



An Roinn Iompair,
Turasóireachta agus Spóirt
Department of Transport,
Tourism and Sport

Sustainable Mobility Policy Review

Background Paper 9
Statistics and Trends



Contents

Context and questions for consideration.....	1
1 Introduction.....	2
2 Trends in public transport use	4
3 Demographics of public transport users.....	16
4 Finances and funding.....	25
5 Availability and reliability	38
6 Operator statistics.....	45
7 Conclusion	55
Acronyms.....	57
Data Sources and References.....	58

List of Figures

Figure 2.1:	Numbers commuting to work, school or college by mode, 2006-2016	5
Figure 2.2:	Public transport use to work, school or college, 1986-2016	5
Figure 2.3:	Work commutes by transport mode, 1996 to 2016	6
Figure 2.4:	Public transport use by work commuters, 1986-2016.....	7
Figure 2.5:	Public transport use by school, and college students, 2006-2016	8
Figure 2.6:	Breakdown of daily journeys by purpose, 2016	9
Figure 2.7:	Percentage of all adult journeys by mode, 2012-2016	9
Figure 2.8:	Percentage of journeys made by public transport, Dublin and rest of country.....	10
Figure 2.9:	Dublin Canal Cordon Count, 2010-2018	11
Figure 2.10:	Dublin Canal Cordon Count by public transport mode, 2010-2018	11
Figure 2.11:	Percentage of commuting journeys to work by public transport, 2016	13
Figure 3.1:	Regional breakdown of work commuters' car and public transport use, 2016.....	17
Figure 3.2:	Age breakdown of work commuters' car and public transport use, 2016.....	18
Figure 3.3:	Gender breakdown of work commuters' public transport use, 2016.....	18
Figure 3.4:	Work commute journey duration in minutes, urban areas, 2016.....	19
Figure 3.5:	Work commute journey duration in minutes, rural areas, 2016.....	20
Figure 3.6:	Average weekly expenditure on transport, 2015	21
Figure 3.7:	Overall satisfaction of public transport users.....	22
Figure 3.8:	Satisfaction with aspects of public transport by service	22
Figure 3.9:	Older people's rating of public transport.....	23
Figure 4.1:	Exchequer capital and current funding expenditure, 1995-2018.....	26
Figure 4.2:	Public transport expenditure as percentage of total Exchequer spend, 1998-2018.....	26
Figure 4.3:	IMMAC/Rail Safety Programme funding as a proportion of heavy rail capital allocation, 1999-2018	28
Figure 4.4:	Exchequer funding for PSO services (including Rural Transport Programme), 1998-2018.....	29
Figure 4.5:	PSO payments, 2010-2018.....	31
Figure 4.6:	Passenger revenue across PSO services, 2010-2018.....	31
Figure 4.7:	PSO subsidy/passenger revenue and passenger numbers, 2010-2018	32
Figure 4.8:	DEASP Free Travel funding & Free Travel Scheme recipients, 1998-2018.....	33
Figure 4.9:	DEASP Free Travel Scheme funding per recipient, 1998-2018	34
Figure 4.10:	DEASP funding per Free Travel Scheme (€m) by operator, 2013-2018.....	34
Figure 4.11:	DEASP Free Travel Scheme passenger journeys by operator, 2013-2018.....	35
Figure 4.12:	Comparison of road and public transport funding allocations, 1998-2018	36
Figure 5.1:	Bus stops versus population density by county, 2017	39
Figure 5.2:	Train stations versus population density by county, 2017	40
Figure 5.3:	Bus Éireann urban services operated as planned versus target, 2010-2017.....	42
Figure 5.4:	GDA bus and heavy rail services operated as planned versus target, 2010-2017 ..	42
Figure 5.5:	Intercity bus and rail services operated as planned versus target, 2010-2017.....	43
Figure 5.6:	Luas services - Percentage of timetabled kilometres delivered, 2010-2018.....	43
Figure 6.1:	Year-on-year change in public transport passenger numbers, 2011-2018.....	46
Figure 6.2:	Annual passenger numbers by operator, 2010-2018.....	46

Figure 6.3:	Bus Éireann passenger numbers in regional cities, 2011-2018.....	47
Figure 6.4:	Public transport passenger revenues by operator, 2010-2018.....	48
Figure 6.5:	Regional public transport passenger revenues (bus), 2013-2018.....	49
Figure 6.6:	Average fare by operator (excluding Free Travel Scheme), 2006-2018 (2006 prices).....	49
Figure 6.7:	Operating cost per passenger, 2006-2018.....	50
Figure 6.8:	Cost recovery (fares/operating cost), 2006-2018.....	51
Figure 6.9:	Bus fleet size, 2010-2018.....	52
Figure 6.10:	Average age of bus fleet, 2010-2018.....	53
Figure 6.11:	Wheelchair accessibility of bus fleet, 2013-2018.....	54

List of Tables

Table 2.1:	Public transport use by work commuters, 1986-2016.....	6
Table 2.2:	Dublin Canal Cordon Count, 2010-2018.....	12
Table 2.3:	Public transport modal share of commuting journeys by county, 2016.....	14
Table 3.1:	Percentage of older people reporting difficulty accessing public transport, 2015	24
Table 4.1:	PSO payments 2010–2018.....	30

Context and questions for consideration

This background paper is one of a number of papers that have been prepared by the Department of Transport, Tourism and Sport to inform a public consultation on Ireland's sustainable mobility policy. The review work arises from a commitment in the *Programme for a Partnership Government*¹ to review public transport policy "to ensure services are sustainable into the future and are meeting the needs of a modern economy". The public consultation is designed to give stakeholders, interested parties and the general public the opportunity to reflect on the information and analysis in the papers, to share their views, and to contribute to the development of a Sustainable Mobility Policy Statement.

Sustainable Mobility can be described as linking people and places in a sustainable way by supporting:

- comfortable and affordable journeys to and from work, home, school, college, shops and leisure;
- travelling by cleaner and greener transport; and
- a shift away from the private car to greater use of active travel (walking and cycling) and public transport (e.g. bus, rail, tram).

All elements of sustainable mobility (public transport, cycling, walking) are being considered in the policy review. Each background paper includes a number of questions to generate ideas about the extent to which the present approach to sustainable mobility is working well, the areas which are not, and future priorities.

This background paper brings together readily available data and statistics on public transport in Ireland in a single, concise reference document and poses the questions below. Data and statistics on active travel (cycling and walking) are included separately in *Background Paper 2: Active Travel*. This paper also sets out the historical trends and level of funding in sustainable mobility services and infrastructure.

Participants in the public consultation are not confined to answering the suggested questions and are invited to offer any other contribution they wish to make. It is recommended that submissions are confined to circa 2,500 words or less.

- 9.1 What data gaps and limitations exist in relation to the current statistics on public transport?
- 9.2 Given the competing demands for Exchequer funding across Government, are we prioritising the most appropriate areas of sustainable mobility for support?
- 9.3 Are there other potential sources of non-Exchequer funding that could be employed in the sustainable mobility sector?
- 9.4 Is the balance right between current and capital funding for sustainable mobility and what should be the medium and long-term priorities for funding of the sector?
- 9.5 Are there other challenges and issues that need to be addressed in this area?

1 Introduction

1.1 Structure of paper

Section 2: Trends in public transport use looks at recent and long-term trends in public transport use. It focuses on the extent to which public transport is used by commuters. It also looks at regional variations of public transport use by comparing commuting patterns between counties.

Section 3: Demographics of public transport users focuses on the profile of public transport users. The Section pays particular attention to private car users as this is the group that policy interventions are most likely to target. The factors that are included in the Section include age and gender, journey durations, transport expenditure and perceptions of public transport.

Section 4: Finances and funding focuses on the historical trends and level of funding invested in public transport services and infrastructure including Exchequer funding (capital and current) as a percentage of total Exchequer spending. The Section also looks at the trend of funding provided for Public Service Obligation (PSO) bus and rail services. Finally the Section briefly considers other financial supports such as the Free Travel and TaxSaver schemes.

Section 5: Availability and reliability considers the availability of public transport amenities with respect to geographic area and population size. The Section also looks at operation levels and punctuality of services.

