



Modal choice for travel to work and school

Recent trends and regional differences in Belgium

October 2014

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Responsible publisher: Philippe Donnay

Legal Deposit: D/2014/7433/19

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Abstract – Recent transport studies report a decline in car use in high density metropolitan areas and among young adults in many developed countries. Looking at transport mode choices of workers and students in higher education, we find a similar trend in Belgium.

For travel to work located in the Brussels-Capital Region, car use has declined since the beginning of the century in favour of public transport modes. Among students in higher education, travel by car has dropped considerably in all three regions, with a sharp decline in Brussels.

Choices for more sustainable travel modes show marked regional differences. In Brussels, public transport is the main alternative mode used by both workers and students. Flanders most clearly stands out for its intense bicycle use. In Wallonia, car use remains high, yet carpooling is more common than in the other regions.

The results are based on newly available data on mobility in the Belgian Labour Force Survey. The same questioning in the Census 2001 allows for a consistent comparison over time.

Jel Classification – R41

Keywords – Transport

Acknowledgement – This analysis has been carried out within the framework of a cooperation agreement between the Federal Public Service Mobility and Transport and the Federal Planning Bureau. The cooperation aims at developing and using statistical data, producing transport outlooks and analysing transport policy.

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Executive summary

Recent transport research suggests that car use is reaching its saturation level in many advanced economies. Particularly in metropolitan areas, car use is declining in favour of slow and public transport modes. Also young adults are found to have shifted travel preferences away from private cars. Looking at changes in transport modes for travel to work and school, we find similar trends in Belgium. The results are based on recent mobility data from the Belgian Labour Force Survey (LFS) and the Socio-Economic Survey of 2001.

Traffic counts show that the total number of kilometres driven by private cars in Belgium continues to increase. At the same time, and much in line with findings in other developed countries, we observe a shift away from the car in two specific populations: people working in the metropolitan area of Brussels and students in higher education. First, for travel to workplaces located in the Brussels-Capital Region the increased use of public transport has challenged the dominant position of private cars. Second, among students in higher education, travel by car for daily trips to college has dropped considerably in all three regions, with a sharp decline in the Brussels-Capital Region.

Individual cars remain the main transport mode for 75 per cent of the commuting trips to jobs located in Flanders, and 85 per cent in Wallonia. Yet among people working in the Brussels-Capital Region, car use has dropped to 48 per cent, compared to 57 per cent at the beginning of the century. Public transport in Brussels has gained in proportion and is used for 44 per cent of the trips to work.

For daily commuting over short distances, current transport choices differ strongly between regions: in the Brussels-Capital Region, bus, tram and metro are used as the main alternative to private cars. Flanders most noticeably differs with the frequent use of the bicycle. In Wallonia, the car remains the dominant transport means for commuting, even for short distances; its high share is however somewhat mitigated by the more common use of carpooling. For longer travel distances to work, only Brussels-Capital Region differs, with a high share of the train as an important alternative to car. In Flanders and Wallonia, jobs located at further distance from home are predominantly reached by car.

Among students in higher education, the modal shift from the car to slow and public transport modes is more general and more noticeable than for workers. In the three Belgian regions, the share of students that travel to college by car has strongly decreased since the beginning of the century. In Brussels, the decline has been most pronounced: today, less than one in ten students travel to college by car. In Flanders, car use among students has dropped to 19 per cent and in Wallonia to 31 percent. Public transport is the preferred transport means for students in all three regions. At the same time, student's choices for slow and public transport modes reflect regional differences similar to those of workers. Students in Brussels mainly travel by bus, tram or metro, Flemish students are intense bicycle users, and Walloon students prefer carpooling.

Synthèse

Les recherches récentes dans le domaine du transport montrent que l'utilisation de la voiture a atteint un seuil de saturation dans de nombreux pays développés. Surtout dans les zones métropolitaines, la voiture est progressivement délaissée au profit des modes de transport « doux » et des transports publics. En outre, les jeunes adultes ont modifié leur comportement de mobilité au détriment de la voiture. La présente analyse sur les déplacements domicile-travail et domicile-école en Belgique fait ressortir des évolutions semblables. Elle est basée sur des données récentes de la mobilité, issues de l'enquête belge sur les forces de travail (EFT) et de l'enquête socioéconomique de 2001.

Les recensements annuels de la circulation montrent que le nombre total de kilomètres parcourus par des voitures particulières en Belgique continue d'augmenter. Dans un même temps, nous constatons, à l'instar d'autres pays développés, une baisse de l'utilisation de la voiture dans deux groupes de population spécifiques : les personnes qui travaillent dans la Région de Bruxelles-Capitale et les étudiants de l'enseignement supérieur. Pour les déplacements vers les lieux de travail situés à Bruxelles, la position dominante de la voiture s'est amenuisée au profit des transports en commun. Parmi les étudiants de plus de 18 ans, l'utilisation de la voiture a sensiblement baissé dans les trois Régions, voire même chuté en Région de Bruxelles-Capitale.

Les voitures particulières restent le principal moyen de transport pour respectivement 75% et 85% des déplacements du domicile à un lieu de travail en Flandre et en Wallonie. En revanche, parmi les travailleurs se déplaçant vers la Région de Bruxelles-Capitale, la voiture ne représente plus que 48% de leurs déplacements domicile-travail, contre 57% au début des années 2000. Les transports en commun ont gagné du terrain et sont utilisés pour 44% des déplacements domicile-lieu de travail.

Pour les déplacements quotidiens de courte distance entre le domicile et le lieu de travail, la répartition modale varie sensiblement selon la Région : à Bruxelles, les bus, tram et métro constituent la principale alternative à la voiture tandis qu'en Flandre, le vélo est fréquemment utilisé. En Wallonie, la voiture reste le principal moyen de transport pour les déplacements vers le lieu de travail, même pour les courtes distances. Toutefois, la part élevée de la voiture doit être quelque peu nuancée suite au recours plus fréquent au covoiturage. Pour des distances plus longues vers le lieu de travail, seule la Région de Bruxelles-Capitale diffère, avec une part importante des trains comme alternative à la voiture particulière (plus de 50% des déplacements domicile-travail). En Flandre et en Wallonie, quand le lieu de travail est plus éloigné, le travailleur se déplace majoritairement en voiture.

Parmi les étudiants de l'enseignement supérieur, le transfert modal vers des modes de déplacement « doux » et les transports publics est plus marqué et plus généralisé. Dans les trois Régions belges, l'utilisation de la voiture pour des déplacements quotidiens vers une école supérieure ou l'université a fortement baissé depuis le début des années 2000. C'est à Bruxelles que la baisse est la plus forte : aujourd'hui moins d'un étudiant sur dix se rend aux cours en voiture. En Flandre, l'utilisation de la voiture parmi les étudiants est tombée à 19% des déplacements domicile-école, et à 31% en Wallonie. Dans les trois Régions, les étudiants se déplacent principalement en transports en commun. Les choix des étudiants pour des modes de transport plus durables reflètent les mêmes différences régionales que

celles décrites pour les travailleurs. Ainsi, les étudiants se déplacent principalement en bus-tram-métro à Bruxelles, à vélo en Flandre et optent pour le covoiturage en Wallonie.

