519 (.1605673) -1.59	-10.09067*** (3.907592) -2.58	-8.347316*** (.3176873) -26.28	-8.412368*** (.8914821) -9.44	-8.347316*** (.8873121) -9.41	-10.2108*** (1.336623) -7.64	-9.766509*** (1.339393) -7.29
Wednesday	-6.524051 (5.829541) -1.12	-.1310932 (.1667986) -0.79	.4794427 (.3032788) 1.58	.4636996 (.3032474) 1.53	-1.066338*** (.4136079) -2.58	-2.688046*** (.4476384) -6.00	10.8732*** (2.408926) 4.51	-4.485944*** (.2127472) -21.09	-4.537448*** (.5393346) -8.41	-4.485944*** (.5370747) -8.35	-3.108598*** (.669718) -4.64	-3.124386*** (.6656548) -4.69	2.84133 (2.208537) 1.29	-.1906609 (.2222044) -0.86	-.2171073* (.1190252) -1.82	-.1906609 (.1181715) -1.61	-.2731609* (.1641476) -1.66	-.2445989 (.1633216) -1.50	-10.58953*** (3.846453) -2.75	-5.378355*** (.3176232) -16.93	-5.524746*** (.6952343) -7.95	-5.378355*** (.6934508) -7.76	-7.820815*** (.9348278) -8.37	-7.909555*** (.9350216) -8.46
Thursday	9.127679 (6.305081) 1.45	-4.46259*** (.16908) -26.39	-4.360445*** (.3496737) -12.47	-4.361367*** (.3496015) -12.48	-7.464858*** (.5146794) -14.50	-9.244061*** (.6088281) -15.18	3.936439 (2.531184) 1.56	-11.92379*** (.2141666) -55.68	-11.97275*** (.7802056) -15.35	-11.92379*** (.7778885) -15.33	-9.860463*** (.6938905) -14.21	-9.869763*** (.691689) -14.27	3.235221 (2.42562) 1.33	.0360988 (.2252382) 0.16	.0185785 (.1177185) 0.16	.0360988 (.1171193) 0.31	-.1700399 (.1617427) -1.05	-.1459454 (.1610903) -0.91	-9.948787** (3.920068) -2.54	-13.97102*** (.3182752) -43.90	-14.06676*** (.9739337) -14.44	-13.97102*** (.9701631) -14.40	-17.84822*** (1.366523) -13.06	-17.92438*** (1.375232) -13.03
Friday	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Saturday	13.7143** (5.377766) 2.55	17.9238*** (.1816247) 98.69	16.70163*** (.5176129) 32.27	16.67943*** (.5173303) 32.24	14.40454*** (.7623685) 18.89	14.62692*** (.8180446) 17.88	23.4375*** (2.529585) 9.27	9.703274*** (.2495658) 38.88	9.637684*** (.946851) 10.18	9.703274*** (.9435727) 10.28	13.08259*** (.9995904) 13.09	13.13539*** (.9957374) 13.19	-.1952052 (2.068402) -0.09	-.2510167 (.2585481) -0.97	-.2208685 (.144821) -1.53	-.2510167* (.141839) -1.77	-.6414399*** (.2036505) -3.15	-.6617581*** (.2022856) -3.27	6.94954* (3.829424) 1.81	11.04467*** (.3553714) 31.08	10.95587*** (1.176406) 9.31	11.04467*** (1.169786) 9.44	4.435863*** (1.712145) 2.59	4.361418** (1.715542) 2.54
Sunday	-1.078187 (5.014907) -0.21	19.23807*** (.1788028) 107.59	18.07437*** (.6271232) 28.82	18.03127*** (.6267962) 28.77	14.24779*** (.8628435) 16.51	9.815111*** (.8827283) 11.12	8.1099*** (1.992012) 4.07	-5.050582*** (.2589472) -19.50	-5.214983*** (.9516654) -5.48	-5.050582*** (.9322726) -5.42	3.699626*** (1.152616) 3.21	3.780269*** (1.140035) 3.32	.4300228 (1.918) 0.22	.3182237 (.2584903) 1.23	.3418858** (.1497535) 2.28	.3182237** (.1450219) 2.19	.0422279 (.224668) 0.19	-.0590562 (.2181302) -0.27	-11.73434*** (3.187331) -3.68	-5.799242*** (.3711788) -15.62	-6.015839*** (1.19358) -5.04	-5.799242*** (1.166761) -4.97	-12.74759*** (1.735823) -7.34	-12.90241*** (1.722721) -7.49
Gender																								
Female	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Male	-1.101711 (.7835243) -1.41	-5.934669*** (.1002154) -59.22	0 (0)	-3.675223*** (.8875407) -4.14	0 (0)	-3.475901*** (1.267859) -2.74	.1074137 (.459826) 0.23	.3444473** (.1386674) 2.48	0 (0)	.3444473*** (.1002608) 3.44	0 (0)	.3066139*** (.1170161) 2.62	-.3086379 (.473586) -0.65	.0494635 (.1354984) 0.37	0 (0)	.0494635 (.0792497) 0.62	0 (0)	.0190845 (.1128178) 0.17	1.594595** (.7997644) 1.99	-.0852517 (.1996759) -0.43	0 (0)	-.0852517 (.5846574) -0.15	0 (0)	.0874543 (.7145207) 0.12

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

TABLE B.4 – Control variables - Estimator comparison - Time spent watching program from free public channel

	Static						$t-(t-1)$						$t-(t-7)$						$t-(t-365)$					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)
	(BE1)	(MCO1)	(FE1)	(RE1)	(AFE1)	(ARE1)	(BE2)	(MCO2)	(FE2)	(RE2)	(AFE2)	(ARE2)	(BE3)	(MCO3)	(FE3)	(RE3)	(AFE3)	(ARE3)	(BE4)	(MCO4)	(FE4)	(RE4)	(AFE4)	(ARE4)
Age category																								
4-10 years																								
	-2.636219	-6.040398***	-1.915611	-8.836248***	-.1988456	-7.073809***	-1.152645	-.0968535	.1002468	-.0968535	1.215292	1.125453**	-.8508036	-.3790224	-.0547734	-.3790224	1.944324	.2107551	.1054103	-.6432337	.1344919	-.6432337	-1.678941	2.8462
	(1.605986)	(.2120873)	(1.724054)	(1.543841)	(2.16311)	(1.438713)	(1.002018)	(.4434778)	(.8181066)	(.3545631)	(1.257081)	(.4894398)	(1.037168)	(.4501894)	(.8576101)	(.355005)	(2.394687)	(.7392561)	(1.833472)	(.6897927)	(2.950894)	(1.192797)	(4.724424)	(2.647802)
	-1.64	-28.48	-1.11	-5.72	-0.09	-4.92	-1.15	-0.22	0.12	-0.27	0.97	2.30	-0.82	-0.84	-0.06	-1.07	0.81	0.29	0.06	-0.93	0.05	-0.54	-0.36	1.07
11-14 years																								
	-6.070761***	-9.272356***	-1.103344	-5.89747***	-.4648459	-7.856599***	-.7374056	.0910852	.2182305	.0910852	1.270434	.7362068	-.7240934	-.8851269*	-.7210922	-.8851269**	1.131042	.3399898	-.6612424	-1.115139	-1.466702	-1.115139	-3.401301	2.381276
	(2.069041)	(.2358094)	(1.24673)	(1.173309)	(1.709175)	(1.37119)	(1.25233)	(.4945627)	(.6503062)	(.3923121)	(1.00325)	(.5712616)	(1.302662)	(.502418)	(.708848)	(.3988045)	(2.1316)	(.8852048)	(2.193515)	(.747436)	(2.078252)	(1.253919)	(3.501749)	(2.767693)
	-2.93	-39.32	-0.88	-5.03	-0.27	-5.73	-0.59	0.18	0.34	0.23	1.27	1.29	-0.56	-1.76	-1.02	-2.22	0.53	0.38	-0.30	-1.49	-0.71	-0.89	-0.97	0.86
15-24 years																								
	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
25-34 years																								
	15.82659***	18.30832***	-1.327162	16.06317***	2.167384	8.66631***	-2.53342	.5731335	.0512298	.5731335	.8780639	.1365195	2.173838	-.4612298	-.1254898	-.4612298	-.1144026	-.9480891	-12.96603***	-3.030473**	16.60745***	-3.030473	30.03299***	-3.480797
	(2.526031)	(.4144015)	(3.458366)	(2.785096)	(4.479775)	(3.066949)	(1.597429)	(.7699694)	(1.145601)	(.5664787)	(1.510629)	(.7233505)	(1.647694)	(.7862325)	(.9931376)	(.5154448)	(1.838775)	(1.04694)	(3.272035)	(1.298066)	(5.589137)	(3.798537)	(7.285266)	(6.925263)
	6.27	44.18	-0.38	5.77	0.48	2.83	-1.59	0.74	0.04	1.01	0.58	0.19	1.32	-0.59	-0.13	-0.89	-0.06	-0.91	-3.96	-2.33	2.97	-0.80	4.12	-0.50
35-49 years																								
	24.94407***	26.46866***	-8.787922**	13.5253***	-4.463713	11.71396***	-.7591087	.7842146	.1231172	.7842146	1.60153	.6032076	2.642905	-.4835587	.290034	-.4835587	.6329012	-.7709705	-10.54104***	-1.33867	20.13427***	-1.33867	33.59398***	-2.207402
	(2.494038)	(.4076504)	(3.823333)	(2.851256)	(4.954474)	(3.112945)	(1.580215)	(.7549032)	(1.162672)	(.5600787)	(1.53396)	(.721109)	(1.630301)	(.7712338)	(1.01412)	(.5056006)	(1.850737)	(1.022862)	(3.234828)	(1.26877)	(6.023699)	(3.756659)	(7.929903)	(6.865459)
	10.00	64.93	-2.30	4.74	-0.90	3.76	-0.48	1.04	0.11	1.40	1.04	0.84	1.62	-0.63	0.29	-0.96	0.34	-0.75	-3.26	-1.06	3.34	-0.36	4.24	-0.32
50-64 years																								
	52.2842***	56.49885***	-10.20527**	17.46496***	-6.359513	26.7293***	-.3673081	1.113315	.2682407	1.113315**	1.633884	.9911957	2.73824	-.3175015	.160017	-.3175015	.3967211	-.4445902	-10.06133***	1.89025	21.78329***	1.89025	34.31579***	1.682015
	(2.596435)	(.412899)	(4.169619)	(3.079109)	(5.270954)	(3.204842)	(1.63075)	(.7558304)	(1.179571)	(.5571366)	(1.534165)	(.7148109)	(1.680143)	(.7718449)	(1.021426)	(.5042461)	(1.851769)	(1.02)	(3.293605)	(1.268997)	(6.260983)	(3.790919)	(8.126047)	(6.886129)
	20.14	136.83	-2.45	5.67	-1.21	8.34	-0.23	1.47	0.23	2.00	1.06	1.39	1.63	-0.41	0.16	-0.63	0.21	-0.44	-3.05	1.49	3.48	0.50	4.22	0.24
65 years and more																								
	76.77326***	81.74212***	-9.085393**	21.48385***	-5.357141	38.64561***	-.9118445	1.377773*	.955161	1.377773**	2.151728	1.72594**	1.957848	-.5841647	-.2172579	-.5841647	.4317404	-.5927393	-9.502462**	4.129471***	22.60611***	4.129471	35.48511***	4.721351
	(3.354514)	(.4584401)	(4.529154)	(3.393449)	(5.545722)	(3.682572)	(2.026161)	(.7942132)	(1.194513)	(.5756583)	(1.549464)	(.7353048)	(2.07772)	(.8076254)	(1.045073)	(.5201734)	(1.865354)	(1.032861)	(3.874832)	(1.319742)	(6.61939)	(3.964199)	(8.427255)	(7.001053)
	22.89	178.30	-2.01	6.33	-0.97	10.49	-0.45	1.73	0.80	2.39	1.39	2.35	0.94	-0.72	-0.21	-1.12	0.23	-0.57	-2.45	3.13	3.42	1.04	4.21	0.67
Social-Professional Category																								
Farmer																								
	-16.26886***	-15.8931***	-5.47876	-6.664551*	-7.977583**	-9.063027*	-1.494998	-.1975604	-.8460487	-.1975604	.6151014	.097178	-2.134891	-.1159567	5.041223**	-.1159567	6.149655	.5092455	2.236211	4.476741***	9.501661	4.476741**	1.778941	5.079916**
	(5.169624)	(.4654715)	(4.097501)	(3.594148)	(3.947086)	(5.315668)	(2.913487)	(.6748949)	(1.864762)	(.5095164)	(2.299322)	(.5912619)	(2.954335)	(.6701633)	(2.199939)	(.5145533)	(3.875401)	(.6856379)	(4.822044)	(.9039521)	(11.73874)	(1.761104)	(12.94107)	(2.242383)
	-3.15	-34.14	-1.34	-1.85	-2.02	-1.70	-0.51	-0.29	-0.45	-0.39	0.27	0.16	-0.72	-0.17	2.29	-0.23	1.59	0.74	0.46	4.95	0.81	2.54	0.14	2.27
Craftsmen-Traders-Contractor																								
	-1.28334	-8.196131***	3.822915	4.091537	5.41954	-4.647634	-.2074061	-.0122501	1.112326	-.0122501	.0957981	-.884489	3.25041*	-.204957	-1.357297	-.204957	.8773587	.7226324	-.297245	1.645554**	6.27989	1.645554	7.677597	1.24977
	(3.268998)	(.3254203)	(2.860508)	(2.844825)	(3.296199)	(2.953136)	(1.884654)	(.5095102)	(.8297294)	(.3666175)	(.9675059)	(.7485974)	(1.933386)	(.484377)	(.8820289)	(.2895755)	(1.570484)	(.4577222)	(3.159139)	(.7162018)	(6.472555)	(2.027657)	(9.253093)	(2.78408)
	-0.39	-25.19	1.34	1.44	1.64	-1.57	-0.11	-0.02	1.34	-0.03	0.10	-1.18	1.68	-0.42	-1.54	-0.71	0.56	1.58	-0.09	2.30	0.97	0.81	0.83	0.45
Higher professions																								
	9.651577***	10.378***	-.7112987	-.549403	-1.486715	6.979144***	1.566189	-.0226377	.225481	-.0226377	-.0539832	-.4282945	.4682918	.0301567	-.1807593	.0301567	-.0816925	-.2999021	1.166865	1.375929***	.2425472	1.375929	-3.180521	1.508544
	(1.803063)	(.2161482)	(1.863264)	(1.75971)	(2.12535)	(2.055446)	(1.050751)	(.3504315)	(.5392831)	(.2649509)	(.6488745)	(.3259909)	(1.079432)	(.34224)	(.5618236)	(.2305974)	(.9150144)	(.4002027)	(1.78084)	(.5041901)	(3.224101)	(1.188354)	(4.66443)	(1.706975)
	5.35	48.01	-0.38	-0.31	-0.70	3.40	1.49	-0.06	0.42	-0.09	-0.08	-1.31	0.43	0.09	-0.32	0.13	-0.09	-0.75	0.66	2.73	0.08	1.16	-0.68	0.88
Intermediate occupations																								
	5.466244***	4.125618***	-1.614962	-1.443284	-1.334694	1.939896	1.406605	.0265355	.1335607	.0265355	-.1749175	.1672483	-.2327691	-.0734701	-.9770207***	-.0734701	-.8071292	-.3624231	-.9966941	.2773155	.2416834	.2773155	-.7893473	1.435216
	(1.584552)	(.1692205)	(1.53574)	(1.473662)	(1.704056)	(1.645004)	(.9130053)	(.2650397)	(.391952)	(.1995859)	(.4557149)	(.2464479)	(.9337186)	(.2602816)	(.3690265)	(.1672075)	(.5923449)	(.2726301)	(1.547043)	(.3857282)	(2.386699)	(.9530561)	(3.394449)	(1.36499)
	3.45	24.38	-1.05	-0.98	-0.78	1.18	1.54	0.10	0.34	0.13	-0.38	0.68	-0.25	-0.28	-2.65	-0.44	-1.36	-1.33	-0.64	0.72	0.10	0.29	-0.23	1.05
Employee																								
	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Skilled worker																								
	-1.58146	-3.980649***	-1.083402	-.8965203	-1.016528	-2.342889	.6243581	-.0281364	-.1503075	-.0281364	-.1641994	.2669452	-1.514506	-.2906272	-1.23451**	-.2906272	-.915654	.0028824	-1.958482	-.6253302	-3.537331	-.6253302	-7.115039*	.401128
	(1.871298)	(.2071583)	(2.065971)	(1.976686)	(2.320672)	(2.216073)	(1.082335)	(.3116004)	(.4622259)	(.233101)	(.5950886)	(.2823503)	(1.108088)	(.3065343)	(.5014632)	(.1998052)	(.8005496)	(.3238196)	(1.867593)	(.4540832)	(2.727845)	(1.173403)	(3.63314)	(1.579633)
	-0.85	-19.22	-0.52	-0.45	-0.44	-1.06	0.58	-0.09	-0.33	-0.12	-0.28	0.95	-1.37	-0.95	-2.46	-1.45	-1.14	0.01	-1.05	-1.38	-1.30	-0.53	-1.96	0.25
Unskilled worker																								
	-2.975448	-4.804322***	-3.045532	-2.863059	-3.865226	-3.124046	1.639366	.2163213	-.3537104	.2163213	.1030477	.1908942	-1.358343	.1700697	-.5503544	.1700697	-.5502289	.253591	-1.044908	2.707696***	-1.939503	2.707696	-4.779333	2.848498
	(2.729312)	(.3022743)	(2.697218)	(2.606089)	(2.987573)	(3.037508)	(1.599966)	(.4454999)	(.5234318)	(.29761)	(.649552)	(.3821953)	(1.630062)	(.4395133)	(.5741662)	(.2612018)	(.8406644)	(.4068204)	(2.726263)	(.6774484)	(3.323988)	(2.41057)	(3.86171)	(3.404636)
	-1.09	-15.89	-1.13	-1.10	-1.29	-1.03	1.02	0.49	-0.68	0.73	0.16	0.50	-0.83	0.39	-0.96	0.65	-0.65	0.62	-0.38	4.00	-0.58	1.12	-1.24	0.84
Pensioner																								
	19.83537***	1.497043**	-4.221439	2.387009	-3.711458	-2.414526	4.803289	-.2645678	.0885666	-.2645678	-.0884984	-.7252838	.4304699	-1.149376	-.4789294	-1.149376**	-1.379913	-.9486982	-8.142987	-8.15063***	-5.704169	-8.15063*	-9.640433	-9.069689*
	(7.598616)	(.7183393)	(5.071548)	(4.973187)	(5.143175)	(5.867461)	(4.273984)	(.9507493)	(.7771697)	(.6037351)	(.9348053)	(.5623074)	(4.268458)	(.9172944)	(.7400095)	(.5354741)	(1.081594)	(.6636438)	(6.141453)	(1.252609)	(5.606255)	(4.401339)	(7.114333)	(5.24089)
	2.61	2.08	-0.83	0.48	-0.72	-0.41	1.12	-0.28	0.11	-0.44	-0.09	-1.29	0.10	-1.25	-0.65	-2.15	-1.28	-1.43	-1.33	-6.51	-1.02	-1.85	-1.36	-1.73
Student																								
	-8.991647	-30.16312***	-8.838073*	-19.95366***	-7.905047	-18.43056***	3.193764	.4137329	1.159515	.4137329	1.374166	.0764879	2.433816	-1.051986	-1.022371	-1.051986	-3.094404	-1.36683	-18.54988***	-4.815767***	-3.651522	-4.815767	-7.781465	-7.461843
	(7.824815)	(.8092549)	(5.241539)	(4.96681)	(6.151268)	(6.184814)	(4.440397)	(1.21796)	(1.277258)	(.8304858)	(1.600263)	(.9468458)	(4.469438)	(1.208292)	(1.251464)	(.7637607)	(2.496498)	(1.30686)	(6.663709)	(1.797312)	(6.270927)	(5.494378)	(9.318497)	(8.167418)
	-1.15	-37.27	-1.69	-4.02	-1.29	-2.98	0.72	0.34	0.91	0.50	0.86	0.08	0.54	-0.87	-0.82	-1.38	-1.24	-1.05	-2.78	-2.68	-0.58	-0.88	-0.84	-0.91
Other inactive																								
	.5624012	-8.223516***	-3.727401	-1.186637	-2.370627	-6.238253	5.592868	-.0576578	-.4409664	-.0576578	-1.054815	-.6632701	-1.124424	-1.297208	-.5633593	-1.297208**	-1.236896	-.9473682	-7.597125	-5.626434***	3.139651	-5.626434	1.771909	-6.512911
	(7.513915)	(.7165953)	(4.664295)	(4.612108)	(4.906688)	(5.987809)	(4.225425)	(.9466647)	(.7780346)	(.6123292)	(.9446022)	(.561145)	(4.213417)	(.9120335)	(.7649888)	(.5380224)	(1.118102)	(.6652732)	(6.03445)	(1.246222)	(5.818836)	(4.398406)	(7.775024)	(5.268584)
	0.07	-11.48	-0.80	-0.26	-0.48	-1.04	1.32	-0.06	-0.57	-0.09	-1.12	-1.18	-0.27	-1.42	-0.74	-2.41	-1.11	-1.42	-1.26	-4.51	0.54	-1.28	0.23	-1.24

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

TABLE B.4 – Continued (2) : Control variables - Estimator comparison - Time spent watching program from free public channel

	Static						$t-(t-1)$						$t-(t-7)$						$t-(t-365)$					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)
	(BE1)	(MCO1)	(FE1)	(RE1)	(AFE1)	(ARE1)	(BE2)	(MCO2)	(FE2)	(RE2)	(AFE2)	(ARE2)	(BE3)	(MCO3)	(FE3)	(RE3)	(AFE3)	(ARE3)	(BE4)	(MCO4)	(FE4)	(RE4)	(AFE4)	(ARE4)
Average weekly working time																								
Unemployed person who has already worked																								
	10.97523***	28.42728***	1.910788	3.075613	1.343507	18.90201***	1.027606	-.1063505	-1.029752*	-.1063505	-.0727887	.3262022	-.2149681	-.2755594	-.6408775	-.2755594	-.1223197	.1054819	-2.213533	-6.427547***	-1.256361	-6.427547***	-.7488801	-7.208508***
	(2.475227)	(.3474154)	(2.113595)	(2.153792)	(2.547984)	(3.902733)	(1.447668)	(.4690591)	(.5437512)	(.3041303)	(.6674791)	(.3781114)	(1.484932)	(.4569775)	(.5080067)	(.2876181)	(.7750911)	(.4099342)	(2.836136)	(.7989409)	(3.558086)	(2.232678)	(4.706143)	(2.627177)
	4.43	81.83	0.90	1.43	0.53	4.84	0.71	-0.23	-1.89	-0.35	-0.11	0.86	-0.14	-0.60	-1.26	-0.96	-0.16	0.26	-0.78	-8.05	-0.35	-2.88	-0.16	-2.74
People looking for a first job																								
	11.59295	18.68667***	.3505565	-2.426508	-5.494116	11.06686	-7.616947	.5158296	.349154	.5158296	.2715472	.1538317	3.745582	-1.86921	-1.155758	-1.86921	1.434953	-1.772702	5.776788	2.238454	-9.150253	2.238454	-3.504345	2.763721
	(10.40546)	(1.265191)	(6.256103)	(6.171882)	(7.190737)	(7.352819)	(5.895906)	(2.104472)	(2.382343)	(1.483242)	(2.682124)	(1.692766)	(6.025936)	(2.056896)	(2.324973)	(1.151726)	(4.315263)	(2.315598)	(11.25312)	(3.737347)	(6.55367)	(10.91045)	(9.529522)	(17.68167)
	1.11	14.77	0.06	-0.39	-0.76	1.51	-1.29	0.25	0.15	0.35	0.10	0.09	0.62	-0.91	-0.50	-1.62	0.33	-0.77	0.51	0.60	-1.40	0.21	-0.37	0.16
Full-time worker																								
	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Part-time worker : 0-9h59 per week																								
	4.47268	10.65037***	-.8329831	1.581373	-.768398	5.690473	-.7252976	.5568008	.1784273	.5568008	.0091225	.2889398	5.436973	-.1407121	.3358248	-.1407121	.5261025	-.2018559	7.081712	1.706455	.393718	1.706455	1.860739	1.980095
	(8.083597)	(.6857629)	(4.886101)	(5.122399)	(4.96012)	(8.830237)	(4.526501)	(.8458433)	(.801918)	(.5839042)	(1.101671)	(.6496118)	(4.524622)	(.7861552)	(.9949457)	(.4914742)	(1.208693)	(.591222)	(6.262322)	(1.104929)	(4.655376)	(2.98772)	(6.335767)	(3.025009)
	0.55	15.53	-0.17	0.31	-0.15	0.64	-0.16	0.66	0.22	0.95	0.01	0.44	1.20	-0.18	0.34	-0.29	0.44	-0.34	1.13	1.54	0.08	0.57	0.29	0.65
Part-time worker : 10h-19h59 per week																								
	9.383818**	6.806087***	-3.525466	-2.117755	-3.19388	3.788576	4.338328*	.3673677	.4227452	.3673677	.1493392	.1824341	-.0010047	-.0614536	-.5617557	-.0614536	.0709945	-.0907042	-2.008751	-2.199566***	-2.609846	-2.199566	-1.258408	-1.056789
	(4.007969)	(.3890478)	(2.485524)	(2.45783)	(2.645714)	(3.106256)	(2.327299)	(.5669408)	(.5312686)	(.337042)	(.6352379)	(.4382036)	(2.330456)	(.5397)	(.6248193)	(.3284302)	(.9002295)	(.5279016)	(3.721722)	(.7908978)	(3.666399)	(1.791703)	(4.609728)	(2.260887)
	2.34	17.49	-1.42	-0.86	-1.21	1.22	1.86	0.65	0.80	1.09	0.24	0.42	-0.00	-0.11	-0.90	-0.19	0.08	-0.17	-0.54	-2.78	-0.71	-1.23	-0.27	-0.47
Part-time worker : 20h-29h59 per week																								
	3.243011	2.705759***	-3.330944*	-2.834109*	-3.136907	2.938064	-1.733365	.0710895	-.2442998	.0710895	-.8299919	-.2820951	-.1189563	-.1049387	-.0096389	-.1049387	-.1601557	-.26825	-.8569061	1.12743**	-.4988022	1.12743	.2359808	.7780327
	(2.5636)	(.2540042)	(1.772684)	(1.722427)	(2.041967)	(2.157458)	(1.463132)	(.3914431)	(.4437376)	(.2890665)	(.5686555)	(.351764)	(1.499144)	(.3752597)	(.4438146)	(.2368353)	(.6881767)	(.400192)	(2.398166)	(.549923)	(3.080402)	(1.640088)	(4.427181)	(2.172982)
	1.27	10.65	-1.88	-1.65	-1.54	1.36	-1.18	0.18	-0.55	0.25	-1.46	-0.80	-0.08	-0.28	-0.02	-0.44	-0.23	-0.67	-0.36	2.05	-0.16	0.69	0.05	0.36
Part-time worker : 30h-34h59 per week																								
	-5.569044*	-8.005863***	-3.08162*	-2.727974*	-2.918105	-5.160009***	1.344563	.4496128	-.0715639	.4496128	-.4874761	.4972419	-2.549895	-.1174514	-.5432897	-.1174514	.0951186	.2014202	-2.517234	.7793627	.0291191	.7793627	4.42096	3.11322
	(3.043338)	(.2838821)	(1.699347)	(1.639222)	(2.017074)	(1.97186)	(1.744504)	(.4651376)	(.5028483)	(.3465042)	(.5976583)	(.4056177)	(1.784825)	(.449946)	(.5351089)	(.3000044)	(.8363893)	(.4440351)	(3.115905)	(.6761338)	(2.893719)	(1.460586)	(4.367091)	(2.121677)
	-1.83	-28.20	-1.81	-1.66	-1.45	-2.62	0.77	0.97	-0.14	1.30	-0.82	1.23	-1.43	-0.26	-1.02	-0.39	0.11	0.45	-0.81	1.15	0.01	0.53	1.01	1.47
Other inactive																								
	10.79363	28.10816***	5.35321	7.181191*	3.980239	17.33633***	-2.948446	.2503011	-.3123732	.2503011	.145582	.5937994	-.4138964	1.224912	.3444978	1.224912**	1.349999	.867482	7.871075	5.444494***	-.4170588	5.444494	1.358675	6.118633
	(7.332247)	(.6894444)	(4.009293)	(4.033381)	(4.23701)	(5.565232)	(4.113684)	(.9139075)	(.6465264)	(.5801707)	(.8316415)	(.5219864)	(4.100496)	(.8825685)	(.6250206)	(.5158271)	(.9496596)	(.6271057)	(5.76201)	(1.192962)	(4.471246)	(4.275087)	(6.07724)	(5.14894)
	1.47	40.77	1.34	1.78	0.94	3.12	-0.72	0.27	-0.48	0.43	0.18	1.14	-0.10	1.39	0.55	2.37	1.42	1.38	1.37	4.56	-0.09	1.27	0.22	1.19
Gross monthly household income																								
Less than 600 euros																								
	3.14236	1.485928**	-2.153107	-1.65716	-1.405415	.4030882	-2.162309	-.3703044	-1.063379*	-.3703044	-1.122445	-.8629097*	-.9875803	.1479582	.8409126	.1479582	.6823237	-.0877075	-.6066026	-6.592397***	2.7848	-6.592397	3.205979	-6.105203
	(4.336981)	(.658648)	(5.159647)	(5.039769)	(4.952051)	(6.309083)	(2.54326)	(.7233497)	(.6243667)	(.4359805)	(.7589967)	(.5220819)	(2.658833)	(.6929241)	(.6944691)	(.4045372)	(.8167649)	(.4627166)	(4.975036)	(1.140335)	(8.624277)	(4.73238)	(9.814617)	(5.345589)
	0.72	2.26	-0.42	-0.33	-0.28	0.06	-0.85	-0.51	-1.70	-0.85	-1.48	-1.65	-0.37	0.21	1.21	0.37	0.84	-0.19	-0.12	-5.78	0.32	-1.39	0.33	-1.14
From 600 to 900 euros																								
	2.572933	9.031178***	-2.554672	-2.18744	-1.309641	3.82963	-.0329238	-.011406	.3385125	-.011406	.0982519	-.3040179	1.213399	.0042746	.1128117	.0042746	.1549956	-.0079294	-5.596637	.3992766	3.394204	.3992766	4.330553	.4559879
	(3.398885)	(.3912808)	(2.507234)	(2.495963)	(2.412604)	(3.474962)	(1.952011)	(.4452097)	(.3123259)	(.4062561)	(.362718)	(.4337372)	(2.01458)	(.4214532)	(.3548536)	(.2189944)	(.3797214)	(.2425042)	(3.641852)	(.6594001)	(4.712291)	(2.63678)	(5.295872)	(2.86868)
	0.76	23.08	-1.02	-0.88	-0.54	1.10	-0.02	-0.03	1.08	-0.03	0.27	-0.70	0.60	0.01	0.32	0.02	0.41	-0.03	-1.54	0.61	0.72	0.15	0.82	0.16
From 900 to 1200 euros																								
	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
From 1200 to 1500 euros																								
	-9.298399***	-5.130267***	-.8328852	-1.190987	-.7042336	-2.638177	.8966564	.2061757	.1914933	.2061757	-.1134596	.0780494	-1.528678	.0753861	.1626384	.0753861	-.0142287	-.2573313	-3.843241	-1.060654**	-2.09974	-1.060654	-1.327309	-.1775168
	(2.608503)	(.2843259)	(1.6971)	(1.673959)	(1.683749)	(2.575634)	(1.498806)	(.3380855)	(.2148694)	(.1831445)	(.263235)	(.2015092)	(1.549911)	(.3226463)	(.2485671)	(.1609092)	(.3154194)	(.2021982)	(2.707754)	(.4900561)	(3.063126)	(1.87292)	(3.36241)	(1.970067)
	-3.56	-18.04	-0.49	-0.71	-0.42	-1.02	0.60	0.61	0.89	1.13	-0.43	0.39	-0.99	0.23	0.65	0.47	-0.05	-1.27	-1.42	-2.16	-0.69	-0.57	-0.39	-0.09
From 1500 to 2300 euros																								
	-9.254161***	-6.026113***	-.3143238	-1.050895	-.9497912	-3.076276	-.1963996	.306848	-.0654285	.306848*	-.3340294	-.0153706	-2.187965*	.063417	.1722809	.063417	.4351809	-.0647341	-2.920817	-1.134201***	-2.736496	-1.134201	-3.201015	-1.209318
	(2.141992)	(.2484456)	(1.665411)	(1.621583)	(1.649427)	(2.526851)	(1.238125)	(.2952947)	(.2379445)	(.1570498)	(.2883387)	(.1808267)	(1.277025)	(.281576)	(.2726349)	(.140643)	(.3467974)	(.1746718)	(2.223999)	(.4267118)	(2.857711)	(1.572229)	(3.185623)	(1.653563)
	-4.32	-24.26	-0.19	-0.65	-0.58	-1.22	-0.16	1.04	-0.27	1.95	-1.16	-0.09	-1.71	0.23	0.63	0.45	1.25	-0.37	-1.31	-2.66	-0.96	-0.72	-1.00	-0.73
From 2300 to 3000 euros																								
	-16.0013***	-13.60471***	.2716088	-.970648	.0281297	-7.362544***	.7510899	.2795503	.0898989	.2795503*	-.1851733	-.0747607	-2.014593	.2703302	.482604	.2703302*	.8516041**	.2746813	-.6090445	.732802*	-1.190404	.732802	-1.355698	.6935678
	(2.171795)	(.2514877)	(1.751647)	(1.697906)	(1.763956)	(2.542068)	(1.253212)	(.3058146)	(.2735626)	(.1696793)	(.3352961)	(.1935819)	(1.291867)	(.292187)	(.3104992)	(.1499335)	(.4030616)	(.1888672)	(2.24748)	(.4418873)	(2.999953)	(1.610726)	(3.409757)	(1.726717)
	-7.37	-54.10	0.16	-0.57	0.02	-2.90	0.60	0.91	0.33	1.65	-0.55	-0.39	-1.56	0.93	1.55	1.80	2.11	1.45	-0.27	1.66	-0.40	0.45	-0.40	0.40
From 3000 to 4500 euros																								
	-16.49468***	-16.97106***	-.8158432	-2.258946	-1.12427	-9.666897***	-.1039681	.345147	-.001423	.345147*	-.3118389	.0281701	-1.732027	.3302498	.5733988*	.3302498**	.5322165	-.082867	-.02795	.6752468	-1.25149	.6752468	-1.594645	.9948952
	(2.146132)	(.2510554)	(1.825178)	(1.75869)	(1.849522)	(2.485553)	(1.241086)	(.3103322)	(.299347)	(.1768377)	(.3698076)	(.2067523)	(1.282056)	(.2977446)	(.3438851)	(.1576228)	(.457799)	(.2095493)	(2.229975)	(.4483988)	(3.038776)	(1.578401)	(3.485641)	(1.695592)
	-7.69	-67.60	-0.45	-1.28	-0.61	-3.89	-0.08	1.11	-0.00	1.95	-0.84	0.14	-1.35	1.11	1.67	2.10	1.16	-0.40	-0.01	1.51	-0.41	0.43	-0.46	0.59
From 4500 to 7000 euros																								
	-18.79037***	-15.82365***	-.9967415	-2.716147	-.9641652	-7.903325***	2.245374	.7506594**	.1602702	.7506594***	.1637711	.4367638	-1.301075	.527936	.6780195	.527936**	1.424319**	.3672597	-.7913466	1.068415**	-.7255498	1.068415	.0690946	2.230717
	(2.351238)	(.2790583)	(1.926453)	(1.852191)	(2.001007)	(2.688754)	(1.36746)	(.3711854)	(.384359)	(.2280315)	(.4837532)	(.2795995)	(1.413561)	(.3600419)	(.4414848)	(.2134532)	(.6520034)	(.3083973)	(2.432195)	(.5368407)	(3.331711)	(1.732667)	(4.047402)	(2.013558)
	-7.99	-56.70	-0.52	-1.47	-0.48	-2.94	1.64	2.02	0.42	3.29	0.34	1.56	-0.92	1.47	1.54	2.47	2.18	1.19	-0.33	1.99	-0.22	0.62	0.02	1.11
More than 7000 euros																								
	-26.33191***	-25.778***	-1.251475	-3.5435*	-2.568887	-14.17482***	2.901425	-.2171114	-1.935808***	-.2171114	-.8056258	-.474033	.7511037	.098796	-.4378548	.098796	-1.224542	-1.16306*	5.731014*	.7846528	-.6680441	.7846528	2.140614	.0582883
	(3.219016)	(.3877417)	(2.238396)	(2.12684)	(2.460342)	(3.168557)	(1.914327)	(.6129504)	(.6892536)	(.4628629)	(.8570201)	(.545421)	(1.964444)	(.60745)	(.8064614)	(.4211791)	(1.374808)	(.6604027)	(3.383506)	(.8637097)	(4.201035)	(2.174877)	(5.712345)	(2.881121)
	-8.18	-66.48	-0.56	-1.67	-1.04	-4.47	1.52	-0.35	-2.81	-0.47	-0.94	-0.87	0.38	0.16	-0.54	0.23	-0.89	-1.76	1.69	0.91	-0.16	0.36	0.37	0.02