Section 6: Operator statistics focuses on data for the public transport operators in Ireland. The Section outlines annual passenger numbers, revenues and operating costs. It also provides details on the size and age of the bus fleet currently in operation in Ireland.

1.2 Public transport data

The data in this paper on trends and demographics of public transport use has mainly been sourced from the Central Statistics Office (CSO) and the National Transport Authority (NTA), supported by some additional data on attitudes towards public transport undertaken by Millward Brown, The Irish Longitudinal Study on Ageing (TILDA), and the Healthy and Positive Ageing Initiative.

With regard to CSO data, the National Travel Survey asks a sample of respondents aged 18 or over about their travel on a chosen reference day, with questions relating to journeys taken, reasons for travel and transport mode. The National Transport Survey has been conducted as a module of the Quarterly National Household Survey in the fourth quarters of 2012, 2013, 2014 and 2016, with the next survey currently scheduled to take place in the fourth quarter of 2019.

However, while the National Travel Survey is perhaps more transport-focused, the CSO recommends that the Census be used as the definitive source of data regarding travel to work, school or college. In contrast to the National Travel Survey, the Census allows for third party

responses and data should, therefore, reflect the whole population rather than just sampled adults.

Moving from passengers to operators, the NTA collects and publishes detailed information regarding services in regular quarterly performance and statistical reports.

The financial information presented is drawn from available data relating to public transport funding in the Revised Estimates Volumes (REV) for the Public Service; Department of Transport, Tourism and Sport (DTTAS) financial system reports (Agresso); the Databank of the Department of Public Expenditure and Reform (DPER); the National Transport Authority; and annual reports from key transport operators (C oras Iompair  ireann (CI ), Bus  ireann, Dublin Bus, and Iannr d  ireann).

2 Trends in public transport use

Summary

- Commuters using public transport increased by 10% to 396,000 between 2011 and 2016. However, with almost 1.8 million commuting by car, people are over four times more likely to commute by car than public transport.
- The number commuting by public transport has increased by 14% since 1986. However, population and economic growth have seen the total number commuting rise by 62% across the same period.
- Beyond commuting, just 5.5% of all journeys made are by public transport compared to 74.3% by car.
- Residents of Dublin are over six times more likely to travel by public transport than people living in the rest of the country.

2.1 Introduction

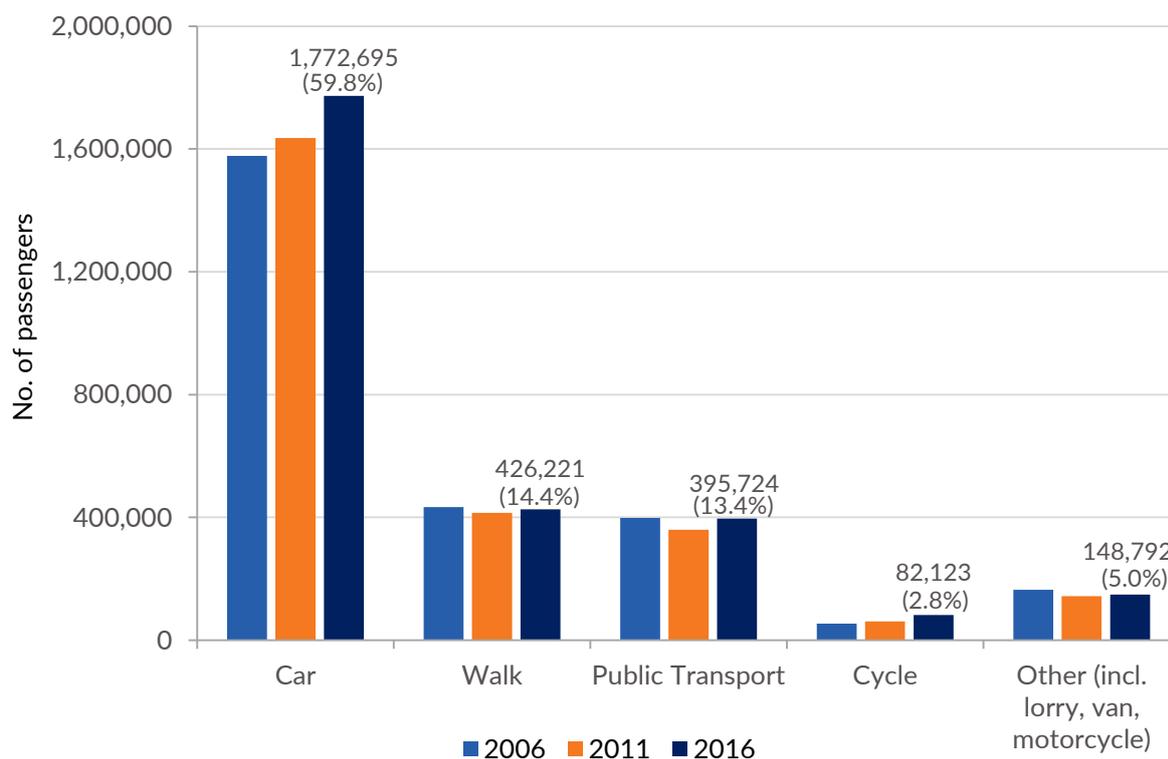
This Section of the paper looks at recent and long-term trends in public transport use. It establishes the extent to which public transport is used by commuters, paying particular attention to workers. As commutes represent just a third of all journeys, this Section also looks at broader public transport use. Finally, some consideration is given to the regional variations in public transport use which can be obscured by aggregated statistics at the national level.

2.2 Commuting journeys

The Census is the primary source of reliable data on commuter journeys based on a question about people's "usual" mode of transport to work, school or college. Census 2016 shows that after a period of decline following the recession, the number of people commuting increased by 9.3% from 2011 to 2016 to almost 3 million. Growth in public transport use was broadly in line with this, rising by 10% in the same period to 395,724. In 2016, public transport was the third most common mode of commuting, behind private cars and walking, at 13.4%, a decline from nearly 15% in 2006 but a marginal increase from 13.3% in 2011. The number of people commuting by different modes in 2006, 2011 and 2016 is shown in Figure 2.1.

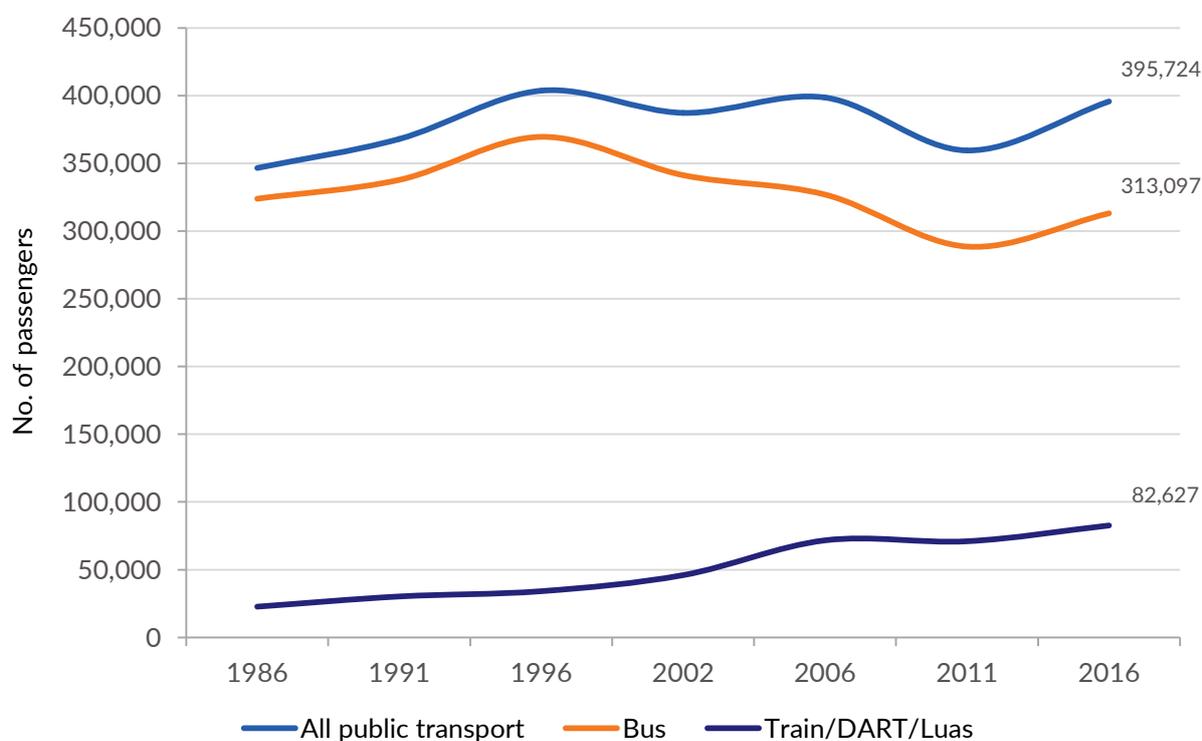
Going back further, overall public transport use has increased by 14% over the last 30 years, though this is against a backdrop of population and economic growth which have resulted in an increase of 62% in the overall numbers commuting. Figure 2.2 shows the long-term trend in public transport use by commuters.