Synthese

Recente transportstudies geven aan dat het autogebruik in vele ontwikkelde landen een verzadigingspunt heeft bereikt. Vooral in grootstedelijke gebieden neemt het vervoer per auto af ten gunste van trage transportmodi en openbaar vervoer. Ook stelt men een verandering vast in het verplaatsingsgedrag van jonge volwassenen, met onder meer een daling van het bezit en het gebruik van de auto. Onze analyse van het woon-werk en woon-schoolverkeer in België toont een vergelijkbare evolutie. De resultaten zijn gebaseerd op recente mobiliteitsgegevens van de Belgische Labour Force Survey (LFS, 2001-13) en de Socio-Economische Enquête van 2001.

Uit de jaarlijkse verkeerstellingen blijkt dat het aantal kilometers afgelegd door personenauto's in België blijft toenemen. Tegelijkertijd stellen we vast dat het autogebruik vermindert in twee specifieke groepen: bij personen die werken in het Brussels Hoofdstedelijk Gewest en bij studenten ouder dan 18 jaar. Voor woon-werkverplaatsingen naar jobs gelegen in het Brussels Hoofdstedelijk Gewest gebruikt men minder vaak de auto dan in het begin van de eeuw en vaker het openbaar vervoer. Ook studenten in het hoger onderwijs verplaatsen zich minder met de auto (als chauffeur of als passagier) voor hun dagelijks traject tussen de woon- en onderwijsplaats; de daling is aanzienlijk in elk van de drie regio's, maar het sterkst in het Brussels Hoofdstedelijk Gewest.

Voor woon-werkverplaatsingen naar jobs in Vlaanderen en Wallonië blijven personenwagens veruit het belangrijkste vervoermiddel (respectievelijk 75 en 85 procent van de verplaatsingen). Maar jobs in Brussel worden minder vaak bereikt met de wagen dan in het begin van de eeuw: het aandeel van de auto in de woon-werkverplaatsingen is er gedaald van 57 naar 48 procent, terwijl het belang van het openbaar vervoer is toegenomen tot 44 procent.

Voor korte afstanden naar het werk verschillen de transportkeuzes in de regio's sterk: in het Brussels Hoofdstedelijk Gewest vormen bus, tram en metro het belangrijkste alternatief voor de auto. In Vlaanderen rijdt men vaak met de fiets naar het werk. In Wallonië blijft de auto het dominante vervoersmiddel naar het werk, ook voor korte afstanden; het hoge aandeel wordt wel enigszins afgezwakt door het frequentere gebruik van carpooling. Voor langere afstanden naar het werk wijkt alleen het Brussels Hoofdstedelijk Gewest af van de andere regio's: het aandeel van de trein in de woon-werkpendel loopt er op tot meer dan 50 procent. In Vlaanderen en Wallonië worden jobs die verder liggen van huis voornamelijk bereikt met de auto.

Bij studenten in het hoger onderwijs heeft zich een modale verschuiving voltrokken van de auto naar andere vervoersmodi die veel algemener en meer uitgesproken is dan bij de werkenden. In de drie Belgische regio's heeft de auto als dagelijks transportmiddel naar de hogeschool of de universiteit sterk aan belang ingeboet sinds het begin van de eeuw. De daling is het sterkst in Brussel: vandaag gaat er minder dan een op de tien studenten naar de les met de auto. Onder Vlaamse en Waalse studenten is het autogebruik gedaald tot 19 en 31 procent van de dagelijkse verplaatsingen naar de les. Het openbaar vervoer is in elk van de regio's het meest gebruikte transportmiddel bij studenten. Maar studenten maken ook regio-specifieke keuzes die sterk lijken op die van de werkenden: studenten in Brussel verplaatsen zich vooral met de bus, tram of metro; Vlaamse studenten zijn intense fietsers en Waalse studenten verkiezen carpooling.

1. Introduction

In advanced economies, the use of the car for personal travel steadily increased during the second half of the 20th century. Recent transport research shows that this trend has probably come to an end (Millard-Ball and Schipper, 2011; Goodwin, 2013; Van der Waard, Immers and Jorritsma, 2013; Puentes, 2013). In many developed countries, the growth in car use is levelling off, or has stabilised in the past decade. In some countries, and especially in cities, car use is even declining. Transport researchers suggest that car use is reaching its 'natural' saturation level, the point beyond which a further increase brings little extra benefit.

A wide range of additional explanations have been put forward for this trend: economic factors such as fuel prices and income, increasing levels of road congestion, changing demographic structures such as the ageing of the population, or policy measures such as investments in public transport and low traffic city centres (for an overview see Goodwin, 2013).

But also changes in preferences and social behaviour are considered as possible explanations for the slowdown in car use. Two of them have attracted particular attention. First, in high density metropolitan areas people have recently made a significant shift from car use to slow and public transport modes (BITRE, 2012; Madre, Bussière, Collet and Villareal, 2013; Van der Waard et al., 2013). Second, the current generation of young adults shows marked changes in travel behaviour: they move less, count fewer car owners than before, and have shifted preferences from car use to the bicycle and public transport modes (Van der Waard et al. 2013; Kuhnimhof, Bueler and Dargay, 2011; Davis, Dutzik and Baxandall, 2012; Blumenburg et al., 2012).

This paper explores whether the same trends are observed in Belgium. We make use of the Belgian Labour Force Survey for 2011-2013 and the results of the same questions on mobility in the population census of 2001 (Socio-Economic Survey).

