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PROFESSIONAL MOBILITY AND COMPANY CAR OWNERSHIP

"PROMOCO"

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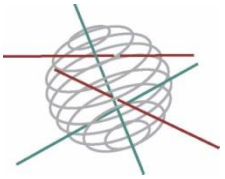

Transport and Mobility

FINAL REPORT

SUMMARY

PROFESSIONAL MOBILITY AND COMPANY CAR OWNERSHIP

"PROMOCO"

SD/TM/06A

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E. Cornelis, M. Castaigne, X. Pauly, A. De Witte, K. Ramaekers. ***Professional mobility and company car ownership "Promoco"***. Final Report Summary. Brussels : Belgian Science Policy 2009 – 7 p. (Research Programme Science for a Sustainable Development)

The PROMOCO project aimed to analyse the impact of company cars on mobility with focus on the analysis of the behaviours that are induced in households in which company cars are available. A second issue which has been investigated is the description of the relations between workplace accessibility and company cars availability. In the framework of this research, by company car we only meant *vehicle whose initial cost is supported by the employer, which is awarded to an employee for his personal, professional and/or private trips, and which can be used by the employee without the authorization of his employer*.

This report begins with a contextualisation of the thematic where it is reminded that more and more companies make companies cars available for the employees. One of the explanations of this phenomenon can be found in the specific legislation existing in Belgium about company cars. The COCA project gave a whole information about this legislation, and we come back on the main issues, on one hand, from the point of view of the employee, and on the other hand, from the point of view of the employer.

To reach our objectives (first determining whether company car availability induces specific mobility patterns, and, if this is the case, how these specific patterns contribute to the impact of the general mobility on a sustainable society and then defining the potential relationship between the use of company cars and the relative localizations of the households and work places), we first had to collect data in the field. So we designed surveys: a first one for the firms, a second one for the employees. The idea was to recruit workers inside companies participating to the firms' survey, allowing making links between employees' behaviours and mobility policies inside firms. The sample was built at the firms' level (with geographic and size stratifications) in order to get 200 employees having a company car for each of the three regions of the country. To avoid getting to many respondents without company cars, we only selected companies among NACEBEL sectors where we are more likely to find company cars. This information was available thanks to the FEBIAC data analysed during the COCA project. Sectors chosen were financial activities, real estate, hiring and services to companies, wholesale and of detail, repair of motor vehicles, motor bicycles and of domestic articles and manufacturing industry. People without company cars were also asked to go through the questionnaire, so we get a control-group allowing comparisons with workers having company cars.
Once the questionnaires were achieved, invitations to participate were sent. All companies were first contacted by traditional mail, then by phone if we did not register any participation (at least once for non-participating firms). The questionnaire for companies could be filed in either on the Web, or by a pencil and paper way or even by phone. The one for workers was only available on the Web.

Facing low response rates, additional surveys were conducted at the employees' level (with only respondents having a company car). A first one thanks to a regional grant of the Flemish Government enabled recruiting (by a research market firm – TNS Dimarso) some 700 more respondents living in Flanders and a second one asking contacts of researchers and contacts of these contacts, and so on (viral dissemination) to fill in our questionnaire.

Both surveys were slightly adapted to get some important information from the firms' questionnaire, unavailable since firms were not questioned.
Finally we got 4 samples of respondents: a first one that we call "original noCC" with people without a company car who have been contacted through their employers (N = 213); a second one that we call "original CC" with respondents having a company car and who were also contacted through their employers (N = 237); a third one that we call "additional-TNS" with respondents having a company car and being recruited by a market research company (TNS – Dimarso) within its existing panel (N = 720) and a fourth one that we call "additional-contacts" with respondents having a company car and being recruited from the researchers' contacts through a viral dissemination process (N = 440).