Figure 2.1: Numbers commuting to work, school or college by mode, 2006 - 2016



Source: CSO Census

Figure 2.2: Public transport use to work, school or college, 1986 - 2016

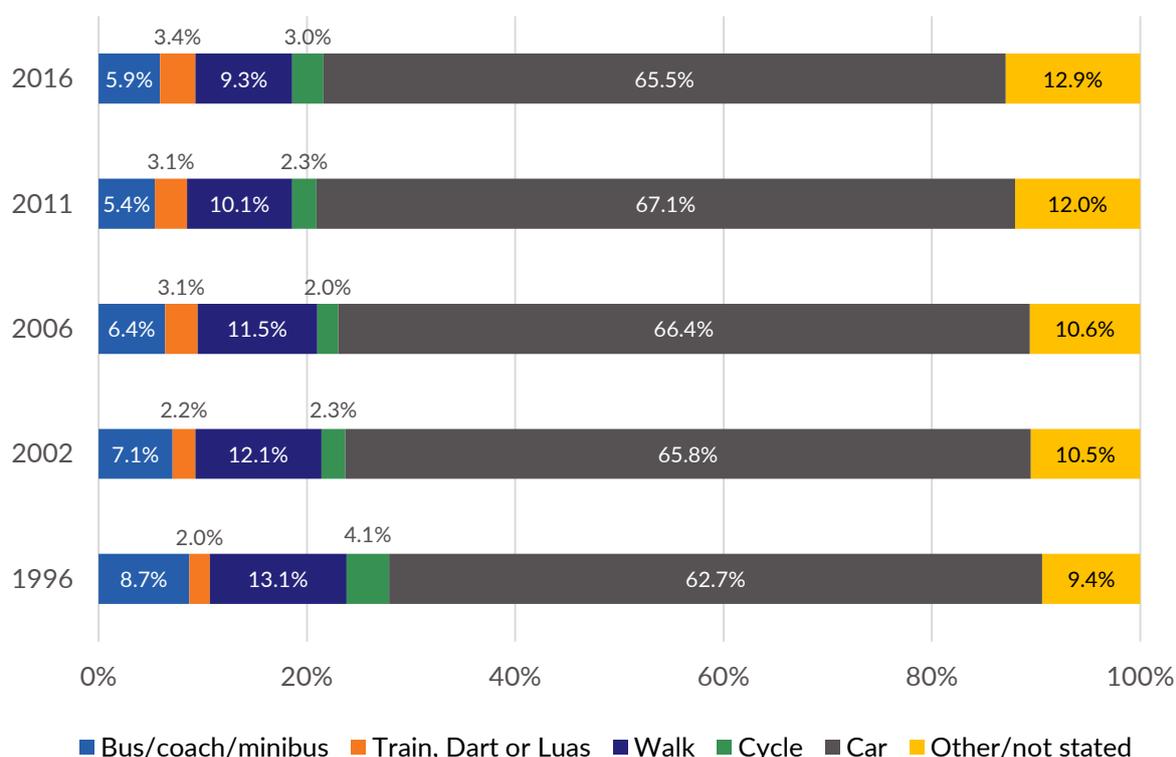


Source: CSO Census

2.3 Work journeys

Looking just at the workforce, out of the almost 1.9 million people commuting to work in 2016, car was the dominant mode of transport used by two thirds of workers. 9.3% of workers commuted using public transport, almost identical to the numbers walking. The share of work commutes made by different modes from 1996 to 2016 is shown in Figure 2.3.

Figure 2.3: Work commutes by transport mode, 1996 to 2016



Source: CSO Census

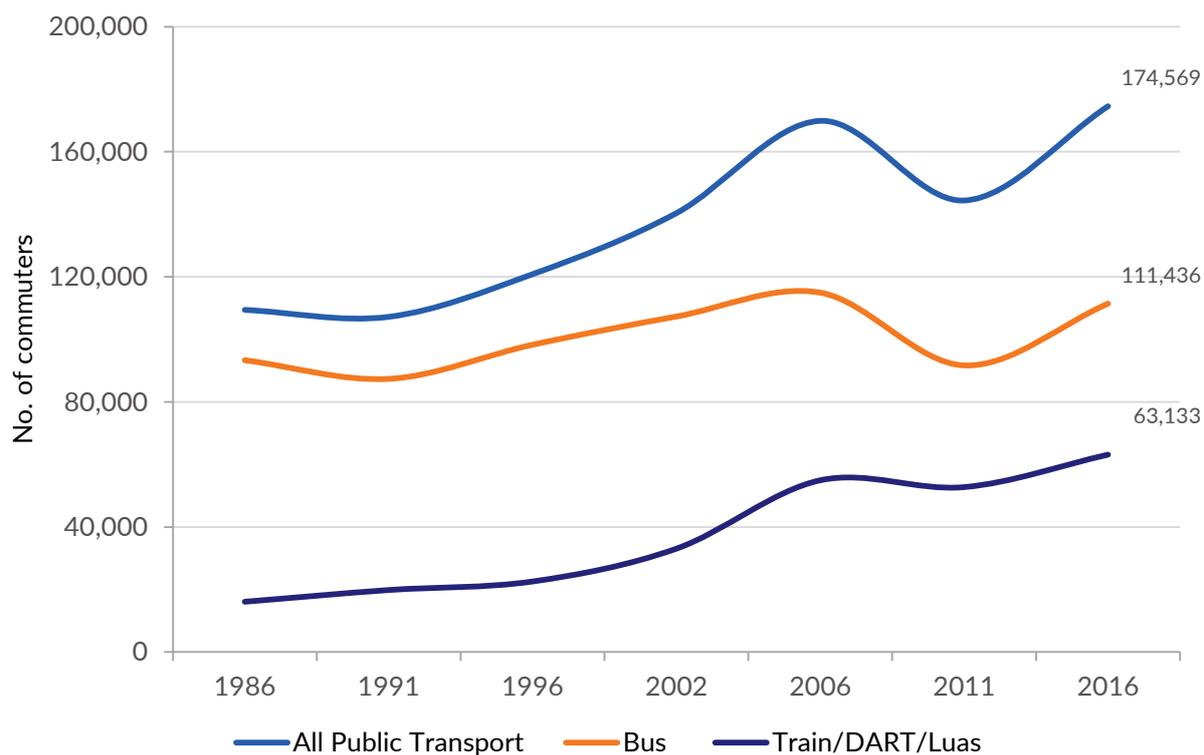
Almost 175,000 workers now commute by public transport, an increase of over 30,000 since 2011 and up 60% since 1986. As seen in Table 2.1 and Figure 2.4, rail accounts for most of the increase over the last 30 years with the number of rail commuters quadrupling alongside a considerable expansion of the network, particularly the DART and Luas. Since 2011, the number of rail commuters increased by 20% to 63,133, while the numbers travelling to work by bus rose by almost 20,000 to 111,436. This was the largest increase in 30 years but the number commuting by bus remains below the peak of almost 115,000 recorded in 2006.