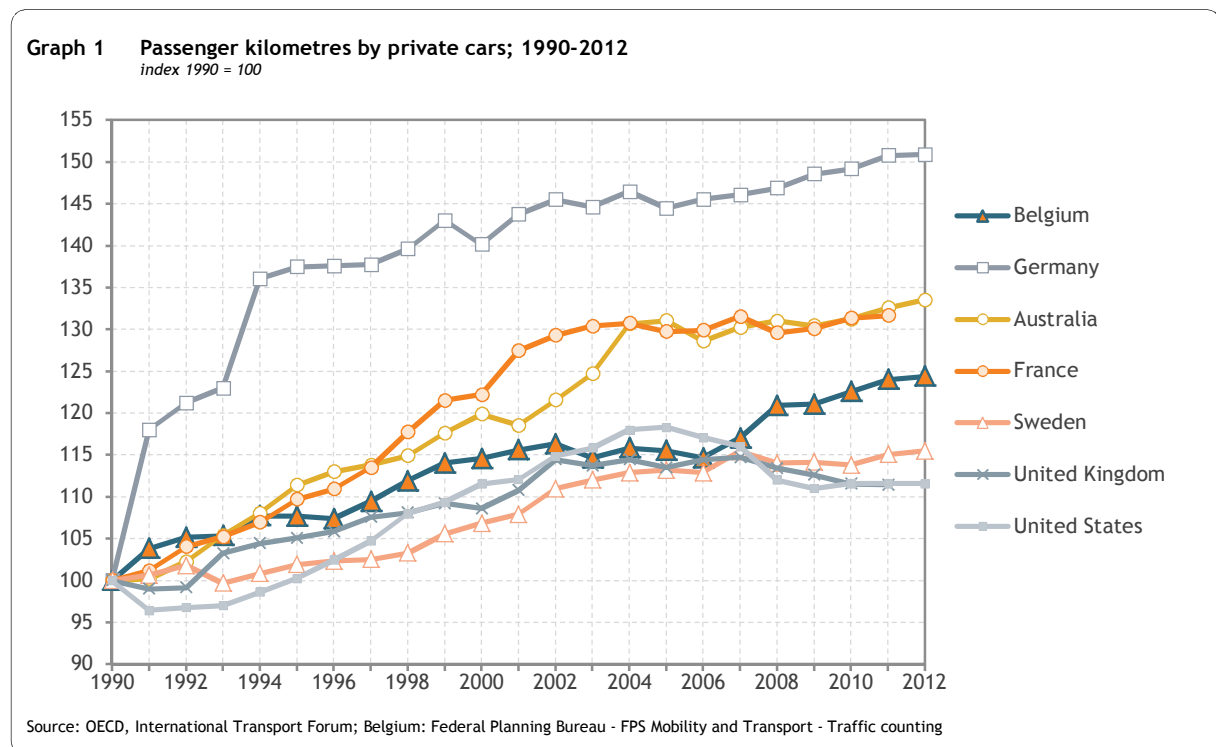
Traffic counts show that the total number of kilometres driven by private cars in Belgium continues to increase. At the same time, and much in line with findings in other developed countries, we observe a shift away from the car in two specific populations: people working in the metropolitan area of Brussels and young adults travelling to college. First, for travel to workplaces located in the Brussels-Capital Region the increased use of public transport has challenged the dominant position of private cars. Second, among students travelling to college, car use has dropped considerably in all three regions, with a sharp decline in the Brussels-Capital Region.

We further present an overview of the alternative transport modes workers and students use today. We discuss marked regional differences in the shift towards more sustainable travel means. In Brussels, public transport is increasingly chosen as a main transport mode by both workers and students. Flanders most clearly stands out for its intense bicycle use. In Wallonia, car use remains high, yet car-pooling is more common than in the other regions.

In section 2, we compare the growth of car use in Belgium to the trend in other developed countries. Section 3 looks at changes in car use for travel to work, and at regional differences in the modal distribution today. In section 4, we present the same statistics for travel to school of students in higher education. Section 5 concludes.

2. Trends in car use

Graph 1 shows the growth in passenger kilometres travelled by private cars in a set of developed countries between 1990 and 2012. In all presented countries, the increase in the last decade has been slower than in the 90s, and in many of them, it has stabilized, or even declined since 2005. The statistics are produced by the International Transport Forum, a think tank for global transport policy issues at OECD. Van Dender and Clever (2013) suggest this trend to be a widespread phenomenon in advanced economies. Similar results are found in other comparative studies analysing the growth of car use in various countries (Millard-Ball and Schipper, 2010; BITRE, 2012; Goodwin, 2013).



The same reduced growth in car use is not clearly observed in Belgium. After a stabilization at the beginning of the century, the number of passenger kilometres travelled by private cars has resumed its growth path. Does this mean that transport behaviour in Belgium moves in a direction opposite to international trends?

Transport studies find that changes in travel behaviour in developed countries are more concentrated in specific groups and places. In particular, the strong decline in car use in high density metropolitan areas and among young adults has recently received special attention. Exploring changes in daily transport means for travel to work and school, we find the same trend in Belgium.

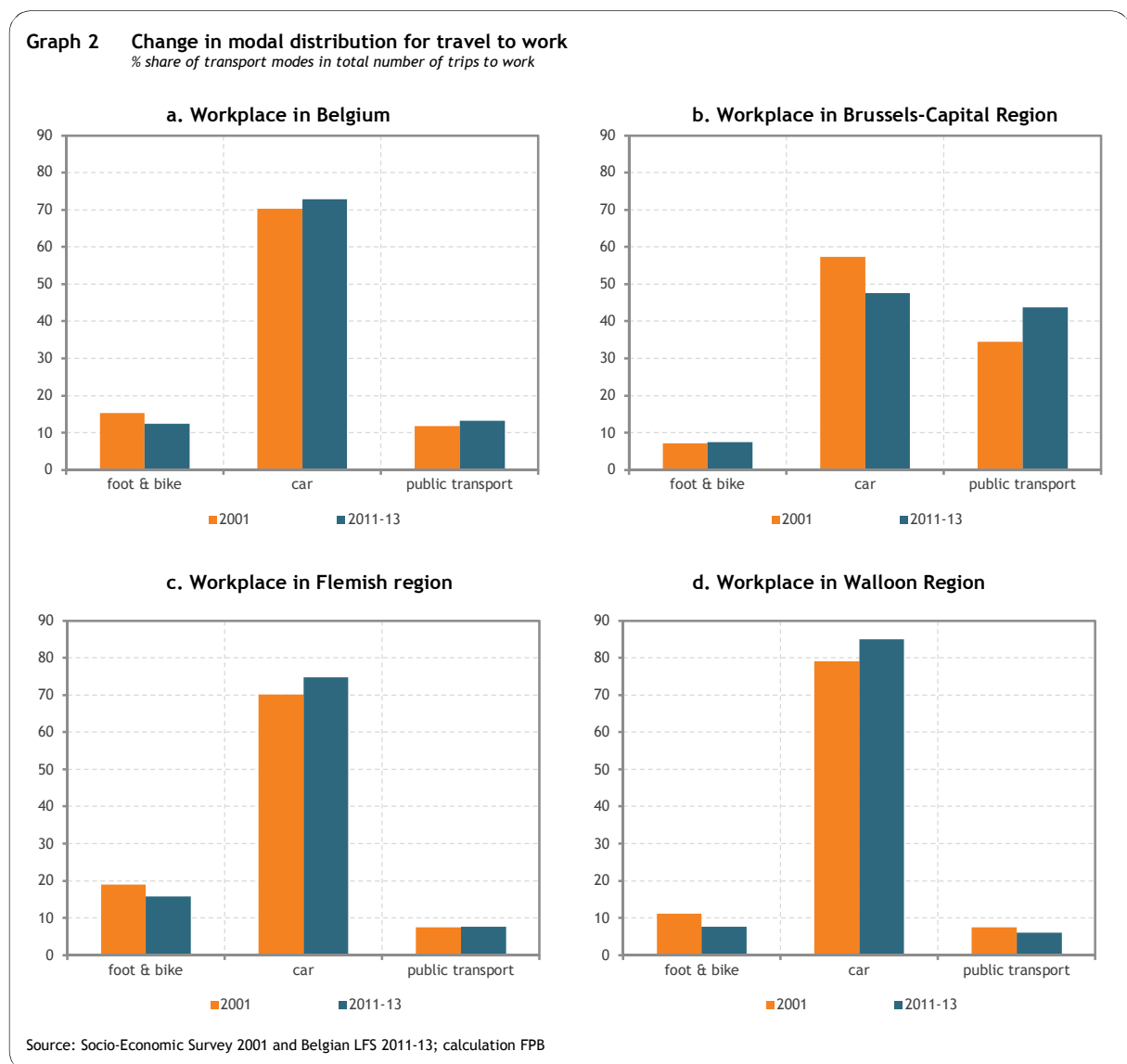
The results in this paper are based on the new Mobility Module in the Belgian Labour Force Survey (LFS). The survey questions are designed to provide a closer look at transport mode choices in two populations: people travelling to work and young adults travelling to college. The data we present are based on LFS results of 12 quarters (2011 Q1-2013 Q4), including mobility data of 93 000 workers and 10 500 students in higher education. A brief overview of the LFS data is provided in the appendix.