Once the cleaning of the databases was achieved, descriptive analyses were performed.
Regarding the firms surveyed (N = 181), they are mainly from the private sector (93%), most are located in the Walloon Region (60%), while the amount of Flemish companies is about the same as for the ones from the Brussels Capital-Region (respectively 22 and 18%) and they are mostly small ones (3 on 4 having less than 50 employees – 1 on 5 having more than 100 employees). In order to get a more representative sample (better representation of the actual population), a process of weighting was applied. The coming results are related to this weighted sample. From the descriptive section of the firm's general mobility policy of our questionnaire, we discover that more or less half of the surveyed companies are declaring being located close (26%) or very close (29%) to a public transport stop but a minority of companies indicate that there is a high (10%) or very high (13%) frequency at their nearest public transport stop. Car accessibility is assessed in terms of available parking facilities and 75% of the companies provide such facilities for their employees. Answers to our questions highlight that companies consider accessibility, especially in terms of accessibility by car, as an important issue when deciding on the company location. Accessibility with public transport is very less important. About the sustainable transport modes, it appears that giving them no support is more common among the sampled companies than giving support; the sustainable transport modes receiving the most support are public transport (40%), bicycle use (35%) and car sharing (35%).

When focusing on the description of the company car policy, we observe that only 9% of the companies belonging to the sample declared that they do not have company cars. The most important incentive for companies to give company cars to their employees is to motivate them and to increase their loyalty to the company. Job specific reasons are the second most important determinant whereas attributing company cars for financial reasons is the third most important factor. Regarding accessibility, a lot of companies indicate that this factor does not play any important role in the attribution of company cars (92% of negative answers). About the costs relative to company cars, most of them are not charged to the employee, except for costs related to penalties for traffic offences (75%) and to the franchise in case of an accident (24%).

Concerning the data collected from the workers, we present specific figures for each sample as they were recruited by different ways. Furthermore no weighting process could be applied as

we have no information about the whole population of people having a company car. Therefore in order to avoid mixing data collected with several methodologies, it had been decided to keep samples isolated. Nevertheless, findings are often the same among the samples.

So it is the case for socio-professional profiles of our respondents: figures show that company car users are more frequently men than women and that the possession of a company car is more common among younger people (especially those younger than 40) but not for the youngest (less than 24). The odds to find a person with a company car also increases with the education level. People in management functions are the ones with the highest rate of company car possession while the lowest rate is found among the workmen. We proportionally find more people working part time in the sample of people without company cars. Respondents with company cars have more likely special timetables, meaning that they are proportionally more to work out of the office hours. It also appears that proportionally more respondents with company cars than those without company cars declare to live very close to their work place (less than 2 km), but it does not concern a large part of the samples. For the longest distances, people with company cars are more represented.

The surveys also inform us that company cars (most often diesel cars) have higher annual mileages than private cars. Less common findings concern the data about the contributions of the different kind of displacements to the annual mileage: people participating to the original survey mainly use their company cars to reach their workplace and go back home; they also make more professional trips than private ones. The respondents recruited by the research market company behave in a different way: the principal contribution to their annual mileages is (on average) generated by the professional displacements, before home-wok trips. Private trips have also the smallest influence on the annual mileage. Researchers' contacts have yet a different order of importance for the repartition of the displacements. Similar to the respondents of the original survey, their kilometres are mainly related to home-work trips and are of the same magnitude, but contrary to the original survey respondents, they make more private trips than professional displacements.

Concerning the private displacements in Belgium, they are very often allowed and even refunded by the company. For the importance of professional displacements we have much more numerous respondents within the samples of people having a company car at their disposal to travel for their work "every day" and "very often" than in the sample of people having no company car. Concerning the usual mode to go to work, a great majority of the respondents with company car actually use their company car to go to work whereas people without company car go to work with their private car for only around half of them (59.2%). Nevertheless, for these people, the train is used by more than 1 respondent out of 4, while this mode is rarely used by people having a company car (less than 5%). Going to the displacements recorded in the questionnaires (all the displacements achieved the day before the filling of the questionnaire, i.e. the *reference day*), the average number of trips is higher for people with a company car than for those without.