Table 2.1: Public transport use by work commuters, 1986 - 2016

	1986	1991	1996	2002	2006	2011	2016
Bus	93,336	87,377	98,289	107,315	114,956	91,676	111,436
Train/DART/Luas	16,096	19,834	22,568	33,066	54,942	52,749	63,133
All Public Transport	109,432	107,211	120,857	140,381	169,898	144,425	174,569

Source: CSO Census

Figure 2.4: Public transport use by work commuters, 1986 - 2016



Source: CSO Census

2.4 School and college students

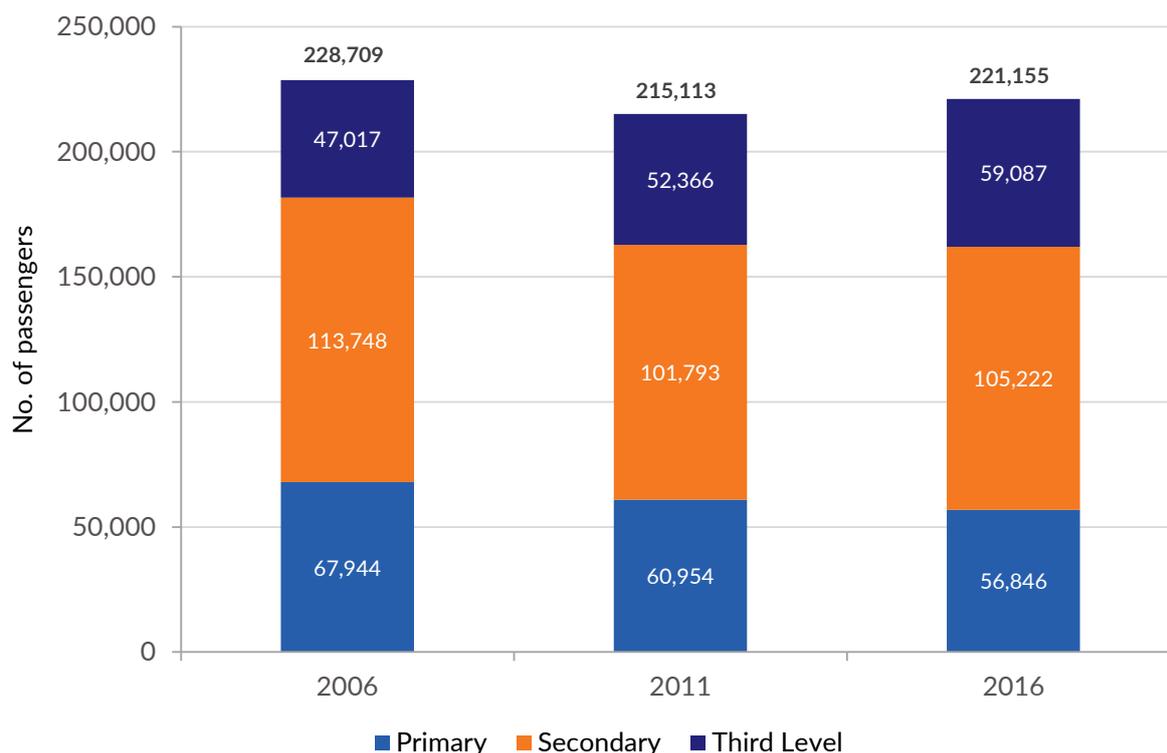
As shown in Figure 2.5, the number of students travelling by public transport has risen by 3% since 2011 to 221,000. This growth is mainly attributable to a 13% increase in the number of third-level students using public transport to just over 59,000. This compares with a 7% drop in the number of primary pupils to just fewer than 57,000 and a 3% rise in the number of secondary pupils to just over 105,000.

The decline in primary school children using public transport from 68,000 in 2006 to 57,000 in 2016 has not been driven by demographics, with the population of aged 14 or under actually growing over the same period from 865,000 to just over 1 million. The share of primary school pupils travelling to school by public transport has fallen from about one in six (15.4%) to just over one in ten (10.4%).

Among secondary pupils the numbers using public transport fell from 114,000 in 2006 to 105,000 in 2016, with the public transport modal share for that group declining from just over a third to 30.1%.

For all school students the largest modal increase was in the number travelling by car.

Figure 2.5: Public transport use by school, and college students, 2006 - 2016



Source: CSO Census

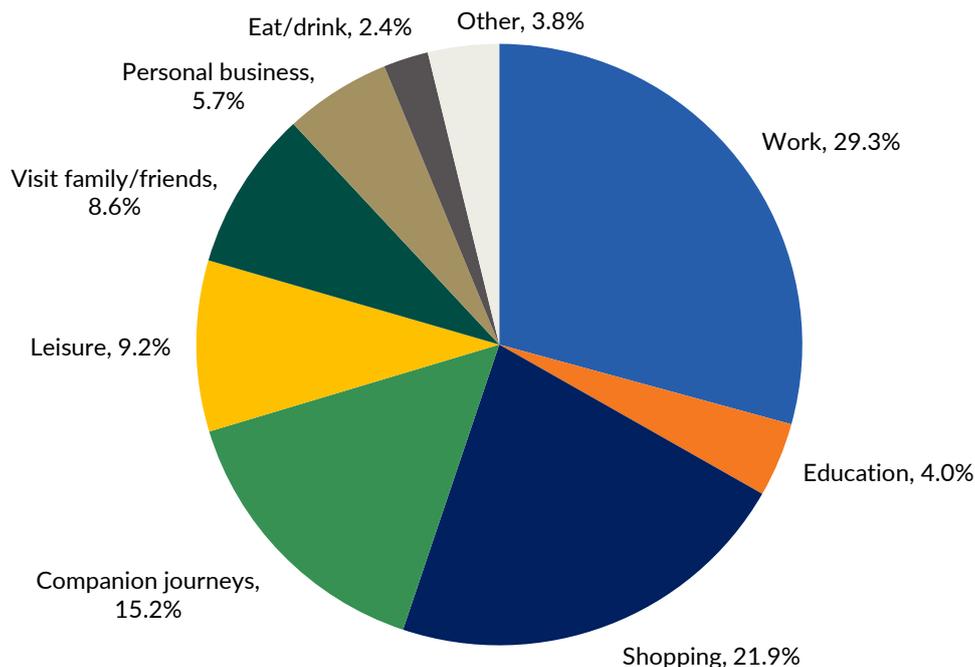
In contrast to the declining use of public transport by school students, the number of third level students travelling by public transport rose by over 25% between 2006 and 2016, from 47,000 to 59,000. This represents 31% of all third level students and is similar to the proportion of that group travelling by car at 33.6%.

2.5 Total journeys

So far, this Section has focused on journeys made by public transport to work, school and college. However, commuting journeys such as these represent just one third of all journeys made on any given day, as shown in Figure 2.6. Given that two-thirds of journeys relate to other purposes, it is necessary to look at data that includes shopping, leisure and other trips to get a complete picture.

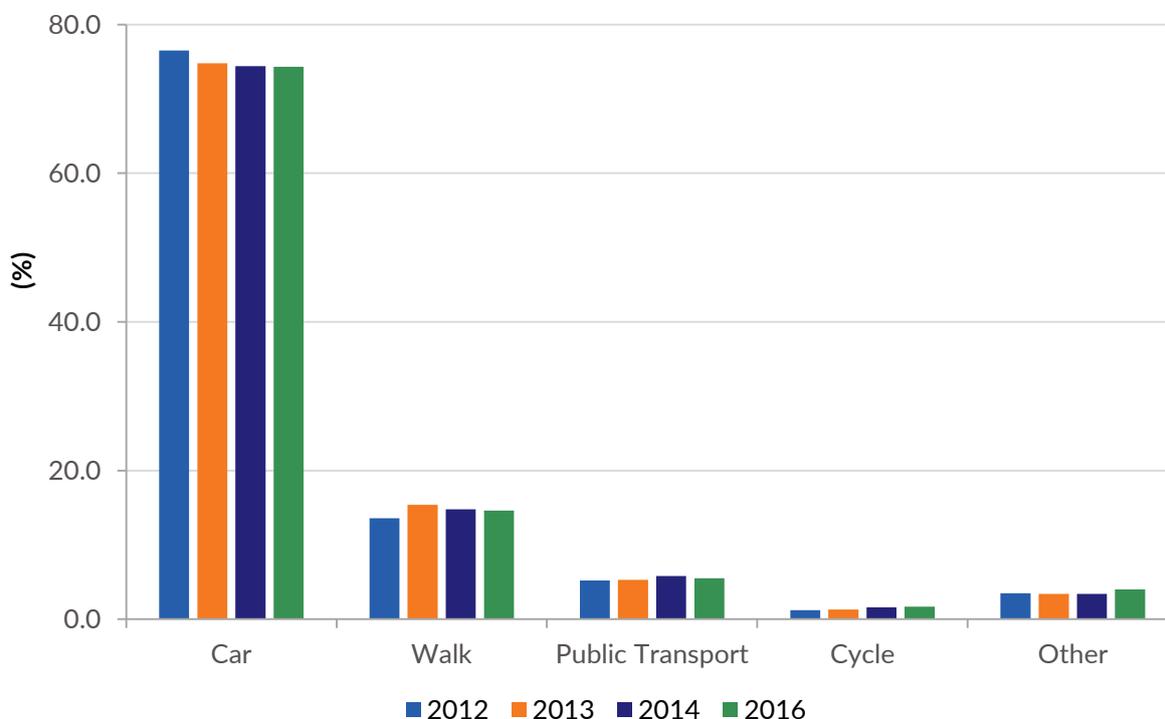
The National Travel Survey data, which is nationally representative of the adult population, indicates that the share of all adult journeys made by public transport has risen from 5.2% in 2012 to 5.5% in 2016, as shown in Figure 2.7. Bus journeys account for three quarters of public transport's share of journeys, comprising 4.2% of total trips.