Current modal choices in these groups are compared to the ones at the beginning of the century, making use of the Socio-Economic Survey 2001. This census, covering the total Belgian population, included the same questions on mobility as the current LFS and allows for a consistent comparison over time.

3. Modal distribution for travel to work

3.1. Change in modal distribution

4.6 million Belgians have a job. Most of them (63 per cent) travel to work five days a week. Some groups make less than five trips to work per week, such as part-time workers and teleworkers. Home-based workers make none. In this section on travel to work, we consider the total number of trips made by workers - both employees and self-employed - between their home and workplace in a typical workweek. The modal distributions are based on the main transport mode used for these trips. Graph 2 shows the changes in transport modes between 2001 and today (avg. 2011-13). The bars represent the share of each travel mode in the total number of trips to work.



On average, the modal choice of Belgian workers has hardly changed since the beginning of the century (panel a.). The car remains by far the most common means of commuting: today, 73 per cent of the home-work trips are made by car, which is a 3 percentage points increase since 2001. The use of public

transport modes (train, bus, tram and metro) increased slightly as well, and has a share of 13 per cent in total commuting trips. The use of slow modes slightly decreased: today only 12 per cent of daily trips to work are made by foot or bike.

Panels b. to d. show important regional differences in changes in transport modes since 2001. They represent the modal shares by region of workplace. While in Flanders and Wallonia car use has increased by 5 percentage points, an important shift away from the car is observed for travel to work located in Brussels.

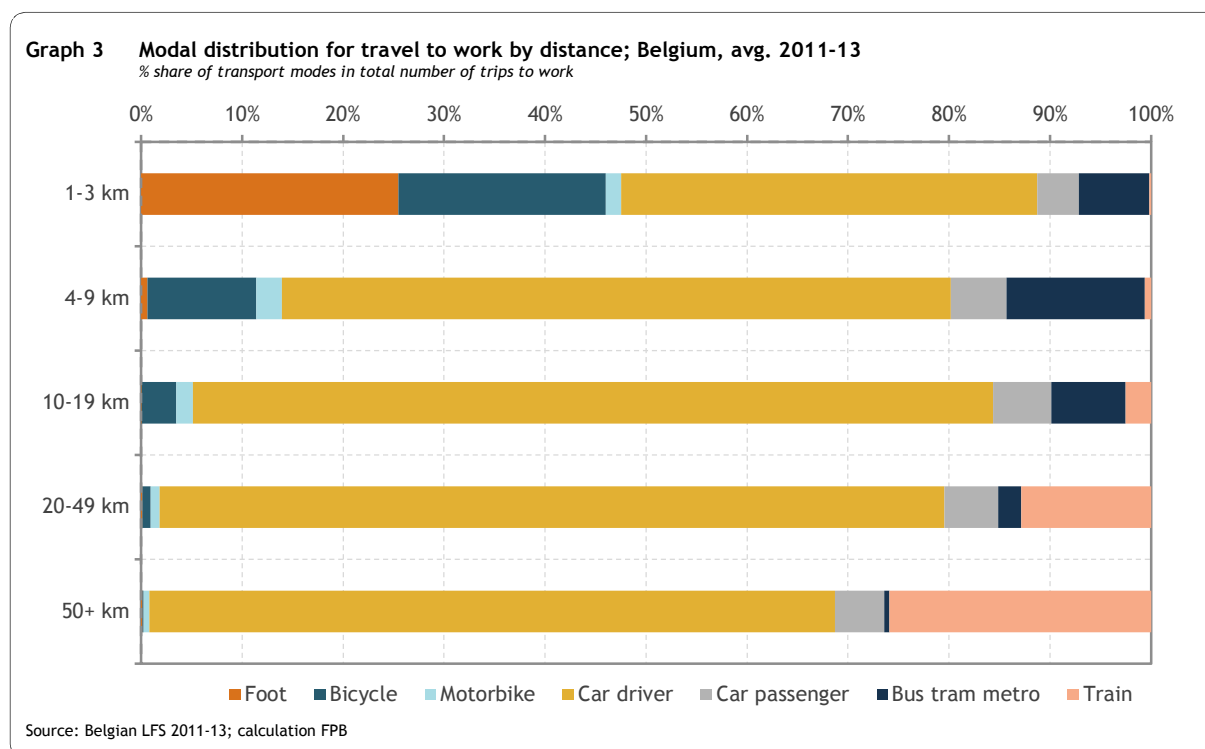
Car use remains especially high in the Walloon Region, where 85 per cent of the trips to work are made by private cars. Slow modes and public transport lost importance and have only small shares in daily commuting. In the Flemish Region, car use is significantly lower (75 per cent), as slow transport modes take an important share in daily travel to work (16 per cent). Public transport is almost as low as in Wallonia.

In contrast to Flanders and Wallonia, modal choices for travel to work located in the Brussels-Capital Region have changed considerably since the beginning of the century. Car use has dropped from 57 per cent in 2001 to 48 per cent today, while public transport strongly increased its share from 35 to 44 per cent of total trips to work. The share of slow transport modes remains stable.

The modal shift in Brussels reflects a recent trend which is found in high density metropolitan areas in many advanced economies. A shift from car use to slow and public transport modes is observed in urban areas in France (Madre et al., 2013), the Netherlands (Van der Waard et al., 2013) and several other developed countries (BITRE, 2012; Goodwin, 2013). Transport researchers put forward several reasons to explain this trend, such as policy measures to reduce car traffic in cities, saturation of road traffic, rising fuel prices, and, among younger generations, decreasing car ownership and a changing attitude towards mobility. Besides these long-term explanations, also the effects of the global economic crisis on income and unemployment are assumed to have decreased road traffic in recent years.