Besides, these trips are longer for people having a company car than respondents without company cars. About the mode used for the recorded trips, respondents without a company car use public transport in 14% of all trips whereas respondents with a company car in the original survey only take public transport in 1.3% of their trips. Respondents without a company car use the car in 80% of their trips, what represents much less than persons with a company car (94% of all trips in the original survey are made by car). Regarding the purpose of these declared trips, persons without a company car make only 2.68% of their trips for professional reasons while, for persons with a company car, only one trip out of ten is a professional trip. Few respondents (about 8.5%) declare that somebody else used their company car during the reference day. When it is the case, the distances travelled by these people are around 30 km.

Some modelling works are then reported in this final report. First, an accessibility related model is presented. This one tries to predict if a company gives company cars to its workers and relies on the accessibility indicators collected thanks to the firms' survey. The model (logistic regression) built is significant and only identified one of the included variables as a significant predictor of company car attribution, namely parking support: companies with parking facilities are more likely to attribute company cars. As far as the public transport accessibility is concerned, this does not seem to play a role in the company car policy.

Then, company car ownership is analysed. The socio-demographic profiles of employees are analyzed in order to find out which of the factors constituting these profiles determine the likeliness of people being attributed a company car. Next, attention is paid to the difference in annual mileage between company cars and private cars. The results presented are based on the data collected with the original sample, where we contacted employees through their employers.
In order to identify the impact of the socio-demographic profile on the company car availability of employees, a binary logistic regression is used. Findings are that people who are most likely to have a company car are higher educated males, who are younger than fifty years old, and who are occupying a management or board function in a company located in the Flemish Region.
Analyses also show that company car users drive significantly more kilometres than employees without a company car. Thanks to a multilinear regression model, it appears that home-work distance and company car ownership are the largest contributors, followed by professional trip frequency and gender.

Cluster analysis is then performed on the data collected thanks to the Flemish subsidy in order to determine different kind of company cars' users. 3 clusters are identified: the 'commuters', the 'representatives' and the 'enjoyers'. The 'commuters' are employees with a company car whose professional trip frequency is moderate, who tend to live further from their workplace compared to other employees and who almost exclusively use their company car to make the home-work commuting trip. The 'representatives' frequently have to make professional trips and spend a lot of their time being on the road in their company car. The 'enjoyers' are employees

with a company car who make significantly less professional trips than the 'representatives' and who live significantly closer to their work than the 'commuters'. Repercussions are obvious on the annual mileage: the annual mileage is highest for the 'representatives', who have an average annual mileage of more or less 37.600km. This is about 5.600km above the average annual mileage of the 'commuters', which stands at about 32.000km. Both these average annual mileages are significantly above that of the 'enjoyers', which equals approximately 22.400km,. However all these mileages are above the average mileage of a private car.

Asking which mode they would use to go to work if they would not have a company car to the respondents having such advantage allows us to analyse substitution effects. In such situation, the proportion of people who would go to work by train relies between 10 to 17% which is only half of this modal part for people without company car (more than 26%). Nevertheless only 72% of the people will still make their home-work trip by (private) car if they no more have a company car. Since several characteristics of respondents may have some influence on the choice of the mode for their home-work displacements, we then achieve analyses with distinctions for gender, age and diploma.
A useful information for deciders is the reasons why people would not use public transport even if they had no company car: the most important reasons cited by the respondents for not using public transport in case they would not have a company car are the insufficient network and the slowness of public transport.
Closing this section and in order to further investigate the substitution effect, persons with the same socio-demographic characteristics with and without a company car are compared. Only the original survey is used since we only have a control group without company car in the original survey. The average number of trips per day, the mode of transportation used and the purpose of the trips are so analysed.

Eventually, the report is concluded with some methodological recommendations (e.g. to get a statistically representative sample) and a support to decision section (specific legislation, interest of determining kinds of users…)