Figure 2.6: Breakdown of daily journeys by purpose, 2016



Source: CSO National Travel Survey 2016

Figure 2.7: Percentage of all adult journeys by mode, 2012 - 2016



Source: CSO National Travel Survey

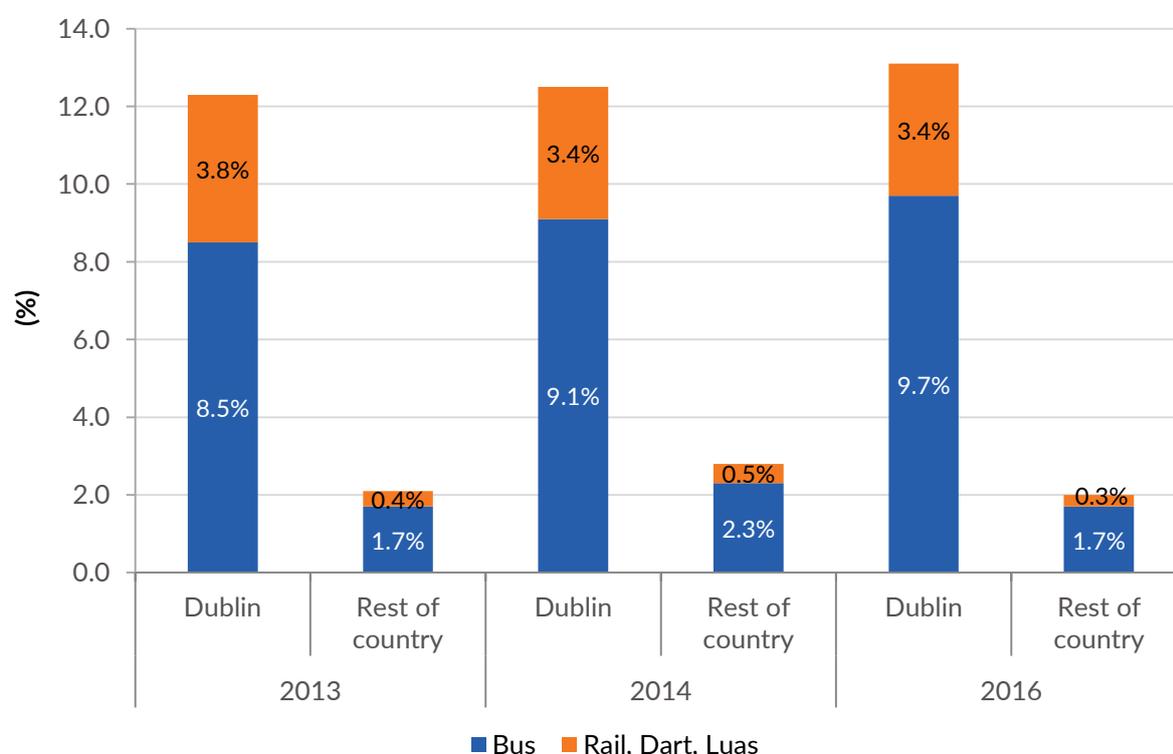
Another source of information on journey modes comes from the NTA’s National Household Travel Survey with the most recent survey conducted in 2017. Data was gathered through two sources – a survey of almost 6,000 households nationally and a 3-day travel diary of each person

over 4 years old in that household which captured over 62,000 trips. The survey found that 7 in 10 of all trips taken nationally are by car. Walking was the next most popular mode of transport, accounting for just under one fifth of trips, with 5% of trips by public transport and 3% by cycling.

2.6 Geographic variations in public transport use

There are pronounced regional differences in public transport use, particularly between Dublin and the rest of the country as shown in Figure 2.8. With just 2% of journeys in the rest of the country being made by public transport, on a proportional basis there are roughly six times as many journeys made by public transport in Dublin. Indeed, it appears that this disparity has grown between 2013 and 2016.

Figure 2.8: Percentage of journeys made by public transport, Dublin and rest of country

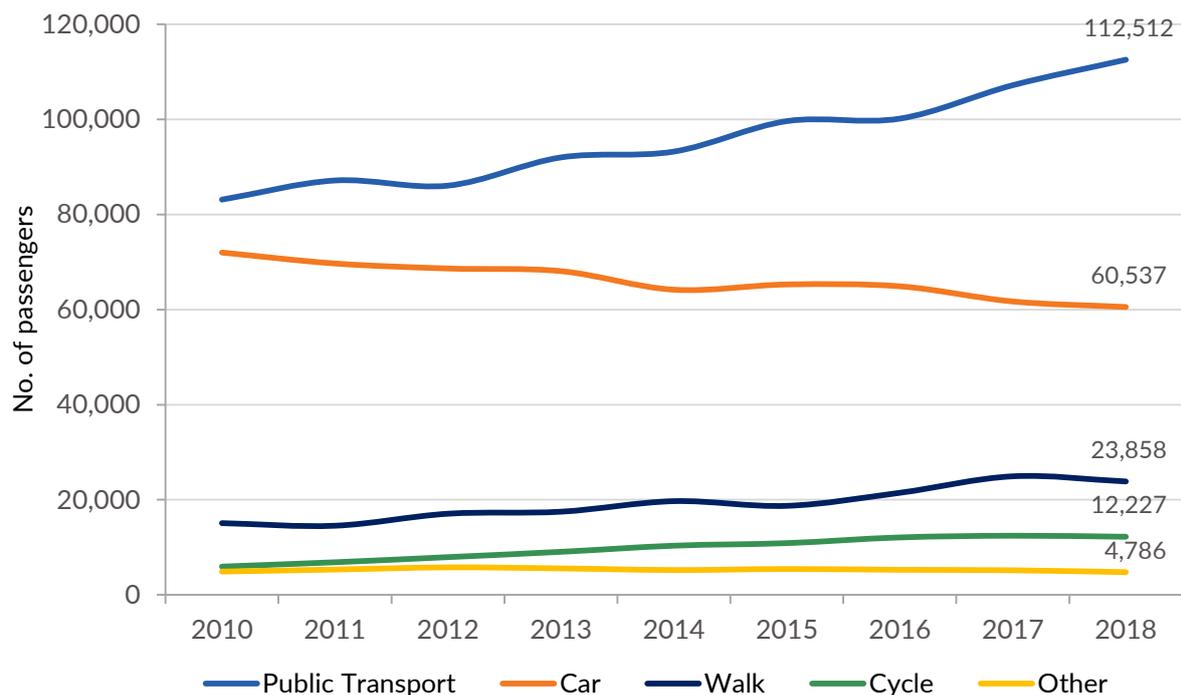


Source: CSO National Travel Survey

The Canal Cordon Count is an annual survey conducted by Dublin City Council and the NTA of the number of people and vehicles travelling into Dublin city centre between 7am and 10am on a comparable day each year, giving more detail about peak time travel trends in central Dublin.