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

TABLE B.4 – Continued (3) : Control variables - Estimator comparison - Time spent watching program from free public channel

	Static						$t-(t-1)$						$t-(t-7)$						$t-(t-365)$					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)
	(BE1)	(MCO1)	(FE1)	(RE1)	(AFE1)	(ARE1)	(BE2)	(MCO2)	(FE2)	(RE2)	(AFE2)	(ARE2)	(BE3)	(MCO3)	(FE3)	(RE3)	(AFE3)	(ARE3)	(BE4)	(MCO4)	(FE4)	(RE4)	(AFE4)	(ARE4)
Regions																								
Ile-de-France	1.158117	5.574051***	-17.40521**	-13.13481***	-18.10602***	4.404904	-1.562656	-.0431995	-.6901999	-.0431995	-1.090174	-.306046	-1.688508	.1402361	.415398	.1402361	.6511043	-.1367361	-.0210235	-2.50131***	-25.07511***	-2.50131*	-25.88859***	-1.987296
	(1.889002)	(.2230555)	(6.964587)	(4.678612)	(6.931977)	(2.81412)	(1.062751)	(.3182875)	(.9624056)	(.2191278)	(1.148377)	(.2569779)	(1.095598)	(.3093424)	(1.21784)	(.1914862)	(1.511752)	(.278919)	(1.841369)	(.4539594)	(9.081259)	(1.329939)	(9.254527)	(1.662381)
	0.61	24.99	-2.50	-2.81	-2.61	1.57	-1.47	-0.14	-0.72	-0.20	-0.95	-1.19	-1.54	0.45	0.34	0.73	0.43	-0.49	-0.01	-5.51	-2.76	-1.88	-2.80	-1.20
Champagne-Ardenne	-3.817538	-3.53009***	-3.54193	.5170771	-1.901638	-1.690236	-3.531111**	-.5290561	.2796529	-.5290561	-.4010918	-.7921254***	-.0798637	-.1816236	-1.300352	-.1816236	-2.38401	-.5244056	2.492944	-1.762127***	6.279811	-1.762127	10.27928	-1.842079
	(2.835916)	(.3154232)	(9.981038)	(6.867843)	(10.90093)	(3.832675)	(1.584854)	(.444465)	(1.822655)	(.3273559)	(2.347522)	(.3325914)	(1.636213)	(.4289782)	(1.77797)	(.2577587)	(2.40607)	(.3901211)	(2.733635)	(.6270383)	(14.82927)	(1.830855)	(17.89211)	(2.284313)
	-1.35	-11.19	-0.35	0.08	-0.17	-0.44	-2.23	-1.19	0.15	-1.62	-0.17	-2.38	-0.05	-0.42	-0.74	-0.70	-0.99	-1.34	0.91	-2.81	0.42	-0.96	0.57	-0.81
Picardie	-6.080335***	-10.4077***	5.276358	.8537128	4.811886	-5.565084*	-.4981493	.0909394	.6347921	.0909394	-1.463985	.0288891	.8693446	.3715352	.7279176	.3715352	1.077988	.3701934	1.010585	-.0205546	9.909308	-.0205546	8.896728	.7834193
	(2.494112)	(.2900941)	(8.586747)	(5.776698)	(8.642412)	(3.149198)	(1.408876)	(.4368673)	(1.628072)	(.3309562)	(1.988213)	(.4006212)	(1.450398)	(.4241421)	(1.616482)	(.2420202)	(2.2516)	(.3725398)	(2.442745)	(.6339327)	(11.63301)	(1.701638)	(13.03626)	(2.192916)
	-2.44	-35.88	0.61	0.15	0.56	-1.77	-0.35	0.21	0.39	0.27	-0.74	0.07	0.60	0.88	0.45	1.54	0.48	0.99	0.41	-0.03	0.85	-0.01	0.68	0.36
Haute-Normandie	.3152888	2.734997***	-34.40821***	-27.2269***	-35.75126***	2.897216	-3.050472**	-.4491852	2.165815	-.4491852	2.055903	-.7940224**	-1.80548	-.1007402	-.6898352	-.1007402	.4801123	-.5089004	-1.177213	-.5717183	-16.46748	-.5717183	-3.333064	-.9765305
	(2.652122)	(.3222291)	(9.189053)	(6.140801)	(9.275076)	(4.332862)	(1.49772)	(.4486601)	-1.00	1.54	(2.916637)	-1.54	(2.008268)	(.3385832)	-2.35	-1.17	(1.538923)	(.4343802)	(1.889621)	(.3430901)	(2.553876)	(.6508929)	(10.98563)	(2.405092)
	0.12	8.49	-3.74	-4.43	-3.85	0.67	-2.04	-1.00	1.54	-1.54	1.02	-2.35	-1.17	-0.23	-0.37	-0.40	0.19	-1.48	-0.44	-0.88	-1.50	-0.24	-0.24	(13.64456)
Centre																								(3.001837)
	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	-0.33
Basse-Normandie	4.831726*	13.3604***	-2.591138	-7.099329	-13.0646	9.233667	-1.784746	-.0662774	.4012309	-.0662774	3.214713	-.1346812	-.4159166	.2759274	-1.875737	.2759274	-8.487755*	.3549212	3.735923	-.1772285	-56.37089**	-.1772285	-61.55008***	-.0549894
	(2.895542)	(.3737184)	(10.55464)	(8.10577)	(10.0087)	(5.826659)	(1.613115)	(.4953665)	(3.470618)	(.3412829)	(3.659549)	(.4361519)	(1.658744)	(.4725855)	(3.314869)	(.2536845)	(4.682481)	(.3630724)	(2.750702)	(.7231955)	(24.96833)	(2.429554)	(20.37956)	(3.092135)
	1.67	35.75	-0.25	-0.88	-1.31	1.58	-1.11	-0.13	0.12	-0.19	0.88	-0.31	-0.25	0.58	-0.57	1.09	-1.81	0.98	1.36	-0.25	-2.26	-0.07	-3.02	-0.02
Bourgogne	-4.432602	-4.000927***	-14.00322	-10.05752	-12.77565	-2.393603	-.6430332	-.0563889	3.954484*	-.0563889	3.949806	-.2154097	-.72225	-.1495148	.24169	-.1495148	.6117072	-.4273652	3.385591	.2073494	-9.119222	.2073494	-8.027819	-.024841
	(2.740886)	(.3059691)	(11.09449)	(7.949222)	(11.45365)	(4.221864)	(1.529532)	(.4184959)	(2.085093)	(.2718983)	(2.838751)	(.3088363)	(1.56897)	(.4068183)	(1.792554)	(.2235662)	(1.910165)	(.3283238)	(2.57261)	(.5860533)	(9.56794)	(1.607868)	(11.76451)	(1.922622)
	-1.62	-13.08	-1.26	-1.27	-1.12	-0.57	-0.42	-0.13	1.90	-0.21	1.39	-0.70	-0.46	-0.37	0.13	-0.67	0.32	-1.30	1.32	0.35	-0.95	0.13	-0.68	-0.01
Nord-Pas-de-Calais	-1.597004	-3.658363***	-18.31211**	-10.65428**	-20.37423***	-2.712382	-1.563651	-.5280995	-.0305481	-.5280995**	-2.341115	-.2526107	-.8805525	.1251028	-3.503071*	.1251028	1.074295	-.2005795	.6645607	-2.197989***	-10.48193	-2.197989	-21.92822	-2.064503
	(2.187419)	(.2447053)	(7.306536)	(4.506581)	(7.335079)	(2.824098)	(1.206603)	(.356723)	(1.861918)	(.2480426)	(2.047746)	(.2837121)	(1.233568)	(.3442593)	(2.113071)	(.2082294)	(3.798118)	(.3024433)	(2.086295)	(.5148539)	(10.66138)	(1.466581)	(14.70408)	(1.836095)
	-0.73	-14.95	-2.51	-2.36	-2.78	-0.96	-1.30	-1.48	-0.02	-2.13	-1.14	-0.89	-0.71	0.36	-1.66	0.60	0.28	-0.66	0.32	-4.27	-0.98	-1.50	-1.49	-1.12
Lorraine	-.6775525	4.707273***	1.207899	-.0654921	.0002895	2.949033	-1.649352	-.1421562	1.084454	-.1421562	1.1357	.0339348	.122794	.0789427	-1.749043	.0789427	-2.100686	-.3744356	1.276715	-1.18439*	-2.978494	-1.18439	-3.602007	-.1651756
	(2.495594)	(.3125482)	(10.46594)	(6.616919)	(10.43063)	(3.703324)	(1.420739)	(.4449747)	(1.299716)	(.2827409)	(1.466176)	(.346688)	(1.462595)	(.4295521)	(1.674016)	(.2693396)	(2.200557)	(.386993)	(2.485778)	(.6409821)	(11.10854)	(1.853151)	(12.03138)	(2.360254)
	-0.27	15.06	0.12	-0.01	0.00	0.80	-1.16	-0.32	0.83	-0.50	0.77	0.10	0.08	0.18	-1.04	0.29	-0.95	-0.97	0.51	-1.85	-0.27	-0.64	-0.30	-0.07
Alsace	-8.402099***	-9.123012***	-14.1033	-12.92659*	-13.5642	-4.270818	-4.149733***	-.3262275	1.145226	-.3262275	-1.873029	-.1196123	-1.506205	-.1175361	-.6706572	-.1175361	-2.539595	.0381018	-.1314888	-1.168276**	-8.737928	-1.168276	-17.06852	.0640249
	(2.647346)	(.2821737)	(10.00487)	(7.100721)	(10.70936)	(3.383622)	(1.425422)	(.4066234)	(1.463521)	(.2895484)	(1.656581)	(.3223228)	(1.463497)	(.3962259)	(1.902825)	(.2316545)	(2.468482)	(.3530594)	(2.438776)	(.5641664)	(9.926002)	(1.702795)	(10.94167)	(2.22749)
	-3.17	-32.33	-1.41	-1.82	-1.27	-1.26	-2.91	-0.80	0.78	-1.13	-1.13	-0.37	-1.03	-0.30	-0.35	-0.51	-1.03	0.11	-0.05	-2.07	-0.88	-0.69	-1.56	0.03
Franche-Comté	-9.744197***	-11.39686***	-36.3064*	-27.45499**	-39.28284**	-5.94027	-3.722994**	.0554739	-.435013	.0554739	.9078052	.6893337	-.6664125	.4627783	-.3122382	.4627783*	1.155108	-.1189097	.4811671	-1.132369	-.3109514	-1.132369	-1.448944	.6780491
	(3.222763)	(.3479254)	(18.89027)	(13.41391)	(17.84999)	(3.730873)	(1.657422)	(.4987747)	(1.154396)	(.3725027)	(1.149798)	(.4638603)	(1.696875)	(.4879579)	(1.373052)	(.2790081)	(1.549369)	(.4391082)	(2.896749)	(.7030722)	(10.60541)	(1.626211)	(11.9336)	(1.941588)
	-3.02	-32.76	-1.92	-2.05	-2.20	-1.59	-2.25	0.11	-0.38	0.15	0.79	1.49	-0.39	0.95	-0.23	1.66	0.75	-0.27	0.17	-1.61	-0.03	-0.70	-0.12	0.35
Pays de la Loire	.9825852	9.716881***	-6.401536	-1.423082	-9.501344	6.672133*	-2.541443**	-.4844034	-1.21893	-.4844034*	-1.166817	-.6827963**	-1.054112	.0794989	-2.187803	.0794989	-1.951923	-.1446225	-1.070854	-1.809865***	1.250891	-1.809865	3.957759	-2.34493
	(2.104187)	(.2635265)	(11.56239)	(7.146891)	(11.42066)	(3.568367)	(1.211498)	(.3625505)	(1.091008)	(.2691943)	(1.199678)	(.3034267)	(1.24544)	(.3550837)	(1.436468)	(.2082918)	(1.667787)	(.294105)	(2.088562)	(.5183575)	(10.61073)	(1.55711)	(10.52852)	(1.901932)
	0.47	36.87	-0.55	-0.20	-0.83	1.87	-2.10	-1.34	-1.12	-1.80	-0.97	-2.25	-0.85	0.22	-1.52	0.38	-1.17	-0.49	-0.51	-3.49	0.12	-1.16	0.38	-1.23
Bretagne	1.852641	-.8980122***	-5.383264	-.9060697	-10.04996	-.949783	-2.824502**	-.5494274	-.4457135	-.5494274**	-2.610933*	-.177735	-1.56566	.2251114	-.9130535	.2251114	-2.02424	-.4168198	-.3067995	-1.224425**	-16.36336*	-1.224425	-12.64745	.2016267
	(2.314874)	(.2595264)	(7.643507)	(5.396001)	(7.304908)	(3.225416)	(1.266861)	(.3593673)	(1.311501)	(.2407982)	(1.378068)	(.2875744)	(1.302294)	(.3504491)	(1.644273)	(.2105534)	(2.469129)	(.3111854)	(2.197199)	(.512067)	(8.409366)	(1.537654)	(9.734083)	(1.910121)
	0.80	-3.46	-0.70	-0.17	-1.38	-0.29	-2.23	-1.53	-0.34	-2.28	-1.89	-0.62	-1.20	0.64	-0.56	1.07	-0.82	-1.34	-0.14	-2.39	-1.95	-0.80	-1.30	0.11
Poitou-Charentes	-2.950736	3.394664***	-5.21242	1.462245	-9.053102	3.606948	-4.071506***	-.351033	.5114813	-.351033	-1.032202	-.2912697	-.6816523	-.2737874	-.7126732	-.2737874	.8654387	-.417525	-.5865582	-2.318295***	-4.504477	-2.318295	10.10928	-1.621894
	(2.628746)	(.3200973)	(7.846234)	(5.389976)	(8.262702)	(4.587436)	(1.465249)	(.4070187)	(1.782402)	(.2684981)	(2.579567)	(.3348968)	(1.517506)	(.400202)	(2.219199)	(.222656)	(2.741929)	(.3308412)	(2.507913)	(.5727771)	(11.64801)	(1.713491)	(14.4256)	(2.151078)
	-1.12	10.61	-0.66	0.27	-1.10	0.79	-2.78	-0.86	0.29	-1.31	-0.40	-0.87	-0.45	-0.68	-0.32	-1.23	0.32	-1.26	-0.23	-4.05	-0.39	-1.35	0.70	-0.75
Aquitaine	-1.897619	4.630498***	-3.003629	.4865838	-4.51233	2.517344	-2.958993**	-.3255044	-.0146099	-.3255044	1.79762	-.5157742*	-1.382609	.0119623	1.549542	.0119623	5.078612***	-.3017679	1.820758	.5469071	-3.90277	.5469071	-4.967737	1.152088
	(2.52641)	(.2594402)	(8.190678)	(5.546283)	(8.461294)	(2.891364)	(1.250932)	(.3613486)	(1.217857)	(.2683628)	(1.540187)	(.29465)	(1.284018)	(.3539703)	(1.319902)	(.2082757)	(1.644113)	(.2945849)	(2.126091)	(.518667)	(11.16817)	(1.434147)	(10.5023)	(1.676362)
	-0.75	17.85	-0.37	0.09	-0.53	0.87	-2.37	-0.90	-0.01	-1.21	1.17	-1.75	-1.08	0.03	1.17	0.06	3.09	-1.02	0.86	1.05	-0.35	0.38	-0.47	0.69
Midi-Pyrénées	.0295668	2.100061***	-.1675486	1.219785	-2.489407	.7878985	-2.066827	-.5375441	-1.836804	-.5375441**	-.5029881	-.6867937**	-2.360715*	-.0436744	.2309245	-.0436744	2.67269	-.3998216	-1.774983	-1.957872***	-12.3952	-1.957872	-15.42953	-2.36473
	(2.476998)	(.2699462)	(7.940297)	(5.580679)	(8.299256)	(3.182633)	(1.312028)	(.3711101)	(1.330505)	(.2494141)	(1.604974)	(.3390332)	(1.354989)	(.3625884)	(1.544645)	(.2113487)	(1.930329)	(.2996708)	(2.249846)	(.5239427)	(10.51856)	(1.545936)	(11.62702)	(1.900518)
	0.01	7.80	-0.02	0.22	-0.30	0.25	-1.58	-1.45	-1.38	-2.16	-0.31	-2.03	-1.74	-0.12	0.15	-0.21	1.38	-1.33	-0.79	-3.74	-1.18	-1.27	-1.33	-1.24
Limousin	1.549837	-8.580462***	-28.97961***	-22.86562***	-25.47025***	-5.887927*	-2.395772	.5412422	-1.96287	.5412422	-1.915051	.8077262	-1.939597	-.065025	-1.525923	-.065025	3.780385	.0935039	5.50421	.2735051	-16.6968	.2735051	-21.45296	1.145509
	(3.687501)	(.3716114)	(10.29789)	(8.167628)	(9.84999)	(3.520432)	(2.044897)	(.5497002)	(2.116768)	(.4063274)	(2.683245)	(.5127024)	(2.114102)	(.532672)	(1.574033)	(.3100953)	(2.40369)	(.4576263)	(3.585663)	(.7855888)	(13.71225)	(2.2651)	(13.99815)	(2.778268)
	0.42	-23.09	-2.81	-2.80	-2.59	-1.67	-1.17	0.98	-0.93	1.33	-0.71	1.58	-0.92	-0.12	-0.97	-0.21	1.57	0.20	1.54	0.35	-1.22	0.12	-1.53	0.41
Rhône-Alpes	-5.147392**	-2.73879***	-8.168656	-7.077788	-9.214171	-1.544673	-3.323179***	-.8556155***	-.3374279	-.8556155***	.6744071	-.9663501***	-.3627814	.1936828	-.7973969	.1936828	-1.346739	.0230367	-2.105176	-3.534905***	-5.017596	-3.534905**	-4.804908	-3.441225**
	(2.269803)	(.2345617)	(8.023127)	(5.435065)	(8.126337)	(2.845338)	(1.120331)	(.3310774)	(.9950296)	(.2596443)	(1.132941)	(.3073644)	(1.150764)	(.3231557)	(1.273399)	(.2015791)	(1.541507)	(.2948545)	(1.936314)	(.4727877)	(8.733098)	(1.375118)	(9.568838)	(1.718871)
	-2.27	-11.68	-1.02	-1.30	-1.13	-0.54	-2.97	-2.58	-0.34	-3.30	0.60	-3.14	-0.32	0.60	-0.63	0.96	-0.87	0.08	-1.09	-7.48	-0.57	-2.57	-0.50	-2.00
Auvergne	-1.278042	5.647208***	-11.09892	-9.610011	-15.50792	4.017267	-1.29098	.1695977	-.9259214	.1695977	.267765	-.0704993	1.075035	.2584635	-.7151238	.2584635	-1.601608	-.1016676	.1108538	-5.230964***	-14.852	-5.230964**	-13.49253	-5.808688**
	(3.009082)	(.3464611)	(9.514871)	(6.828294)	(9.63169)	(3.737996)	(1.600522)	(.4886966)	(1.265478)	(.309555)	(1.338407)	(.3577972)	(1.658721)	(.4743157)	(1.820925)	(.2568972)	(2.478416)	(.3815959)	(2.798763)	(.7143968)	(13.32129)	(2.327738)	(13.80365)	(2.553691)
	-0.42	16.30	-1.17	-1.41	-1.61	1.07	-0.81	0.35	-0.73	0.55	0.20	-0.20	0.65	0.54	-0.39	1.01	-0.65	-0.27	0.04	-7.32	-1.11	-2.25	-0.98	-2.27
Languedoc-Roussillon	-1.900183	-.7858448***	16.87805	11.92835*	22.80929*	.0583278	-1.298909	-.104296	5.609825***	-.104296	5.22849**	.1840575	.0274579	.4796689	1.634231	.4796689**	-.6582775	.455317	4.085366*	-2.767549***	26.02575*	-2.767549	32.73798*	-2.775968
	(2.620196)	(.2873563)	(11.22174)	(6.814653)	(11.69862)	(3.642145)	(1.400035)	(.3835725)	(2.038342)	(.2438076)	(2.217025)	(.2942075)	(1.440013)	(.3761467)	(1.856218)	(.2212435)	(2.722067)	(.3155291)	(2.430553)	(.550809)	(15.59309)	(1.746706)	(16.76172)	(2.138969)
	-0.73	-2.73	1.50	1.75	1.95	0.02	-0.93	-0.27	2.75	-0.43	2.36	0.63	0.02	1.28	0.88	2.17	-0.24	1.44	1.58	5.02	1.67	-1.58	1.95	-1.30
Provence-Alpes-Côte d'Azur	-3.512553	8.001834***	-14.71859*	-7.089788	-19.067**	5.54187*	-2.369031**	-.3285149	-1.03556	-.3285149	.0197104	-.4922509*	-3.018658**	-.0370129	-1.45393	-.0370129	-.7369149	.1090846	-.761399	-2.302956***	-28.99279***	-2.302956	-27.5103**	-2.527404
	(2.50723)	(.2472486)	(8.316554)	(5.593801)	(8.522159)	(2.954561)	(1.190529)	(.3363297)	(1.101653)	(.2279983)	(1.23974)	(.2698562)	(1.221936)	(.327291)	(1.420524)	(.1917337)	(1.755997)	(.2700297)	(2.034491)	(.4766575)	(9.417558)	(1.488534)	(11.01636)	(1.832296)
	-1.40	32.36	-1.77	-1.27	-2.24	1.88	-1.99	-0.98	-0.94	-1.44	0.02	-1.82	-2.47	-0.11	-1.02	-0.19	-0.42	0.40	-0.37	-4.83	-3.08	-1.55	-2.50	-1.38

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

TABLE B.4 – Continued (4) : Control variables - Estimator comparison - Time spent watching program from free public channel

	Static						$t-(t-1)$						$t-(t-7)$						$t-(t-365)$					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)
	(BE1)	(MCO1)	(FE1)	(RE1)	(AFE1)	(ARE1)	(BE2)	(MCO2)	(FE2)	(RE2)	(AFE2)	(ARE2)	(BE3)	(MCO3)	(FE3)	(RE3)	(AFE3)	(ARE3)	(BE4)	(MCO4)	(FE4)	(RE4)	(AFE4)	(ARE4)
Internet connection mode																								
No Internet acces	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Cable	-24.94149***	-23.84749***	-2.291816	-2.683555	-1.61419	-11.28029***	.7883313	-.2773886	.184097	-.2773886	.6037144	-.8665584***	.8296558	.2856084	.7487066	.2856084	1.931607***	.1674281	2.028221	.0138718	1.323151	.0138718	-.901813	-1.668084
	(2.395449)	(.2649611)	(1.776845)	(1.752376)	(1.840621)	(2.59969)	(1.37903)	(.3702731)	(.4676835)	(.255279)	(.551802)	(.3344815)	(1.417724)	(.3595168)	(.4716258)	(.2266567)	(.7353059)	(.3435073)	(2.443362)	(.557643)	(3.221201)	(1.48268)	(3.934264)	(2.004979)
	-10.41	-90.00	-1.29	-1.53	-0.88	-4.34	0.57	-0.75	0.39	-1.09	1.09	-2.59	0.59	0.79	1.59	1.26	2.63	0.49	0.83	0.02	0.41	0.01	-0.23	-0.83
ADSL	-23.63659***	-20.58198***	-1.163698	-1.870852	-1.551983	-9.497234***	-.0039608	-.178637	-.0989657	-.178637	.2303175	-.3567052***	-.4034906	-.1032532	-.0120609	-.1032532	.1728407	-.3056361**	.6064174	-.3601547	2.202729	-.3601547	2.502556	-.920423
	(1.65922)	(.1628374)	(1.388672)	(1.365217)	(1.34641)	(1.790581)	(.9363374)	(.1904523)	(.2121219)	(.1203957)	(.2658151)	(.1356526)	(.9600663)	(.1825852)	(.2391008)	(.0964622)	(.3043982)	(.122958)	(1.63051)	(.2710475)	(2.020281)	(.8302475)	(2.225581)	(.8611524)
	-14.25	-126.40	-0.84	-1.37	-1.15	-5.30	-0.00	-0.94	-0.47	-1.48	0.87	-2.63	-0.42	-0.57	-0.05	-1.07	0.57	-2.49	0.37	-1.33	1.09	-0.43	1.12	-1.07
Fiber optics	-28.32493***	-21.62634***	-1.327108	-2.197594	.2610169	-9.214722***	2.2615	-.3982164	-.3797894	-.3982164	-.2835471	-.6720954*	-.1443317	.1307408	.4330352	.1307408	.4927073	-.5140165	1.999583	2.456607***	8.251505**	2.456607	8.465743**	2.055594
	(2.748168)	(.3155328)	(2.278179)	(2.238626)	(2.520504)	(2.946058)	(1.586954)	(.4615184)	(.4522272)	(.3418292)	(.5722426)	(.3998948)	(1.633527)	(.4535028)	(.5124458)	(.2891553)	(.6921328)	(.4226971)	(2.684608)	(.6473439)	(3.366342)	(1.740496)	(3.974682)	(2.167242)
	-10.31	-68.54	-0.58	-0.98	0.10	-3.13	1.43	-0.86	-0.84	-1.16	-0.50	-1.68	-0.09	0.29	0.85	0.45	0.71	-1.22	0.74	3.79	2.45	1.41	2.13	0.95
Other	-17.80809***	-20.96974***	-3.702052*	-4.20075**	-4.264136**	-11.81139***	1.471273	.0752823	-.1687348	.0752823	-.2426017	-.500254	2.984854	-.3360743	-.3649906	-.3360743	-.4603665	-.433242	6.556758*	-1.621593**	-1.70257	-1.621593	-2.540271	-3.62199
	(3.364455)	(.3152888)	(1.905075)	(1.887303)	(1.95835)	(2.522153)	(1.932799)	(.4328581)	(.3666851)	(.2590943)	(.4048134)	(.3063304)	(1.935506)	(.4219386)	(.3759109)	(.2348411)	(.5513043)	(.3501873)	(3.417851)	(.6491394)	(3.080768)	(1.934623)	(3.704202)	(2.343803)
	-5.29	-66.51	-1.94	-2.23	-2.18	-4.68	0.76	0.17	-0.46	0.29	-0.60	-1.63	1.54	-0.80	-0.97	-1.43	-0.84	-1.24	1.92	-2.50	-0.55	-0.84	-0.69	-1.55
Intercept	103.8717***	116.017***	165.1696***	111.13***	157.2647***	68.50428***	-9.188753**	4.589745***	5.44536***	4.589745***	1.487833	2.400588**	-5.000931	-1.519967	-.9238089	-1.519967*	-2.358277	-.9615766	12.34073*	15.69302***	9.473049	15.69302***	-1.324584	16.56733**
	(8.401061)	(.7179523)	(6.307251)	(5.073415)	(6.407098)	(5.115451)	(3.62358)	(1.072299)	(1.540102)	(.8215631)	(1.927748)	(.9785468)	(3.807399)	(1.10756)	(1.568873)	(.7780071)	(2.435877)	(1.297232)	(6.416387)	(1.636108)	(9.193452)	(4.591104)	(11.38231)	(7.533168)
	12.36	161.59	26.19	21.90	24.55	13.39	-2.54	4.28	3.54	5.59	0.77	2.45	-1.31	-1.37	-0.59	-1.95	-0.97	-0.74	1.92	9.59	1.03	3.42	-0.12	2.20
Number of observations	5,816,879	5,816,879	5,816,879	5,816,879	3,467,867	3,467,867	3,464,974	3,464,974	3,464,974	3,464,974	2,457,087	2,457,087	3,279,663	3,279,663	3,279,663	3,279,663	1,865,289	1,865,289	2,011,921	2,011,921	2,011,921	2,011,921	1,134,046	1,134,046
Number of groups	21,266		21,266	21,266	19,069	19,069	19,064		19,064	19,064	16,308	16,308	18,674		18,674	18,674	13,859	13,859	13,627		13,627	13,627	9,525	9,525
R-squared : R^2		0.18						0.01						0.00						0.02				
R-squared for overall model : R^2_O	0.14		0.01	0.11	0.27	0.36	0.00		0.01	0.01	0.22	0.22	0.00		0.00	0.00	0.01	0.01	0.01		0.01	0.02	0.02	0.04
R-squared for between model : R^2_B	0.39		0.00	0.23	0.48	0.76	0.03		0.00	0.00	0.18	0.18	0.02		0.00	0.00	0.02	0.02	0.07		0.01	0.03	0.03	0.12
R-squared for within model : R^2_W	0.00		0.02	0.02	0.06	0.06	0.00		0.01	0.01	0.22	0.22	0.00		0.00	0.00	0.01	0.01	0.01		0.02	0.02	0.03	0.03
Panel-level standard deviation : σ_u			67.91	48.13	59.21	0.00			29.60	0.00	33.41	0.00			30.13	0.00	44.33	0.00			47.02	0.00	59.68	0.00
Standard deviation of ϵ_{it} : σ_e			89.22	89.22	93.27	93.27			120.03	120.03	110.15	110.15			113.73	113.73	118.01	118.01			130.16	130.16	135.79	135.79
Intraclass correlation : ρ			0.37	0.23	0.29	0.00			0.06	0.00	0.08	0.00			0.07	0.00	0.12	0.00			0.12	0.00	0.16	0.00
Hausman Test : Prob > χ^2			0.0000	0.0000	0.0000	0.0000			0.9975	0.9975	0.9921	0.9921			0.9978	0.9978	0.9747	0.9747			0.0000	0.0000	0.0000	0.0000

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

TABLE B.4 – Continued (5) : Control variables - Estimator comparison - Time spent watching program from free public channel