3.2. Transport modes by distance

Obviously, people working close to home have other transport options than the ones working further away. Graph 3 presents the modal distribution in Belgium by commuting distance. Private cars are the most important transport mode for all commuting distances. Only for distances below 4 km, other transport modes have a share of more than 50 per cent: 46 per cent of the shortest distances are made by foot or bicycle, and a small share by bus, tram or metro (BTM). For distances between 4 and 9 km, the bicycle and BTM are the main alternatives to private cars. For longer distances, the importance of slow transport modes and BTM gradually diminishes, while the train is an increasing alternative. Car use is however predominant: for commuting distances between 4 and 9 km, more than 70 per cent of workers travel by car, and for distances between 10 and 50 km, this share is more than 80 per cent. Only for the longest journeys (50 km or more) car use is somewhat lower, due to the increasing importance of the train in total commuting journeys.



Regional differences in the use of transport modes partly depend on differences in commuting distance. The first row of Table 1 shows that the average commuting distance is the shortest for jobs located in Flanders (17 km) while people working in the Brussels-Capital Region travel the longest distances (25 km). The second panel of the table presents the share of five distance classes in the total number of journeys to work. The number of trips to workplaces located in Flanders or Wallonia are more or less equally distributed over distance classes below 50 km. Less than one in ten trips are made by workers who live further away. Jobs in Brussels count fewer trips in the smaller distance classes, and springs out by the high share of travel distances above 50 km (19%).

Table 1 Commuting trips by distance from home to work; avg. 2011-13

	Region of workplace			
	Belgium	Brussels-Capital Region	Flemish Region	Walloon Region
Average distance (km)	19	25	17	19
% share of trips by distance				
1-3 km	19	16	19	19
4-9 km	24	25	25	21
10-19 km	23	16	25	25
20-49 km	25	25	24	26
50+ km	9	19	7	8
Total	100	100	100	100

Source: Belgian LFS 2011-13; calculation FPB.

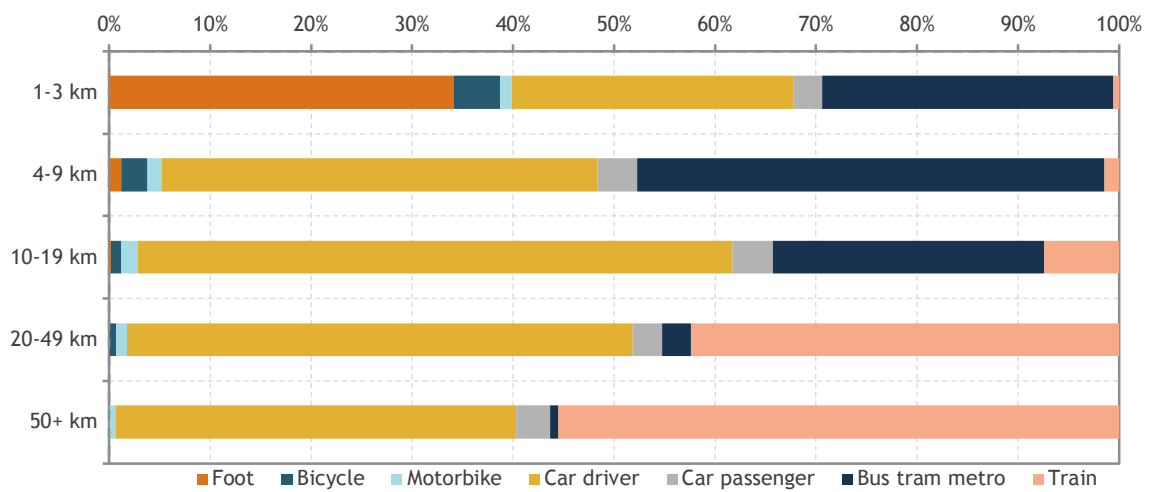
Given the important differences in commuting distances, it is not surprising that the modal distribution significantly differs across the three regions. Besides distance, however, other factors affect the modal choice of workers: transport infrastructure such as the access to public transport, bicycle paths and road infrastructure; demographic characteristics such as the age composition of the working population; and intangible factors such as the attitude towards mobility.

The mix of determinants implies that even for similar distances, individuals working in the three regions make different modal choices. This is presented in Graph 4. In the shortest distance classes, the modal distribution differs strongly across regions. While the car is the most important travel mode in Wallonia, bicycle use in Flanders, and bus, tram and metro in Brussels considerably reduce the share of private cars in total trips to workplaces located not far from home. For longer travel distances, only Brussels-Capital Region differs, with a high share of the train as a main alternative to car. In Flanders and Wallonia, by contrast, jobs located at further distance from home are predominantly reached by car.

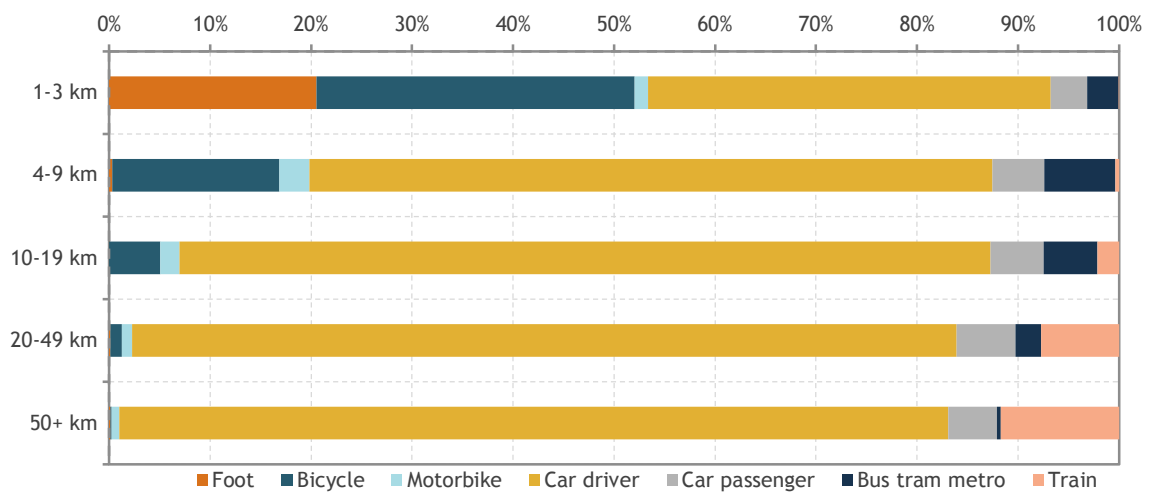
Graph 4 Modal distribution for travel to work by distance; avg. 2011-13