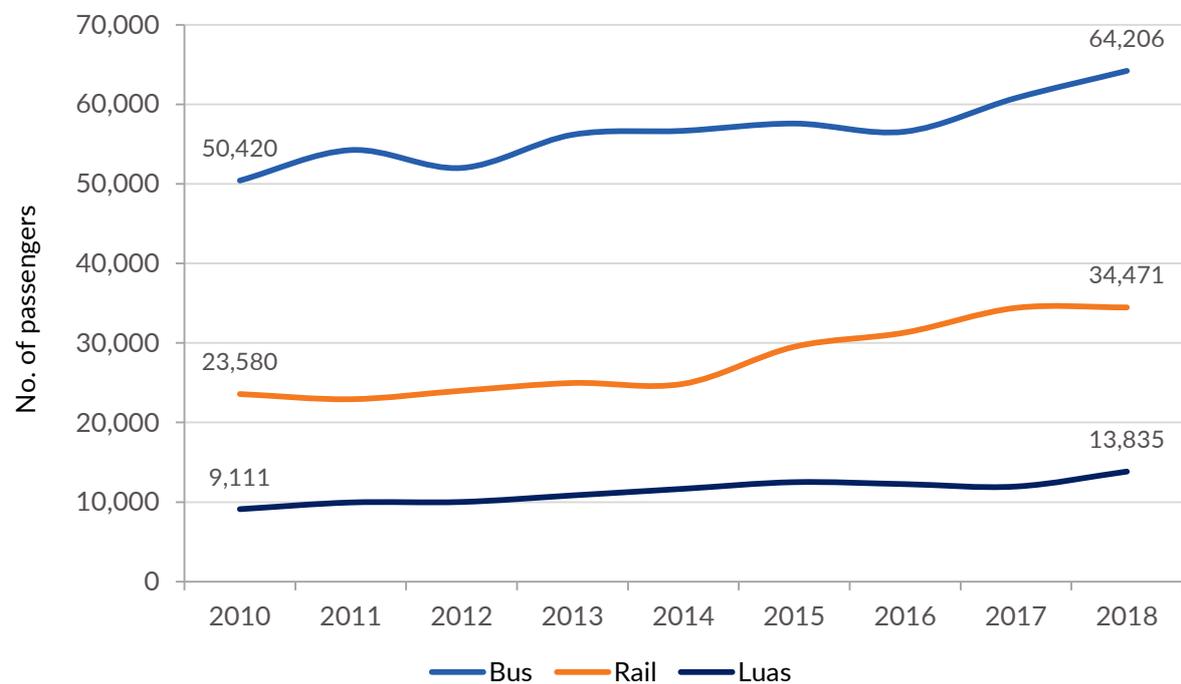
As shown in Figure 2.9, the number of people travelling into Dublin city centre by public transport during morning rush hour increased by 35% between 2010 and 2018 from 83,111 to 112,512. This increase includes a rise of 5% between 2017 and 2018 alone. It is also notable that over half (52.6%) of those entering Dublin city centre during the morning peak used public transport according to the 2018 survey whereas car use declined to 28.3%.

Figure 2.9: Dublin Canal Cordon Count, 2010 - 2018



Source: NTA Canal Cordon Count, 2018

Figure 2.10: Dublin Canal Cordon Count by public transport mode, 2010 - 2018



Source: NTA Canal Cordon Count, 2018

The survey, which includes both public services such as Dublin Bus and Bus Éireann as well as private bus services, shows that the number of buses entering the city centre increased by 8.8% from 1,688 in 2010 to 1,837 in 2018.

While public transport is the most frequently used mode during the morning rush hour period recorded by the Canal Cordon Count in Dublin city centre, the car is still a popular choice. Moreover, the percentage of work commuting journeys made by public transport throughout Dublin is just 21% (Figure 2.11). This indicates that public transport use is much less prevalent in the rest of Dublin city and county beyond the relatively small area bounded by the canals, where many bus and rail routes terminate and which has additional barriers to car use such as parking charges and congestion. It could also indicate that public transport use is the most popular mode in Dublin city centre during busy periods such as the 7am to 10am timeframe in which the Canal Cordon Count takes place, but is less heavily used outside of this.

Table 2.2: Dublin Canal Cordon Count, 2010 – 2018

	2010	2011	2012	2013	2014	2015	2016	2017	2018
Bus	50,420	54,251	52,007	56,177	56,671	57,584	56,572	60,798	64,206
	28%	30%	28%	29%	29%	29%	28%	29%	30%
Rail	23,580	22,932	23,999	24,969	24,866	29,521	31,309	34,409	34,471
	13%	12%	13%	13%	13%	15%	15%	16%	16%
Luas	9,111	9,949	10,014	10,835	11,670	12,503	12,254	11,953	13,835
	5%	5%	5%	6%	6%	6%	6%	6%	6%
Total PT	83,111	87,132	86,020	91,981	93,207	99,608	100,135	107,160	112,512
Car	71,978	69,681	68,626	68,072	64,169	65,269	64,885	61,694	60,537
	40%	38%	37%	35%	33%	33%	32%	29%	28%
Walk	15,092	14,551	17,070	17,495	19,711	18,727	21,473	24,936	23,858
	8%	8%	9%	9%	10%	9%	11%	12%	11%
Cycle	5,952	6,870	7,943	9,061	10,349	10,893	12,089	12,447	12,227
	3%	4%	4%	5%	5%	5%	5%	6%	6%
Other	4,909	5,335	5,795	5,579	5,234	5,446	5,281	5,179	4,786
	3%	3%	3%	3%	3%	3%	3%	2%	2%
All Trips	181,042	183,569	185,454	192,188	192,670	199,943	203,863	211,416	213,920