	(1) (IDF)	(2) (C-A)	(3) (PIC)	(4) (H-N)	(5) (CEN)	(6) (B-N)	(7) (BOU)	(8) (N-P-C)	(9) (LOR)	(10) (ALS)	(11) (F-C)	(12) (P-D-L)	(13) (BRE)	(14) (P-C)	(15) (AQU)	(16) (M-P)	(17) (LIM)	(18) (R-A)	(19) (AUV)	(20) (L-R)	(21) (PACA)
$(q_3^K - t_2)_{t-1}$	.2045402***	.2063358***	.2016038***	.1938463***	.2265185***	.2187535***	.2055219***	.2219559***	.204681***	.186618***	.1979351***	.2013544***	.2158498***	.2185468***	.2088206***	.2195193***	.2007354***	.191072***	.2184162***	.2137705***	.2091251***
	(.0040292)	(.0093558)	(.0073447)	(.0085066)	(.0069244)	(.010322)	(.0067345)	(.0064099)	(.0073585)	(.0078663)	(.0072401)	(.0063578)	(.0062646)	(.0091935)	(.0061949)	(.0083001)	(.0121918)	(.0053912)	(.0120398)	(.0080636)	(.0058745)
	50.76	22.05	27.45	22.79	32.71	21.19	30.52	34.63	27.82	23.72	27.34	31.67	34.46	23.77	33.71	26.45	16.46	35.44	18.14	26.51	35.60
TS (in mn)	-.003144***	-.0097432***	-.0012768	-.0059319**	-.0081099***	-.0066644	-.0055477	-.000322	-.0099693***	-.0107747***	-.0087683***	-.005698***	-.0171438**	-.0159538***	-.0075865***	-.0093427***	-.0084383**	-.0072697***	-.00992**	-.0133678***	-.0063662***
	(.00116)	(.0026067)	(.0022972)	(.0023348)	(.0017748)	(.0049047)	(.0039593)	(.0022128)	(.0024597)	(.0026943)	(.0029362)	(.0020452)	(.0081775)	(.0030874)	(.0017099)	(.0030375)	(.0034942)	(.0016084)	(.0041457)	(.0029904)	(.0017502)
	-2.71	-3.74	-0.56	-2.54	-4.57	-1.36	-1.40	-0.15	-4.05	-4.00	-2.99	-2.79	-2.10	-5.17	-4.44	-3.08	-2.41	-4.52	-2.39	-4.47	-3.64
OTVU (in mn)	-.007245***	-.0126175***	-.0086596***	-.0141904***	-.014531***	-.0139367***	-.0117426***	-.0126754***	-.0118332***	-.0100558***	-.0105629***	-.0122662***	-.0149799***	-.0148751***	-.0124838***	-.0086338***	-.0111541***	-.0094962***	-.0141694***	-.0134593***	-.0114794***
	(.0009159)	(.001975)	(.0014052)	(.0017444)	(.0016316)	(.0022052)	(.0016135)	(.0011912)	(.001483)	(.0016873)	(.0019423)	(.001428)	(.0016817)	(.0017981)	(.0014124)	(.0016132)	(.0032102)	(.0010148)	(.0027728)	(.0014181)	(.001087)
	-7.91	-6.39	-6.16	-8.13	-8.91	-6.32	-7.28	-10.64	-7.98	-5.96	-5.44	-8.59	-8.91	-8.27	-8.84	-5.35	-3.47	-9.36	-5.11	-9.49	-10.56
ω_1 **: Temperature (in °C)**	-.0790403***	-.1058314***	-.1392224***	-.1358929***	-.0991143***	-.1507745***	-.0998152***	-.1482726***	-.1049316***	-.0596122***	-.133905***	-.1062554***	-.1473615***	-.0904875***	-.1028868***	-.090218***	-.0773114***	-.0839269***	-.0917756***	-.109742***	-.1198831***
	(.0051447)	(.0105801)	(.0104831)	(.0131321)	(.0077235)	(.0164164)	(.0110844)	(.0081855)	(.0108123)	(.0077294)	(.012)	(.0082268)	(.0101323)	(.0096762)	(.0087703)	(.0081066)	(.0162659)	(.0056048)	(.010732)	(.0094953)	(.0078731)
	-15.36	-10.00	-13.28	-10.35	-12.83	-9.18	-9.01	-18.11	-9.70	-7.71	-11.16	-12.92	-14.54	-9.35	-11.73	-11.13	-4.75	-14.97	-8.55	-11.56	-15.23
ω_2 **: Sunshine duration (in mn)**	-.0007562***	-.0021401***	-.0015432***	-.0014579***	-.0014831***	-.0019836***	-.0019679***	-.0017079***	-.0013016***	-.0014847***	-.0014188***	-.0014658***	-.0022542***	-.0017951***	-.0014596***	-.001388***	-.0013722***	-.0016256***	-.0016829***	-.0019254***	-.0016478***
	(.0000828)	(.0001987)	(.0001941)	(.0001894)	(.0001278)	(.0002221)	(.0002099)	(.0001325)	(.0001798)	(.0001778)	(.0002355)	(.0001333)	(.0001637)	(.0001898)	(.000143)	(.0001507)	(.0002628)	(.0001268)	(.0002164)	(.0001645)	(.0001349)
	-9.13	-10.77	-7.95	-7.70	-11.61	-8.93	-9.38	-12.89	-7.24	-8.35	-6.03	-10.99	-13.77	-9.46	-10.21	-9.21	-5.22	-12.82	-7.78	-11.71	-12.22
ω_3 **: Rainfall (in mm)**	.0166942***	.0130348	.0593656***	.0139186	.0247145**	-.0149306	-.014396	.0363202***	.0030701	-.0043622	.0121081	.0181188**	.0382994***	.0410187***	.0133678	.0050974	.0082118	-.0224198***	-.0043714	.0084323	.0080963
	(.006361)	(.0158231)	(.0129231)	(.0163895)	(.0096167)	(.0159077)	(.0132414)	(.0078826)	(.0112695)	(.0087646)	(.01156)	(.0089925)	(.009041)	(.0111718)	(.0094182)	(.009827)	(.0157926)	(.0055227)	(.0117408)	(.0106207)	(.0061709)
	2.62	0.82	4.59	0.85	2.57	-0.94	-1.09	4.61	0.27	-0.50	1.05	2.01	4.24	3.67	1.42	0.52	0.52	-4.06	-0.37	0.79	1.31
ω_4 **: Wind speed (in km/h)**	-.0834947***	-.0433182*	-.0098968	-.0052082	-.0045633	-.0202156	.0507509*	-.0473884***	-.0928807***	-.0219905	.0440613	.0301223	.0455527***	.0260434	.1245929***	.0835829***	-.0318098	.0221691	.0219543	.0493089***	.02833**
	(.0115559)	(.0254556)	(.0196343)	(.02075)	(.0153673)	(.0206938)	(.0280363)	(.0144283)	(.0255797)	(.0232429)	(.0325717)	(.0194724)	(.016596)	(.0205766)	(.0247991)	(.0217759)	(.0400763)	(.0180067)	(.0294828)	(.0187625)	(.0125723)
	-7.23	-1.70	-0.50	-0.25	-0.30	-0.98	1.81	-3.28	-3.63	-0.95	1.35	1.55	2.74	1.27	5.02	3.84	-0.79	1.23	0.74	2.63	2.25
ω_5 **: Rain duration (in mn)**	.0003562***	.0002814	-.0001786	.0012523***	.0002374	.0008153**	.0009601***	-.0007824***	.0012294***	.0008702***	.0010601***	.0001823	-.0006711***	.0003052	.0007059***	.0008868***	.0007391**	.0012591***	.0008206***	.0012154***	.0010155***
	(.0001252)	(.0003122)	(.0002602)	(.0003293)	(.0002139)	(.0003247)	(.0002779)	(.0001774)	(.0002281)	(.0001741)	(.0002998)	(.0001884)	(.0001849)	(.0002977)	(.0002311)	(.0002242)	(.0003183)	(.0001754)	(.0002929)	(.0003427)	(.0002135)
	2.85	0.90	-0.69	3.80	1.11	2.51	3.45	-4.41	5.39	5.00	3.54	0.97	-3.63	1.03	3.06	3.66	2.32	7.18	2.80	3.55	4.76
Day of the week																					
Monday	-.2250048	-.4364194	.7138693**	.5798517*	.8961882***	.4045779	.5068963	.6513204***	.2619942	.5038646**	.3442804	.161322	.0253613	.7831492**	.2583949	.2300302	.556898	.186036	1.544913***	.1008136	-.2535953
	(.1628065)	(.3991723)	(.2903428)	(.3138988)	(.2470041)	(.4067537)	(.4009591)	(.2384498)	(.288861)	(.2559079)	(.5146683)	(.2409706)	(.2222928)	(.3588573)	(.2494456)	(.2940918)	(.4433145)	(.1838557)	(.3735789)	(.2767134)	(.1997845)
	-1.38	-1.09	2.46	1.85	3.63	0.99	1.26	2.73	0.91	1.97	0.67	0.67	0.11	2.18	1.04	0.78	1.26	1.01	4.14	0.36	-1.27
Tuesday	-.415608***	-1.147571***	-.4779528**	-.3984902	-.1380256	-.0253738	-.0137202	-.505498***	-.350975	-.0867578	-.4255546	-.3799561*	-.4234573**	-.1024737	.0736497	.109077	.013971	-.2063181	.0003441	-.1184074	-.147902
	(.12004)	(.3192142)	(.2102683)	(.2620636)	(.1903535)	(.2815842)	(.3046454)	(.1887232)	(.2468209)	(.17787)	(.3490729)	(.1993025)	(.1777982)	(.2298607)	(.1876872)	(.2563238)	(.3582126)	(.1456477)	(.3257349)	(.2108995)	(.1588661)
	-3.46	-3.59	-2.27	-1.52	-0.73	-0.09	-0.05	-2.68	-1.42	-0.49	-1.22	-1.91	-2.38	-0.45	0.39	0.43	0.04	-1.42	0.00	-0.56	-0.93
Wenesday	.2633347**	.031204	.1840224	.4594825*	.5161414**	1.249787***	.3003726	.5986117***	-.0149627	-.3082398	.3804491	.2198056	.1016709	.526392**	.3584165*	.407204	.0721607	.2213948	.6448191*	-.0482411	.0276857
	(.1272835)	(.3344074)	(.2393547)	(.2719895)	(.2122457)	(.3492314)	(.3334719)	(.2012936)	(.2530192)	(.2106217)	(.3767503)	(.2122878)	(.2160594)	(.2624739)	(.2045051)	(.2509471)	(.4513937)	(.1598502)	(.3565401)	(.2316941)	(.1779006)
	2.07	0.09	0.77	1.69	2.43	3.58	0.90	2.97	-0.06	-1.46	1.01	1.04	0.47	2.01	1.75	1.62	0.16	1.39	1.81	-0.21	0.16
Thursday	-.068678	-.5009284	.0155178	-.1855012	.4881053**	.3152337	.1159725	-.5660864***	.1264014	.0101591	-.0807803	-.1181003	-.6053854***	.3480563	-.0119534	-.0079827	.6527213	-.1764146	.394781	.1918178	-.1871211
	(.150976)	(.3496541)	(.2768863)	(.2568285)	(.2352439)	(.3225019)	(.3633586)	(.1939632)	(.3040172)	(.2298555)	(.3397771)	(.2084979)	(.2134542)	(.3470134)	(.22316)	(.2613796)	(.4591515)	(.1622698)	(.3769039)	(.2923009)	(.1953486)
	-0.45	-1.43	0.06	-0.72	2.07	0.98	0.32	-2.92	0.42	0.04	-0.24	-0.57	-2.84	1.00	-0.05	-0.03	1.42	-1.09	1.05	0.66	-0.96
Friday	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Saturday	1.064182***	.4008793	-.3214241	.1708112	.5370433*	1.593936***	-.9840495**	-.4064742	-.0385427	-.3442036	.184281	-.1451073	-.2063448	-.2777563	-.0558994	.3193061	1.693941***	-.0945513	.0169335	-.2919087	.6966248**
	(.2023647)	(.4893399)	(.4312977)	(.3826487)	(.3006148)	(.5682121)	(.4343908)	(.2873483)	(.368498)	(.3290581)	(.4386859)	(.3132143)	(.3235726)	(.3877936)	(.2978933)	(.3555415)	(.578709)	(.2548484)	(.4369346)	(.3307113)	(.3006539)
	5.26	0.82	-0.75	0.45	1.79	2.81	-2.27	-1.41	-0.10	-1.05	0.42	-0.46	-0.64	-0.72	-0.19	0.90	2.93	-0.37	0.04	-0.88	2.32
Sunday	4.048757***	4.81329***	3.580103***	4.756205***	4.08662***	5.105232***	3.21103***	3.218195***	4.075635***	3.167212***	3.623837***	3.955622***	3.948966***	3.503905***	2.867827***	3.552677***	3.794663***	3.546495***	3.211906***	3.23026***	3.667856***
	(.2483468)	(.6620268)	(.4949416)	(.5184259)	(.3714545)	(.5419569)	(.5370761)	(.3507397)	(.5180732)	(.3755229)	(.5407361)	(.3853859)	(.3853358)	(.4329389)	(.3606471)	(.3673779)	(.6396192)	(.2970252)	(.565915)	(.4092154)	(.3542711)
	16.30	7.27	7.23	9.17	11.00	9.42	5.98	9.18	7.87	8.43	6.70	10.26	10.25	8.09	7.95	9.67	5.93	11.94	5.68	7.89	10.35
Gender																					
Female	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Male	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

TABLE B.5 – By regions : Control variables - Time spent watching ad from free private channel

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)
	(IDF)	(C-A)	(PIC)	(H-N)	(CEN)	(B-N)	(BOU)	(N-P-C)	(LOR)	(ALS)	(F-C)	(P-D-L)	(BRE)	(P-C)	(AQU)	(M-P)	(LIM)	(R-A)	(AUV)	(L-R)	(PACA)
Age category																					
4-10 years																					
	2.065733**	4.22693**	1.33622	.1811675	.1483154	-1.149225	-.0777314	1.229606	-2.65481	2.902172*	7.386307***	2.152369**	1.741189	4.393179**	2.4848*	-.8268908	-1.912103	.1472666	3.566245**	4.938128***	-1.313271
	(.8314185)	(2.032751)	(1.461697)	(2.082506)	(1.057982)	(1.445516)	(1.626574)	(1.647355)	(1.688332)	(1.491887)	(2.448468)	(1.000206)	(1.125786)	(2.024359)	(1.403792)	(1.27017)	(1.951452)	(.951687)	(1.709235)	(1.469226)	(1.195062)
	2.48	2.08	0.91	0.09	0.14	-0.80	-0.05	0.75	-1.57	1.95	3.02	2.15	1.55	2.17	1.77	-0.65	-0.98	0.15	2.09	3.36	-1.10
11-14 years																					
	1.147282**	1.689425	.0445602	-.7554844	-.5035794	-.9616471	-1.426398	-.3439402	-2.477943*	1.873639*	3.854168**	1.592584**	1.267393*	1.879707*	.8639096	-.5572215	-1.568942	.6115469	1.91576	2.814384***	.0612509
	(.49295)	(1.222095)	(1.127159)	(1.876397)	(.8669507)	(.9038286)	(1.50232)	(1.389986)	(1.341872)	(.9779039)	(1.882621)	(.7644686)	(.6947402)	(1.137558)	(.9755782)	(.7557175)	(1.531723)	(.7172454)	(1.35264)	(1.027535)	(.8477952)
	2.33	1.38	0.04	-0.40	-0.58	-1.06	-0.95	-0.25	-1.85	1.92	2.05	2.08	1.82	1.65	0.89	-0.74	-1.02	0.85	1.42	2.74	0.07
15-24 years																					
	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
25-34 years																					
	-2.166754	1.791623	-1.912492	9.543962***	-2.854046	-.692832	-1.346392	-.9859674	4.511271	-1.567408	-5.124214***	-.8428775	-3.128975***	-5.365718	-4.074752**	-3.398266**	-1.58456*	-1.507664	9.075353***	-3.077419**	1.087909
	(1.566151)	(2.525453)	(1.265899)	(2.472043)	(2.702892)	(1.372143)	(1.868672)	(1.482061)	(2.899068)	(2.802764)	(1.14672)	(3.120232)	(1.114432)	(3.467199)	(1.807873)	(1.370403)	(.8326869)	(1.931347)	(3.392706)	(1.375001)	(.8718599)
	-1.38	0.71	-1.51	3.86	-1.06	-0.50	-0.72	-0.67	1.56	-0.56	-4.47	-0.27	-2.81	-1.55	-2.25	-2.48	-1.90	-0.78	2.67	-2.24	1.25
35-49 years																					
	-2.758832*	4.578104	-1.939499	9.0981***	-5.022102*	-1.361293	-3.962407**	-4.036267**	4.17677	-3.286943	-4.994966*	-2.682131	-4.485437***	-5.293318	-6.096233**	-3.772084**	-2.708062**	-1.68023	6.404287*	-2.991836	-.9094617
	(1.62565)	(3.281818)	(1.922453)	(2.641109)	(2.791659)	(1.870331)	(2.006791)	(1.635725)	(3.024111)	(2.971751)	(2.765229)	(3.206534)	(1.307322)	(4.016139)	(2.454875)	(1.519837)	(1.247326)	(2.091245)	(3.461371)	(2.086499)	(1.299379)
	-1.70	1.39	-1.01	3.44	-1.80	-0.73	-1.97	-2.47	1.38	-1.11	-1.81	-0.84	-3.43	-1.32	-2.48	-2.48	-2.17	-0.80	1.85	-1.43	-0.70
50-64 years																					
	-2.771883	6.928128**	-.1258445	9.3168***	-3.134456	-1.282699	-2.125381	-3.364551	3.907022	-4.258655	-4.525966	-1.720876	-3.326456*	-4.271448	-6.571471**	-5.962411***	-2.340006	-1.191167	7.108771*	-2.63459	-.605752
	(1.69329)	(3.369421)	(2.279748)	(2.885387)	(2.973663)	(2.73392)	(2.525864)	(2.159125)	(3.266987)	(3.118047)	(3.235577)	(3.290233)	(1.790453)	(4.13062)	(2.612473)	(1.973168)	(1.669514)	(2.152252)	(4.118312)	(2.29364)	(1.483149)
	-1.64	2.06	-0.06	3.23	-1.05	-0.47	-0.84	-1.56	1.20	-1.37	-1.40	-0.52	-1.86	-1.03	-2.52	-3.02	-1.40	-0.55	1.73	-1.15	-0.41
65 years and more																					
	-1.772978	5.75978	1.985835	10.0639***	-4.090589	-.2020692	-2.065451	-3.614473	5.558272	-4.618798	-4.431083	-1.380168	-3.471424*	-3.445383	-5.418695*	-6.392279***	-6.570219**	-1.963812	7.20058*	-1.585708	-.86059
	(1.843758)	(3.539389)	(2.601795)	(3.305213)	(3.075395)	(3.28164)	(2.895534)	(2.519761)	(3.445257)	(3.244113)	(3.365138)	(3.367919)	(1.923126)	(4.260852)	(2.766853)	(2.416536)	(2.642759)	(2.228697)	(4.184584)	(2.500417)	(1.701846)
	-0.96	1.63	0.76	3.04	-1.33	-0.06	-0.71	-1.43	1.61	-1.42	-1.32	-0.41	-1.81	-0.81	-1.96	-2.65	-2.49	-0.88	1.72	-0.63	-0.51
Social-Professional Category																					
Farmer																					
	0	-5.38475*	0	0	0	.3325785	-.4398408	.3827103	20.22197***	1.492375	0	-5.985011**	9.54724***	1.311711	-5.313985***	-4.10603**	4.377765	-1.845189	-.6665768	-1.365694	0
	(0)	(3.060353)	(0)	(0)	(0)	(2.360833)	(1.310539)	(2.050918)	(2.850741)	(1.379838)	(0)	(2.702085)	(3.463021)	(2.005608)	(1.152989)	(1.817558)	(2.819134)	(1.362157)	(1.041301)	(1.260935)	(0)
		-1.76				0.14	-0.34	0.19	7.09	1.08		-2.21	2.76	0.65	-4.61	-2.26	1.55	-1.35	-0.64	-1.08	
Craftsmen-Traders-Contractor																					
	-1.613935	-4.19399	-1.266599	2.978983***	.3006807	-1.101808	1.448999	1.943847	-2.336631	3.060973*	2.102428	-2.466756	.523266	4.606111*	2.10125	-1.734456	-4.171036***	-.2560416	-3.288423**	2.367937	.5161456
	(1.243267)	(3.224568)	(1.573129)	(.9614045)	(1.383012)	(2.125628)	(1.551999)	(2.246425)	(1.693599)	(1.712781)	(1.630015)	(1.574327)	(1.804335)	(2.379505)	(1.45456)	(1.927434)	(1.153358)	(1.17196)	(1.607042)	(1.875003)	(1.203753)
	-1.30	-1.30	-0.81	3.10	0.22	-0.52	0.93	0.87	-1.38	1.79	1.29	-1.57	0.29	1.94	1.44	-0.90	-3.62	-0.22	-2.05	1.26	0.43
Higher professions																					
	.2464548	-.74511	-1.46376	1.395213	.2964699	.5235939	2.465793*	1.341835	1.94803	.4041295	-4.10636**	.1534989	1.163384	1.11201	.1090718	.87949	.1624172	.0888357	-.9441457	-.215559	.7030679
	(.5967852)	(1.953963)	(1.519074)	(.9516454)	(1.119952)	(1.670501)	(1.329001)	(1.037248)	(1.456627)	(.8792099)	(1.78426)	(.8119877)	(1.237338)	(1.384543)	(1.296581)	(.8424525)	(.9075389)	(.86276)	(2.069006)	(1.974728)	(.8624153)
	0.41	-0.38	-0.96	1.47	0.26	0.31	1.86	1.29	1.34	0.46	-2.30	0.19	0.94	0.80	0.08	1.04	0.18	0.10	-0.46	-0.11	0.82
Intermediate occupations																					
	.188322	-.1350111	-.9669033	1.909557***	.9885953	.4567668	.118561	.0462732	.389894	.8780694	-2.296066**	-.2854006	.7749854	2.074196**	1.315624	-.3328915	-.4358595	-.4807931	-.2304948	-.3023684	-.0339327
	(.5022239)	(1.754557)	(1.380056)	(.7178714)	(.7911524)	(1.653724)	(.9564475)	(.7921029)	(1.48472)	(1.006749)	(1.111923)	(.7398156)	(.9984851)	(1.04819)	(1.047598)	(.7809922)	(.8770565)	(.7262431)	(1.13901)	(1.070145)	(.4417166)
	0.37	-0.08	-0.70	2.66	1.25	0.28	0.12	0.06	0.26	0.87	-2.06	-0.39	0.78	1.98	1.26	-0.43	-0.50	-0.66	-0.20	-0.28	-0.08
Employee																					
	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Skilled worker																					
	-.1171996	-.4290579	.9391505	2.041523**	-.4486919	-.566493	.715613	-1.313382	-1.182998	1.609039	-1.021017	-.0165725	2.142253	3.007502	.3879626	.220258	-1.18208	-.7933597	-1.768543	-1.274162	-.8710405
	(.7977677)	(1.501646)	(1.688347)	(.8588534)	(1.055662)	(1.388071)	(1.401659)	(.9739354)	(1.50417)	(1.061765)	(1.486368)	(.9218922)	(1.416795)	(2.201559)	(1.20521)	(1.079579)	(1.844741)	(1.122019)	(1.457641)	(1.965263)	(.6362859)
	-0.15	-0.29	0.56	2.38	-0.43	-0.41	0.51	-1.35	-0.79	1.52	-0.69	-0.02	1.51	1.37	0.32	0.20	-0.64	-0.71	-1.21	-0.65	-1.37
Unskilled worker																					
	-.5341954	2.451358	3.194159	3.814295***	-.2285316	-2.313689	.0031571	-.347909	2.779808	5.421079***	-4.155262*	.1234101	1.549354	.8361238	.7194653	.6853453	2.401316	-.386779	-.2151417	-3.183043	.6024555
	(1.06712)	(2.676422)	(2.061037)	(1.405582)	(1.371255)	(1.490869)	(1.25598)	(1.059819)	(1.924068)	(1.890978)	(2.438253)	(1.232675)	(1.506554)	(2.408681)	(1.470797)	(1.251927)	(2.723174)	(1.303874)	(1.073385)	(2.327717)	(1.062405)
	-0.50	0.92	1.55	2.71	-0.17	-1.55	0.00	-0.33	1.44	2.87	-1.70	0.10	1.03	0.35	0.49	0.55	0.88	-0.30	-0.20	-1.37	0.57
Pensioner																					
	.2148241	3.080462	3.699213	2.712027	.4072529	-3.902415	-4.839836**	1.203179	-2.843068	.3713181	-2.706791	2.074603	.5299622	7.210888***	-1.683028	-1.529338	-1.428996	-1.541285	-4.002247	-4.934214*	-4.264447**
	(1.581974)	(4.034863)	(3.506409)	(2.09866)	(1.84592)	(3.677536)	(2.056527)	(2.194951)	(4.314534)	(1.695792)	(1.980705)	(1.771751)	(4.157329)	(2.755934)	(2.475204)	(2.804366)	(5.480709)	(2.157426)	(3.607973)	(2.820326)	(1.878896)
	0.14	0.76	1.05	1.29	0.22	-1.06	-2.35	0.55	-0.66	0.22	-1.37	1.17	0.13	2.62	-0.68	-0.55	-0.26	-0.71	-1.11	-1.75	-2.27
Student																					
	.319747	3.785108	3.476845	5.086499**	-1.073199	3.710927	-1.066761	-.7970733	1.113415	.7199114	-3.682169*	1.355017	1.13603	3.865949*	-2.994912	-.2135384	-3.056428	-2.404951	-5.102989	-2.551383	-1.238794
	(1.335677)	(3.357124)	(2.729139)	(2.162497)	(1.719857)	(3.348928)	(1.999733)	(2.03359)	(4.174491)	(2.093078)	(2.025775)	(1.717209)	(3.069317)	(1.976982)	(2.085966)	(2.582658)	(5.785432)	(1.840162)	(4.300477)	(2.726064)	(1.556958)
	0.24	1.13	1.27	2.35	-0.62	1.11	-0.53	-0.39	0.27	0.34	-1.82	0.79	0.37	1.96	-1.44	-0.08	-0.53	-1.31	-1.19	-0.94	-0.80
Other inactive																					
	.5489935	.0039774	-.4935611	2.924855	-.156087	-3.801911	-3.511883*	-.9054172	.3701541	-1.632865	-5.085711**	3.188302*	2.531875	4.891272**	-1.104457	.8331646	-1.606091	-4.227181**	-2.960029	-4.604065	-3.828256**
	(1.511084)	(3.329708)	(2.818953)	(2.084191)	(1.503388)	(3.000907)	(1.828316)	(2.092882)	(4.341709)	(1.906578)	(2.193684)	(1.854684)	(3.403062)	(2.381312)	(2.438613)	(2.632228)	(5.479467)	(1.907424)	(3.271757)	(2.838623)	(1.865473)
	0.36	0.00	-0.18	1.40	-0.10	-1.27	-1.92	-0.43	0.09	-0.86	-2.32	1.72	0.74	2.05	-0.45	0.32	-0.29	-2.22	-0.90	-1.62	-2.05

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

TABLE B.5 – Continued (2) : By regions : Control variables - Time spent watching ad from free private channel

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)
	(IDF)	(C-A)	(PIC)	(H-N)	(CEN)	(B-N)	(BOU)	(N-P-C)	(LOR)	(ALS)	(F-C)	(P-D-L)	(BRE)	(P-C)	(AQU)	(M-P)	(LIM)	(R-A)	(AUV)	(L-R)	(PACA)
Average weekly working time																					
Unemployed person who has already worked	2.015343***	3.549866	.5852482	.8643607	1.250091	-.5482024	-1.811718*	-2.383319**	.3156228	-.1690933	1.074608	.8601813	2.248263	.9902868	.6263302	.4536894	-.2792625	-1.21707*	-.3661394	-2.401605**	1.445221*
	(.7438974)	(3.445655)	(1.795215)	(1.713612)	(1.28593)	(2.004852)	(1.07296)	(1.119105)	(1.187032)	(1.726727)	(1.153717)	(1.194773)	(1.734729)	(2.658766)	(1.250951)	(.9933077)	(2.847527)	(.7075727)	(1.42042)	(1.087455)	(.7815918)
	2.71	1.03	0.33	0.50	0.97	-0.27	-1.69	-2.13	0.27	-0.10	0.93	0.72	1.30	0.37	0.50	0.46	-0.10	-1.72	-0.26	-2.21	1.85
People looking for a first job	.0168301	-5.070494	3.727006	-3.944772*	-5.019277	-12.88416***	2.849874	4.487896**	47.63951***	2.187921	9.892749***	-7.302729	1.288637	-7.306206	6.545459*	-.1723599	-9.577544**	4.121009	-8.766446	8.568632**	.9247619
	(1.758495)	(4.792698)	(7.537614)	(2.362922)	(5.466394)	(3.339134)	(4.255795)	(1.775992)	(3.689972)	(3.89674)	(3.547607)	(4.711061)	(3.674671)	(5.496121)	(3.899427)	(3.065173)	(4.193662)	(2.602946)	(7.654076)	(3.319381)	(2.310796)
	0.01	-1.06	0.49	-1.67	-0.92	-3.86	0.67	2.53	12.91	0.56	2.79	-1.55	0.35	-1.33	1.68	-0.06	-2.28	1.58	-1.15	2.58	0.40
Full-time worker	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Part-time worker : 0-9h59 per week	-2.438566	6.828875**	1.37445	2.243513	-5.39322***	-.2035205	-2.355867*	5.896833**	-6.000918***	-2.292853*	-3.017398***	-.3968322	-3.225863	1.38298	3.515356**	-.6983617		-4.565995***	-3.089241	2.900849	-3.317914**
	(1.580785)	(3.140161)	(2.944929)	(4.136796)	(1.122232)	(2.086951)	(1.321595)	(2.423938)	(1.25287)	(1.174854)	(1.080351)	(1.241402)	(2.917292)	(1.670455)	(1.73631)	(1.811442)		(1.722803)	(2.67817)	(3.411739)	(1.606864)
	-1.54	2.17	0.47	0.54	-4.81	-0.10	-1.78	2.43	-4.79	-1.95	-2.79	-0.32	-1.11	0.83	2.02	-0.39		-2.65	-1.15	0.85	-2.06
Part-time worker : 10h-19h59 per week	-.4964336	.760167	1.26908	-4.146839***	-2.572246**	1.67927	1.321774	-.1430858	.143112	.2536001	4.138898**	-.4583967	.9542659	-1.74315	.0690684	-.7436164	1.125912	-.9999834	2.094826	-2.389717*	.8824487
	(.9210651)	(2.44775)	(2.324998)	(.91908)	(1.276552)	(2.778928)	(1.179299)	(.9800276)	(1.806562)	(1.001392)	(2.049896)	(1.092289)	(1.398255)	(2.08356)	(1.055834)	(1.256428)	(2.313415)	(.988239)	(2.748721)	(1.275325)	(.9371459)
	-0.54	0.31	0.55	-4.51	-2.01	0.60	1.12	-0.15	0.08	0.25	2.02	-0.42	0.68	-0.84	0.07	-0.59	0.49	-1.01	0.76	-1.87	0.94
Part-time worker : 20h-29h59 per week	-.2196648	-2.187718	2.461919	-.0453435	-.7840767	-1.978625	1.048939	-.0196676	-1.296254	-1.556696*	-.6190643	1.175207	.5035463	-2.27059	.2562605	.1332435	.7872257	.2197422	2.140518	-1.377694	1.230246*
	(.6719821)	(1.420141)	(1.978278)	(.9578041)	(.797691)	(1.245165)	(1.01881)	(.9993705)	(1.139346)	(.8954962)	(1.016096)	(.9030741)	(1.09959)	(1.530845)	(.8194832)	(1.343983)	(1.34405)	(.7354268)	(1.638681)	(1.012519)	(.731954)
	-0.33	-1.54	1.24	-0.05	-0.98	-1.59	1.03	-0.02	-1.14	-1.74	-0.61	1.30	0.46	-1.48	0.31	0.10	0.59	0.30	1.31	-1.36	1.68
Part-time worker : 30h-34h59 per week	.4906599	-.7110986	.2559895	-.2957711	-.7149479	.49491	-1.09689	-3.445183**	-2.082726*	1.281228	-2.271761*	.7000609	-.9123652	-.8319253	-1.423365	-.2611449	-.8983323	-1.187812	-3.819928*	.8938398	-.8229498
	(.8877998)	(1.549911)	(1.818279)	(1.375441)	(.6797718)	(1.269592)	(.7915452)	(1.527862)	(1.253194)	(1.204827)	(1.295868)	(.7878734)	(.9068087)	(1.02044)	(1.036332)	(1.539805)	(1.873297)	(.9326369)	(2.02813)	(.9852311)	(.7426217)
	0.55	-0.46	0.14	-0.22	-1.05	0.39	-1.39	-2.25	-1.66	1.06	-1.75	0.89	-1.01	-0.82	-1.37	-0.17	-0.48	-1.27	-1.88	0.91	-1.11
Other inactive	.7092759	.8239243	-2.000912	-1.36707	1.248321	-3.348337	2.932526**	.1906102	-3.095462	1.231256	1.433375	.3238919	2.375607	-1.017695	3.927555**	2.927684	10.00141***	1.545408	.6464356	1.952815	2.300746*
	(1.116468)	(2.971519)	(2.298275)	(1.511704)	(.9860905)	(2.711072)	(1.321692)	(1.624305)	(3.636771)	(1.26418)	(1.274121)	(1.101636)	(2.558661)	(1.509912)	(1.879995)	(2.132513)	(3.728629)	(1.571211)	(3.146156)	(2.458205)	(1.329176)
	0.64	0.28	-0.87	-0.90	1.27	-1.24	2.22	0.12	-0.85	0.97	1.12	0.29	0.93	-0.67	2.09	1.37	2.68	0.98	0.21	0.79	1.73
Gross monthly household income																					
Less than 600 euros	-2.341982	.450115	-2.283727	.7707765	-.0266013	1.075079	-1.126492	2.854027	.1040232	9.359375***	1.82058	-1.062656	-3.265859	-7.434058	7.188708*	1.524983	-7.080417***	.1736821	-.2315794	-9.513108***	4.278816
	(1.475873)	(4.080797)	(1.441487)	(2.283734)	(2.705785)	(2.877159)	(1.685009)	(1.862017)	(2.302915)	(3.248258)	(1.282836)	(1.462299)	(4.632764)	(4.789324)	(3.863156)	(1.836743)	(2.221428)	(1.618375)	(1.43914)	(2.658407)	(3.2252)
	-1.59	0.11	-1.58	0.34	-0.01	0.37	-0.67	1.53	0.05	2.88	1.42	-0.73	-0.70	-1.55	1.86	0.83	-3.19	0.11	-0.16	-3.58	1.33
From 600 to 900 euros	-.4862467	-1.672092	-1.108017	-4.254242	-1.858298	.8142631	-1.472825	.406589	.4360025	.5995016	1.336289	-.449727	-2.176002	-.3624693	-.7434779	-.0782617	-1.815458*	-1.01463	-2.235347*	-1.291022	.8140474
	(.8111271)	(1.223567)	(1.59287)	(3.014758)	(1.200802)	(2.459391)	(.9848011)	(1.509804)	(1.714671)	(1.220603)	(1.317699)	(.8888784)	(1.682886)	(1.48008)	(1.280939)	(1.076327)	(.981852)	(.6309194)	(1.170512)	(2.123448)	(.8768787)
	-0.60	-1.37	-0.70	-1.41	-1.55	0.33	-1.50	0.27	0.25	0.49	1.01	-0.51	-1.29	-0.24	-0.58	-0.07	-1.85	-1.61	-1.91	-0.61	0.93
From 900 to 1200 euros	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
From 1200 to 1500 euros	-.4086038	1.120251	-3.657844**	.2391049	-.1155174	-1.85493	.164273	-.2850278	.4465758	2.264096	-.2776405	.2660392	1.493044*	.5427373	.3460719	1.166985	-2.428418***	-1.899828***	.2177528	.9482662	.8747066
	(.5821247)	(.9598357)	(1.701896)	(1.112572)	(.9422169)	(2.689798)	(.5541452)	(1.106341)	(2.056747)	(1.663447)	(.8167795)	(.9375544)	(.8490449)	(.7923389)	(.7371326)	(1.427784)	(.7369154)	(.5907085)	(1.097659)	(.9103994)	(.691952)
	-0.70	1.17	-2.15	0.21	-0.12	-0.69	0.30	-0.26	0.22	1.36	-0.34	0.28	1.76	0.68	0.47	0.82	-3.30	-3.22	0.20	1.04	1.26
From 1500 to 2300 euros	-.0018997	-.9738838	-2.690739*	.0698829	-.3415294	-2.018	-.6825825	-.3191746	-.9851276	2.718306*	.5931963	.9643341	.7173343	.0372098	1.38166*	1.858248	-1.467992	-1.058842	1.077967	1.01734	.0568279
	(.6187889)	(1.063749)	(1.577636)	(1.582422)	(.9110111)	(3.322741)	(.5324203)	(1.071106)	(1.796117)	(1.549269)	(1.019932)	(.9621498)	(.8886459)	(.9654335)	(.7558798)	(1.286101)	(.9490874)	(.6522289)	(1.355484)	(.8743259)	(.6859815)
	-0.00	-0.92	-1.71	0.04	-0.37	-0.61	-1.28	-0.30	-0.55	1.75	0.58	1.00	0.81	0.04	1.83	1.44	-1.55	-1.62	0.80	1.16	0.08
From 2300 to 3000 euros	.4643155	-.8871552	-2.296486	-.0853186	-.4130549	-2.073949	-.6070435	-.8299766	-.564112	3.034845*	.3527672	.3404049	.0490567	-.641015	.919572	.6749933	-3.009139**	-1.408793**	.8685082	.6550433	.6340559
	(.6494307)	(1.22662)	(1.59348)	(1.686017)	(.9186329)	(3.242149)	(.6000745)	(1.247141)	(1.758593)	(1.622988)	(1.052441)	(.9731117)	(.9065662)	(1.05335)	(.7845224)	(1.22666)	(1.271196)	(.6537243)	(1.358792)	(.8918023)	(.7817441)
	0.71	-0.72	-1.44	-0.05	-0.45	-0.64	-1.01	-0.67	-0.32	1.87	0.34	0.35	0.05	-0.61	1.17	0.55	-2.37	-2.16	0.64	0.73	0.81
From 3000 to 4500 euros	.4257909	-1.515836	-3.265454**	-.0836667	-.6025471	-2.348037	-1.533167	-1.124908	-.1888105	3.301204**	.0763708	.5757802	.3381738	-.5255658	.7727336	1.088621	-3.607878***	-2.143028***	.8943755	1.43461	.8928764
	(.6719298)	(1.228948)	(1.64998)	(1.65503)	(.9246084)	(3.175859)	(.7488125)	(1.240899)	(1.799274)	(1.643644)	(1.139423)	(.9964244)	(.9504836)	(1.144068)	(.8456844)	(1.298949)	(1.205782)	(.6857187)	(1.412539)	(.9804651)	(.8339647)
	0.63	-1.23	-1.98	-0.05	-0.65	-0.74	-0.20	-0.91	-0.10	2.01	0.07	0.58	0.36	-0.46	0.91	0.84	-2.99	-3.13	0.63	1.46	1.07
From 4500 to 7000 euros	.8845368	-1.947517	-3.921995**	1.087925	-.9057835	-2.880068	.2635393	-2.154984	-1.144077	3.05278*	-.5050914	.4929442	.1654569	-.2345936	2.087959**	-.0956731	-4.405502***	-2.319441***	.8018119	1.517721	.5218971
	(.6934765)	(1.319027)	(1.66941)	(1.783248)	(.9831139)	(3.235069)	(.9350169)	(1.440264)	(1.839594)	(1.678412)	(1.225246)	(1.043259)	(1.00718)	(1.333385)	(.8685078)	(1.297706)	(1.562481)	(.78453)	(1.35743)	(1.184795)	(.8741873)
	1.28	-1.48	-2.35	0.61	-0.92	-0.89	0.28	-1.50	-0.62	1.82	-0.41	0.47	0.16	-0.18	2.40	-0.07	-2.82	-2.96	0.59	1.28	0.60
More than 7000 euros	.3135777	-1.709763	-3.777262*	.8543679	-.202641	-3.339825	-1.17314	2.481397	-.2990686	2.899371*	-1.027247	1.169196	.3864411	.7694797	2.201532**	-.1119163	-3.220046	-2.862631**	.0264631	3.550384***	-.0977084
	(.7501906)	(1.683082)	(2.006978)	(1.846402)	(1.211975)	(4.315102)	(1.096042)	(2.690801)	(1.802646)	(1.707035)	(1.220181)	(1.120497)	(1.069187)	(1.314273)	(1.058303)	(1.335368)	(2.170672)	(1.213235)	(1.845657)	(1.298213)	(1.03758)
	0.42	-1.02	-1.88	0.46	-0.17	-0.77	-1.07	0.92	-0.17	1.70	-0.84	1.04	0.36	0.59	2.08	-0.08	-1.48	-2.36	0.01	2.73	-0.09