% share of transport modes in total number of trips to work

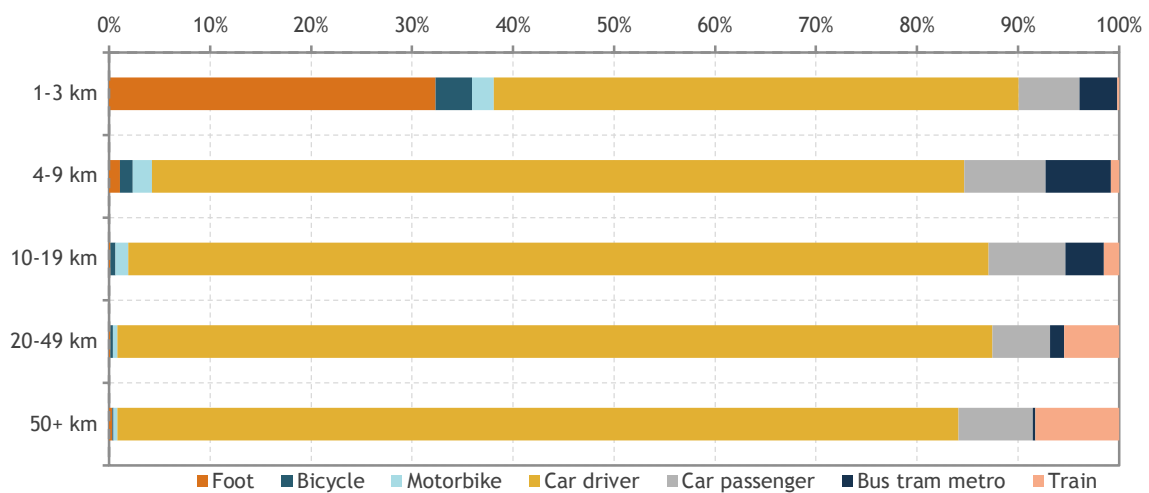
a. Workplace in Brussels-Capital Region



b. Workplace in Flemish Region



c. Workplace in Walloon Region



Source: Belgian LFS 2011-13; calculation FPB

With its dense public transport network, most jobs located in the Brussels-Capital Region are easily accessible by bus, tram, metro or train. This reduces car use for travel to work to shares which are far below those in the other regions. For trips shorter than 4 km, only 30 per cent is made by private cars, as BTM and foot are frequently used alternatives. For longer distances, the use of private cars is 40 to 60 per cent, and either bus, tram and metro for trips below 20 km, or the train for longer trips, represent important shares of daily trips to work.

Flanders most clearly differs from the other two regions with the frequent use of the bicycle as a daily commuting means for shorter distances. For travel distances up to 3 km, cycling not only reduces car use to 44 per cent, but is also chosen as an alternative for walking: while 31 per cent of these short distances are made by bicycle, only 21 per cent is made by foot, which is the lowest share of the three regions. Public transport modes occupy shares which are slightly higher than in Wallonia, but far below Brussels. As a result, the car is by far the most important transport means for longer distances. For daily commuting to jobs located in Flanders at more than 10 km from home, more than 85 per cent of all trips are made by private cars.

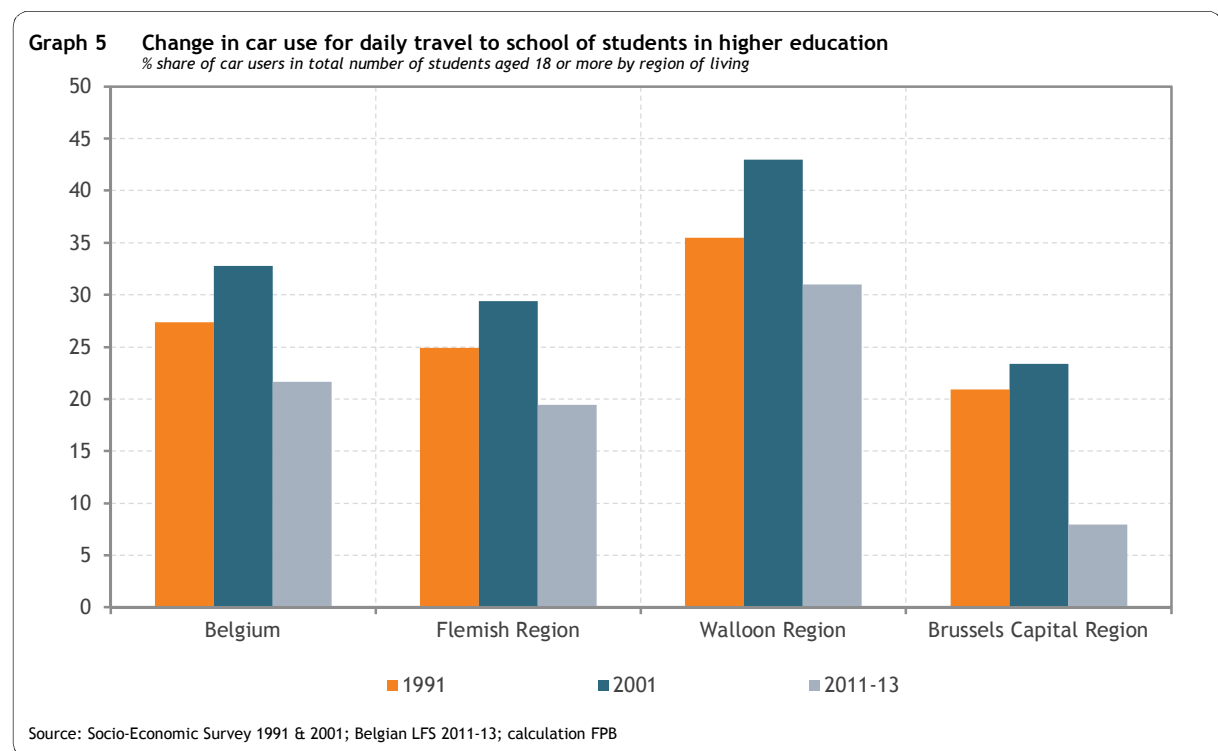
For jobs located in Wallonia, the car is the dominant transport mode in all distance classes. While walking is used as an alternative for one in three trips below 4 km, the two other alternatives, public transport and the bicycle, are little used as daily transport means for travel to work. Private cars have a share of about 90 per cent for travel distances above 4 km. When travelling by car, commuters do more often travel as passenger compared to the other two regions, which points to the more common use of carpooling in Wallonia.

4. Modal distribution of students

4.1. Change in modal distribution

Research in Germany, the UK, the Netherlands and the US shows important changes in travel behaviour of young adults (Van der Waard et al. 2013; Kuhnimhof et al., 2011; Davis et al., 2012; Blumenburg et al., 2012): they move less, count fewer car owners than before, and have changed preferences from car use to the bicycle and public transport modes.

A similar modal shift is found in Belgium, when we look at car use for daily travel to school of students in higher education. Graph 5 presents the changes in car use in this group between 1991, 2001 and today. The bars present the percentage of students aged 18 or more that use the car as their main transport mode for travel to school.¹ Regional results are based on the actual place of living.



In line with the observed trend in other developed countries, car use among students continued to increase between 1991 and 2001 but significantly declined since then. In 2001, 33 per cent of Belgian students in higher education used the car as their daily transport means to college. Today, this share has dropped to 22 per cent. Among students living in Brussels, the fall in car use is most pronounced: from 23 per cent at the beginning of the century to 8 per cent today. Although the changes are smaller in Wallonia and in Flanders, the same declining trend is found in both regions.