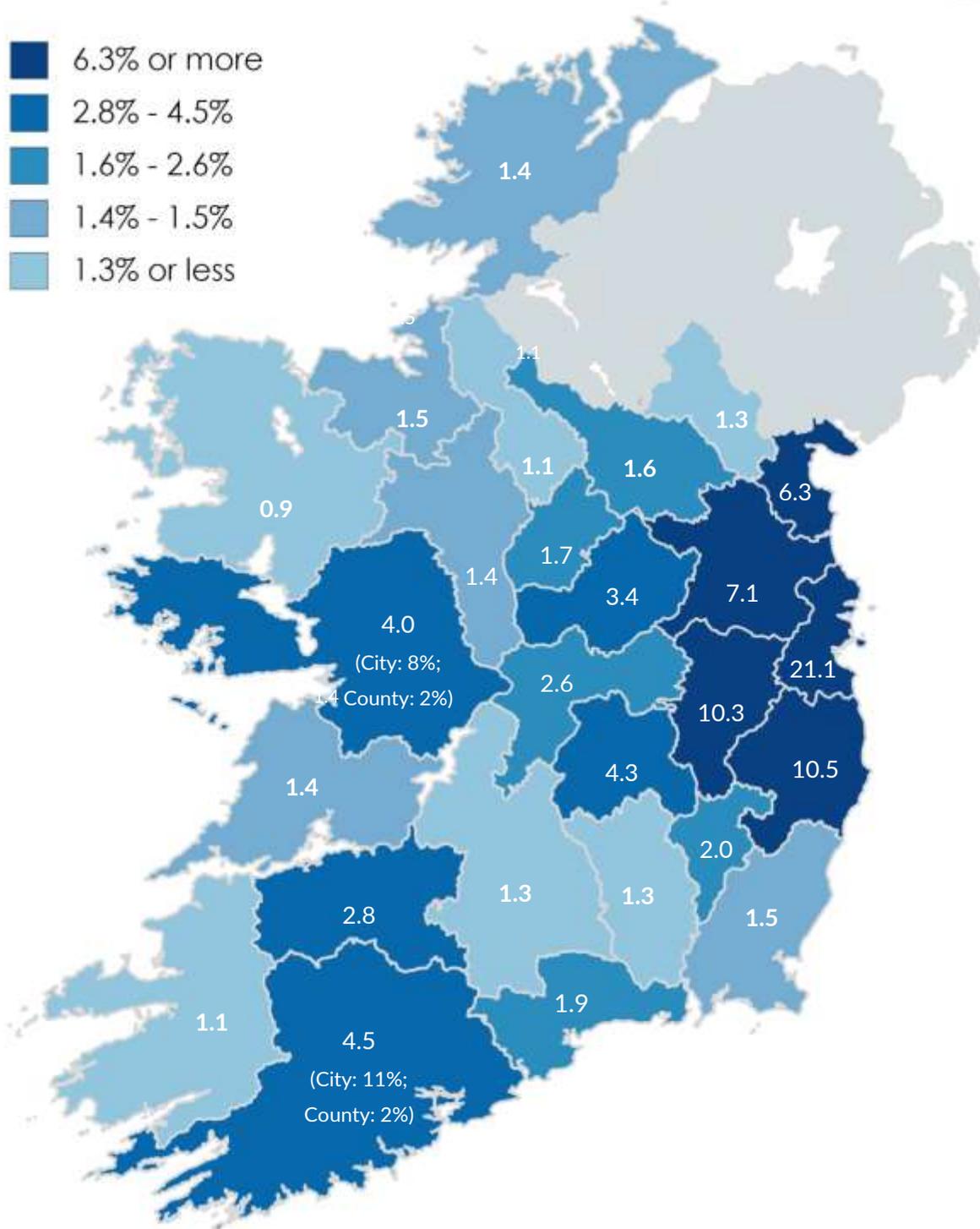
Source: NTA Canal Cordon Count

2.7 County commuting patterns

As shown in Figure 2.11, there is significant variation between counties in the share of workers using public transport for their daily commute, ranging from a high of 21% in Dublin to just 1% to 2% in some counties. Kildare and Wicklow are the only counties apart from Dublin where public transport use exceeds the national average of 9%. Indeed, the fact that the average is 9% is an indication of just how heavily Dublin skews the statistics at the national level – the median modal

share is 1.8%. It is also worth noting the relatively high public transport use in Cork and Galway cities, at 11% and 8% respectively. Although similar city/county breakdowns are not available for Limerick and Waterford, the low level of public transport use for these counties as a whole may suggest potential for increased public transport uptake once *National Development Plan* projects such as BusConnects are implemented.

Figure 2.11: Percentage of commuting journeys to work by public transport, 2016



Source: CSO Census

When school and college commuting is included, the proportion of public transport users rises to 13.4% nationally. While it remains highest in the Greater Dublin Area – 21.2% in Dublin, 14.6% in Wicklow and 13.9% in Kildare – some counties such as Donegal (13.7%), Cavan, Louth and Longford (all roughly 12%) have much higher modal shares for public transport when considering all commuters rather than just workers. However, the share of public transport users is still less than 8% in several southern counties such as Clare, Carlow, Tipperary and Waterford. Table 2.3 summarises the percentage of commuters travelling to work, college and school by public transport in each county, as well as those only commuting to work by public transport.

Table 2.3: Public transport modal share of commuting journeys by county, 2016

	All commuters	Workers
Dublin	21.2%	21.1%
Wicklow	14.6%	10.5%
Kildare	13.9%	10.3%
Donegal	13.7%	1.4%
Meath	13.3%	7.1%
Cavan	12.3%	1.6%
Louth	12.1%	6.3%
Longford	11.6%	1.7%
Leitrim	11.4%	1.1%
Monaghan	10.8%	1.3%
Laois	10.4%	4.3%
Offaly	10.2%	2.6%
Westmeath	9.7%	3.4%
Galway	9.7%	4.0%
Roscommon	9.1%	1.4%
Mayo	9.1%	0.9%
Wexford	9.0%	1.5%
Cork	9.0%	4.5%
Kilkenny	8.8%	1.3%
Sligo	8.3%	1.5%
Kerry	7.8%	1.1%
Tipperary	7.8%	1.3%
Limerick	7.5%	2.8%
Clare	6.9%	1.4%
Carlow	6.8%	2.0%
Waterford	6.6%	1.9%
Total	13.4%	9.3%

Source: CSO Census

2.8 Concluding remarks

Looking at the long-term, there has been growth of 14% in the use of public transport over the last 30 years or so. However, this growth must be viewed against the backdrop of a growing population and economy which has seen the number of commuters increase by over 60% in the same period. On a proportional basis, public transport use has failed to keep pace with wider transport growth and the private car is the dominant transport mode for most people. Indeed, looking at just the period between 2006 and 2016, the levels of public transport use appear to have stagnated, which can perhaps partially be explained by the impact of the recession.

Beneath the top-level figures, the main contributor to the growth in public transport use over the past 30 years has been rail, with large-scale investments such as the DART and Luas making this a more viable mode for many. These investments, which are concentrated in the Dublin region, where there is the highest population density, may also help to explain the wide geographic disparities that exist in public transport use. Almost half of all journeys made within the Dublin canals during the morning rush hour are by public transport, while for the wider county 21% of work journeys are by public transport. Beyond commuting, 13.1% of all journeys in Dublin were taken by public transport in 2016 and this contrasts strongly with the rest of the country at just 2%.

3 Demographics of public transport users

Summary

- Most work commuters travel by car, though public transport constitutes a significant amount of journeys within the Greater Dublin Area (GDA) and a negligible amount outside.
- The likelihood of a worker commuting by public transport declines with age.
- Rural households spend substantially more each week on transport than urban households, driven by expenditure on private transport.
- Among public transport users, satisfaction is high overall at over 90%, but this varies by service. Getting to destination on time is reported as the biggest driver of satisfaction.
- Public transport is perceived much more negatively in rural areas than in urban ones. 58% of adults aged 50 years and over living in rural areas rate their public transport options as poor or very poor compared to just 7% in Dublin.

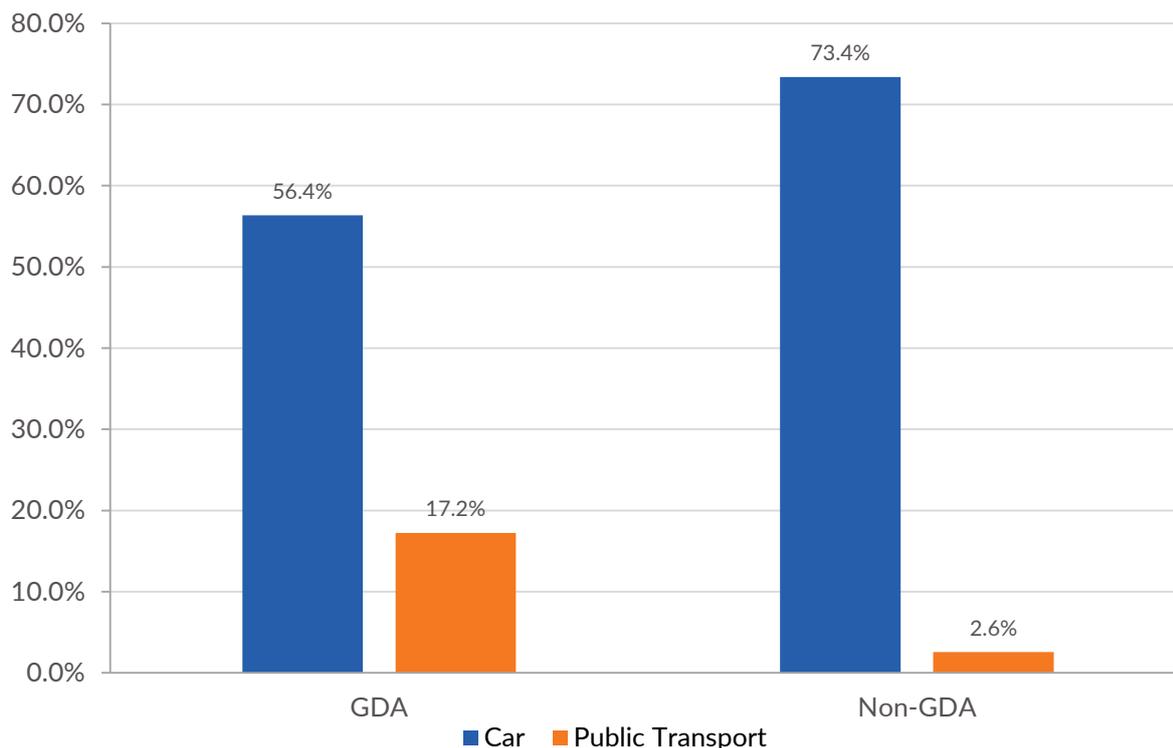
3.1 Introduction

Having looked at trends in public transport use, the objective of this Section is to establish a profile of public transport users. As national-level figures have a tendency to be skewed by Dublin and the Greater Dublin Area (GDA), as far as possible distinct GDA and non-GDA profiles are set out. The GDA comprises Dublin, Kildare, Meath and Wicklow. Specific consideration is given to car users as the group that policy interventions are most likely to target.