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

TABLE B.5 – Continued (3) : By regions : Control variables - Time spent watching ad from free private channel

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)
	(IDF)	(C-A)	(PIC)	(H-N)	(CEN)	(B-N)	(BOU)	(N-P-C)	(LOR)	(ALS)	(F-C)	(P-D-L)	(BRE)	(P-C)	(AQU)	(M-P)	(LIM)	(R-A)	(AUV)	(L-R)	(PACA)
Internet connection mode																					
No Internet acces	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Cable	.2037966	1.618668	-.1298689	-.2962685	1.586857	-1.429154	-1.689063	-3.991932***	1.945031	1.389813	-.1710309	-.4493104	-.4469897	-4.902299**	.004554	2.573566**	1.277579	.0461451	1.644173	-1.918796***	-.0938313
	(.693108)	(1.29469)	(1.205927)	(1.814733)	(1.482249)	(1.878243)	(1.280661)	(.884066)	(1.50709)	(.8984851)	(1.62248)	(1.385494)	(2.076041)	(2.227796)	(.9008677)	(1.109059)	(1.50392)	(.6685063)	(1.665223)	(.6963875)	(.9667548)
	0.29	1.25	-0.11	-0.16	1.07	-0.76	-1.32	-4.52	1.29	1.55	-0.11	-0.32	-0.22	-2.20	0.01	2.32	0.85	0.07	0.99	-2.76	-0.10
ADSL	.7825487	.6576681	-.0283449	.248531	1.784895**	-.6791807	-1.335068	-1.550737**	1.274964	.4637526	1.559606**	.0835506	-1.125537	-.917731	.3375716	.8912501	1.606908	.3383797	.5912834	-.9259315	-.9872514
	(.5395473)	(.5753623)	(.8312041)	(.8533042)	(.7217782)	(1.411472)	(.8113969)	(.7150946)	(.9664974)	(.723106)	(.7040949)	(.7261864)	(.7232736)	(.9153917)	(.795601)	(.8410483)	(1.778814)	(.4856831)	(1.426809)	(.7938864)	(.7356768)
	1.45	1.14	-0.03	0.29	2.47	-0.48	-1.65	-2.17	1.32	0.64	2.22	0.12	-1.56	-1.00	0.42	1.06	0.90	0.70	0.41	-1.17	-1.34
Fiber optics	.0001592	-1.342314	-2.498608	-.790682	-.4121721	2.558661	-4.045372***	-2.80921*	2.12254*	.3351533	1.453517	-1.475152	-3.853231**	.2369473	-1.347638	-1.796536	-4.443092***	-.463443	3.114855	-1.577499	-1.201944
	(.6693984)	(1.092735)	(1.616877)	(1.412114)	(1.345099)	(3.798066)	(1.04894)	(1.517523)	(1.216324)	(1.332762)	(1.545628)	(1.053544)	(1.598347)	(1.863614)	(1.199584)	(1.165538)	(1.380174)	(.8153326)	(2.362923)	(1.103768)	(1.004498)
	0.00	-1.23	-1.55	-0.56	-0.31	0.67	-3.86	-1.85	1.75	0.25	0.94	-1.40	-2.41	0.13	-1.12	-1.54	3.22	-0.57	1.32	-1.43	-1.20
Other	-.4051922	1.263457	-.1939879	-.1045043	-.3535274	2.594544*	-3.283524***	-2.178812***	1.413867	.9830416	1.262258	-2.684635**	-1.170873	-1.400928	1.290502	1.264547	6.489717***	.2350201	-1.187657	-.3143645	-.3201673
	(.7467488)	(.8459624)	(1.361595)	(1.08256)	(.8706431)	(1.553462)	(1.215026)	(.7945941)	(1.185429)	(1.297372)	(1.001497)	(1.301794)	(.9887908)	(1.363791)	(1.085913)	(1.48202)	(2.501802)	(.6428108)	(2.19279)	(1.231527)	(1.391336)
	-0.54	1.49	-0.14	-0.10	-0.41	1.67	-2.70	-2.74	1.19	0.76	1.26	-2.06	-1.18	-1.03	1.19	0.85	2.59	0.37	-0.54	-0.26	-0.23
Intercept	14.52448***	11.84259***	20.64104***	5.563978*	17.36033***	21.24683***	20.38873***	22.69348***	13.82172***	11.30219***	17.43099***	15.20608***	17.62744***	16.74988***	17.16106***	15.35493***	13.93234***	17.69463***	7.971859**	17.95915***	16.46029***
	(1.721213)	(2.995387)	(2.500725)	(2.914034)	(2.558461)	(3.494478)	(2.244174)	(2.226535)	(3.31632)	(3.147734)	(2.742792)	(3.012512)	(2.341296)	(3.819739)	(2.399679)	(2.198216)	(2.993723)	(2.047877)	(3.792079)	(2.349439)	(1.581975)
	8.44	3.95	8.25	1.91	6.79	6.08	9.09	10.19	4.17	3.59	6.36	5.05	7.53	4.39	7.15	6.99	4.65	8.64	2.10	7.64	10.40
Number of observations	1,299,588	293,617	371,992	315,276	683,147	242,661	326,124	701,448	355,539	403,930	225,595	625,260	553,773	369,763	575,238	502,314	139,266	893,941	244,025	403,628	760,731
Number of groups	3,083	554	806	712	1,311	528	655	1,490	854	844	506	1,406	1,179	707	1,237	1,054	297	2,076	556	828	1,565
R-squared for overall model : R^2_O	0.22	0.22	0.22	0.19	0.28	0.17	0.21	0.25	0.23	0.20	0.19	0.23	0.20	0.16	0.23	0.23	0.21	0.26	0.21	0.22	0.26
R-squared for between model : R^2_B	0.49	0.44	0.52	0.40	0.66	0.42	0.54	0.51	0.41	0.25	0.21	0.42	0.34	0.24	0.37	0.40	0.28	0.71	0.32	0.31	0.67
R-squared for within model : R^2_W	0.06	0.07	0.06	0.07	0.07	0.07	0.06	0.07	0.06	0.06	0.07	0.06	0.07	0.07	0.06	0.07	0.07	0.06	0.08	0.07	0.07
Panel-level standard deviation : σ_u	11.62	12.21	12.50	13.08	12.92	12.13	13.25	12.95	12.31	11.97	13.73	12.26	12.97	13.54	13.32	12.65	13.25	11.76	10.62	12.56	11.70
Standard deviation of ϵ_{it} : σ_e	16.67	17.68	18.40	17.38	18.03	17.24	17.46	19.17	17.47	14.90	16.18	17.20	16.98	17.12	16.63	16.38	15.86	16.48	16.25	16.73	16.70
Intraclass correlation : ρ	0.33	0.32	0.32	0.36	0.34	0.33	0.37	0.31	0.33	0.39	0.42	0.34	0.37	0.38	0.39	0.37	0.41	0.34	0.30	0.36	0.33

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

TABLE B.5 – Continued (4) : By regions : Control variables - Time spent watching ad from free private channel

	(1) (IDF)	(2) (C-A)	(3) (PIC)	(4) (H-N)	(5) (CEN)	(6) (B-N)	(7) (BOU)	(8) (N-P-C)	(9) (LOR)	(10) (ALS)	(11) (F-C)	(12) (P-D-L)	(13) (BRE)	(14) (P-C)	(15) (AQU)	(16) (M-P)	(17) (LIM)	(18) (R-A)	(19) (AUV)	(20) (L-R)	(21) (PACA)
$(q_2^K - t_1)_{t-1}$	.2199805***	.1945249***	.2018958***	.2492998***	.2344676***	.1863952***	.2381119***	.2013511***	.1934555***	.1889088***	.1707349***	.2155104***	.2108529***	.2287214***	.2127558***	.219399***	.203873***	.2072511***	.1523844***	.221725***	.2374148***
	(.0094417)	(.0123064)	(.0104533)	(.0260063)	(.0156228)	(.0254041)	(.0173443)	(.0150912)	(.0142654)	(.0137739)	(.0100799)	(.0133595)	(.0118175)	(.0095484)	(.0085481)	(.0079462)	(.0165639)	(.0083168)	(.022925)	(.00944)	(.010192)
	23.30	15.81	19.31	9.59	15.01	7.34	13.73	13.34	13.56	13.72	16.94	16.13	17.84	23.95	24.89	27.61	12.31	24.92	6.65	23.49	23.29
TS (in mn)	-.0025589***	-.0042947***	.0004164	-.006227**	-.0015834	-.0055124**	-.001484	-.0032934**	-.0039705**	.0000739	-.0015588	-.0028611**	-.0028563**	-.0038231**	-.0015113	-.0053056***	-.0055417**	-.001001	.0023699	-.0035728***	-.0013573
	(.0008982)	(.0014884)	(.0013961)	(.0026759)	(.0010954)	(.002278)	(.0011991)	(.0012852)	(.0016781)	(.0013894)	(.0017458)	(.0012437)	(.0013021)	(.0016263)	(.001246)	(.0016634)	(.0024299)	(.0009759)	(.0017505)	(.0012857)	(.0011832)
	-2.85	-2.89	0.30	-2.33	-1.45	-2.42	-1.24	-2.56	-2.37	0.05	-0.89	-2.30	-2.19	-2.35	-1.21	-3.19	-2.28	-1.03	1.35	-2.78	-1.15
OTVU (in mn)	-.001995***	-.0023965***	-.0021898***	-.0049463***	-.0016553**	-.0044828*	-.0038093**	-.0032362***	-.0022297*	-.0019905	-.0021161*	-.0029028***	-.0020303***	-.006237***	-.0029285***	-.0039048***	-.0042377***	-.0024908***	-.0085076*	-.0072432***	-.0037712***
	(.0004113)	(.0005877)	(.0006498)	(.0010791)	(.0006498)	(.0023671)	(.0015267)	(.0007331)	(.0012667)	(.0012769)	(.0010903)	(.0008321)	(.0007427)	(.0019139)	(.0009005)	(.0010034)	(.0013533)	(.0006532)	(.0049289)	(.0010967)	(.0008103)
	-4.85	-4.08	-3.37	-4.58	-2.55	-1.89	-2.50	-4.41	-1.76	-1.56	-1.94	-3.49	-2.73	-3.26	-3.25	-3.89	-3.13	-3.81	-1.73	-6.60	-4.65
ω_1 **: Temperature (in °C)**	-.0368667***	-.051474***	-.0389809***	-.0491754***	-.0465639***	-.0605804***	-.0419686***	-.0579899***	-.0249981***	-.0188625***	-.0328309***	-.056314***	-.0546804***	-.0614583***	-.0395677***	-.0373108***	-.048139***	-.021062***	-.031839***	-.0368503***	-.0677881***
	(.0039466)	(.0082286)	(.0082908)	(.0080251)	(.0048849)	(.0091634)	(.0072867)	(.0059406)	(.0062332)	(.0052709)	(.0103328)	(.0065444)	(.0077097)	(.0085798)	(.0067484)	(.0052928)	(.0090024)	(.004396)	(.0081729)	(.0054762)	(.0061818)
	-9.34	-6.26	-4.70	-6.13	-9.53	-6.61	-5.76	-9.76	-4.01	-3.58	-3.18	-8.60	-7.09	-7.16	-5.86	-7.05	-5.35	-4.79	-3.90	-6.73	-10.97
ω_2 **: Sunshine duration (in mn)**	-.0003837***	-.0008077***	-.0003448***	-.0007432***	-.0004553***	-.0006435***	-.0005507***	-.0003247***	-.000465***	-.0006109***	-.0005765***	-.0004406***	-.0005293***	-.0007494***	-.0004855***	-.0003816***	-.0003911**	-.0008068***	-.000796***	-.0004695***	-.0006938***
	(.000064)	(.0001809)	(.0001133)	(.0001523)	(.000086)	(.0002075)	(.0001415)	(.0000876)	(.0001403)	(.0001155)	(.0001668)	(.0001027)	(.0001026)	(.0002119)	(.0000909)	(.0001137)	(.0001799)	(.0000946)	(.0001524)	(.0001153)	(.0001093)
	-5.99	-4.46	-3.04	-4.88	-5.29	-3.10	-3.89	-3.71	-3.31	-5.29	-3.46	-4.29	-5.16	-3.54	-5.34	-3.36	-2.17	-8.53	-5.22	-4.07	-6.35
ω_3 **: Rainfall (in mm)**	.0205327***	.0238846**	.0303854***	.0288029***	.0211572***	.0166132	.0159914*	.0113969*	.0187661**	.0059804	-.0144083	.0100773	.016816**	.0088321	-.0025666	.0015801	.027317***	-.0009083	.0124201	.0112521	.0071208*
	(.0045834)	(.0106628)	(.0081284)	(.0109297)	(.0063938)	(.0115737)	(.008984)	(.0063498)	(.0080209)	(.0078476)	(.0106774)	(.0067996)	(.0074119)	(.0086536)	(.0067178)	(.0078076)	(.0088105)	(.0037578)	(.0093605)	(.0076555)	(.0042615)
	4.48	2.24	3.74	2.64	3.31	1.44	1.78	1.79	2.34	0.76	-1.35	1.48	2.27	1.02	-0.38	0.20	3.10	-0.24	1.33	1.47	1.67
ω_4 **: Wind speed (in km/h)**	.0077078	.0265455	.0333605***	.0001587	.0036461	-.0337671**	.0198626	.0125077	-.017204	-.0080312	.0487874*	.0220459	.0299275***	.020824	.0193993	.0255761*	-.0339608	.0262329**	-.0125298	.0308123**	.0019137
	(.0090766)	(.020641)	(.0127382)	(.0145262)	(.011688)	(.0159018)	(.0170543)	(.0105278)	(.0173248)	(.0178568)	(.026948)	(.0146675)	(.0099133)	(.0165704)	(.0174134)	(.0148801)	(.0313369)	(.0129572)	(.0253707)	(.0122429)	(.0099979)
	0.85	1.29	2.62	0.01	0.31	-2.12	1.16	1.19	-0.99	-0.45	1.81	1.50	3.02	1.26	1.11	1.72	-1.08	2.02	-0.49	2.52	0.19
ω_5 **: Rain duration (in mn)**	-.0001714*	-.000137	-.0004111**	-.0003141	-.000147	.000271	.0002184	-.0001278	.0000252	.0001249	.0004845**	.0003271**	-.0000133	-4.92e-07	.0006628***	.0008605***	.0000288	.0001483	.000307	.0005702**	.0004801***
	(.0000928)	(.0002102)	(.0001689)	(.0002048)	(.0001474)	(.0002313)	(.0001995)	(.0001236)	(.000171)	(.0001184)	(.000229)	(.0001643)	(.0001389)	(.0002287)	(.0001839)	(.000197)	(.0002156)	(.0001113)	(.0002232)	(.0002336)	(.0001554)
	-1.85	-0.65	-2.43	-1.53	-1.00	1.17	1.09	-1.03	0.15	1.05	2.12	1.99	-0.10	-0.00	3.60	4.37	0.13	1.33	1.38	2.44	3.09
Day of the week																					
Monday	.170487	.2500956	-.2615128**	.4699957	.2923966**	.6314207***	.6904767***	.3266815**	.3781078**	.2101307	.2455759	.4358603**	.2038091*	.4420228**	.2789626**	.2923284**	-.0835548	.2627688**	.381986**	.2536436**	.503521***
	(.1618236)	(.1733879)	(.1310537)	(.2877828)	(.1426949)	(.1952478)	(.2561988)	(.1521783)	(.1709852)	(.1351973)	(.2597427)	(.1720084)	(.1202388)	(.2146626)	(.1174804)	(.141899)	(.2030101)	(.1290526)	(.1560741)	(.1229813)	(.1370857)
	1.05	1.44	-2.00	1.63	2.05	3.23	2.70	2.15	2.21	1.55	0.95	2.53	1.70	2.06	2.37	2.06	-0.41	2.04	2.45	2.06	3.67
Tuesday	-.3101981***	-.4654803***	-.4049026***	-.5242864***	-.268086***	-.862249*	.0836721	-.3959937***	-.3181265**	-.1983209**	-.5463352***	-.3600019***	-.2904611***	-.3614033***	-.4609452***	-.4090413***	-1.008584***	-.4265565***	-.6183559***	-.3722952***	-.3246969***
	(.1129221)	(.1582689)	(.0763804)	(.1513398)	(.0880366)	(.4600696)	(.1242671)	(.1242311)	(.1448546)	(.0977848)	(.1751838)	(.1031566)	(.105338)	(.1126692)	(.0774286)	(.0986772)	(.3475524)	(.101631)	(.2104218)	(.0844369)	(.0861914)
	-2.75	-2.94	-5.30	-3.46	-3.05	-1.87	0.67	-3.19	-2.20	-2.03	-3.12	-3.49	-2.76	-3.21	-5.95	-4.15	-2.90	-4.20	-2.94	-4.41	-3.77
Wednesday	.0285749	.134356	-.2375961***	-.200611	-.0229605	-.0054047	.1926194	-.1989396*	-.1357454	-.0900372	.0139923	-.0990335	.131487	-.1138628	-.1074299	-.1007583	-.4418262**	-.090705	-.4173316**	-.0221564	-.278994**
	(.1233893)	(.1589736)	(.0895273)	(.2585178)	(.0923364)	(.2043525)	(.1525759)	(.1087668)	(.1703958)	(.1003751)	(.1453744)	(.0993257)	(.1047453)	(.1428348)	(.0844602)	(.0985445)	(.2113944)	(.0995144)	(.1695797)	(.1000102)	(.1091998)
	0.23	0.85	-2.65	-0.78	-0.25	-0.03	1.26	-1.83	-0.80	-0.90	0.10	-1.00	1.26	-0.80	-1.27	-1.02	-2.09	-0.91	-2.46	-0.22	-2.55
Thursday	-.1728232	-.3004865**	-.2308919***	-.2315326*	-.1169822	-1.033685**	.047246	-.2833112**	-.132624	-.2836027**	-.083368	-.3045349**	-.1996952*	-.3224996**	-.2428409***	-.2715463***	-.3714434***	-.2703631***	-.4733202**	-.3183525***	-.2059185**
	(.1204335)	(.1392303)	(.0881194)	(.1317105)	(.0771176)	(.4733686)	(.1350306)	(.1431617)	(.1138283)	(.1162632)	(.1205234)	(.1484243)	(.1159489)	(.150628)	(.0801689)	(.0828255)	(.1176241)	(.1011885)	(.1956968)	(.0794672)	(.1018591)
	-1.44	-2.16	-2.62	-1.76	-1.52	-2.18	0.35	-1.98	-1.17	-2.44	-0.69	-2.05	-1.72	-2.14	-3.03	-3.28	-3.16	-2.67	-2.42	-4.01	-2.02
Friday	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Saturday	.249945	-.1487269	.2962804	-.2146327	-.058546	-1.192628*	.5931209	-.3542557	-.1457334	.136842	.5220738	-.5985634**	.2408223	-.260405	-.0595183	-.3190973	-.2506418	-.2235895	.2152395	-.2439861	-.2885397
	(.2272171)	(.2818433)	(.2862739)	(.3237288)	(.2304737)	(.6521316)	(.3855705)	(.2712322)	(.3492748)	(.2507743)	(.3511255)	(.2405556)	(.2194941)	(.3170775)	(.2194282)	(.2347772)	(.4409237)	(.1886659)	(.3481612)	(.2633824)	(.2995546)
	1.10	-0.53	1.03	-0.66	-0.25	-1.83	1.54	-1.31	-0.42	0.55	1.49	-2.49	1.10	-0.82	-0.27	-1.36	-0.57	-1.19	0.62	-0.93	-0.96
Sunday	-.6158804***	-1.227509***	-.2772617	-1.583963***	-.5506503*	-2.940157**	-.7617385	-1.336102***	-1.049795**	-.570733*	-.4970695	-2.018959***	-.1628634	-1.122958**	-.9495773***	-.9775863***	.1237271	-.8711197***	-1.134283*	-.9205588***	-1.57842***
	(.2373579)	(.3427596)	(.339726)	(.3641195)	(.2916371)	(1.138084)	(.5087873)	(.3322554)	(.447104)	(.3360395)	(.4811584)	(.3863819)	(.283064)	(.5611273)	(.2552555)	(.3199508)	(.5684423)	(.2083124)	(.6187684)	(.3364815)	(.3338683)
	-2.59	-3.58	-0.82	-4.35	-1.89	-2.58	-1.50	-4.02	-2.35	-1.70	-1.03	-5.23	-0.58	-2.00	-3.72	-3.06	0.22	-4.18	-1.83	-2.74	-4.73
Gender																					
Female	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Male	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

TABLE B.6 – By regions : Control variables - Time spent watching ad from free public channel

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)
	(IDF)	(C-A)	(PIC)	(H-N)	(CEN)	(B-N)	(BOU)	(N-P-C)	(LOR)	(ALS)	(P-C)	(P-D-L)	(BRE)	(P-C)	(AQU)	(M-P)	(LIM)	(R-A)	(AUV)	(L-R)	(PACA)
Age category																					
4-10 years	2.081208***	.8488742	.1023856	2.028705**	.1648711	3.395222***	.7289352	-1.001991	-1.015753	2.303221***	2.510037***	1.370986**	.1486051	2.745265***	1.82897***	.9763958	1.32015	-.4539097	-.1339159	.938721	1.244479**
	(.4364982)	(.6171999)	(.5614567)	(1.007879)	(.9533848)	(1.082209)	(.932188)	(1.204054)	(.9563696)	(.780118)	(.7287721)	(.6299754)	(.5942283)	(.8565114)	(.6642575)	(.7163961)	(1.175502)	(.4528706)	(.9454101)	(.573793)	(.5981971)
	4.77	1.38	0.18	2.01	0.17	3.14	0.78	-0.83	-1.06	2.95	3.44	2.18	0.25	3.21	2.75	1.36	1.12	-1.00	-0.14	1.64	2.08
11-14 years	1.071472***	.2701526	-.4547784	1.088789*	.0552779	1.051005*	.1219796	-.8541652	-.8464378	1.308284**	1.118874***	.4080375	.0636818	.9225656*	.8569685*	.1365923	1.176945	-.1217022	-.3434058	.3936603	.3158428
	(.2739279)	(.3150104)	(.3753121)	(.5796437)	(.6930839)	(.5880811)	(.5782519)	(1.16281)	(.6471014)	(.5879594)	(.3390107)	(.4447601)	(.3548084)	(.4728614)	(.4606682)	(.6658127)	(.9814417)	(.2775065)	(.7208094)	(.3198489)	(.2853475)
	3.91	0.86	-1.21	1.88	0.08	1.79	0.21	-0.73	-1.31	2.23	3.30	0.92	0.18	1.95	1.86	0.21	1.20	-0.44	-0.48	1.23	1.11
15-24 years	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
25-34 years	-.8902073**	-2.259849***	-2.298795***	-2.413023**	-.4009896	.6786613	-2.399396	-.4519108	1.037393	1.858504	-1.31185*	-.9016802**	1.463669	-1.41467**	.6825953	-1.244722*	3.685751***	-.5497893	4.0725***	-.6687154	-2.76291***
	(.3764448)	(.7623807)	(.7814833)	(.9504954)	(.5485352)	(.9804294)	(2.314542)	(.4175494)	(.8049116)	(1.368344)	(.6904056)	(.4418652)	(1.44348)	(.5717246)	(.7738685)	(.7280945)	(.2916752)	(.5047179)	(1.320322)	(.5897637)	(.8873392)
	-2.36	-2.96	-2.94	-2.54	-0.73	0.69	-1.04	-1.08	1.29	1.36	-1.90	-2.04	1.01	-2.47	0.88	-1.71	12.64	-1.09	3.08	-1.13	-3.11
35-49 years	-1.607647***	-2.166035**	-2.424635***	-3.340854**	-1.029688	-.6939013	-2.60812	-.5339152	1.131863	1.201354	-2.144698*	-2.539717***	-.3769137	-3.896875***	-.1418123	-1.34101	3.110006***	-.9265613	3.956567***	-.7937315	-3.610636***
	(.5543813)	(.8974538)	(.9034921)	(1.349106)	(.8709883)	(1.476442)	(2.446071)	(.5701879)	(.9142724)	(1.440329)	(1.152319)	(.7026482)	(1.531634)	(1.177541)	(.9185222)	(.8819429)	(.5487266)	(.6337233)	(1.488249)	(.7471116)	(1.080989)
	-2.90	-2.41	-2.68	-2.48	-1.18	-0.47	-1.07	-0.94	1.24	0.83	-1.86	-3.61	-0.25	-3.31	-0.15	-1.52	5.67	-1.46	2.66	-1.06	-3.34
50-64 years	-1.674228**	-1.656895	-2.399474**	-4.308881**	-1.359488	-1.911517	-1.705166	-.0947042	.3030643	.4476859	-1.200644	-3.088975***	-.1521823	-3.912441***	-1.200076	-1.364998	3.903107***	-.8954077	2.779915	-.9157836	-4.167615***
	(.6949824)	(1.06095)	(1.069114)	(1.672063)	(1.025523)	(1.753164)	(2.66381)	(.7684607)	(1.183794)	(1.536821)	(1.538837)	(.8822398)	(1.71738)	(1.417991)	(1.11244)	(1.223049)	(.9087999)	(.735318)	(1.920393)	(.9618875)	(1.204001)
	-2.41	-1.56	-2.24	-2.58	-1.33	-1.09	-0.64	-0.12	0.26	0.29	-0.78	-3.50	-0.09	-2.76	-1.08	-1.12	4.29	-1.22	1.45	-0.95	-3.46
65 years and more	-1.568623*	-1.455283	-1.373409	-3.59056*	-.8550736	-2.810441	-1.331474	1.369812	-.2594363	-.1015968	-1.206006	-2.811241**	-.3742381	-5.268886***	-1.037421	-1.722484	1.661809	-1.371258	1.536161	-.914013	-4.031875***
	(.9200061)	(1.128224)	(1.279152)	(2.011596)	(1.226088)	(1.982865)	(2.830762)	(.9460052)	(1.378282)	(1.629933)	(1.7071)	(1.238476)	(1.888943)	(1.711729)	(1.327001)	(1.39497)	(1.872663)	(.8906537)	(1.987594)	(1.124109)	(1.309748)
	-1.71	-1.29	-1.07	-1.78	-0.70	-1.42	-0.47	1.45	-0.19	-0.06	-0.71	-2.27	-0.20	-3.08	-0.78	-1.23	0.89	-1.54	0.77	-0.81	-3.08
Social-Professional Category																					
Farmer	0	.6014763	0	0	0	.3840112	-2.836494***	-1.642635	0	-.9882315	0	-1.735257	.9937832	-2.465435	-3.214756***	.6304164	.1718456	-.6390553	1.90571***	.9055372	0
	(0)	(.5276755)	(0)	(0)	(0)	(1.391238)	(.819293)	(1.034233)	(0)	(.7206573)	(0)	(1.296435)	(1.413517)	(1.862415)	(.6378801)	(.7023548)	(.9625862)	(.6049818)	(.591358)	(.8450187)	(0)
		1.14				0.28	-3.46	-1.59		-1.37		-1.34	0.70	-1.32	-5.04	0.90	0.18	-1.06	3.22	1.07	
Craftsmen-Traders-Contractor	-.4847681	-2.714289***	-.3325195	-.3088521	.8224075	-.4765303	-1.429235	-.7448545	-3.886346	2.353692*	0	.6271224	-1.406859	-.4290794	-1.134928**	.5970954	-1.517624	.3184593	1.021753	-1.656905**	.2586996
	(.653888)	(.9141154)	(1.01113)	(.9075237)	(.7211545)	(1.138204)	(.9098269)	(1.045704)	(2.905005)	(1.233425)	(0)	(.9452817)	(1.274644)	(.9379629)	(.529041)	(.5727607)	(1.58587)	(.5126789)	(.8717083)	(.6908496)	(.9495674)
	-0.74	-2.97	-0.33	-0.34	1.14	-0.42	-1.57	-0.71	-1.34	1.91		0.66	-1.10	-0.46	-2.15	1.04	-0.96	0.62	1.17	-2.40	0.27
Higher professions	-.6300929	-1.298254**	-1.330349	-2.253151**	.1302217	-.7655405	.213185	.9335059	-1.302817*	.0766765	-2.271505**	.2366632	-.4842181	.9016071	-.4257207	-.66276	-.9942196***	.1643531	1.370096**	-.5964266	-.3406021
	(.427718)	(.5933985)	(.8757878)	(.9599996)	(.4589233)	(.9336139)	(.5062239)	(.5787221)	(.7840184)	(.6697691)	(.917293)	(.6742556)	(1.256779)	(.7722002)	(.4990959)	(.5245304)	(.3664303)	(.4715365)	(.5658777)	(.4759576)	(.5990652)
	-1.47	-2.19	-1.52	-2.35	0.28	-0.82	0.42	1.61	-1.66	0.11	-2.48	0.35	-0.39	1.17	-0.85	-1.26	-2.71	0.35	2.42	-1.25	-0.57
Intermediate occupations	-.270672	-1.476096***	-.9016254**	-1.49752*	-.1513965	.241096	.1365409	.683836	-.9365898	-.1998489	-1.119798	-.0425616	-1.228462	.5283756	-.630139*	-.3255686	.3637534	.0849279	1.32053***	-.5113093	.0331156
	(.327104)	(.4706163)	(.4347623)	(.8935296)	(.298354)	(.6702357)	(.3743414)	(.5256018)	(.7570939)	(.4574212)	(.7869798)	(.5959568)	(1.392837)	(.4509719)	(.3824873)	(.4833112)	(.3153536)	(.2578506)	(.4109442)	(.3742496)	(.3253155)
	-0.83	-3.14	-2.07	-1.68	-0.51	0.36	0.36	1.30	-1.24	-0.44	-1.42	-0.07	-0.88	1.17	-1.65	-0.67	1.15	0.33	3.21	-1.37	0.10
Employee	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Skilled worker	-.4055569	-1.384922**	-.5592859	-.6169887	-.151863	2.119539**	-.3562507	-.0829258	-1.409528*	1.966599***	-1.00538	.7421768	-.8245493	.0517871	.3777662	-.5088189	.079653	-.3555675	1.711607***	-.7624421	-.4871591
	(.5894464)	(.6096112)	(.4384512)	(.8854579)	(.3928618)	(.8947537)	(.3742094)	(.7992214)	(.7677316)	(.5768956)	(.7043048)	(1.288344)	(1.596271)	(.44636)	(.6243027)	(.7009801)	(.4718016)	(.3787899)	(.516789)	(.5355444)	(.4601877)
	-0.69	-2.27	-1.28	-0.70	-0.39	2.37	-0.95	-0.10	-1.84	3.41	-1.43	0.58	-0.52	0.12	0.61	-0.73	0.17	-0.94	3.31	-1.42	-1.06
Unskilled worker	.4061662	-.6689226*	-.5474008	.0593475	.5433069	2.129506**	.7044985	-1.494828*	-.2356384	.8244551*	-1.471286**	-.3126913	-1.082949	.6322099	1.095274	.0551541	-.4904018	.2482861	-.4017052	.0689337	-.2486632
	(.8177226)	(.3842676)	(.5952445)	(1.97989)	(.417985)	(1.045063)	(.5253782)	(.8514814)	(2.519302)	(.4681607)	(.693227)	(1.180526)	(1.225117)	(1.334336)	(.7217767)	(.7226576)	(.5422985)	(.5224108)	(.9261179)	(.8591908)	(.4840644)
	0.50	-1.74	-0.92	0.03	1.30	2.04	1.34	-1.76	-0.09	1.76	-2.12	-0.26	-0.88	0.47	1.52	0.08	-0.90	0.48	-0.43	0.08	-0.51
Pensioner	.1170277	-4.106708***	-.5981731	-2.590643**	2.367498***	1.060449	-.4210248	-.0951949	.4775449	-.4402508	.9811122	-1.483366	.2000111	2.382247	.5179524	1.474078	1.237531**	1.043742	1.933815**	5.994483***	-.2310067
	(1.039945)	(.9446878)	(1.147214)	(.6746312)	(1.051137)	(.9397488)	(2.156031)	(1.890506)	(1.389967)	(1.930898)	(2.004484)	(1.355471)	(1.485235)	(1.079455)	(1.204653)	(.5562071)	(.9138738)	(.797779)	(1.944309)	(1.548001)	
	0.11	-4.35	-0.71	-2.26	3.51	1.01	-0.45	-0.04	0.25	-0.32	0.51	-0.74	0.15	1.60	0.48	1.22	2.22	1.14	2.42	3.08	-0.15
Student	.6416913	-2.144434**	-1.447921	-2.824001*	-.0038074	4.073751***	.9098139	-.8003156	.0458091	-.0357323	1.782412	-.524819	-1.217846	3.285693*	.3851044	.5504145	-.4410594	.4694773	3.910489***	4.53859**	-4.298135
	(.7305651)	(.9853634)	(.8823887)	(1.468093)	(.6219645)	(1.153762)	(.8339396)	(.8510813)	(1.664896)	(1.399759)	(2.187079)	(2.036275)	(1.062379)	(1.741277)	(.9113499)	(1.42824)	(1.505797)	(.6167463)	(1.404026)	(1.98385)	(3.572949)
	0.88	-2.18	-1.64	-1.92	-0.01	3.53	1.09	-0.94	0.03	-0.03	0.81	-0.26	-1.15	1.89	0.42	0.39	-0.29	0.76	2.79	2.29	-1.20
Other inactive	-2.535089**	-1.633147*	.9340805	-2.786925**	1.153466*	2.7698**	.9751051	.7846218	-.8726816	-1.226659	.7173826	-1.171106	-.797988	2.440407*	.5559201	1.706729	0	1.233446	3.252202***	4.688804**	-.0752632
	(.9925101)	(.8635921)	(.8614133)	(1.379406)	(.6352796)	(1.114413)	(.7832209)	(1.271384)	(1.802757)	(1.300978)	(2.069051)	(1.953048)	(1.043905)	(1.451897)	(1.001255)	(1.2764)	(0)	(.8597157)	(.8674952)	(1.982951)	(1.382423)
	-2.55	-1.89	1.08	-2.02	1.82	2.49	1.24	0.62	-0.48	-0.94	0.35	-0.60	-0.76	1.68	0.56	1.34		1.43	3.75	2.36	-0.05