For travel to work, we observed a decrease in car use in Brussels, but not in the other two regions. The shift towards other transport modes among students is thus much more general than for workers. A

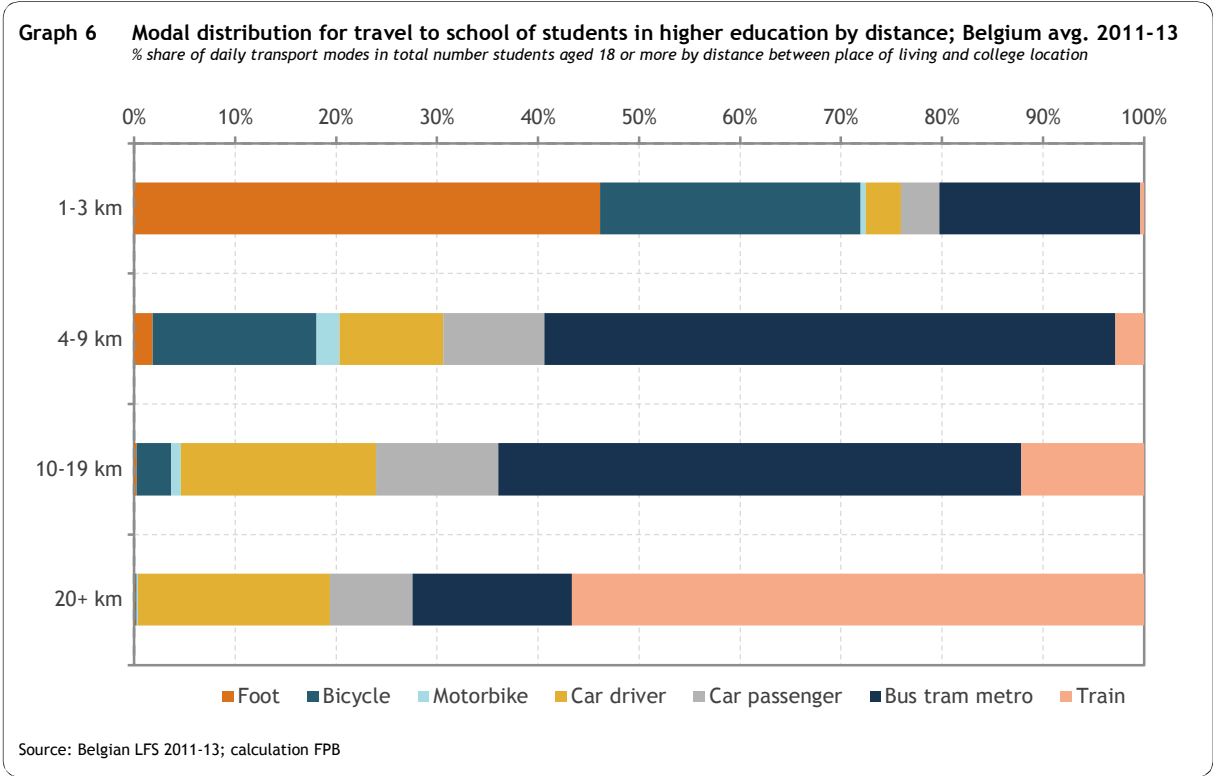
¹ For comparison with 1991 and 2001, we present the share of *students* who use car as their main transport mode for travel to school. Statistics for travel to work are based on share of *trips*.

changing attitude towards travel in the young generation, and a modal shift in urban areas seem to reinforce each other in this specific population. Students in higher education are more concentrated in cities than workers, as many of them live “op kot”, near their college location.

4.2. Transport modes by distance

We look in more detail at transport modes students currently use for travel to school. As in Graph 5, we present the main travel modes students use for *daily* trips to college. Many students live close to their college location (“op kot”) and not at their parents’ home where they are officially registered. We do not include the (weekly) journeys between the official home address and the actual place of living, but only look at the daily travel between the place of living and college.

Graph 6 shows that students' choice of transport modes differs strongly by distance. For the shortest trips up to 3 km, students predominantly prefer slow transport modes: 46 per cent go by foot and 26 per cent by bike. For longer distances, public transport modes are the most important means of travel: bus, tram and metro have a share of over 50 per cent for distances between 4 and 19 km, while for daily trips longer than 20 km, the majority of students go by train. A minority of students go to college by car: the highest share is found in distances between 10 and 19 km, where about 30 per cent students travel by car. Many of them travel as passengers, which indicates a high rate of carpooling: they travel with other students driving the car or with individuals driving to work or another destination.



Below, we discuss regional differences in the modal distribution of students. They will partly depend on different travel distances across regions. Table 2 shows that the average travel distance is the shortest among students living in the Brussels-Capital Region (8 km), while it is 19 km in Flanders, and 20 km in Wallonia. The majority of students in the Brussels-Capital Region live very close to college: for 75 per cent of them, the daily travel distance is less than 10 km and one in three students even live at walking distance (1 to 3 km). Flemish and Walloon students travel longer distances: only about 40 per cent live at a distance shorter than 10 km, while more than one in three students travel more than 20 km to college.