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

TABLE B.6 – Continued (2) : By regions : Control variables - Time spent watching ad from free public channel

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)
	(IDF)	(C-A)	(PIC)	(H-N)	(CEN)	(B-N)	(BOU)	(N-P-C)	(LOR)	(ALS)	(F-C)	(P-D-L)	(BRE)	(P-C)	(AQU)	(M-P)	(LIM)	(R-A)	(AUV)	(L-R)	(PACA)
Average weekly working time																					
Unemployed person who has already worked	.8368674*	-.012984	.8547197	.977528	.2742842	1.309026	.8581655**	.4593337	-1.396936*	-.7097095	2.643951***	.1043051	-.9080442	.4059046	-.2617585	.716581	-1.537914***	1.991509	-.264765	-.2514492	1.638208**
	(.4268603)	(.4631649)	(.6955829)	(.7434436)	(.4365869)	(.8286097)	(.4036894)	(.5249663)	(.8429149)	(.7794353)	(.7449422)	(.5782862)	(.7501787)	(.5726932)	(.4159151)	(.5057729)	(.5142567)	(1.229303)	(.4316854)	(.4569508)	(.6959839)
	1.96	-0.03	1.23	1.31	0.63	1.58	2.13	0.87	-1.66	-0.91	3.55	0.18	-1.21	0.71	-0.63	1.42	-2.99	1.62	-0.61	-0.55	2.35
People looking for a first job	3.91679***	-3.047511***	-2.411117	3.674784	-.9618993	0	-3.867104***	.36924	-11.04331***	4.77369***	-1.385442	1.406803	.2915413	-.3055559	-1.374478	2.153992	-4.178842***	-2.487052**	-1.824358	-3.42054*	.7036045
	(1.065945)	(.8677993)	(2.015184)	(2.878111)	(.8789547)	(0)	(.8734614)	(1.577243)	(1.601775)	(1.443081)	(2.357506)	(2.091013)	(2.080407)	(1.886761)	(1.533286)	(1.71385)	(1.558022)	(1.10521)	(1.394751)	(1.866553)	(2.329253)
	3.67	-3.51	-1.20	1.28	-1.09		-4.43	0.23	-6.89	3.31	-0.59	0.67	0.14	-0.16	-0.90	1.26	-2.68	-2.25	-1.31	-1.83	0.30
Full-time worker	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Part-time worker : 0-9h59 per week	-1.56332**	-2.675418***	.241911	-1.625907***	-1.576226**	1.801982*	1.203523**	-.373215	-4.081631***	.4339504	.9202528	3.047458*	1.078799	-1.429529	-.0552489	2.152254*		.9185019	.9558348	.3811087	-.2883655
	(.6543011)	(.5484091)	(.6083238)	(.5065286)	(.7110486)	(.9855875)	(.4823047)	(1.228577)	(1.181387)	(.8081214)	(1.211987)	(1.596438)	(.9870333)	(1.072071)	(.5854023)	(1.156532)		(.6635785)	(.9126391)	(.6544543)	(.5114624)
	-2.39	-4.88	0.40	-3.21	-2.22	1.83	2.50	-0.30	-3.45	0.54	0.76	1.91	1.09	-1.33	-0.09	1.86		1.38	1.05	0.58	-0.56
Part-time worker : 10h-19h59 per week	-1.476495**	-.4200058	.8847326	-.5364657	-.3451638	.8401238	-1.064162	.5916766	-5.477354**	.0292959	1.081883	.1351642	.4815013	.825312	-.1502991	.8382692	-.7590208	-.09629	-1.126594**	.454876	-.0678478
	(.6748178)	(.4152701)	(.7064067)	(1.068018)	(.4260331)	(1.079978)	(.8523871)	(.4698905)	(2.754663)	(1.046143)	(.7739562)	(.6449448)	(.7552139)	(.863076)	(.7429847)	(.8557398)	(.7450466)	(.5597969)	(.5492755)	(1.06902)	(.4887508)
	-2.19	-1.01	1.25	-0.50	-0.81	0.78	-1.25	1.26	-1.99	0.03	1.40	0.21	0.64	0.96	-0.20	0.98	-1.02	-0.17	-2.05	0.43	-0.14
Part-time worker : 20h-29h59 per week	-.5230346*	.1535283	.2673671	2.252217	-.0873657	.295514	.3214329	-1.476482*	-.8245111	-.5832988	.1696434	-.2772371	-.1806609	.135782	.1889995	-.1878519	-.0110502	.1386417	.121822	.3277022	.1358505
	(.3146954)	(.6453391)	(.4656516)	(1.993395)	(.5392624)	(.5641709)	(.5081767)	(.8423119)	(1.069491)	(.4845803)	(.6187917)	(.5743728)	(.5226628)	(.3858569)	(.5232187)	(.4580845)	(.2939291)	(.4332558)	(.7734486)	(.5245867)	(.5131316)
	-1.66	0.24	0.57	1.13	-0.16	0.52	0.63	-1.75	-0.77	-1.20	0.27	-0.48	-0.35	0.35	0.36	-0.41	-0.04	0.32	0.16	0.62	0.26
Part-time worker : 30h-34h59 per week	-.1704231	-.2004213	.5636099	-2.566142*	-.7138467*	1.563141	.0171474	-.8143837	2.366525	.228024	.4313771	-.6254629	-.1095422	.2511394	.0211837	.2539048	-.424858	-.1469868	-2.062389**	.4160347	-.660103
	(.3976613)	(.3138847)	(.4754151)	(1.320154)	(.4002984)	(1.527196)	(.4701682)	(.6606786)	(1.869172)	(.4781103)	(.8539178)	(1.435644)	(.6549809)	(.3666705)	(.5037549)	(.4883372)	(.659224)	(.3461999)	(1.044738)	(.8873329)	(.4196421)
	-0.43	-0.64	1.19	-1.94	-1.78	1.02	0.04	-1.23	1.27	0.48	0.51	-0.44	-0.17	0.68	0.04	0.52	-0.64	-0.42	-1.97	0.47	-1.57
Other inactive	.189364	.9861233	-.0943961	1.157258	-.5141071	-.2339156	.010762	1.361618**	-2.198543	-.0967127	-1.342837	1.271135	.6405755	-2.581185**	-.4416524	.5449224	-2.649624*	-.4247484	-1.512749***	-5.824299***	.5464689
	(.6434258)	(.7645716)	(.6323923)	(1.005978)	(.4916719)	(1.023137)	(.6968909)	(.6202175)	(1.504091)	(1.294987)	(1.797192)	(1.785154)	(.4357994)	(1.116387)	(.7300558)	(.9731494)	(1.454125)	(.5364017)	(.5849071)	(1.903539)	(1.259604)
	0.29	1.29	-0.15	1.15	-1.05	-0.23	0.02	2.20	-1.46	-0.07	-0.75	0.71	1.47	-2.31	-0.60	0.56	-1.82	-0.79	-2.59	-3.06	0.43
Gross monthly household income																					
Less than 600 euros	1.757108	-2.90361***	-1.51856**	-.0827203	.1410572	-1.891072	.2504889	.7327342	-.7225029	-1.211185	.4747959	1.724333	-1.319542	-2.155086	.2052859	-.293893	-.6053133	1.736996*	-1.578334*	-.1285764	-.9915872
	(1.760758)	(.2660205)	(.6056877)	(1.038342)	(1.190817)	(1.868612)	(.8812533)	(1.559887)	(.7164055)	(1.243272)	(.5996921)	(1.427055)	(1.045049)	(2.54115)	(.3909451)	(.5721479)	(.9692609)	(.8940719)	(.942914)	(.4381449)	(.81668)
	1.00	-10.91	-2.51	-0.08	0.12	-1.01	0.28	0.47	-1.01	-0.97	0.79	1.21	-1.26	-0.85	0.53	-0.51	-0.62	1.94	-1.67	-0.29	-1.21
From 600 to 900 euros	.4387973	-1.401268***	.6769966	-.5553078	-1.403539*	-2.867934	1.791398	-1.532627	-.5879033	-.2955429	-.5683868	.3143865	-.7025253	-.1895427	.2121929	.6974532	-.2743913	.2014974	.579309	2.031604***	.1513501
	(1.051855)	(.4694254)	(.528462)	(.5721243)	(.8417218)	(1.96018)	(1.409547)	(1.114151)	(.5320637)	(.5672855)	(.5232757)	(1.227537)	(.7109383)	(1.040517)	(.5542162)	(.5096924)	(.9648427)	(.6069732)	(.8685121)	(.6187022)	(.9888844)
	0.42	-2.99	1.28	-0.97	-1.67	-1.46	1.27	-1.38	-1.10	-0.52	-1.09	0.26	-0.99	-0.18	0.38	1.37	-0.28	0.33	0.67	3.28	0.15
From 900 to 1200 euros	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
From 1200 to 1500 euros	.8098703	-.4214237	.2625708	-1.453509	-.3861001	1.99118	-.4600013	-.3671667	-.6277099	-.6346761	-.684476	-.5822348	1.322473***	.056425	-.6267251**	-.1261953	.511685	.0669695	-.0767334	-.3626146	.7073112
	(.7307297)	(.4418628)	(1.023285)	(1.095198)	(1.05474)	(1.610414)	(.7602576)	(.8904974)	(.535703)	(.5425592)	(.6501607)	(.4148808)	(.3788519)	(1.040517)	(.3088743)	(.3177541)	(.4611685)	(.5767586)	(.4856875)	(.3933027)	(.3885981)	(.5794791)
	1.11	-0.95	0.26	-1.33	-0.37	1.24	-0.61	-0.41	-1.17	-1.17	-1.05	-1.40	3.49	0.18	-1.97	-0.27	0.89	0.14	-0.20	-0.93	1.22
From 1500 to 2300 euros	.2753953	.4027655	.6794771	-2.700589*	.1211007	2.063155	-.3410208	-.54469	-.2886964	-.16373	-.1505741	-.0670729	.4612443	.0133487	-.6847015***	.4596524	.0934973	.2148586	.0779237	-.5184924*	.148041
	(.6414211)	(.4895826)	(.9270531)	(1.400514)	(.799891)	(1.678986)	(.8454366)	(.9969072)	(.5755815)	(.524637)	(.580594)	(.4140016)	(.5307007)	(.3890967)	(.257728)	(.5893528)	(.61785)	(.4932488)	(.4976418)	(.3059633)	(.4680653)
	0.43	0.82	0.73	-1.93	0.15	1.23	-0.40	-0.55	-0.50	-0.31	-0.26	-0.16	0.87	0.03	-2.66	0.78	0.15	0.44	0.16	-1.69	0.32
From 2300 to 3000 euros	.4588884	.5450355	1.021123	-2.701001*	.1184991	1.691152	-.3121068	-.101698	-.920292*	-.4269243	.0749406	-.0159017	-.0549875	.7031916	-.3746928	.674208	.2556624	.0757527	.3545352	-.2069157	-.0049228
	(.6940527)	(.5372674)	(.9196064)	(1.547238)	(.8546017)	(1.655075)	(.7808046)	(1.003491)	(.5507117)	(.6493375)	(.6612941)	(.4696053)	(.4934741)	(.4789208)	(.376785)	(.5397993)	(.6804762)	(.5022068)	(.7674989)	(.3328542)	(.4837596)
	0.66	1.01	1.11	-1.75	0.14	1.02	-0.40	-0.10	-1.67	-0.66	0.11	-0.03	-0.11	1.47	-0.99	1.25	0.38	0.15	0.46	-0.62	-0.01
From 3000 to 4500 euros	.1470104	.3717068	.3279233	-2.310783	.175199	.6871501	-.6017077	-.3461703	-.8983291	-.7200656	-.3037965	.41712	.0993585	.7298676	-.2666765	.2457742	-.1059009	.1791957	-.0668546	-.5049023	-.1252266
	(.6967647)	(.5388975)	(.9351718)	(1.576022)	(1.016286)	(1.723246)	(.8658809)	(1.006873)	(.5865099)	(.5300503)	(.6624592)	(.5706543)	(.5208886)	(.4511097)	(.4312741)	(.5701167)	(.668856)	(.4829695)	(.6233986)	(.4069483)	(.5124332)
	0.21	0.69	0.35	-1.47	0.17	0.40	-0.69	-0.34	-1.53	-1.36	-0.46	0.73	0.19	1.62	-0.62	0.43	-0.16	0.37	-0.11	-1.24	-0.24
From 4500 to 7000 euros	.0690393	.9705756*	1.271655	-1.911175	.4688926	1.004877	-.0996801	-.3411708	-.8705899	-.6172957	-.5676538	.7585487	.3147223	.1396252	-.4419256	-.2833373	.8593007	.100086	.2313776	-.9775763**	-.3265185
	(.7106862)	(.5875869)	(.9793395)	(1.61445)	(1.001301)	(1.770908)	(.9073078)	(1.022672)	(.6418251)	(.6450752)	(.757061)	(.8967784)	(.6143664)	(.525106)	(.5067175)	(.7656888)	(.806849)	(.5411036)	(.68851)	(.4708394)	(.5831614)
	0.10	1.65	1.30	-1.18	0.47	0.57	-0.11	-0.33	-1.36	-0.96	-0.75	0.85	0.51	0.27	-0.87	-0.37	1.07	0.18	0.34	-2.08	-0.56
More than 7000 euros	-.4436298	-.1244433	-4.377073***	-2.468704	1.28066	.4535535	.8310498	-1.661731	-1.28197	-.9246855	1.227591	.5578629	.4957752	1.135079	-1.967518**	.1024708	.4271526	.1226937	-1.032723	.301843	.0236527
	(.716883)	(.7782217)	(1.193189)	(1.687766)	(1.072452)	(1.724385)	(.9210343)	(1.161873)	(.8049065)	(.6411226)	(1.147975)	(.8411221)	(.5932321)	(.7267047)	(.9378017)	(.7650438)	(.9489833)	(.6483319)	(.881368)	(.8637351)	(.641368)
	-0.62	-0.16	-3.67	-1.46	1.19	0.26	0.90	-1.43	-1.59	-1.44	1.07	0.66	0.84	1.56	-2.10	0.13	0.45	0.19	-1.17	0.35	0.04

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

TABLE B.6 – Continued (3) : By regions : Control variables - Time spent watching ad from free public channel

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)
	(IDF)	(C-A)	(PIC)	(H-N)	(CEN)	(B-N)	(BOU)	(N-P-C)	(LOR)	(ALS)	(F-C)	(P-D-L)	(BRE)	(P-C)	(AQU)	(M-P)	(LIM)	(R-A)	(AUV)	(L-R)	(PACA)
Internet connection mode																					
No Internet acces	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Cable	.3127046	2.445757	.1741175	.6419523	-.8021521	-1.442312	-.3442719	-.3738662	1.711616	.1451481	-2.222785*	-.2520446	.3419607	1.557478	.3165423	-.6111558	2.25303***	.1561423	-.8982006	-1.515773**	.3246781
	(.540643)	(1.79226)	(.909282)	(.6099586)	(.5917667)	(.8940016)	(.5257974)	(.4849617)	(2.085419)	(.4530586)	(1.165017)	(.5979057)	(.4492184)	(1.284165)	(.3293061)	(.8110033)	(.6030161)	(.6757573)	(.5484056)	(.6300286)	(.5587291)
	0.58	1.36	0.19	1.05	-1.36	-1.61	-0.65	-0.77	0.82	0.32	-1.91	-0.42	0.76	1.21	0.96	-0.75	3.74	0.23	-1.64	-2.41	0.58
ADSL	-.2307069	.7046021	1.079275**	.0024493	-.5594314	-.0024785	-.8071114	-1.226933***	-.1444364	-.3608797	-.1951562	-.5080276	-.0342856	2.018462	-.0885169	-.5163181	.1877696	.2079937	-.2001532	.1612573	.0160967
	(.3797445)	(.4858804)	(.5437711)	(.4614772)	(.5502035)	(.5621302)	(.6069141)	(.4382568)	(.5034629)	(.3316792)	(.562768)	(.4418863)	(.4022896)	(1.264057)	(.3196063)	(.5480221)	(.5995787)	(.3170495)	(.4181829)	(.4877438)	(.4833264)
	-0.61	1.45	1.98	0.01	-1.02	-0.00	-1.33	-2.80	-0.29	-1.09	-0.35	-1.15	-0.09	1.60	-0.28	-0.94	0.31	0.66	-0.48	0.33	0.03
Fiber optics	-.1114859	-.3286874	-.0005335	-.6172336	-1.953065**	-2.215901**	-.892075	-.0969353	-.3265448	-1.248068	-2.125147***	-1.400277**	-.7039045	1.29036	.2324895	2.423835	2.034183***	.2947499	-.8966728	-1.328735*	.7604766
	(.5308794)	(.6566924)	(.8876974)	(.8267541)	(.7947959)	(.9737068)	(.9103114)	(.6481562)	(.8602863)	(.7887442)	(.5897652)	(.6665905)	(.6509508)	(1.391609)	(.584304)	(1.965711)	(.6289562)	(.6650151)	(1.341223)	(.7114951)	(.5913784)
	-0.21	-0.50	-0.00	-0.75	-2.46	-2.28	-0.98	-0.15	-0.38	-1.58	-3.60	-2.10	-1.08	0.93	0.40	1.23	3.23	0.44	-0.67	-1.87	1.29
Other	-.0472017	.9301273	-.2019329	.4953961	-.3411552	-1.011339*	-1.232633**	-1.745309***	-.4313945	.5977719	-1.548959**	-1.566703	.0408059	1.852532*	.340111	-1.544327**	1.564659	.1211022	.2886308	.1828769	-.4929628
	(.4318419)	(.5873098)	(.3939902)	(.5250186)	(.5178087)	(.5649856)	(.5837427)	(.5093636)	(.5074261)	(.4682045)	(.6810849)	(1.149578)	(.449589)	(1.014146)	(.3259127)	(.6238061)	(1.436024)	(.3091512)	(1.115326)	(1.306342)	(.8737835)
	-0.11	1.58	-0.51	0.94	-0.66	-1.79	-2.11	-3.43	-0.85	1.28	-2.27	-1.36	0.09	1.83	1.04	-2.48	1.09	0.39	0.26	0.14	-0.56
Intercept	9.898566***	10.00303***	9.015941***	17.5505***	9.069166***	10.09496***	10.83547***	10.47039***	11.4382***	8.22279***	9.915295***	13.12047***	8.320395***	12.51052***	10.51224***	9.633728***	6.629342***	9.9045***	6.800509***	9.974172***	13.89796***
	(1.257759)	(1.050072)	(1.397416)	(2.094309)	(1.257953)	(1.908873)	(2.761709)	(1.645784)	(1.64673)	(1.640134)	(1.444111)	(1.25691)	(1.88912)	(1.48669)	(1.358688)	(1.299443)	(1.370349)	(.8719951)	(2.054727)	(1.160757)	(1.479088)
	7.87	9.53	6.45	8.38	7.21	5.29	3.92	6.36	6.95	5.01	6.87	10.44	4.40	8.42	7.74	7.41	4.84	11.36	3.31	8.59	9.40
Number of observations	377,964	97,431	97,261	109,225	233,945	88,848	114,649	214,992	112,185	130,689	74,708	210,408	192,591	138,002	213,798	187,149	51,065	285,908	87,372	165,065	284,612
Number of groups	2,656	512	731	616	1,196	480	586	1,302	722	721	449	1,260	1,059	655	1,129	945	270	1,820	511	748	1,399
R-squared for overall model : R^2_O	0.24	0.14	0.21	0.21	0.27	0.10	0.35	0.21	0.21	0.15	0.15	0.25	0.31	0.14	0.22	0.25	0.12	0.27	0.16	0.26	0.31
R-squared for between model : R^2_B	0.14	0.09	0.24	0.09	0.50	0.00	0.25	0.40	0.21	0.11	0.09	0.07	0.51	0.01	0.33	0.30	0.12	0.50	0.21	0.48	0.47
R-squared for within model : R^2_W	0.06	0.07	0.06	0.10	0.08	0.08	0.08	0.07	0.06	0.06	0.06	0.08	0.07	0.09	0.06	0.08	0.07	0.06	0.05	0.08	0.08
Panel-level standard deviation : σ_u	4.49	4.51	3.50	5.01	3.81	6.57	4.27	3.83	4.64	4.00	4.69	5.07	3.91	6.46	4.75	4.55	4.42	3.78	4.72	3.90	4.14
Standard deviation of ϵ_{it} : σ_e	7.17	6.53	6.16	7.57	7.10	8.10	7.15	7.42	7.17	6.49	6.86	7.60	6.71	7.57	7.31	7.32	6.46	6.77	7.32	6.95	7.47
Intraclass correlation : ρ	0.28	0.32	0.24	0.30	0.22	0.40	0.26	0.21	0.30	0.28	0.32	0.31	0.25	0.42	0.30	0.28	0.32	0.24	0.29	0.24	0.24

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

TABLE B.6 – Continued (4) : By regions : Control variables - Time spent watching ad from free public channel

	(1) (IDF)	(2) (C-A)	(3) (PIC)	(4) (H-N)	(5) (CEN)	(6) (B-N)	(7) (BOU)	(8) (N-P-C)	(9) (LOR)	(10) (ALS)	(11) (F-C)	(12) (P-D-L)	(13) (BRE)	(14) (P-C)	(15) (AQU)	(16) (M-P)	(17) (LIM)	(18) (R-A)	(19) (AUV)	(20) (L-R)	(21) (PACA)
$(t_3 - Q_3^R)_t$	.175551***	.1765533***	.1721784***	.177921***	.1971389***	.1876388***	.1699399***	.1851856***	.176211***	.1555931***	.1569392***	.1741314***	.1866123***	.1814112***	.172518***	.1893123***	.172879***	.1653104***	.1629196***	.1903542***	.1773683***
	(.0039988)	(.0090785)	(.0067867)	(.0094922)	(.0077107)	(.0087359)	(.007016)	(.0058683)	(.0070871)	(.0065828)	(.006936)	(.0063003)	(.0062487)	(.008382)	(.0069363)	(.0069609)	(.0115738)	(.0050312)	(.0101841)	(.0076936)	(.0051133)
	43.90	19.45	25.37	18.74	25.57	21.48	24.22	31.56	24.86	23.64	22.63	27.64	29.86	21.64	24.87	27.20	14.94	32.86	16.00	24.74	34.69
TS (in mn)	-.0423629***	-.0724327***	-.0253746**	-.0870048***	-.0726678***	-.1073981***	-.0688308***	-.0321621***	-.0786098***	-.0773823***	-.0554865***	-.0573607***	-.1328047**	-.1093759***	-.0783801***	-.0755976***	-.0842468***	-.0753332***	-.0922462***	-.1150761***	-.05269***
	(.0067332)	(.0128981)	(.0118516)	(.0155272)	(.0102426)	(.0379819)	(.0231593)	(.0117502)	(.0174875)	(.0136705)	(.0210979)	(.0108656)	(.0533225)	(.0184287)	(.012259)	(.0168881)	(.0296783)	(.0100591)	(.0228999)	(.017534)	(.0118583)
	-6.29	-5.62	-2.14	-5.60	-7.09	-2.83	-2.97	-2.74	-4.50	-5.66	-2.63	-5.28	-2.49	-5.94	-6.39	-4.48	-2.84	-7.49	-4.03	-6.56	-4.44
OTVU (in mn)	-.0614615***	-.0884321***	-.0637788***	-.1227729***	-.0958953***	-.1047687***	-.0732144***	-.0792348***	-.0788188***	-.0822148***	-.0820183***	-.0847984***	-.1102352***	-.1022837***	-.0902121***	-.0728469***	-.1023551***	-.0694436***	-.1295169***	-.1055665***	-.0901055***
	(.0050794)	(.0151494)	(.0079573)	(.0129932)	(.009047)	(.0144812)	(.0107734)	(.0065409)	(.0079784)	(.0105509)	(.014368)	(.0082843)	(.0094856)	(.0091836)	(.0085935)	(.0094245)	(.0168427)	(.0061703)	(.0321731)	(.0104919)	(.006598)
	-12.10	-5.84	-8.02	-9.45	-10.60	-7.23	-6.80	-12.11	-9.88	-7.79	-5.71	-10.24	-11.62	-11.14	-10.50	-7.73	-6.08	-11.25	-4.03	-10.06	-13.66
ω_1 **: Temperature (in °C)**	-.0797637***	-.2926617***	-.3635046***	-.3307847***	-.1846537***	-.4977455***	-.2370121***	-.3003988***	-.2284782***	-.0394466	-.469243***	-.1808871***	-.3747186***	-.2749451***	-.2358794***	-.1814338***	-.167179*	-.0658621**	-.1429831**	-.1529897***	-.1272176***
	(.0282332)	(.0617451)	(.0589906)	(.0665911)	(.0412112)	(.0870222)	(.0583315)	(.0459667)	(.0563838)	(.0489508)	(.0701129)	(.0449125)	(.0517415)	(.0588052)	(.0507842)	(.0445115)	(.0908452)	(.0326298)	(.0588687)	(.0531312)	(.0469384)
	-2.83	-4.74	-6.16	-4.97	-4.48	-5.72	-4.06	-6.54	-4.05	-0.81	-6.69	-4.03	-7.24	-4.68	-4.64	-4.08	-1.84	-2.02	-2.43	-2.88	-2.71
ω_2 **: Sunshine duration (in mn)**	-.0068525***	-.0173194***	-.0097833***	-.0119751***	-.0108618***	-.0128931***	-.014891***	-.011409***	-.0135544***	-.0143925***	-.0149706***	-.0094275***	-.012383***	-.0126751***	-.0088428***	-.0130882***	-.0106337***	-.013999***	-.0138838***	-.0128334***	-.0117446***
	(.0004654)	(.0012194)	(.0010998)	(.0010835)	(.0007322)	(.0013193)	(.0011617)	(.0007704)	(.0010815)	(.0010615)	(.0014875)	(.0007373)	(.0008636)	(.0010193)	(.0008267)	(.0009151)	(.0015201)	(.0007215)	(.0013074)	(.0010743)	(.0007895)
	-14.72	-14.20	-8.90	-11.05	-14.83	-9.77	-12.82	-14.81	-12.53	-13.56	-10.06	-12.79	-14.34	-12.43	-10.70	-14.30	-7.00	-19.40	-10.62	-11.95	-14.88
ω_3 **: Rainfall (in mm)**	-.0038922	.1522092*	.1694415**	-.062286	.0675659	.1402422	.1015894	.1281635***	-.0731068	.0782592	.0964782	.0417481	.055189	-.0116074	.1996969***	.043544	.0273421	-.0142763	.0367231	.0026455	-.0274654
	(.0373206)	(.0891808)	(.0788064)	(.0915472)	(.052135)	(.0979909)	(.0690373)	(.0452822)	(.0635802)	(.0614245)	(.0719082)	(.0507902)	(.0547642)	(.0612428)	(.0534594)	(.0582637)	(.0916687)	(.0306685)	(.0683285)	(.0605868)	(.0357956)
	-0.10	1.71	2.15	-0.68	1.30	1.43	1.47	2.83	-1.15	1.27	1.34	0.82	1.01	-0.19	3.74	0.75	0.30	-0.47	0.54	0.04	-0.77
ω_4 **: Wind speed (in km/h)**	.2148087***	.6860728***	.8558744***	.8343305***	.5726418***	.55255***	.6597788***	.668815***	.4320751***	.4590051***	1.127049***	.7906139***	.9048175***	.7158323***	.8222652***	.9871376***	.5934114**	.7030762***	.5451622***	.5586073***	.5035967***
	(.0670723)	(.1490654)	(.110128)	(.1179993)	(.0909074)	(.1250941)	(.1677694)	(.0832096)	(.1390577)	(.135526)	(.1919558)	(.1143022)	(.0963539)	(.1194631)	(.15526)	(.1286987)	(.2529194)	(.1066271)	(.1836324)	(.110098)	(.0796951)
	3.20	4.60	7.77	7.07	6.30	4.42	3.93	8.04	3.11	3.39	5.87	6.92	9.39	5.99	5.30	7.67	2.35	6.59	2.97	5.07	6.32
ω_5 **: Rain duration (in mn)**	.0050508***	.0010949	.0021736	.0033646*	.0018576	-.001297	.0001349	-.0003331	.004101***	.0006659	.0014742	.0040035***	.0036285***	.0064538***	.0019189	.0024843*	.0032775	.0023416**	.0010853	.0062751***	.0060047***
	(.0007531)	(.0018102)	(.0015731)	(.0017242)	(.0012223)	(.0018298)	(.0013984)	(.0009936)	(.0012932)	(.0010941)	(.0017355)	(.0011289)	(.0012093)	(.001729)	(.0014487)	(.0014987)	(.0020035)	(.000953)	(.0017602)	(.0019262)	(.0013188)
	6.71	0.60	1.38	1.95	1.52	-0.71	0.10	-0.34	3.17	0.61	0.85	3.55	3.00	3.73	1.32	1.66	1.64	2.46	0.62	3.26	4.55
Day of the week																					
Monday	-7.480047***	-4.94491**	-3.35917*	-3.145274*	-2.58156*	-2.702426	-.0103126	-4.915743***	-2.885477	-3.101842**	-2.830657	-4.014225***	-8.195318***	-1.108429	-4.783704***	-3.781859**	-3.747891	-4.35661***	2.442722	-5.272468***	-8.26246***
	(1.046862)	(2.439023)	(1.754274)	(1.838146)	(1.434267)	(2.545392)	(2.087609)	(1.391197)	(1.873619)	(1.52089)	(2.515134)	(1.535336)	(1.388246)	(2.165957)	(1.562706)	(1.761245)	(2.762853)	(1.140844)	(2.268919)	(1.6418)	(1.251089)
	-7.15	-2.03	-1.91	-1.71	-1.80	-1.06	-0.00	-3.53	-1.54	-2.04	-1.13	-2.61	-5.90	-0.51	-3.06	-2.15	-1.36	-3.82	1.08	-3.21	-6.60
Tuesday	-4.251187***	-2.484374	-2.758506*	-4.1946**	-3.455534***	-1.760544	.6794592	-3.612465***	-3.596049*	-2.766914*	-4.681662**	-3.583495***	-6.837804***	-2.910567	-1.289165	-3.567546**	-3.380272	-3.166034***	.3223417	-2.210337	-3.65148***
	(.9131306)	(2.110333)	(1.539281)	(1.752139)	(1.26374)	(2.304597)	(2.018268)	(1.249978)	(1.929478)	(1.416995)	(2.050485)	(1.267757)	(1.38805)	(1.910053)	(1.412609)	(1.560291)	(2.889149)	(1.041421)	(2.338954)	(1.722037)	(1.163869)
	-4.66	-1.18	-1.79	-2.39	-2.73	-0.76	0.34	-2.89	-1.86	-1.95	-2.28	-2.83	-4.93	-1.52	-0.91	-2.29	-1.17	-3.04	0.14	-1.28	-3.14
Wednesday	.3143001	1.516949	-3.407237**	-1.200705	-.2349195	3.875036*	4.08202**	.7636071	.4476821	-1.983635	1.147544	1.937456	-3.852618***	2.092558	2.829534**	.7847738	-1.495774	.3776323	2.33936	-2.845144*	-.9325946
	(.8816636)	(1.842959)	(1.475378)	(1.730663)	(1.271047)	(2.183024)	(1.870895)	(1.139435)	(1.8016)	(1.305531)	(1.937269)	(1.239296)	(1.22979)	(1.669995)	(1.272163)	(1.496357)	(2.726287)	(.9956951)	(1.967339)	(1.599733)	(1.099399)
	0.36	0.82	-2.31	-0.69	-0.18	1.78	2.18	0.67	0.25	-1.52	0.59	1.56	-3.13	1.25	2.22	0.52	-0.55	0.38	1.19	-1.78	-0.85
Thursday	-5.359266***	-1.535687	-3.762453***	-6.607281***	-2.885264**	-3.903054	-2.039009	-7.356494***	-4.474151**	-2.203305	-5.034775**	-7.011667***	-9.919356***	-5.024813**	-3.594769**	-5.678186***	-2.805742	-5.333355***	-1.345867	-3.348766	-6.024617***
	(1.027195)	(2.2814)	(1.789463)	(1.850744)	(1.424568)	(2.395044)	(2.200844)	(1.466261)	(2.059979)	(1.725244)	(2.155246)	(1.498958)	(1.595388)	(2.307575)	(1.575761)	(1.585291)	(3.088282)	(1.144119)	(2.383987)	(2.153454)	(1.386209)
	-5.22	-0.67	-2.10	-3.57	-2.03	-1.63	-0.93	-5.02	-2.17	-1.28	-2.34	-4.68	-6.22	-2.18	-2.28	-3.58	-0.91	-4.66	-0.56	-1.56	-4.35
Friday	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Saturday	12.47245***	9.741673***	5.437104**	6.520335***	6.29321***	11.92543***	.718675	4.797411***	6.270272**	1.532109	9.819461***	3.087831	1.848687	7.116054***	11.51503***	5.250039**	14.39396***	6.517638***	9.396038***	8.19504***	4.445607**
	(1.378525)	(2.727998)	(2.412588)	(2.366191)	(1.953606)	(3.436315)	(3.071504)	(1.779967)	(2.651393)	(2.375636)	(2.8873)	(1.91032)	(1.941005)	(2.659007)	(1.926637)	(2.144528)	(3.840586)	(1.515992)	(3.514476)	(2.225436)	(1.754383)
	9.05	3.57	2.25	2.76	3.22	3.47	0.23	2.70	2.36	0.64	3.40	1.62	0.95	2.68	5.98	2.45	3.75	4.30	2.67	3.68	2.53
Sunday	26.48333***	27.90211***	16.97012***	24.21103***	18.44386***	24.78134***	20.79953***	16.95445***	23.23189***	18.17955***	23.11894***	18.65565***	19.18225***	18.77715***	22.60061***	18.11964***	20.68584***	23.22414***	19.72978***	16.65264***	21.87187***
	(1.486842)	(3.366535)	(3.062493)	(2.884026)	(2.150433)	(3.564837)	(2.88661)	(2.045924)	(2.954539)	(2.682389)	(3.528514)	(2.152612)	(2.157712)	(3.099832)	(2.054304)	(2.263627)	(4.388363)	(2.012255)	(3.745333)	(2.471681)	(2.078729)
	17.81	8.29	5.54	8.39	8.58	6.95	7.21	8.29	7.86	6.78	6.55	8.67	8.89	6.06	11.00	8.00	4.71	11.54	5.27	6.74	10.52
Gender																					
Female	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Male	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

TABLE B.7 – By regions : Control variables - Time spent watching program from free private channel

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)
	(IDF)	(C-A)	(PIC)	(H-N)	(CEN)	(B-N)	(BOU)	(N-P-C)	(LOR)	(ALS)	(F-C)	(P-D-L)	(BRE)	(P-C)	(AQU)	(M-P)	(LIM)	(R-A)	(AUV)	(L-R)	(PACA)
Age category																					
4-10 years																					
	7.067353	13.24349	8.549308	-2.263303	-2.736067	-1.169553	-5.676372	.5926139	-11.36739	7.57301	28.38401***	6.872373	5.711908	33.84632***	14.22168**	-7.225763	4.057009	-2.388427	19.86568**	28.2432***	-2.622692
	(4.687605)	(8.373537)	(6.986965)	(10.71473)	(6.554531)	(8.386403)	(6.615472)	(9.295245)	(8.287949)	(7.193996)	(9.705451)	(5.744247)	(6.298265)	(9.617312)	(6.638076)	(6.596509)	(8.146222)	(5.471264)	(9.408479)	(8.568078)	(6.843188)
	1.51	1.58	1.22	-0.21	-0.42	-0.14	-0.86	0.06	-1.37	1.05	2.92	1.20	0.91	3.52	2.14	-1.10	0.50	-0.44	2.11	3.30	-0.38
11-14 years																					
	6.728868**	5.3994	4.367952	-2.740745	-2.149276	-.8446947	-7.018492	-4.550678	-11.9207*	7.09217	19.29409***	6.273917	8.685631**	14.93255***	7.24911	-1.92497	5.486492	1.790225	15.08098**	15.51225***	2.653823
	(3.060814)	(5.253147)	(5.111531)	(8.891685)	(5.106631)	(4.645855)	(5.466874)	(8.48396)	(6.124543)	(5.792956)	(6.277074)	(4.805736)	(3.795243)	(4.882188)	(4.698341)	(4.687232)	(5.229067)	(3.895487)	(7.297272)	(5.883321)	(4.785872)
	2.20	1.03	0.85	-0.31	-0.42	-0.18	-1.28	-0.54	-1.95	1.22	3.07	1.31	2.29	3.06	1.54	-0.41	1.05	0.46	2.07	2.64	0.55
15-24 years																					
	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
25-34 years																					
	-11.55044	-12.73688***	-16.15784***	-4.60526***	-23.10402***	-6.799498	-17.23256**	-12.40524***	20.88174*	12.84285	-20.06851***	-29.39662*	-20.89679**	-20.14766*	-27.74471**	-30.0285***	-5.702717	-9.712427	18.50696***	-25.24017***	3.769969
	(8.15072)	(4.495181)	(4.372439)	(12.71255)	(7.059665)	(6.839331)	(8.379855)	(3.965997)	(10.91619)	(12.97789)	(5.761294)	(15.37021)	(10.41877)	(10.34883)	(10.98208)	(9.655605)	(7.147151)	(11.57164)	(6.503129)	(8.861007)	(8.838049)
	-1.42	-2.83	-3.70	4.30	-3.27	-0.99	-2.06	-3.13	1.91	0.99	-3.48	-1.91	-2.01	-1.95	-2.53	-3.11	-0.80	-0.84	2.85	-2.85	0.43
35-49 years																					
	-16.9605**	1.29963	-22.64287**	45.54621***	-34.44708***	-19.93966**	-28.92186***	-26.83413***	14.3661	-.215357	-28.91705**	-43.31154***	-29.56795***	-20.32093	-37.74452***	-39.90623***	-20.86946*	-15.89399	4.27096	-35.92822***	-6.690238
	(8.519385)	(8.782209)	(9.580606)	(13.59156)	(8.419964)	(9.496752)	(9.562035)	(5.906386)	(12.79485)	(13.74953)	(14.06005)	(15.93644)	(11.27245)	(12.79582)	(13.47528)	(10.59453)	(11.38999)	(12.15489)	(8.3005)	(10.44587)	(10.1442)
	-1.99	0.15	-2.36	3.35	-4.09	-2.10	-3.02	-4.54	1.12	-0.02	-2.06	-2.72	-2.62	-1.59	-2.80	-3.77	-1.83	-1.31	0.51	-3.44	-0.66
50-64 years																					
	-15.05637*	16.20047*	-14.04128	43.79539***	-30.11727***	-10.15983	-19.2251	-19.71613**	13.54016	-6.184479	-35.77614**	-38.92418**	-28.10203**	-21.51967	-41.72461***	-55.00834***	-22.28402	-11.65953	26.08586**	-44.36288***	-9.167044
	(9.016295)	(9.492759)	(11.47126)	(15.62575)	(9.84276)	(14.4877)	(12.17058)	(9.956878)	(14.59876)	(14.89453)	(17.03369)	(16.40806)	(13.17484)	(14.10208)	(14.2679)	(13.4473)	(15.066)	(13.04984)	(11.88083)	(13.00225)	(10.80939)
	-1.67	1.71	-1.22	2.80	-3.06	-0.70	-1.58	-1.98	0.93	-0.42	-2.10	-2.37	-2.13	-1.53	-2.92	-4.09	-1.48	-0.89	2.20	-3.41	-0.85
65 years and more																					
	-4.901339	20.93142*	-6.086544	34.74861*	-32.97332***	-7.626879	-4.105605	-14.86863	32.76609**	-.7497467	-31.95407*	-34.76805**	-26.75846*	-14.9579	-34.63711**	-48.89044***	-35.21936*	-8.040701	25.28588*	-36.0641***	-7.783754
	(9.758016)	(11.57921)	(13.05871)	(20.65736)	(11.35398)	(17.59809)	(14.56042)	(12.03996)	(15.74454)	(15.9158)	(17.85468)	(17.19197)	(13.83103)	(15.11644)	(15.00973)	(15.58197)	(17.97024)	(13.61056)	(12.97191)	(13.80928)	(11.78713)
	-0.50	1.81	-0.47	1.68	-2.90	-0.43	-0.28	-1.23	2.08	-0.05	-1.79	-2.02	-1.93	-0.99	-2.31	-3.14	-1.96	-0.59	1.95	-2.61	-0.66
Social-Professional Category																					
Farmer																					
	0	-31.0019**	0	0	0	10.73228	-18.82202***	2.648461	112.797***	5.02312	0	-40.9807***	27.75691*	16.04408	-8.382035	-14.16446	-6.297517	-19.7792***	11.88871**	-14.11823**	0
	(0)	(14.19824)	(0)	(0)	(0)	(10.16948)	(6.949893)	(5.004774)	(16.99319)	(8.662603)	(0)	(10.85011)	(14.80135)	(13.61194)	(5.88994)	(10.73639)	(13.28853)	(5.473617)	(5.061447)	(6.018284)	(0)
		-2.18				1.06	-2.71	0.53	6.64	0.58		-3.78	1.88	1.18	-1.42	-1.32	-0.47	-3.61	2.35	-2.35	
Craftsmen-Traders-Contractor																					
	-11.52889*	-25.85356**	-13.65324	13.0003*	-2.165549	-3.781497	-.1393137	11.92702	-10.69749	26.38575**	12.10941	-7.873334	1.883498	25.44705	7.394004	-6.413409	-24.85394***	-4.512843	-10.96617	7.343319	.4135386
	(5.897454)	(11.55386)	(11.237)	(7.522313)	(7.292189)	(8.955617)	(6.875022)	(9.468429)	(7.152888)	(10.45476)	(9.011609)	(11.65843)	(6.504337)	(18.83565)	(8.788711)	(9.859798)	(9.199444)	(3.82379)	(6.767029)	(16.41899)	(7.216101)
	-1.95	-2.24	-1.22	1.73	-0.30	-0.42	-0.02	1.26	-1.50	2.52	1.34	-0.68	0.29	1.35	0.84	-0.65	-2.70	-1.18	-1.62	0.45	0.06
Higher professions																					
	.1790764	-9.060857	-12.82368	-.3041108	1.162005	.6904089	4.932158	8.024665	9.260312*	6.057169	-22.39608**	4.425779	3.335461	10.6473	-1.268227	.7272687	-11.97744*	-6.995033	5.505896	-6.315156	-2.435886
	(3.378922)	(10.71797)	(8.521506)	(6.555437)	(4.268376)	(7.937457)	(4.468245)	(5.628177)	(5.253806)	(6.233107)	(9.057164)	(4.506731)	(5.402044)	(8.258941)	(5.870208)	(4.959848)	(6.877902)	(4.93047)	(5.812111)	(6.914513)	(4.298356)
	0.05	-0.85	-1.50	-0.05	0.27	0.09	1.10	1.43	1.76	0.97	-2.47	0.98	0.62	1.29	-0.22	0.15	-1.74	-1.42	0.95	-0.91	-0.57
Intermediate occupations																					
	1.185698	-8.712627	-5.90247	7.61367	-2.212234	-.9670402	-.9127526	1.592431	3.609026	9.258597	-10.9942*	-.2815275	.5845864	15.55804***	.841079	-2.974312	-1.528148	-4.900248	5.536683	-2.709001	-6.074601
	(3.33693)	(10.75579)	(7.186463)	(5.389316)	(3.718956)	(8.012066)	(3.211253)	(3.895125)	(5.826281)	(6.818745)	(6.063404)	(3.555692)	(4.476136)	(5.158214)	(5.134039)	(4.695445)	(7.640757)	(3.988068)	(5.105078)	(4.909441)	(3.918366)
	0.36	-0.81	-0.82	1.41	-0.59	-0.12	-0.28	0.41	0.62	1.36	-1.81	-0.08	0.13	3.02	0.16	-0.63	-0.20	-1.23	1.08	-0.55	-1.55
Employee																					
	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Skilled worker																					
	-3.904612	-5.606182	4.114262	7.869357	-6.547059	5.399095	-2.118387	.8440005	4.242106	21.9694**	-4.065616	-1.304538	8.79034	24.68082*	3.070763	.0427291	-15.19281	-5.485766	.5059187	-7.614839	-5.267798
	(4.402139)	(8.255303)	(9.958246)	(5.667874)	(4.958786)	(7.565671)	(4.876886)	(4.72753)	(7.40439)	(9.801525)	(7.881407)	(4.856129)	(6.320419)	(12.78314)	(5.789915)	(7.777775)	(10.32669)	(6.501332)	(5.528695)	(8.897912)	(5.543892)
	-0.89	-0.68	0.41	1.39	-1.32	0.71	-0.43	0.18	0.57	2.24	-0.52	-0.27	1.39	1.93	0.53	0.01	-1.47	-0.84	0.09	-0.86	-0.95
Unskilled worker																					
	-5.825113	-3.259731	15.2581	16.32923**	-3.540093	-10.73204	-11.47905*	.3416347	7.611251	32.56792***	-15.55458	-8.43091	9.360372	12.71048	1.278399	6.32561	-5.657505	-2.470075	-8.679283**	-28.54936***	7.04423
	(4.964111)	(11.06273)	(13.66263)	(7.015383)	(6.269208)	(7.974685)	(6.095983)	(6.625225)	(12.12859)	(11.88281)	(15.94316)	(5.480091)	(7.30551)	(14.72772)	(6.027798)	(7.468996)	(12.52923)	(6.852956)	(4.191556)	(9.590806)	(5.203713)
	-1.17	-0.29	1.12	2.33	-0.56	-1.35	-1.88	0.05	0.63	2.74	-0.98	-1.54	1.28	0.86	0.21	0.85	-0.45	-0.36	-2.07	-2.98	1.35
Pensioner																					
	-7.882292	-36.28416**	-1.664236	.4252281	1.950611	-7.084057	-24.97674*	-6.995994	-15.04221	6.747929	-1.979737	-6.406764	9.003886	39.57186**	-9.459555	-13.98954	-102.4377***	-9.993907	-35.0224*	-35.72236**	-17.73611*
	(13.24647)	(16.74503)	(13.62213)	(12.81328)	(10.25238)	(14.54068)	(14.3362)	(18.54167)	(23.73385)	(10.69701)	(14.75724)	(16.48171)	(20.05481)	(16.90589)	(13.9285)	(18.60879)	(29.29824)	(10.54891)	(19.52409)	(16.94619)	(9.868386)
	-0.60	-2.17	-0.12	0.03	0.19	-0.49	-1.74	-0.38	-0.63	0.63	-0.13	-0.39	0.45	2.34	-0.68	-0.75	-3.50	-0.95	-1.79	-2.11	-1.80
Student																					
	-11.50026	-6.175845	25.978**	11.05542	-13.74739	8.713753	-10.79754	-17.60548	4.147404	2.028584	10.06858	-2.214353	23.34744	29.41423**	-10.13839	-4.659225	-124.4489***	-11.11658	-55.79211**	-20.3615	-5.326075
	(10.07733)	(14.51581)	(12.71098)	(12.42591)	(10.31893)	(11.70305)	(7.311784)	(19.67257)	(21.38609)	(10.78902)	(15.45932)	(13.94372)	(17.06374)	(12.2806)	(13.65934)	(17.06159)	(18.5746)	(8.626944)	(23.91409)	(17.00017)	(12.99236)
	-1.14	-0.43	2.04	0.89	-1.33	0.74	-1.48	-0.89	0.19	0.19	0.65	-0.16	1.37	2.40	-0.74	-0.27	-6.70	-1.29	-2.33	-1.20	-0.41
Other inactive																					
	-17.22864	-19.28389	-.0082474	-.4074951	1.747219	-7.219841	-6.961379	-11.28545	-11.36954	-11.04047	-1.471015	.2087079	25.60919	32.47488**	-7.201851	3.107888	-102.698***	-4.663887	-21.83318	-38.34906**	-7.748566
	(13.84294)	(18.81228)	(11.67478)	(11.61017)	(10.65604)	(13.89384)	(7.569595)	(18.54913)	(24.90967)	(12.36322)	(15.28719)	(14.48104)	(19.17803)	(15.1349)	(13.626)	(17.59156)	(29.30179)	(10.01002)	(18.36411)	(17.1306)	(10.54737)
	-1.24	-1.03	-0.00	-0.04	0.16	-0.52	-0.92	-0.61	-0.46	-0.89	-0.10	0.01	1.34	2.15	-0.53	0.18	-3.50	-0.47	-1.19	-2.24	-0.73

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

TABLE B.7 – Continued (2) : By regions : Control variables - Time spent watching program from free private channel

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)
	(IDF)	(C-A)	(PIC)	(H-N)	(CEN)	(B-N)	(BOU)	(N-P-C)	(LOR)	(ALS)	(F-C)	(P-D-L)	(BRE)	(P-C)	(AQU)	(M-P)	(LIM)	(R-A)	(AUV)	(L-R)	(PACA)
Average weekly working time																					
Unemployed person who has already worked	7.121709**	11.49721	4.341373	5.528234	6.518344	3.672415	.2767493	-12.42075*	3.505782	-.7250687	12.43702**	7.160225	9.373005	10.04329	-1.632071	4.677478	-6.717034	-5.148744	.0453722	-11.33352*	13.51456**
	(3.061476)	(20.04483)	(7.191243)	(10.73243)	(7.509053)	(8.926749)	(5.531862)	(6.510536)	(6.517856)	(10.38831)	(5.463027)	(7.320088)	(8.717907)	(17.08474)	(6.716875)	(6.715668)	(16.54092)	(3.770604)	(5.39992)	(6.047552)	(5.892389)
	2.33	0.57	0.60	0.52	0.87	0.41	0.05	-1.91	0.54	-0.07	2.28	0.98	1.08	0.59	-0.24	0.70	-0.41	-1.37	0.01	-1.87	2.29
People looking for a first job	15.37235	-73.61976*	31.04121	6.410974	-14.8532	-32.40053**	-22.82024	27.69778	69.99752***	27.21299	24.74401	-21.85891	-9.43243	-50.87118***	43.10638	4.699168	34.4098	18.03233	-12.53577	41.17761**	-11.89314
	(14.06152)	(44.351)	(33.85647)	(13.41631)	(12.97668)	(15.38458)	(17.38006)	(18.5519)	(19.94834)	(23.47981)	(21.30175)	(29.80623)	(26.14726)	(16.64498)	(29.02361)	(17.59929)	(23.81486)	(11.12284)	(27.93375)	(20.54695)	(11.56475)
	1.09	-1.66	0.92	0.48	-1.14	-2.11	-1.31	1.49	3.51	1.16	1.16	-0.73	-0.36	-3.06	1.49	0.27	1.44	1.62	-0.45	2.00	-1.03
Full-time worker	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Part-time worker : 0-9h59 per week	-8.892713	38.62391**	5.461997	5.113171	-39.15017***	.5021091	-5.339613	23.30124**	-18.72149**	-10.12786	-29.59974**	10.34352	-4.090788	6.10298	12.98422**	-.3099362		-19.07543**	-18.12568	2.098811	-9.628299
	(10.68432)	(16.03697)	(10.34834)	(19.31746)	(12.48361)	(11.31138)	(7.812644)	(9.972797)	(8.85058)	(8.686502)	(14.55591)	(10.82471)	(10.34641)	(12.54376)	(5.049678)	(11.42736)		(9.065585)	(21.20194)	(13.73194)	(8.131889)
	-0.83	2.41	0.53	0.26	-3.14	0.04	-0.68	2.34	-2.12	-1.17	-2.03	0.96	-0.40	0.49	2.57	-0.03		-2.10	-0.85	0.15	-1.18
Part-time worker : 10h-19h59 per week	-.9080813	.1327729	12.94901	-9.640234*	-13.32212*	8.601913	7.286277	4.64854	4.371423	9.798919*	16.94428	3.389886	10.05701	-5.087016	6.626752	-2.296119	-14.89193	-4.569588	-.2003564	-16.15108**	6.557119
	(4.553613)	(16.12067)	(12.69183)	(5.419201)	(7.335445)	(8.726867)	(7.144206)	(4.822889)	(11.79867)	(5.198479)	(11.70776)	(5.635612)	(6.347196)	(11.54947)	(7.348834)	(7.130156)	(14.25451)	(4.886267)	(13.09967)	(6.531051)	(4.49187)
	-0.20	0.01	1.02	-1.78	-1.82	0.99	1.02	0.96	0.37	1.88	1.45	0.60	1.58	-0.44	0.90	-0.32	-1.04	-0.94	-0.02	-2.47	1.46
Part-time worker : 20h-29h59 per week	-.6166193	-14.30105	10.31116	10.73533	-.495266	-10.56597*	8.772935	4.127457	-7.349333	-12.67557*	-4.470752	3.703107	4.910008	-7.49547	5.209915	6.342902	-1.71289	5.607506	16.43041	-11.95824**	1.203993
	(3.326075)	(9.132519)	(8.29596)	(8.852513)	(4.536844)	(5.770064)	(6.504508)	(4.028201)	(6.083911)	(6.76041)	(5.4905)	(4.78394)	(5.470988)	(7.313879)	(3.836887)	(5.660327)	(7.878715)	(4.700788)	(10.51165)	(5.904891)	(3.292905)
	-0.19	-1.57	1.24	1.21	-0.11	-1.83	1.35	1.02	-1.21	-1.87	-0.81	0.77	0.90	-1.02	1.36	1.12	-0.22	1.19	1.56	-2.03	0.37
Part-time worker : 30h-34h59 per week	5.666447	7.04626	4.262126	6.254455	-5.361986	3.025239	-4.111343	-8.240036	-8.62784	1.388746	-10.89397	-.790316	-5.954663	-8.283952	-4.076966	3.755458	-18.67731	-7.03124	-20.28232**	1.87102	.1986774
	(5.484641)	(6.296702)	(9.018717)	(7.119726)	(3.605967)	(5.515038)	(3.9396)	(6.045533)	(6.75393)	(6.76865)	(7.198177)	(5.042901)	(5.676518)	(5.226762)	(5.23806)	(9.238535)	(11.70585)	(4.931537)	(8.385844)	(6.722378)	(4.23757)
	1.03	1.12	0.47	0.88	-1.49	0.55	-1.04	-1.36	-1.28	0.21	-1.51	-0.16	-1.05	-1.58	-0.78	0.41	-1.60	-1.43	-2.42	0.28	0.05
Other inactive	18.01217*	20.99796*	-12.98477	6.730043	6.601095	-13.33368	8.812127*	14.52964	-9.325832	10.48329	-8.335503	17.27958	-1.249767	-9.86822	16.28085	18.48593	122.346***	5.747372	22.21123	18.47063	8.205717
	(9.70434)	(12.2845)	(10.07355)	(7.740497)	(7.057093)	(11.04459)	(5.05567)	(18.21756)	(19.6318)	(6.544493)	(11.70512)	(13.1049)	(13.68512)	(7.629876)	(11.54071)	(15.90646)	(21.68815)	(7.633497)	(17.57487)	(15.39462)	(7.545017)
	1.86	1.71	-1.29	0.87	0.94	-1.21	1.74	0.80	-0.48	1.60	-0.71	1.32	-0.09	-1.29	1.41	1.16	5.64	0.75	1.26	1.20	1.09
Gross monthly household income																					
Less than 600 euros	8.208478	-24.33871	-13.23236	21.38117	11.25004*	-.1528426	-12.79792*	15.70513	1.328725	46.2274**	6.777929	2.14946	-11.36569	-38.75154	43.73316*	16.23539**	-22.86723**	9.558054	-18.62031*	-51.37718***	17.17216*
	(5.820344)	(21.46532)	(8.602647)	(13.2108)	(6.155634)	(10.40524)	(6.893251)	(10.72641)	(13.22363)	(20.18835)	(7.004863)	(8.977824)	(14.52062)	(25.49523)	(25.37741)	(7.381513)	(11.28867)	(14.96961)	(9.73749)	(10.9836)	(9.432997)
	1.41	-1.13	-1.54	1.62	1.83	-0.01	-1.86	1.46	0.10	2.29	0.97	0.24	-0.78	-1.52	1.72	2.20	-2.03	0.64	-1.91	-4.68	1.82
From 600 to 900 euros	6.745903	-5.834686	-6.741024	-3.182208	1.724197	-15.39048*	-2.266912	-4.937069	2.888326	.1366485	14.01769*	-8.094019	-14.53007*	-3.333472	1.325931	3.099121	-19.39583***	-.9565	-9.87875*	-8.277296	3.605705
	(4.996554)	(6.782532)	(7.307068)	(19.58525)	(5.805362)	(7.960781)	(6.798168)	(8.964565)	(10.0567)	(8.454109)	(7.296034)	(8.990281)	(8.355996)	(7.008562)	(9.873952)	(6.809629)	(6.810992)	(3.366341)	(5.943058)	(6.213633)	(5.614486)
	1.35	-0.86	-0.92	-0.16	0.30	-1.93	-0.33	-0.55	0.29	0.02	1.92	-0.90	-1.74	-0.48	0.13	0.46	-2.85	-0.28	-1.66	-1.33	0.64
From 900 to 1200 euros	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
From 1200 to 1500 euros	6.358362	15.43344**	-11.3455**	-6.752909	6.615926	-12.34235*	.991778	-4.572873	4.262867	9.422409	-1.463139	-2.03439	4.039098	8.041124*	2.061112	5.505386	-15.27641**	-8.485877***	.402748	10.6667	2.147005
	(4.195726)	(7.608717)	(5.58532)	(6.811706)	(5.679489)	(7.42497)	(6.425779)	(6.109202)	(10.20669)	(10.25352)	(4.642323)	(5.194478)	(3.939871)	(4.77466)	(8.419468)	(6.359897)	(6.679745)	(2.863992)	(5.491881)	(6.873204)	(4.168098)
	1.52	2.03	-2.03	-0.99	1.16	-1.66	0.15	-0.75	0.42	0.92	-0.32	-0.39	1.03	1.68	0.24	0.87	-2.29	-2.96	0.07	1.55	0.52
From 1500 to 2300 euros	6.643448	12.66095	-6.847345	-9.916176	7.722878	-9.389394	-2.515269	-3.488208	.8067876	11.9861	8.836456	7.680856	2.968263	6.891519	10.32973	12.18604*	-19.13371***	-5.392883	-1.319992	2.638896	-3.058758
	(4.231911)	(7.799693)	(5.134363)	(9.773633)	(5.052058)	(9.790214)	(6.409858)	(6.041783)	(8.95006)	(9.21287)	(5.58178)	(5.500847)	(4.360412)	(5.746428)	(9.440642)	(6.225358)	(6.467795)	(3.312108)	(6.637787)	(5.934596)	(4.094632)
	1.57	1.62	-1.33	-1.01	1.53	-0.96	-0.39	-0.58	0.09	1.30	1.58	1.40	0.68	1.20	1.09	1.96	-2.96	-1.63	-0.20	0.44	-0.75
From 2300 to 3000 euros	5.96964	16.63166*	-6.775892	-14.07948	8.516112	-13.18731	-4.483973	-5.024329	5.239158	12.86703	13.23755**	4.337065	2.229894	2.788239	9.473582	6.554956	-20.13536***	-5.391814	-1.062402	1.705488	-.2790799
	(4.288164)	(9.338149)	(5.353628)	(10.07399)	(5.22442)	(9.894158)	(6.448371)	(6.964457)	(8.977597)	(9.842502)	(5.769355)	(5.456994)	(4.674079)	(6.27036)	(9.261429)	(5.905308)	(7.347108)	(3.350376)	(6.784517)	(5.822714)	(4.292665)
	1.39	1.78	-1.27	-1.40	1.63	-1.33	-0.70	-0.72	0.58	1.31	2.29	0.79	0.48	0.44	1.02	1.11	-2.74	-1.61	-0.16	0.29	-0.07
From 3000 to 4500 euros	7.308676*	11.62418	-11.70223**	-12.64152	8.752855*	-11.01332	-6.20034	-4.704278	3.861012	12.61995	9.847212*	2.635382	5.316313	7.053761	9.000345	7.330339	-12.02649	-8.054575**	-2.268462	2.835203	-.0967545
	(4.299924)	(9.123539)	(5.647994)	(9.930507)	(5.135106)	(10.13102)	(6.509849)	(7.13554)	(9.173014)	(10.00791)	(5.865366)	(5.567998)	(4.725518)	(6.746026)	(9.389458)	(6.168142)	(7.962077)	(3.496244)	(6.977785)	(6.387461)	(4.344942)
	1.70	1.27	-2.07	-1.27	1.70	-1.09	-0.95	-0.66	0.42	1.26	1.68	0.47	1.13	1.05	0.96	1.19	-1.51	-2.30	-0.33	0.44	-0.02
From 4500 to 7000 euros	8.41621*	6.643304	-10.50924*	-7.286899	7.870564	-15.73654	-4.80866	-10.64226	-2.432465	10.42245	13.64016**	1.728466	6.140179	5.538529	14.73433	-1.438692	-16.81957*	-11.90546***	-1.31515	1.341499	-1.536313
	(4.447776)	(9.234214)	(5.971221)	(10.60322)	(5.354125)	(10.87623)	(7.562145)	(7.955296)	(9.427204)	(10.19434)	(6.355558)	(6.125281)	(5.250386)	(7.350407)	(9.258958)	(6.336671)	(9.546893)	(4.223384)	(7.231989)	(6.909921)	(4.711553)
	1.89	0.72	-1.76	-0.69	1.47	-1.45	-0.64	-1.34	-0.26	1.02	2.15	0.28	1.17	0.75	1.59	-0.23	-1.76	-2.82	-0.18	0.19	-0.33
More than 7000 euros	5.480177	3.567779	-1.351922	-18.82857	11.80451*	6.138662	-2.90187	2.767336	1.924855	9.099062	7.661554	5.097071	4.587453	9.246315	12.65996	-2.24578	-7.733307	-13.72819**	-.9364552	16.54546**	-5.725928
	(4.680678)	(9.54987)	(8.391337)	(11.62132)	(6.430274)	(20.25064)	(8.927879)	(9.666976)	(11.67767)	(10.16957)	(7.217546)	(6.412564)	(5.345229)	(7.79082)	(9.04838)	(6.977285)	(15.61382)	(5.977142)	(10.08568)	(8.126853)	(5.370427)
	1.17	0.37	-0.16	-1.62	1.84	0.30	-0.33	0.29	0.16	0.89	1.06	0.79	0.86	1.19	1.40	-0.32	-0.50	-2.30	-0.09	2.04	-1.07