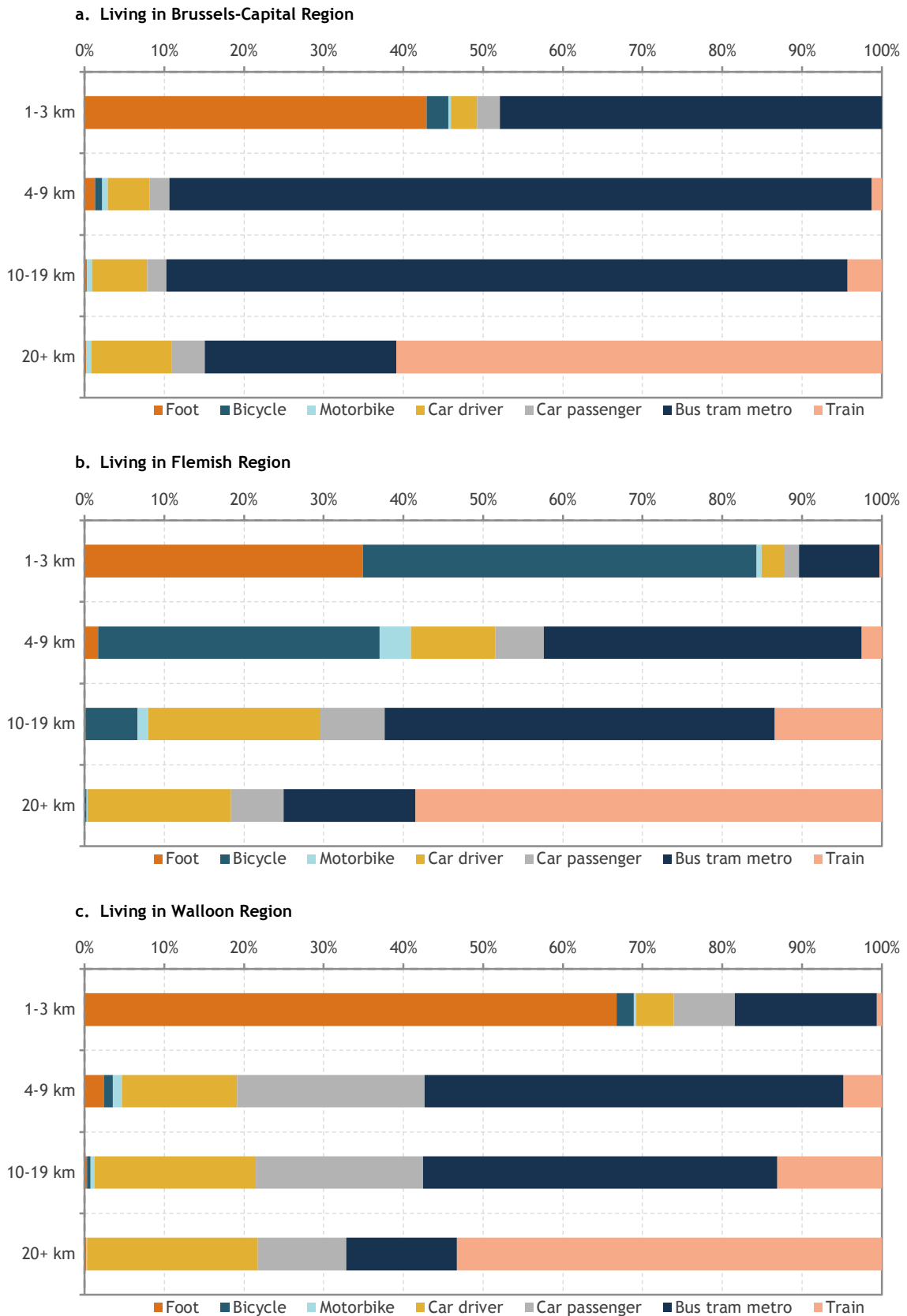
Table 2 Students by distance between place of living and college location; avg. 2011-13

	Region of living			
	Belgium	Brussels-Capital Region	Flemish Region	Walloon Region
Average distance (km)	18	8	19	20
% share of students by distance				
1-3 km	24	33	23	22
4-9 km	22	42	19	19
10-19 km	20	17	20	22
20+ km	33	7	38	37
Total	100	100	100	100

Source: Belgian LFS 2011-13; calculation FPB.

As for travel to work, a combination of various factors such as access to transport modes and attitude towards mobility leads to different modal choices made by students in the three regions, even for similar travel distances. This is presented in Graph 7.

Graph 7 Modal distribution for travel to school of students in higher education by distance; avg. 2011-13
% share of daily transport modes in total number students aged 18 or more by distance between place of living and college location



Source: Belgian LFS 2011-13; calculation FPB

Regional particularities in transport choices, as we already observed for travel to work, are strongly noticeable for students: students living in Brussels predominantly use public transport, Flemish students are frequent bicycle users, and carpooling is more common among Walloon students.

In the Brussels-Capital Region, students mainly travel by public transport: bus, tram and metro are used by almost half of the students living at less than 4 km from college and, in combination with the train, by more than 85 per cent of the students living further away. This reduces car users to only a small share of students living in Brussels (8 per cent).

Flemish and Walloon students are less frequent users of public transport than their Brussels peers. For short distances (1-3 km), they mostly go to college by foot or bike. For longer distances, public transport is the main travel mode, but the shares remain far below the ones in Brussels. Students living in larger cities like Antwerp and Liège do frequently use public transport modes, but in other cities, where the public transport network is less dense, BTM and the train have much smaller shares. The lower accessibility to public transport leaves room for higher car use. For travel distances above 3 km, one in four Flemish students and more than one in three Walloon students go to college by car.

The higher share of car users among Walloon versus Flemish students is partly explained by a large difference in bicycle use. For Flemish students, cycling is a common way for travelling to college: for short distances (1-3 km), one in two students travel by bike, and for distances between 4 and 9 km, the share of cycling is one in three. By contrast, bicycle use is almost absent in the modal choice of Walloon students, even for short distances. The higher share of travel by car among Walloon students is partly mitigated by the common use of carpooling: one in two car users travels as a passenger, compared to one in three in the other regions.

5. Conclusion

Recent transport studies find that car use in high density cities and among young adults is declining in several developed countries. In metropolitan areas, car use is declining in favour of slow and public transport modes. Also young adults have changed preferences away from private cars towards the bicycle and public transport. Looking at changes in daily transport means for travel to work and school, we find similar trends in Belgium.

While the car remains the dominant transport mode for travel to work in Flanders and Wallonia, car use has decreased among people working in the Brussels-Capital region since the beginning of the century. Public transport in Brussels has gained in proportion and is used for 44 per cent of the trips to work.

For daily commuting over short distances, current transport choices differ strongly between regions: in the Brussels-Capital Region, the increased use of bus, tram and metro has challenged the dominant position of private cars. Flanders most noticeably differs from other regions with the frequent use of the bicycle. In Wallonia, the car remains the dominant transport means for commuting, even for short distances; its high share is however somewhat mitigated by the more common use of carpooling.

For longer travel distances to work, only Brussels-Capital Region differs, with a high share of the train as an important alternative to car. In Flanders and Wallonia, by contrast, jobs located at further distance from home are predominantly reached by car.

Among students in higher education, the modal shift from the car to slow and public transport modes is more general and more noticeable. In the three Belgian regions, car use for travel to college has strongly decreased since the beginning of the century. In Brussels, the decline has been most pronounced: today, less than one in ten students travel to college by car. Public transport is the preferred transport alternative for students in all three regions. At the same time, student's choices for more sustainable travel modes reflect the regional differences observed among workers. Students in Brussels predominantly travel by bus, tram or metro, Flemish students are intense bicycle users, and Walloon students prefer carpooling.

Annex: Labour Force Survey (LFS) - Mobility Module

Since 2011, the Belgian LFS includes questions on travel to work and school. The LFS sample is representative for the entire working population, but only includes individuals aged 15 or more. Because children at secondary school age are only partially covered, we have focused in this paper on students in higher education (aged 18 or more). The LFS produces high-quality results, based on computer assisted face-to-face interviews. Statistics presented in this report are based on survey results of 12 quarters (2011q1-2013q4) and weighted to be representative of the populations discussed. The sample includes trip rates and mode distributions of 93 000 workers and 10 500 students in higher education. The large sample size makes it possible to disaggregate the results at the regional level.

Main mode

Mode distributions represent the main mode used to go to work or school in a typical week. LFS respondents are asked to list the use of transport modes to work or school in chronological order. If more than one mode is used, we assign the main mode by choosing the highest ranked mode from following priority list.

Table 3 Priority list for combined transport modes

-
1. Train
 2. Car as passenger
 3. Car as driver
 4. Bus, tram, metro
 5. Motor
 6. Bicycle
 7. Foot
-

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