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

TABLE B.7 – Continued (3) : By regions : Control variables - Time spent watching program from free private channel

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)
	(IDF)	(C-A)	(PIC)	(H-N)	(CEN)	(B-N)	(BOU)	(N-P-C)	(LOR)	(ALS)	(F-C)	(P-D-L)	(BRE)	(P-C)	(AQU)	(M-P)	(LIM)	(R-A)	(AUV)	(L-R)	(PACA)
Internet connection mode																					
No Internet acces	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Cable	4.951016	6.123259	-.5806945	9.245288	-1.996398	-20.92275**	2.560045	-19.65334***	5.363579	.0465842	1.407227	6.819687	-16.49609	-11.69533	2.574132	14.75826***	43.59099***	.6941528	-19.7381**	-21.15818***	2.324867
	(4.486229)	(8.956704)	(7.506908)	(8.772988)	(8.121596)	(9.405236)	(8.178952)	(4.771344)	(7.236691)	(6.825186)	(11.70357)	(6.791159)	(19.99067)	(15.73668)	(4.170569)	(5.595378)	(12.82904)	(4.208918)	(9.4345)	(6.311065)	(5.74789)
	1.10	0.68	-0.08	1.05	-0.25	-2.22	0.31	-4.12	0.74	0.01	0.12	1.00	-0.83	-0.74	0.62	2.64	3.40	0.16	-2.09	-3.35	0.40
ADSL	5.997131	-1.330878	3.610835	1.38046	3.878666	-4.740785	-.5180235	-8.794385**	5.491152	-6.409544	3.99767	10.14094**	-6.258353	8.440937	4.734967	.713124	14.48721	1.61119	-3.687232	-12.9072***	.5664018
	(4.044199)	(4.227756)	(3.730552)	(5.114866)	(3.095158)	(7.127764)	(6.082083)	(3.997892)	(6.021069)	(5.73507)	(6.348774)	(4.300315)	(4.54122)	(5.648331)	(4.450804)	(4.404019)	(11.77906)	(2.999206)	(6.577629)	(4.653462)	(4.179799)
	1.48	-0.31	0.97	0.27	1.25	-0.67	-0.09	-2.20	0.91	-1.12	0.63	2.36	-1.38	1.49	1.06	0.16	1.23	0.54	-0.56	-2.77	0.14
Fiber optics	3.372995	-3.763436	1.709067	3.344551	-.9069393	5.397658	-14.69703**	-26.24355***	-1.74108	-7.073684	8.381146	5.536604	-32.12512**	9.349666	-3.697531	-.5657405	44.90217***	1.812836	.5918361	-19.91005***	.7281555
	(4.49447)	(8.207796)	(8.928938)	(9.424322)	(6.407771)	(8.582806)	(7.060137)	(7.534582)	(8.297673)	(8.882353)	(7.814245)	(5.654086)	(13.20327)	(13.13793)	(6.131558)	(8.454797)	(12.43063)	(4.222812)	(12.69789)	(6.949468)	(5.817632)
	0.75	-0.46	0.19	0.35	-0.14	0.63	-2.08	-3.48	-0.21	-0.80	1.07	0.98	-2.43	0.71	-0.60	-0.07	3.61	0.43	0.05	-2.86	0.13
Other	-1.756412	11.62282*	5.168126	4.229332	-4.812326	14.51456	-4.162415	-11.02065***	2.311402	7.621673	5.189492	-2.046595	-3.673484	1.20057	5.930538	-1.82584	36.37054**	-.8926765	-14.3715*	-12.98937*	3.319129
	(4.79433)	(6.233795)	(7.930502)	(6.959075)	(3.558563)	(8.889575)	(7.092715)	(3.878117)	(6.476816)	(10.53157)	(7.430725)	(5.549719)	(5.600838)	(8.406222)	(7.396196)	(5.523427)	(15.71286)	(4.566579)	(8.508016)	(7.262916)	(5.011229)
	-0.37	1.86	0.65	0.61	-1.35	1.63	-0.59	-2.84	0.36	0.72	0.70	-0.37	-0.66	0.14	0.80	-0.33	2.31	-0.20	-1.69	-1.79	0.66
Intercept	109.8362***	113.4986***	154.3328***	89.1276***	140.1974***	164.976***	150.1175***	161.6839***	111.5982***	94.78596***	139.6137***	135.0324***	146.1639***	115.4539***	144.9381***	152.6865***	138.4439***	144.3596***	118.5683***	178.9199***	139.6801***
	(9.708204)	(15.08477)	(12.19899)	(16.43401)	(9.747067)	(13.32118)	(11.97451)	(9.873291)	(15.8828)	(17.65584)	(14.36499)	(15.46648)	(13.01553)	(15.37633)	(15.60116)	(12.86625)	(17.3796)	(11.77305)	(11.76653)	(11.9071)	(11.13498)
	11.31	7.52	12.65	5.42	14.38	12.38	12.54	16.38	7.03	5.37	9.72	8.73	11.23	7.51	9.29	11.87	7.97	12.26	10.08	15.03	12.54
Number of observations	1,299,588	293,617	371,992	315,276	683,147	242,661	326,124	701,448	355,539	403,930	225,595	625,260	553,773	369,763	575,238	502,314	139,266	893,941	244,025	403,628	760,731
Number of groups	3,083	554	806	712	1,311	528	655	1,490	854	844	506	1,406	1,179	707	1,237	1,054	297	2,076	556	828	1,565
R-squared for overall model : R^2_O	0.17	0.16	0.10	0.22	0.19	0.13	0.18	0.19	0.20	0.16	0.04	0.07	0.09	0.10	0.10	0.09	0.16	0.18	0.16	0.09	0.18
R-squared for between model : R^2_B	0.35	0.26	0.14	0.56	0.47	0.39	0.47	0.55	0.49	0.42	0.00	0.02	0.08	0.12	0.08	0.07	0.23	0.63	0.38	0.03	0.61
R-squared for within model : R^2_W	0.05	0.06	0.04	0.06	0.06	0.06	0.05	0.05	0.05	0.04	0.05	0.05	0.06	0.06	0.05	0.05	0.06	0.05	0.05	0.06	0.05
Panel-level standard deviation : σ_u	63.04	71.07	71.46	68.40	70.21	67.73	66.52	69.28	67.18	62.29	82.59	74.41	75.69	75.91	79.30	76.05	74.56	62.30	56.31	76.73	65.62
Standard deviation of ϵ_{it} : σ_e	96.24	99.39	102.22	97.91	100.90	100.02	96.37	106.72	99.88	91.28	95.64	98.55	97.08	99.75	97.89	97.11	95.22	96.35	96.11	98.57	98.01
Intraclass correlation : ρ	0.30	0.34	0.33	0.33	0.33	0.31	0.32	0.30	0.31	0.32	0.43	0.36	0.38	0.37	0.40	0.38	0.38	0.29	0.26	0.38	0.31

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

TABLE B.7 – Continued (4) : By regions : Control variables - Time spent watching program from free private channel

	(1) (IDF)	(2) (C-A)	(3) (PIC)	(4) (H-N)	(5) (CEN)	(6) (B-N)	(7) (BOU)	(8) (N-P-C)	(9) (LOR)	(10) (ALS)	(11) (F-C)	(12) (P-D-L)	(13) (BRE)	(14) (P-C)	(15) (AQU)	(16) (M-P)	(17) (LIM)	(18) (R-A)	(19) (AUV)	(20) (L-R)	(21) (PACA)
$(t_2 - Q_2^R)_t$	.1947869***	.1857552***	.1761021***	.2170153***	.2112217***	.1918651***	.2184179***	.1948573***	.2068703***	.180304***	.1828583***	.1945781***	.187645***	.2080762***	.1955414***	.211699***	.1854043***	.2033692***	.1888721***	.2131322***	.2227738***
	(.0058792)	(.0111077)	(.0087513)	(.020785)	(.0105529)	(.0142609)	(.012721)	(.0100954)	(.0158857)	(.0133015)	(.0095963)	(.0088895)	(.0086103)	(.0084314)	(.0063871)	(.0079121)	(.0129474)	(.0067369)	(.0195839)	(.0100652)	(.0073431)
	33.13	16.72	20.12	10.44	20.02	13.45	17.17	19.30	13.02	13.56	19.06	21.89	21.79	24.68	30.62	26.76	14.32	30.19	9.64	21.18	30.34
TS (in mn)	-.0823598***	-.0815782***	-.0538165***	-.1059845***	-.0772449***	-.1351757***	-.0735718***	-.0776823***	-.0552606**	-.053463***	-.0424626	-.090891***	-.0866614***	-.0703319***	-.0971169***	-.1049165***	-.1125164***	-.07262**	-.0249163	-.109798***	-.061311***
	(.0116809)	(.0230202)	(.0174971)	(.0350498)	(.0180256)	(.0297083)	(.0248605)	(.0157472)	(.0223447)	(.016213)	(.032938)	(.0184978)	(.0210035)	(.0185532)	(.0212561)	(.023548)	(.0270604)	(.0131409)	(.028796)	(.024554)	(.0170236)
	-7.05	-3.54	-3.08	-3.02	-4.29	-4.55	-2.96	-4.93	-2.47	-3.30	-1.29	-4.91	-4.13	-3.79	-4.57	-4.46	-4.16	-5.53	-0.87	-4.47	-3.60
OTVU (in mn)	-.0861392***	-.0854677***	-.0848835***	-.1399947***	-.0723177***	-.113287***	-.1057561***	-.0862777***	-.0815479***	-.1131095***	-.0860232***	-.0818182***	-.1115853***	-.1334363***	-.1049542***	-.1026819***	-.0964631***	-.0887526***	-.17369***	-.1523855***	-.1080391***
	(.0085492)	(.0123009)	(.0120547)	(.014331)	(.0095487)	(.0215387)	(.0198702)	(.0100986)	(.0111094)	(.0171769)	(.0220736)	(.0114546)	(.0118125)	(.0202883)	(.0135812)	(.0141587)	(.0199495)	(.0116392)	(.0637356)	(.013478)	(.0119192)
	-10.08	-6.95	-7.04	-9.77	-7.57	-5.26	-5.32	-8.54	-7.34	-6.58	-3.90	-7.14	-9.45	-6.58	-7.73	-7.25	-4.84	-7.63	-2.73	-11.31	-9.06
ω_1 **: Temperature (in °C)**	-.3797192***	-.3059384***	-.2387949**	-.4390054***	-.299175***	-.5438493***	-.242644***	-.3020856***	-.1852879**	-.2143047**	-.115457	-.4271858***	-.5053596***	-.3686874***	-.2521449***	-.0499771	-.2522798**	-.1108715**	-.0747447	-.0942464	-.2809817***
	(.0514344)	(.0994407)	(.1026737)	(.0997117)	(.0652371)	(.1185967)	(.0817746)	(.062093)	(.0912861)	(.0849415)	(.128906)	(.0766321)	(.0820941)	(.0986256)	(.0793033)	(.0592687)	(.10341)	(.0558162)	(.1025583)	(.0775056)	(.0802398)
	-7.38	-3.08	-2.33	-4.40	-4.59	-4.59	-2.97	-4.87	-2.03	-2.52	-0.90	-5.57	-6.16	-3.74	-3.18	-0.84	-2.44	-1.99	-0.73	-1.22	-3.50
ω_2 **: Sunshine duration (in mn)**	-.00489***	-.0126312***	-.0055346***	-.0102677***	-.0068645***	-.0056953***	-.0078225***	-.0069217***	-.0092437***	-.0108894***	-.0116874***	-.0053001***	-.007745***	-.0122192***	-.0067877***	-.0115672***	-.006148***	-.0131051***	-.0125239***	-.0078667***	-.0101313***
	(.0008287)	(.0021921)	(.0016609)	(.0017108)	(.0011561)	(.0020878)	(.0018289)	(.0011321)	(.0018778)	(.0016113)	(.0023151)	(.0013199)	(.0013751)	(.0022103)	(.0012508)	(.0015204)	(.0023587)	(.0013314)	(.0020198)	(.001591)	(.0013755)
	-5.90	-5.76	-3.33	-6.00	-5.94	-2.73	-4.28	-6.11	-4.92	-6.76	-5.05	-4.02	-5.63	-5.53	-5.43	-7.61	-2.61	-9.84	-6.20	-4.94	-7.37
ω_3 **: Rainfall (in mm)**	.205709***	.2097646	.3421627***	.1826914	.0384225	-.1139378	.0078469	.0195921	.1542767	.1328553	-.2505819**	-.0473964	.1037077	-.1088116	-.2282859***	-.1999247**	.1111316	-.1020305**	-.047254	-.0124151	.1073011**
	(.064417)	(.1527497)	(.1314616)	(.1320531)	(.0863841)	(.1444465)	(.1244985)	(.0681382)	(.1009825)	(.0952406)	(.118648)	(.0883754)	(.0844751)	(.1082757)	(.0836674)	(.0982353)	(.1105019)	(.0476344)	(.1178257)	(.0932186)	(.049106)
	3.19	1.37	2.60	1.38	0.44	-0.79	0.06	0.29	1.53	1.39	-2.11	-0.54	1.23	-1.00	-2.73	-2.04	1.01	-2.14	-0.40	-0.13	2.19
ω_4 **: Wind speed (in km/h)**	.7153273***	.6751308**	1.056169***	.9037547***	.568546***	.6394696***	.4111482*	.7348006***	.919768***	.350211	.9622974***	.9777826***	.8970398***	.9089259***	1.027861***	.8294104***	.6503221	.665933***	.4339995	.6530286***	.5473217***
	(.1191316)	(.2774458)	(.1727404)	(.2004994)	(.1489748)	(.2129112)	(.2270448)	(.1187261)	(.2238836)	(.2268312)	(.305356)	(.1813507)	(.1510368)	(.2319757)	(.2540972)	(.1857004)	(.4249015)	(.1699943)	(.3210552)	(.1632817)	(.126946)
	6.00	2.43	6.11	4.51	3.82	3.00	1.81	6.19	4.11	1.54	3.15	5.39	5.94	3.92	4.05	4.47	1.53	3.92	1.35	4.00	4.31
ω_5 **: Rain duration (in mn)**	.0017157	.0028001	-.0020473	.0004458	.0026105	.0094264***	.0069413***	.0033142**	-.0006385	-.0025757	.0080861***	.0096628***	.005826***	.006828**	.0113988***	.0113405***	.0034243	.0012735	.0041137	.0092578***	.0032891
	(.0013663)	(.0028998)	(.0024899)	(.0023889)	(.0018025)	(.0030353)	(.0025633)	(.0014847)	(.0021373)	(.0017983)	(.0029794)	(.0020553)	(.0016174)	(.0028264)	(.0023162)	(.0024673)	(.0024815)	(.0015278)	(.0029379)	(.002992)	(.0020038)
	1.26	0.97	-0.82	0.19	1.45	3.11	2.71	2.23	-0.30	-1.43	2.71	4.70	3.60	2.42	4.92	4.60	1.38	0.83	1.40	3.09	1.64
Day of the week																					
Monday	-5.337847***	-6.226807*	-16.21593***	-7.732009*	-9.945692***	-4.328104*	-3.724595	-5.267669***	-6.468833**	-4.159385*	-11.26967***	-3.805316*	-4.651661***	-5.923554**	-3.367732*	-2.568631	-11.18783***	-2.307872	-7.784862***	-7.508691***	.3235576
	(1.984511)	(3.556493)	(2.583011)	(4.133253)	(1.955215)	(2.463435)	(2.999773)	(1.778169)	(3.165294)	(2.290608)	(3.887382)	(2.308522)	(1.716734)	(2.861339)	(1.865034)	(2.568778)	(4.098864)	(1.774529)	(2.919956)	(2.180278)	(1.855294)
	-2.69	-1.75	-6.28	-1.87	-5.09	-1.76	-1.24	-2.96	-2.04	-1.82	-2.90	-1.65	-2.71	-2.07	-1.81	-1.00	-2.73	-1.30	-2.67	-3.44	0.17
Tuesday	-2.565243*	-1.625617	-5.022375***	-2.605798	-1.375098	-7.299551**	.288414	1.57408	.0969646	.9599673	-8.658268***	.491493	-.3621066	.5284182	-5.279078***	-3.911582**	-8.894975*	-1.778109	-6.394185**	-5.180994***	-2.859332*
	(1.539683)	(2.419865)	(1.888203)	(3.025346)	(1.522694)	(3.56115)	(2.045794)	(1.617808)	(2.766814)	(1.867703)	(3.135907)	(1.74464)	(1.514037)	(2.0093)	(1.664962)	(1.853508)	(4.711271)	(1.737219)	(3.042676)	(1.697021)	(1.526386)
	-1.67	-0.67	-2.66	-0.86	-0.90	-2.05	0.14	0.97	0.04	0.51	-2.76	0.28	-0.24	0.26	-3.17	-2.11	-1.89	-1.02	-2.10	-3.05	-1.87
Wenesday	-1.40989	2.221622	-5.166774***	-.9293145	-1.739617	-2.269833	-1.096468	-.7977371	-1.329436	-2.000735	-3.184794	-.9979287	1.38611	2.027848	-.1537053	-1.590121	-4.091055	-.1552852	-4.42047*	.5017371	-2.249518
	(1.394424)	(2.278779)	(1.572881)	(3.370694)	(1.364896)	(3.219674)	(2.04804)	(1.431706)	(2.38845)	(1.625977)	(2.680745)	(1.573646)	(1.706725)	(2.004665)	(1.882447)	(1.678723)	(3.526563)	(1.375522)	(2.565295)	(1.7775)	(1.446503)
	-1.01	0.97	-3.28	-0.28	-1.27	-0.70	-0.54	-0.56	-1.23	-1.19	-0.63	0.81	1.01	-0.08	-1.72	-0.95	-1.16	-0.11	-1.72	0.28	-1.56
Thursday	-7.825651***	-5.774175**	-12.65657***	-7.97558**	-10.32406***	-15.0799***	-7.590813***	-2.903791	-8.825913**	-3.493411*	-9.803555***	-7.223984***	-5.010198***	-6.762944***	-9.552607***	-4.953506***	-12.54878***	-4.837877***	-13.58211***	-10.77957***	-4.879437***
	(1.794808)	(2.620241)	(2.772785)	(3.348669)	(2.089459)	(3.505118)	(2.49851)	(1.879876)	(3.458819)	(1.994065)	(3.578344)	(1.770902)	(1.767518)	(2.59552)	(2.145358)	(1.821961)	(4.245307)	(1.847472)	(3.197857)	(2.248929)	(1.759937)
	-4.36	-2.20	-4.56	-2.38	-4.94	-4.30	-3.04	-1.54	-2.55	-1.75	-2.74	-4.08	-2.83	-2.61	-4.45	-2.72	-2.96	-2.62	-4.25	-4.79	-2.77
Friday	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Saturday	17.10647***	15.88921***	18.69863***	12.84885***	13.2887***	1.288979	15.40585***	10.79615***	18.27707***	13.14658***	20.12135***	10.29721***	14.37059***	21.52391***	18.37357***	13.48377***	4.117675	14.35975***	19.28203***	12.10651***	12.77214***
	(2.451702)	(3.415184)	(3.558969)	(4.866951)	(2.747795)	(7.328568)	(3.917348)	(3.081616)	(4.43725)	(2.85696)	(3.66025)	(2.949399)	(3.321224)	(3.637297)	(2.708497)	(3.120893)	(4.838318)	(2.777541)	(4.388441)	(3.16461)	(2.730324)
	6.98	4.65	5.25	2.64	4.84	0.18	3.93	3.50	4.12	4.60	5.50	3.49	4.33	5.92	6.78	4.32	0.85	5.17	4.39	3.83	4.68
Sunday	17.03457***	9.808161**	19.9125***	10.00197**	12.08028***	-8.211539	18.41393***	21.5715***	10.56249*	20.44107***	17.43485***	8.165367**	18.69603***	11.9841***	18.436***	12.60645***	7.930785	17.79971***	5.591801	9.474061**	14.97309***
	(2.120153)	(4.500101)	(3.323296)	(4.76749)	(3.011416)	(10.13789)	(4.536213)	(3.743081)	(5.523248)	(4.005703)	(5.35867)	(3.196996)	(3.239648)	(4.432554)	(2.832325)	(3.152745)	(7.733837)	(2.439976)	(5.323804)	(3.864816)	(3.787382)
	8.03	2.18	5.99	2.10	4.01	-0.81	4.06	5.76	1.91	5.10	3.25	2.55	5.77	2.70	6.51	4.00	1.03	7.30	1.05	2.45	3.95
Gender																					
Female	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Male	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

TABLE B.8 – By regions : Control variables - Time spent watching program from free public channel

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)
	(IDF)	(C-A)	(PIC)	(H-N)	(CEN)	(B-N)	(BOU)	(N-P-C)	(LOR)	(ALS)	(F-C)	(P-D-L)	(BRE)	(P-C)	(AQU)	(M-P)	(LIM)	(R-A)	(AUV)	(L-R)	(PACA)
Age category																					
4-10 years																					
	6.754861	7.665488	4.036606	-7.697439	.2479612	12.35848	-2.086819	-10.08529	-17.6843*	11.85923	5.344745	11.82133*	-6.453246	25.56269**	18.85239***	-12.66065	7.181148	-17.52494***	-8.054422	19.0476**	7.462349
	(4.889187)	(7.855239)	(5.947697)	(10.98878)	(6.836906)	(12.79385)	(12.37469)	(12.25021)	(9.986185)	(8.916583)	(8.92379)	(7.029115)	(8.314935)	(10.00887)	(6.839369)	(10.33827)	(13.90352)	(6.158813)	(10.63531)	(8.677173)	(6.420164)
	1.38	0.98	0.68	-0.70	0.04	0.97	-0.17	-0.82	-1.77	1.33	0.60	1.68	-0.78	2.55	2.76	-1.22	0.52	-2.85	-0.76	2.20	1.16
11-14 years																					
	3.82539	2.536282	1.760328	-9.222451	.7928265	4.556557	-1.111961	-4.972713	-13.89068**	6.42871	4.584001	10.67761**	-1.435942	15.2819**	12.44736***	-9.012439	6.951464	-9.260973**	.4107805	8.644058	3.345157
	(3.413691)	(3.656451)	(3.540255)	(6.903703)	(5.088756)	(8.097924)	(6.541061)	(11.542)	(6.944309)	(8.364069)	(7.214101)	(4.552015)	(5.923224)	(7.121061)	(4.457387)	(9.878597)	(8.490777)	(4.149312)	(7.341334)	(5.814109)	(3.630245)
	1.12	0.69	0.50	-1.34	0.16	0.56	-0.17	-0.43	-2.00	0.77	0.64	2.35	-0.24	2.15	2.79	-0.91	0.82	-2.23	0.06	1.49	0.92
15-24 years																					
	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
25-34 years																					
	1.252514	-12.68619	-41.42143***	-21.34076	-23.7723***	-10.49515	-10.93204	-1.557083	-4.475831	17.07736	-11.91638	-12.4857**	24.602	-15.52982	-4.692567	-13.02419	44.81426***	-11.17294	30.19023*	-12.36274*	-29.11912***
	(9.979109)	(10.04013)	(9.669568)	(17.18464)	(6.543115)	(12.53705)	(31.50856)	(7.373958)	(7.847818)	(14.46309)	(10.7518)	(5.759877)	(18.39896)	(16.03306)	(8.760298)	(10.31971)	(5.464717)	(7.674053)	(17.19849)	(6.458048)	(8.759074)
	0.13	-1.26	-4.28	-1.24	-3.63	-0.84	-0.35	-0.21	-0.57	1.18	-1.11	-2.17	1.34	-0.97	-0.54	-1.26	8.20	-1.46	1.76	-1.91	-3.32
35-49 years																					
	-10.7595	-8.196091	-46.51894***	-26.6151	-33.77969***	-29.7252	-14.54407	-1.163214	-8.324148	10.84197	-36.93797**	-26.4829***	2.123043	-42.30261**	-21.14243**	-14.1366	35.8584***	-21.06401**	28.13492	-8.754596	-35.35869***
	(11.00708)	(12.25825)	(11.34994)	(21.02328)	(9.3223)	(19.34261)	(32.27865)	(8.936611)	(10.35368)	(15.82027)	(18.0181)	(7.986088)	(19.16228)	(19.29754)	(10.4504)	(11.83355)	(7.819594)	(9.402478)	(19.90322)	(11.49106)	(11.01824)
	-0.98	-0.67	-4.10	-1.27	-3.62	-1.54	-0.45	-0.13	-0.80	0.69	-2.05	-3.32	0.11	-2.19	-2.02	-1.19	4.59	-2.24	1.41	-0.76	-3.21
50-64 years																					
	-7.546792	-11.65592	-51.9249***	-34.73257	-37.97537***	-34.11647	-12.4898	-4.958574	-13.89178	.1121528	-31.84211*	-26.44063***	-1.772015	-50.00844**	-30.78606**	-14.3371	50.14493***	-19.79689*	15.07613	-16.68997	-35.01632***
	(11.79387)	(14.62357)	(13.55902)	(25.18284)	(11.41022)	(22.21571)	(33.67693)	(10.8144)	(13.94577)	(17.11605)	(19.11595)	(9.645046)	(20.24445)	(20.8598)	(12.69145)	(13.64379)	(11.07234)	(10.79249)	(27.16084)	(13.99382)	(12.40142)
	-0.64	-0.80	-3.83	-1.38	-3.33	-1.54	-0.37	-0.46	-1.00	0.01	-1.67	-2.74	-0.09	-2.40	-2.43	-1.05	4.53	-1.83	0.56	-1.19	-2.82
65 years and more																					
	-10.61632	-13.26865	-46.92052***	-35.85268	-35.22418***	-36.42362	-4.05787	5.956451	-10.25787	-4.330009	-32.40216	-28.47512**	-.7089696	-63.03723***	-31.81931**	-10.84603	35.41047**	-21.54205*	16.94432	-15.39753	-36.40949***
	(13.32149)	(16.46567)	(16.76605)	(28.44877)	(12.83846)	(24.34932)	(35.30233)	(12.6418)	(16.81121)	(18.74753)	(20.34404)	(13.37872)	(21.70224)	(22.88338)	(14.03404)	(16.42083)	(15.1129)	(12.07721)	(28.38189)	(15.44135)	(13.98307)
	-0.80	-0.81	-2.80	-1.26	-2.74	-1.50	-0.11	0.47	-0.61	-0.23	-1.59	-2.13	-0.03	-2.75	-2.27	-0.66	2.34	-1.78	0.60	-1.00	-2.60
Social-Professional Category																					
Farmer																					
	0	-6.546252	0	0	0	-26.958	-67.38692***	-4.305733	0	-4.03482	0	-7.347372	.8670662	-8.376697	-12.04609	-5.580957	-7.597868	-30.38246**	-15.76508*	8.200439	0
	(0)	(8.343443)	(0)	(0)	(0)	(30.14658)	(19.49152)	(10.93565)	(0)	(8.41981)	(0)	(11.53566)	(11.69719)	(18.09012)	(7.940177)	(7.399432)	(22.26359)	(11.82577)	(8.205323)	(9.388724)	(0)
		-0.78				-0.89	-3.46	-0.39		-0.48		-0.64	0.07	-0.46	-1.52	-0.75	-0.34	-2.57	-1.92	0.87	
Craftsmen-Traders-Contractor																					
	.7924152	-3.836828	.226596	-17.69559	2.287014	-38.94349	-41.79153**	2.429561	-22.75052**	33.38592***	0	5.579165	-10.28845	19.29984	-7.135664	2.854452	-6.129211	6.137837	-19.25434	-19.69845*	-.3438041
	(7.00655)	(12.38637)	(12.07962)	(11.90506)	(7.870721)	(25.5763)	(19.18683)	(10.71339)	(10.56405)	(11.19226)	(0)	(11.22628)	(8.138832)	(19.0027)	(8.078565)	(4.869127)	(14.86629)	(7.101441)	(20.77758)	(10.41569)	(5.387751)
	0.11	-0.31	0.02	-1.49	0.29	-1.52	-2.18	0.23	-2.15	2.98		0.50	-1.26	1.02	-0.88	0.59	-0.41	0.86	-0.93	-1.89	-0.06
Higher professions																					
	-4.873863	-1.89066	-7.250102	-30.73916**	-11.94383	-18.1416*	11.77007*	1.420998	-9.351024	2.293776	10.56347	1.442487	8.932146	11.98183	-12.68465**	-12.03924**	-9.213751	2.838129	-5.837257	-14.52627*	.847945
	(5.18847)	(8.519592)	(9.194371)	(12.8082)	(10.52284)	(10.83728)	(6.064283)	(6.705488)	(10.24927)	(7.928796)	(9.989608)	(6.873551)	(8.02599)	(11.22601)	(5.576219)	(4.815597)	(6.925455)	(5.828457)	(13.01711)	(8.762707)	(4.817694)
	-0.94	-0.22	-0.79	-2.40	-1.14	-1.67	1.94	0.21	-0.91	0.29	1.06	0.21	1.11	1.07	-2.27	-2.50	-1.33	0.49	-0.45	-1.66	0.18
Intermediate occupations																					
	-2.16258	-16.12207***	-5.247862	-18.3092	-12.41024	3.946688	11.88374**	2.559531	-7.807328	-1.457615	-12.66857**	2.978628	-6.29429	2.165986	-11.29906**	-.2671289	6.284347	-.876437	5.321087	-2.212742	-3.618057
	(3.595222)	(4.664581)	(6.223235)	(12.55867)	(10.65152)	(8.772024)	(5.15588)	(5.075277)	(9.597867)	(6.539195)	(6.315216)	(6.121532)	(8.362912)	(6.037052)	(4.40424)	(4.969265)	(7.091816)	(3.262877)	(8.217707)	(5.759163)	(3.687285)
	-0.60	-3.46	-0.84	-1.46	-1.17	0.45	2.30	0.50	-0.81	-0.22	-2.01	0.49	-0.75	0.36	-2.57	-0.05	0.89	-0.27	0.65	-0.38	-0.98
Employee																					
	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Skilled worker																					
	-6.432094	-11.71867	-1.591327	-2.266942	-10.95913	19.94348**	-8.308587	-3.519326	-3.689217	17.91659*	-4.066537	-2.244207	3.90762	-3.013404	6.709569	-11.59512	-9.223142	-8.682143*	2.82524	4.968483	3.354145
	(6.631798)	(8.282562)	(6.052385)	(17.32146)	(7.852012)	(9.171921)	(8.41211)	(8.465603)	(9.362239)	(9.762763)	(6.187529)	(12.397)	(8.941686)	(9.271252)	(6.962201)	(9.237779)	(11.40348)	(5.136858)	(8.917547)	(8.393451)	(6.767454)
	-0.97	-1.41	-0.26	-0.13	-1.40	2.17	-0.99	-0.42	-0.39	1.84	-0.66	-0.18	0.44	-0.33	0.96	-1.26	-0.81	-1.69	0.32	0.59	0.50
Unskilled worker																					
	.0478555	-1.897788	-6.079834	-1.736179	7.341847	16.75694	-14.35351	-10.52103	-8.45349	-14.55206	-12.20574	-13.30778	-12.49095	8.670782	11.4595*	-3.557046	-29.93788	-3.87833	-6.021287	-.8633887	-3.576202
	(6.757935)	(8.542707)	(7.305682)	(22.52776)	(10.12132)	(10.5588)	(9.724644)	(10.78539)	(23.51202)	(13.49454)	(7.854621)	(12.58803)	(8.371959)	(9.901624)	(5.917102)	(7.195352)	(19.42769)	(5.91311)	(5.920774)	(9.877207)	(6.344895)
	0.01	-0.22	-0.83	-0.08	0.73	1.59	-1.48	-0.98	-0.36	-1.08	-1.55	-1.06	-1.49	0.88	1.94	-0.49	-1.54	-0.66	-1.02	-0.09	-0.56
Pensioner																					
	-1.834389	-39.39354***	3.579422	-29.24454*	19.38409**	37.32472***	-23.31287	-24.00645	30.14686	11.29219	-2.175541	-31.95092*	5.275204	31.92131**	-1.105087	27.18531**	-3.755438	-1.661567	-100.6849***	56.14033**	-5.200031
	(9.266949)	(11.8595)	(9.615466)	(17.21505)	(8.44947)	(12.81846)	(21.9338)	(17.80046)	(31.09956)	(16.33183)	(9.934913)	(16.66578)	(11.82907)	(14.10639)	(13.44983)	(13.38731)	(6.755363)	(8.901827)	(27.74631)	(23.55752)	(14.87565)
	-0.20	-3.32	0.37	-1.70	2.29	2.91	-1.06	-1.35	0.97	0.69	-0.22	-1.92	0.45	2.26	-0.08	2.03	-0.56	-0.19	-3.63	2.38	-0.35
Student																					
	5.113453	-16.80576	4.318201	-39.20931*	.3283732	42.46008***	14.41699	-23.82875**	25.84623	-9.5529	1.843915	-11.71961	-17.11903*	21.64579	-15.36731	20.4451	-31.00541*	-5.470023	-40.09881	46.11016*	-43.20043
	(9.828579)	(13.85818)	(13.17199)	(21.58281)	(10.45473)	(14.17766)	(14.57926)	(9.9581)	(25.70177)	(17.14986)	(20.60799)	(18.88498)	(9.293907)	(14.96211)	(14.31259)	(14.75572)	(16.89606)	(8.254291)	(28.90304)	(24.83736)	(29.68003)
	0.52	-1.21	0.33	-1.82	0.03	2.99	0.99	-2.39	1.01	-0.56	0.09	-0.62	-1.84	1.45	-1.07	1.39	-1.84	-0.66	-1.39	1.86	-1.46
Other inactive																					
	-22.83247**	-11.01694	17.61905*	-42.23911**	13.32238*	8.302361	37.84835***	-16.24337	3.143486	-2.685826	.6818126	-15.88358	4.03932	25.35087*	-4.742295	33.96418***	0	7.685257	-29.35988	49.84744**	-2.790619
	(9.083913)	(10.32018)	(9.436947)	(18.90766)	(7.404117)	(10.72934)	(13.0204)	(11.65202)	(26.9511)	(15.09598)	(13.60605)	(16.92266)	(10.18128)	(13.77054)	(13.04572)	(12.52185)	(0)	(7.554754)	(24.89176)	(23.48151)	(14.70411)
	-2.51	-1.07	1.87	-2.23	1.80	0.77	2.91	-1.39	0.12	-0.18	0.05	-0.94	0.40	1.84	-0.36	2.71		1.02	-1.18	2.12	-0.19

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

TABLE B.8 – Continued (2) : By regions : Control variables - Time spent watching program from free public channel

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)
	(IDF)	(C-A)	(PIC)	(H-N)	(CEN)	(B-N)	(BOU)	(N-P-C)	(LOR)	(ALS)	(F-C)	(P-D-L)	(BRE)	(P-C)	(AQU)	(M-P)	(LIM)	(R-A)	(AUV)	(L-R)	(PACA)
Average weekly working time																					
Unemployed person who has already worked																					
	6.113983	-9.95088	5.072808	10.99481	-1.83938	-13.66255**	10.10648	-2.21404	-10.35663	-8.041247	26.00256**	1.426271	-7.233429	-.1185224	2.189525	7.341099	-12.95774*	19.74047**	-14.91693	4.889881	21.90562***
	(4.194571)	(7.804703)	(13.03451)	(15.53621)	(6.213589)	(6.703164)	(7.352711)	(6.803001)	(11.55306)	(8.527939)	(10.6702)	(6.218481)	(8.876885)	(5.759487)	(4.752977)	(5.462819)	(7.447968)	(8.255486)	(10.16885)	(5.02811)	(7.667391)
	1.46	-1.27	0.39	0.71	-0.30	-2.04	1.37	-0.33	-0.90	-0.94	2.44	0.23	-0.81	-0.02	0.46	1.34	-1.74	2.39	-1.47	0.97	2.86
People looking for a first job																					
	30.27752***	-33.90137***	-46.9531	67.54038**	-28.40464**	0	-76.33849***	15.40455	-249.4784***	26.67883	15.00998	18.20246	5.725098	-34.38077*	-52.92725	9.862954	78.42179***	-13.59002	15.98827	-35.49998	-70.4538***
	(10.24977)	(12.73081)	(37.19096)	(31.72051)	(11.94915)	(0)	(15.97904)	(14.8699)	(25.91004)	(17.29276)	(27.43594)	(23.37933)	(12.16267)	(17.5681)	(35.00006)	(20.67386)	(15.65884)	(17.86472)	(28.53753)	(26.04457)	(22.61306)
	2.95	-2.66	-1.26	2.13	-2.38		-4.78	1.04	-9.63	1.54	0.55	0.78	0.47	-1.96	-1.51	0.48	5.01	-0.76	0.56	-1.36	-3.12
Full-time worker																					
	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Part-time worker : 0-9h59 per week																					
	-24.10579**	-48.94959***	4.283863	-33.2367***	-24.07725***	-12.86777	.4496076	-3.167232	-33.11601	2.976727	-10.50306*	21.43393	-11.34836	-9.243464	5.243711	23.42292		14.60701**	7.071335	.3096679	1.920756
	(11.57247)	(6.529043)	(10.84406)	(8.878997)	(4.896923)	(7.81651)	(8.929404)	(19.19302)	(25.2774)	(9.976469)	(6.370997)	(13.7891)	(12.77582)	(7.498051)	(8.191023)	(20.48608)		(7.337633)	(12.42293)	(11.92035)	(5.681883)
	-2.08	-7.50	0.40	-3.74	-4.92	-1.65	0.05	-0.17	-1.31	0.30	-1.65	1.55	-0.89	-1.23	0.64	1.14		1.99	0.57	0.03	0.34
Part-time worker : 10h-19h59 per week																					
	-25.65108*	-.8104347	23.49047**	-20.50457	-14.28251**	12.14556	-5.160656	4.468392	-34.34956***	20.20986*	3.725174	-6.762962	8.698288	10.86903*	8.72941	3.103864	-29.99209**	-5.717616	-11.36966	8.680541	-2.507696
	(14.68301)	(7.838563)	(10.27115)	(18.15888)	(6.758242)	(9.380363)	(8.74077)	(8.407174)	(13.03303)	(10.34357)	(11.6206)	(6.318666)	(7.413129)	(6.178752)	(6.347408)	(8.317099)	(14.71137)	(7.206018)	(7.692295)	(16.68054)	(5.392671)
	-1.75	-0.10	2.29	-1.13	-2.11	1.29	-0.59	0.53	-2.64	1.95	0.32	-1.07	1.17	1.76	1.38	0.37	-2.04	-0.79	-1.48	0.52	-0.47
Part-time worker : 20h-29h59 per week																					
	-8.064068	5.37573	4.627167	20.13348	-2.902964	-10.31112	9.357208	-10.49058	-32.61641***	-11.7501**	-18.6799**	-6.76997	1.512101	-.3862813	-5.685317	-.9881665	1.865516	-.0832357	4.404915	6.051911	1.092346
	(5.027882)	(9.225158)	(7.470821)	(21.31367)	(5.823267)	(8.099466)	(7.644345)	(6.990511)	(12.23489)	(5.935548)	(8.552459)	(4.748479)	(6.862954)	(4.641589)	(6.449622)	(4.145586)	(4.494481)	(6.591455)	(11.48564)	(7.581889)	(5.128971)
	-1.60	0.58	0.62	0.94	-0.50	-1.27	1.22	-1.50	-2.67	-1.98	-2.18	-1.43	0.22	-0.08	-0.88	-0.24	0.42	-0.01	0.38	0.80	0.21
Part-time worker : 30h-34h59 per week																					
	1.00151	1.086723	7.183547	-22.04494*	-5.213229	24.9388*	-4.05513	-9.736404	24.96482	-4.7041	-18.11326***	-11.01985	3.218548	.8557812	1.74219	8.683776	-8.279221	3.243841	-22.00338	1.970155	-1.705331
	(5.266274)	(5.490602)	(7.980911)	(12.7068)	(4.536035)	(14.40963)	(5.41763)	(6.888108)	(16.94101)	(8.51036)	(6.2004)	(10.22859)	(9.231691)	(4.325607)	(6.087385)	(6.311068)	(7.815113)	(6.533003)	(19.20645)	(8.023006)	(3.515273)
	0.19	0.20	0.90	-1.73	-1.15	1.73	-0.75	-1.41	1.47	-0.55	-2.92	-1.08	0.35	0.20	0.29	1.38	-1.06	0.50	-1.15	0.25	-0.49
Other inactive																					
	5.044975	4.630377	-1.488687	19.80201	-9.044217	-16.76637*	-3.932826	26.93151***	-24.11489	-1.5033	1.946221	14.11174	6.210895	-20.51259*	6.72976	-16.47327*	-19.51555	7.867711	58.55931***	-53.61323**	10.45138
	(7.141196)	(10.64891)	(9.449287)	(13.88154)	(6.111352)	(9.470061)	(12.15101)	(7.367628)	(24.17844)	(13.37284)	(6.053488)	(13.23291)	(4.312173)	(12.26542)	(11.44642)	(9.287679)	(12.89153)	(5.609013)	(16.02367)	(23.30342)	(13.34251)
	0.71	0.43	-0.16	1.43	-1.48	-1.77	-0.32	3.66	-1.00	-0.11	0.32	1.07	1.44	-1.67	0.59	-1.77	-1.51	1.40	3.65	-2.30	0.78
Gross monthly household income																					
Less than 600 euros																					
	6.454713	-70.35653***	-20.59156**	14.79557	-6.428653	-.1417332	15.71928	-2.62194	-16.95908	42.58057***	7.035404	23.15836	-8.047793	-41.50438	-10.55348*	-17.41388***	-7.488447	14.39068***	-18.81578	3.569355	-25.43858**
	(16.28315)	(5.415777)	(9.776491)	(14.12743)	(14.61621)	(12.78882)	(19.63803)	(14.53621)	(10.38229)	(7.088307)	(10.18242)	(17.5082)	(10.6648)	(43.92009)	(5.886922)	(5.515657)	(12.46104)	(5.280308)	(13.13942)	(5.420332)	(12.75129)
	0.40	-12.99	-2.11	1.05	-0.44	-0.01	0.80	-0.18	-1.63	6.01	0.69	1.32	-0.75	-0.94	-1.79	-3.16	-0.60	2.73	-1.43	0.66	-1.99
From 600 to 900 euros																					
	-.6566803	-14.53593*	-13.74557	10.05227	-5.492181	-18.34002	16.12715	-18.39511	-.527629	-8.013394	-19.13757*	13.2219	-9.215001	4.855027	.7547562	1.610134	-4.849606	-.7897934	10.0309	20.65403***	-5.600741
	(7.814986)	(8.058091)	(15.82087)	(14.78901)	(11.51749)	(13.73056)	(13.89765)	(11.59083)	(5.192061)	(5.9589)	(10.31479)	(11.65805)	(6.524228)	(8.238527)	(7.370704)	(4.945751)	(13.52834)	(5.667093)	(11.41039)	(6.07486)	(8.718451)
	-0.08	-1.80	-0.87	0.68	-0.48	-1.34	1.16	-1.59	-0.10	-1.34	-1.86	1.13	-1.41	0.59	0.10	0.33	-0.36	-0.14	0.88	3.40	-0.64
From 900 to 1200 euros																					
	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
From 1200 to 1500 euros																					
	13.05922*	1.355284	-6.157959	-2.897735	-4.335081	5.918823	4.307836	-.8301707	5.424565	-8.220248	-8.845081	-15.98405**	10.22146**	6.420668**	-8.90752**	-5.286725	-10.6195***	2.000623	2.581965	-2.22662	.3899473
	(6.72313)	(5.781301)	(8.829181)	(9.004798)	(8.840723)	(7.05766)	(6.713769)	(8.146602)	(7.699159)	(5.974922)	(5.745895)	(6.822267)	(5.050723)	(2.633826)	(3.455336)	(4.834963)	(3.867664)	(5.302905)	(6.228047)	(4.165922)	(6.025626)
	1.94	0.23	-0.70	-0.32	-0.49	0.84	0.64	-0.10	0.70	-1.38	-1.54	-2.34	2.02	2.44	-2.58	-1.09	-2.75	0.38	0.41	-0.53	0.06
From 1500 to 2300 euros																					
	6.894301	5.069269	-2.764918	-24.13788**	-3.920301	4.649798	.1680111	-3.458176	8.695298	-8.45294	2.636649	-7.186251	4.621189	8.568105***	-8.539486***	-2.49361	-15.09813**	2.396768	.5285474	.7937716	-3.742108
	(6.2088)	(6.483763)	(8.080201)	(10.14268)	(7.466553)	(8.928282)	(7.04057)	(8.477319)	(7.60403)	(6.982967)	(6.26277)	(6.171769)	(6.34268)	(3.272443)	(2.94517)	(5.288846)	(6.092794)	(5.947707)	(7.225913)	(4.668512)	(5.633689)
	1.11	0.78	-0.34	-2.38	-0.53	0.52	0.02	-0.41	1.14	-1.21	0.42	-1.16	0.73	2.62	-2.90	-0.47	-2.48	0.40	0.07	0.17	-0.66
From 2300 to 3000 euros																					
	4.718671	4.727948	1.053781	-18.79196*	-1.48096	3.169553	2.873202	-3.15065	8.213139	-13.26791	8.789392	-9.145985	1.656525	9.831826**	-4.307821	2.952259	-10.33456*	1.653582	6.011733	3.743127	-4.581041
	(6.524606)	(7.397284)	(8.481256)	(10.7606)	(8.21716)	(9.383455)	(6.161789)	(8.906737)	(7.233042)	(9.175927)	(6.022015)	(6.433293)	(5.922483)	(4.524558)	(4.722918)	(5.563432)	(6.260799)	(6.054089)	(9.888471)	(5.398612)	(5.833594)
	0.72	0.64	0.12	-1.75	-0.18	0.34	0.47	-0.35	1.14	-1.45	1.46	-1.42	0.28	2.17	-0.91	0.53	-1.65	0.27	0.61	0.69	-0.79
From 3000 to 4500 euros																					
	2.059925	2.706621	-3.47013	-15.40252	.531726	-13.57686	.8277366	-6.530572	8.568013	-19.31929**	7.717561	-1.702026	4.147425	15.01643***	-3.135468	-1.731787	-7.466329	1.974905	.5302136	.4193843	-6.550076
	(6.711355)	(7.311788)	(8.673602)	(11.68305)	(10.24681)	(10.69037)	(6.806731)	(8.976545)	(7.717317)	(7.748607)	(6.084417)	(6.783656)	(5.940314)	(4.896998)	(5.180244)	(5.734671)	(7.684086)	(5.880375)	(8.959241)	(5.867369)	(5.928121)
	0.31	0.37	-0.40	-1.32	0.05	-1.27	0.12	-0.73	1.11	-2.49	1.27	-0.25	0.70	3.07	-0.61	-0.30	-0.97	0.34	0.06	0.07	-1.10
From 4500 to 7000 euros																					
	.6516074	-1.189325	3.344587	-13.23837	-1.419031	-7.122673	5.211049	-2.100706	3.049795	-18.86681**	6.956338	6.151622	3.066837	5.570421	1.735837	-1.631933	-6.638284	3.138403	4.213029	-4.192875	-12.25975*
	(6.855081)	(7.761101)	(10.03714)	(12.28695)	(10.12956)	(11.35176)	(8.284163)	(9.239645)	(8.495117)	(8.261297)	(7.575212)	(8.775054)	(7.421762)	(7.834958)	(5.75701)	(6.748036)	(9.175351)	(6.441341)	(8.988233)	(6.996696)	(6.604955)
	0.10	-0.15	0.33	-1.08	-0.14	-0.63	0.63	-0.23	0.36	-2.28	0.92	0.70	0.41	0.71	0.30	-0.24	-0.72	0.49	0.47	-0.60	-1.86
More than 7000 euros																					
	-1.589631	-11.5387	38.38677***	-11.88556	5.64261	1.575484	6.779383	-10.68662	-5.368712	-25.94467***	59.05525***	-4.874273	10.63969	17.87956	-9.604279	-11.7657	-18.95818*	1.229907	-9.095632	-6.092445	-9.188919
	(7.59911)	(9.940501)	(10.69666)	(12.85952)	(11.1735)	(10.61126)	(8.991352)	(10.93147)	(10.67333)	(8.29273)	(22.22161)	(9.656136)	(6.720926)	(10.99938)	(9.150581)	(8.826312)	(10.21048)	(7.70844)	(12.28607)	(14.62687)	(7.852714)
	-0.21	-1.16	3.59	-0.92	0.50	0.15	0.75	-0.98	-0.50	-3.13	2.66	-0.50	1.58	1.63	-1.05	-1.33	-1.86	0.16	-0.74	-0.42	-1.17

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

TABLE B.8 – Continued (3) : By regions : Control variables - Time spent watching program from free public channel

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)
	(IDF)	(C-A)	(PIC)	(H-N)	(CEN)	(B-N)	(BOU)	(N-P-C)	(LOR)	(ALS)	(F-C)	(P-D-L)	(BRE)	(P-C)	(AQU)	(M-P)	(LIM)	(R-A)	(AUV)	(L-R)	(PACA)
Internet connection mode																					
No Internet acces	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Cable	-2.077169	10.59378	2.749128	6.035891	-13.96647**	-17.02694	-18.25786**	-7.039525	5.063579	-2.919234	-23.07031**	-2.254239	-11.66512	2.44143	-3.104403	1.378716	9.979765	8.040865	-27.34213***	-24.27344**	4.644641
	(6.910044)	(13.66688)	(7.648769)	(9.032275)	(6.95786)	(10.66112)	(7.204967)	(4.317221)	(16.84498)	(4.748818)	(10.15835)	(9.297847)	(9.206034)	(7.370056)	(4.033607)	(9.529515)	(13.89001)	(5.786788)	(6.69133)	(9.450207)	(6.063763)
	-0.30	0.78	0.36	0.67	-2.01	-1.60	-2.53	-1.63	0.30	-0.61	-2.27	-0.24	-1.27	0.33	-0.77	0.14	0.72	1.39	-4.09	-2.57	0.77
ADSL	-4.283272	-1.212493	9.960179**	4.888716	-1.539825	-3.076269	-9.98347**	-12.20039***	1.79725	-6.686669*	-7.455326	-7.953403	1.213707	3.468485	-6.287203	-2.864043	-1.796594	6.819255	2.6237	-2.3091	3.778557
	(4.362067)	(8.210594)	(4.004131)	(5.161358)	(4.502322)	(6.512947)	(4.430843)	(4.160066)	(7.760993)	(4.04217)	(6.458614)	(6.275812)	(4.701043)	(6.855681)	(4.270834)	(6.537186)	(9.582424)	(4.377853)	(4.619128)	(5.490206)	(5.290561)
	-0.98	-0.15	2.49	0.95	-0.34	-0.47	-2.25	-2.93	0.23	-1.65	-1.15	-1.27	0.26	0.51	-1.47	-0.44	-0.19	1.56	0.57	-0.42	0.71
Fiber optics	-2.021264	-2.293799	-15.13412*	-4.606963	-11.70457	-33.16331***	-21.71544**	-7.349364	-8.438184	-10.40191	-9.205761	-15.5113*	-11.86978*	-.3797525	-7.947177	11.4208	39.03716***	5.993543	12.10597	-5.415406	16.97397***
	(6.707002)	(14.13757)	(7.929467)	(9.337735)	(9.505413)	(8.299407)	(9.451539)	(7.768024)	(10.42833)	(11.56812)	(6.154148)	(8.437004)	(6.192639)	(11.51858)	(7.88365)	(16.82921)	(7.443584)	(7.928031)	(17.27753)	(8.166265)	(6.159513)
	-0.30	-0.16	-1.91	-0.49	-1.23	-4.00	-2.30	-0.95	-0.81	-0.90	-1.50	-1.84	-1.92	-0.03	-1.01	0.68	5.24	0.76	0.70	-0.66	2.76
Other	-8.248815**	14.48652	2.095538	3.419822	1.209845	-3.022944	-7.374328	-13.01886**	-4.267526	5.733063	-19.97599**	-14.60818	.5944976	.8720898	-2.574118	-15.94084**	23.21151**	6.027262	11.05828	-2.4836	-9.609173
	(4.18236)	(13.55705)	(3.950411)	(7.604835)	(5.192679)	(9.800455)	(4.780234)	(5.924376)	(7.403262)	(5.818865)	(8.437711)	(10.70394)	(4.535334)	(6.646399)	(6.162006)	(7.975254)	(9.924106)	(5.121826)	(11.78418)	(13.10736)	(7.97913)
	-1.97	1.07	0.53	0.45	0.23	-0.31	-1.54	-2.20	-0.58	0.99	-2.37	-1.36	0.13	0.13	-0.42	-2.00	2.34	1.18	0.94	-0.19	-1.20
Intercept	146.8553***	153.5325***	156.2603***	208.1304***	168.5767***	187.5896***	153.7961***	141.0138***	139.2308***	132.3267***	168.5427***	191.3103***	128.9024***	173.9757***	177.3071***	155.5101***	116.9926***	154.9612***	140.1376***	161.519***	180.0644***
	(14.26709)	(16.48756)	(16.08225)	(25.87039)	(12.69816)	(21.56003)	(34.00579)	(15.60188)	(20.69628)	(19.15155)	(19.39026)	(12.79156)	(19.53383)	(20.65621)	(13.55892)	(15.9022)	(19.0367)	(11.12375)	(31.32383)	(16.24651)	(14.37602)
	10.29	9.31	9.72	8.05	13.28	8.70	4.52	9.04	6.73	6.91	8.69	14.96	6.60	8.42	13.08	9.78	6.15	13.93	4.47	9.94	12.53
Number of observations	377,964	97,431	97,261	109,225	233,945	88,848	114,649	214,992	112,185	130,689	74,708	210,408	192,591	138,002	213,798	187,149	51,065	285,908	87,372	165,065	284,612
Number of groups	2,656	512	731	616	1,196	480	586	1,302	722	721	449	1,260	1,059	655	1,129	945	270	1,820	511	748	1,399
R-squared for overall model : R^2_O	0.27	0.12	0.11	0.23	0.26	0.23	0.23	0.27	0.25	0.20	0.14	0.20	0.31	0.21	0.21	0.29	0.13	0.27	0.09	0.25	0.32
R-squared for between model : R^2_B	0.34	0.09	0.01	0.23	0.35	0.03	0.17	0.53	0.42	0.37	0.07	0.05	0.54	0.03	0.24	0.59	0.19	0.47	0.07	0.39	0.60
R-squared for within model : R^2_W	0.06	0.06	0.07	0.08	0.07	0.06	0.09	0.06	0.07	0.07	0.08	0.06	0.06	0.07	0.07	0.07	0.07	0.06	0.08	0.08	0.07
Panel-level standard deviation : σ_u	64.14	63.37	65.77	66.63	59.75	78.12	60.02	51.85	62.81	53.71	64.85	75.11	59.52	79.76	68.77	61.05	56.06	58.48	73.12	63.31	60.16
Standard deviation of ϵ_{it} : σ_e	94.89	89.00	86.53	96.69	91.77	98.76	89.55	91.26	96.60	89.19	91.08	94.80	88.92	93.72	94.72	93.32	85.66	92.10	96.57	93.16	95.60
Intraclass correlation : ρ	0.31	0.34	0.37	0.32	0.30	0.38	0.31	0.24	0.30	0.27	0.34	0.39	0.31	0.42	0.35	0.30	0.30	0.29	0.36	0.32	0.28

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

TABLE B.8 – Continued (4) : By regions : Control variables - Time spent watching program from public private channel

Bibliographie

Aguiar, Mark et Erik Hurst (2007). "Measuring trends in leisure : The allocation of time over five decades". In : *The Quarterly Journal of Economics* 122.3, p. 969-1006.

Anand, Bharat N et Ron Shachar (2011). "Advertising, the matchmaker". In : *The RAND Journal of Economics* 42.2, p. 205-245.

Anderson, Simon P et Stephen Coate (2005). "Market provision of broadcasting : A welfare analysis". In : *The Review of Economic Studies* 72.4, p. 947-972.

Armstrong, Mark (2006). "Competition in two-sided markets". In : *The RAND Journal of Economics* 37.3, p. 668-691.

Balle, Francis (2019). *Médias et sociétés : édition, presse, cinéma, internet, télévision, radio*. LGDJ Lextenso éditions.

Barnett, George A et al. (1991). "Seasonality in television viewing : A mathematical model of cultural processes". In : *Communication Research* 18.6, p. 755-772.

Becker, Gary S (1965). "A Theory of the Allocation of Time". In : *The Economic Journal* 75.299, p. 493-517.

Belo, Rodrigo et al. (2019). "The impact of time shifting on TV consumption and ad viewership". In : *Management Science* 65.7, p. 3216-3234.

Biørn, Erik (1981). "Estimating economic relations from incomplete cross-section/time-series data". In : *Journal of Econometrics* 16.2, p. 221-236.

Bruni, Luigino et Luca Stanca (2008). "Watching alone : Relational goods, television and happiness". In : *Journal of Economic Behavior & Organization* 65.3-4, p. 506-528.

Bryant, W Keith et Jennifer L Gerner (1981). "Television use by adults and children : A multivariate analysis". In : *Journal of Consumer Research* 8.2, p. 154-161.

Chamberlin, Edward (1933). "Monopolistic competition and Pareto optimality". In : *Journal Of Business & Economics Research*, p. 17-28.

Chatterjee, Prabirendra et Bo Zhou (2021). "Sponsored content advertising in a two-sided market". In : *Management Science*.

Chenavaz, Régis, Octavio Escobar et Xavier Rousset (2019). "An analytical framework for retailer price and advertising decisions for products with temperature-sensitive demand". In : *Applied Economics* 51.52, p. 5683-5693.

Crampes, Claude, Carole Haritchabalet et Bruno Jullien (2009). "Advertising, competition and entry in media industries". In : *The Journal of Industrial Economics* 57.1, p. 7-31.

Crawford, Gregory S et Ali Yurukoglu (2012). "The welfare effects of bundling in multichannel television markets". In : *American Economic Review* 102.2, p. 643-85.
Danaher, Peter J (1995). "What happens to television ratings during commercial breaks ?" In : *Journal of Advertising Research* 35.1, p. 37-37.
Dynan, Karen E (2000). "Habit formation in consumer preferences : Evidence from panel data". In : *American Economic Review* 90.3, p. 391-406.
Eisinga, Rob, Philip Hans Franses et Maurice Vergeer (2011). "Weather conditions and daily television use in the Netherlands, 1996–2005". In : *International Journal of Biometeorology* 55.4, p. 555-564.
Filistrucchi, Lapo et al. (2014). "Market definition in two-sided markets : Theory and practice". In : *Journal of Competition Law & Economics* 10.2, p. 293-339.
Frey, Bruno S et Christine Benesch (2008). "TV, time, and happiness". In : *Homo Oeconomicus* 25.3/4, p. 413-424.
Gabszewicz, Jean J, Dider Laussel et Nathalie Sonnac (2001). "Press advertising and the ascent of the 'Pensée Unique'". In : *European Economic Review* 45.4-6, p. 641-651.
Gabszewicz, Jean J, Didier Laussel et Nathalie Sonnac (2004). "Programming and advertising competition in the broadcasting industry". In : *Journal of Economics & Management Strategy* 13.4, p. 657-669.
Gal-Or, Esther et Anthony Dukes (2003). "Minimum differentiation in commercial media markets". In : *Journal of Economics & Management Strategy* 12.3, p. 291-325.
Gronau, Reuben (1977). "Leisure, home production, and work–the theory of the allocation of time revisited". In : *Journal of Political Economy* 85.6, p. 1099-1123.
Izquierdo Sanchez, Sofia, Caroline Elliott et Robert Simmons (2016). "Substitution between leisure activities : A quasi-natural experiment using sports viewing and cinema attendance". In : *Applied Economics* 48.40, p. 3848-3860.
Kaiser, Ulrich et Minjae Song (2009). "Do media consumers really dislike advertising ? An empirical assessment of the role of advertising in print media markets". In : *International Journal of Industrial Organization* 27.2, p. 292-301.
Kind, Hans Jarle, Tore Nilssen et Lars Sørgard (2009). "Business models for media firms : Does competition matter for how they raise revenue ?" In : *Marketing Science* 28.6, p. 1112-1128.
Lancaster, Kelvin J (1966). "A new approach to consumer theory". In : *Journal of Political Economy* 74.2, p. 132-157.
Lee, Dokyun, Kartik Hosanagar et Harikesh S Nair (2018). "Advertising content and consumer engagement on social media : Evidence from Facebook". In : *Management Science* 64.11, p. 5105-5131.
Lehmann, Donald R (1971). "Television show preference : Application of a choice model". In : *Journal of Marketing Research* 8.1, p. 47-55.
Liebowitz, Stan J et Alejandro Zentner (2012). "Clash of the titans : does Internet use reduce television viewing ?" In : *Review of Economics and Statistics* 94.1, p. 234-245.

Moriarty, Sandra E et Shu-Ling Everett (1994). "Commercial breaks : A viewing behavior study". In : *Journalism Quarterly* 71.2, p. 346-355.

Moshkin, Nickolay V et Ron Shachar (2002). "The asymmetric information model of state dependence". In : *Marketing Science* 21.4, p. 435-454.

Peitz, Martin et Tommaso M Valletti (2008). "Content and advertising in the media : Pay-tv versus free-to-air". In : *International Journal of Industrial Organization* 26.4, p. 949-965.

Roe, Keith et Heidi Vandebosch (1996). "Weather to view or not : That is the question". In : *European Journal of Communication* 11.2, p. 201-216.

Rust, Roland T et Mark I Alpert (1984). "An audience flow model of television viewing choice". In : *Marketing Science* 3.2, p. 113-124.

Shachar, Ron et John W Emerson (2000). "Cast demographics, unobserved segments, and heterogeneous switching costs in a television viewing choice model". In : *Journal of Marketing Research* 37.2, p. 173-186.

Stigler, George J et Gary S Becker (1977). "De gustibus non est disputandum". In : *The American Economic Review* 67.2, p. 76-90.

Stock, James H, Mark W Watson et al. (2012). *Introduction to Econometrics*. T. 3. Pearson New York.

Tassi, Philippe (2005). *Modèles statistiques de la mesure d'audience des médias audiovisuels*. Economica.

— (2014). "Les médias, la publicité et les mesures d'audience". In : 3, p. 33-39.

— (2021). *Les médias et leurs fonctions : Du Paléolithique au numérique*. Éditions EMS.

Torres-Reyna, Oscar (2007). "Panel data analysis fixed and random effects using Stata (v. 4.2)". In : *Data & Statistical Services, Priceton University* 112.

Van Reeth, Daam (2013). "Television demand for the Tour de France : The importance of outcome uncertainty, patriotism and doping". In : *International Journal of Sport Finance* 8, p. 39-60.

Wilbur, Kenneth C (2008). "A two-sided, empirical model of television advertising and viewing markets". In : *Marketing Science* 27.3, p. 356-378.

Yang, Sha, Vishal Narayan et Henry Assael (2006). "Estimating the interdependence of television program viewership between spouses : A Bayesian simultaneous equation model". In : *Marketing Science* 25.4, p. 336-349.

Yang, Sha, Yi Zhao et al. (2010). "Modeling the intrahousehold behavioral interaction". In : *Journal of Marketing Research* 47.3, p. 470-484.

Zhou, Wen (2004). "The choice of commercial breaks in television programs : the number, length and timing". In : *The Journal of Industrial Economics* 52.3, p. 315-326.

Résumé. Audience de la télévision et performances publicitaires : impacts de la météorologie, de la régulation et des interactions familiales : L'objectif de cette thèse est d'aider les acteurs de la télévision à mieux comprendre le comportement des téléspectateurs, en étudiant l'impact du contexte sur les audiences, et donc sur les performances publicitaires. Ce contexte peut correspondre aux interactions familiales, à la météorologie, à la préférence des téléspectateurs pour la publicité ou l'utilisation d'un média, à la régulation. Cette thèse combine des modèles théoriques et des estimations statistiques ou économétriques en s'appuyant sur une base de données de 26 millions d'observations quotidiennes provenant du panel de Médiamétrie (24 334 panélistes) ainsi que des données de la société Météo France sur la période 2011-2019. Elle explore trois dimensions du contexte susceptibles d'avoir un effet sur l'audience, et donc sur les performances publicitaires. Après un premier chapitre qui présente un résumé de l'Histoire de la télévision en France, le deuxième chapitre s'intéresse à la modélisation économique des interactions familiales dans le cadre de l'audience conjointe chez les couples de téléspectateurs. Le choix de regarder seul ou à deux la télévision dépend du niveau du capital humain de chaque membre de la famille. Le troisième chapitre analyse l'effet des variables météorologiques sur la durée quotidienne que consacrent les individus à regarder la télévision à domicile en France métropolitaine. A conditions météorologiques identiques, la préférence pour l'utilisation de la télévision n'est pas la même selon les régions françaises. Le quatrième chapitre généralise à l'ensemble des médias les résultats obtenus sur les chapitres précédents relatifs à la télévision, et propose un modèle théorique sur le fonctionnement général des médias multifaces où le régulateur, les diffuseurs, les producteurs/annonceurs et les utilisateurs de médias interagissent. Contrairement aux hypothèses habituelles faites dans la littérature, les téléspectateurs peuvent avoir une appétence pour la publicité.

Descripteurs : Télévision, Conditions Météorologiques, Interactions familiales, Média, Publicité, Préférences Publicitaires, Régulation

Abstract. Television audience and advertising performance : impacts of weather, regulation and family interactions : This thesis helps better understand the TV-viewers' behaviors. This is important for television players (channels, agencies, advertisers) to know the impact of context on audiences and advertising performances. For instance, this context can correspond to family interactions, weather conditions, viewers' preference for advertising, for using a media or simply regulation. For this purpose, this thesis combines theoretical models and statistical or econometric estimations using a database of 26 million daily observations from the Médiamétrie's panel (24,334 panelists) as well as data from the company Météo France over the period 2011-2019. After a first chapter that presents a summary of the history of television in France, the second chapter focuses on the economic modeling of family interactions in the context of joint viewing among TV couples. The choice of watching television alone or together depends on the level of human capital of each family member. The theoretical model replicates the empirical results. The third chapter analyzes the effect of weather variables on the daily time spent watching television at home in France. With identical weather conditions, the preference for watching television is not the same in different regions of France. The fourth chapter generalizes to all media the results obtained in the previous chapters on television, and proposes a theoretical model on the general functioning of multi-sided media where the regulator, broadcasters, producers/advertisers and media users interact. Contrary to the literature, it is shown that viewers have a liking for advertising. Since this liking is unobservable, this thesis suggests using weather to highlight its relative effects.

Keywords : Television, Weather Conditions, Family Interactions, Media, Advertising, Preference for Advertising, Regulation