3.2 Public transport and car use compared

As was made clear in Section 2, the private car is the dominant mode of transport used by most people for most journeys. Similarly, this pattern is seen throughout the EU-28, with the private car dominating the modal split of passenger transport². Figure 3.1 compares the GDA and the rest of the country for the percentage of work commutes made by car and public transport, and a pronounced regional disparity is immediately evident. While the car is the primary mode used by the majority of commuters in both the GDA and the rest of the country, a sizeable minority of commuters in the GDA use public transport. This is not the case in the rest of the country, however, where just 2.6% of commuters use public transport as their primary means of getting to and from work.

Figure 3.1: Regional breakdown of work commuters' car and public transport use, 2016



Source: CSO Census

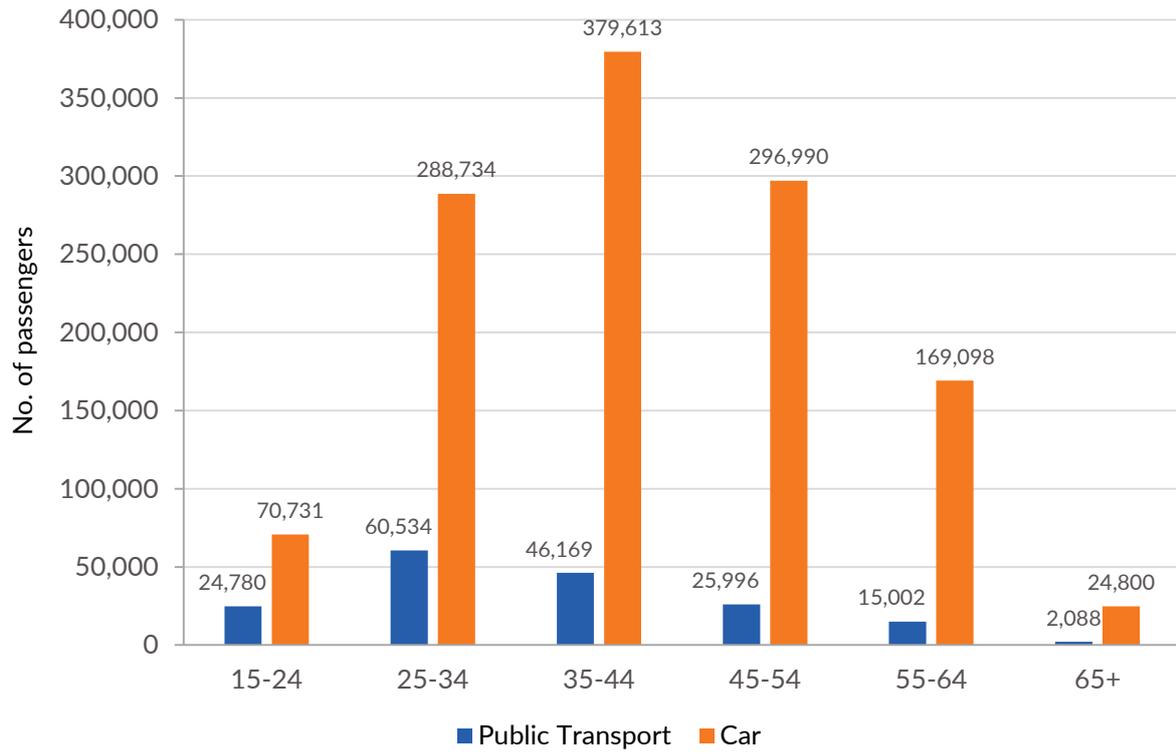
3.3 Age and gender of public transport users

Below the top-level comparison of public transport and car use given above, there are significant variations in the relative use of the two modes by different age groups. Figure 3.2 charts these differences.

Overall, the ratio of car to public transport use is 7:1. However, the ratio is less than 3:1 for work commuters aged 15 to 24 and over 11:1 for all groupings over the age of 45. The steady increase in the ratio of car to public transport use from the youngest group to oldest may indicate a greater propensity to use public transport among younger workers. While a long-term time series is unavailable, this hypothesis is supported by the fact that the comparable ratio for the 15 to 24 group was 4:1 in 2011, with 73,107 travelling by car and 18,192 travelling by public transport.

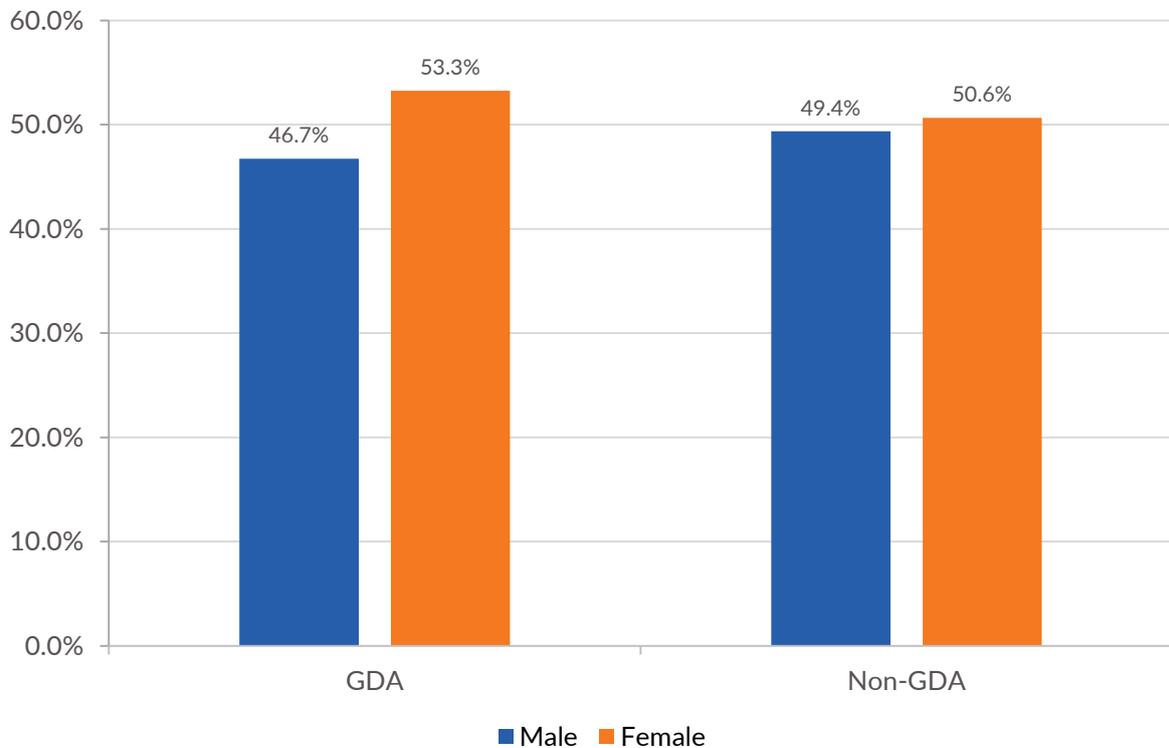
The percentage of female commuters who use public transport is slightly higher than male commuters. In the GDA, 53.3% of female commuters use public transport compared to 46.7% of male commuters, as shown in Figure 3.3. For the rest of the country the split is almost equal, with male commuters making up 49.4% of passengers and female 50.6%.

Figure 3.2: Age breakdown of work commuters' car and public transport use, 2016



Source: CSO Census

Figure 3.3: Gender breakdown of work commuters' public transport use, 2016



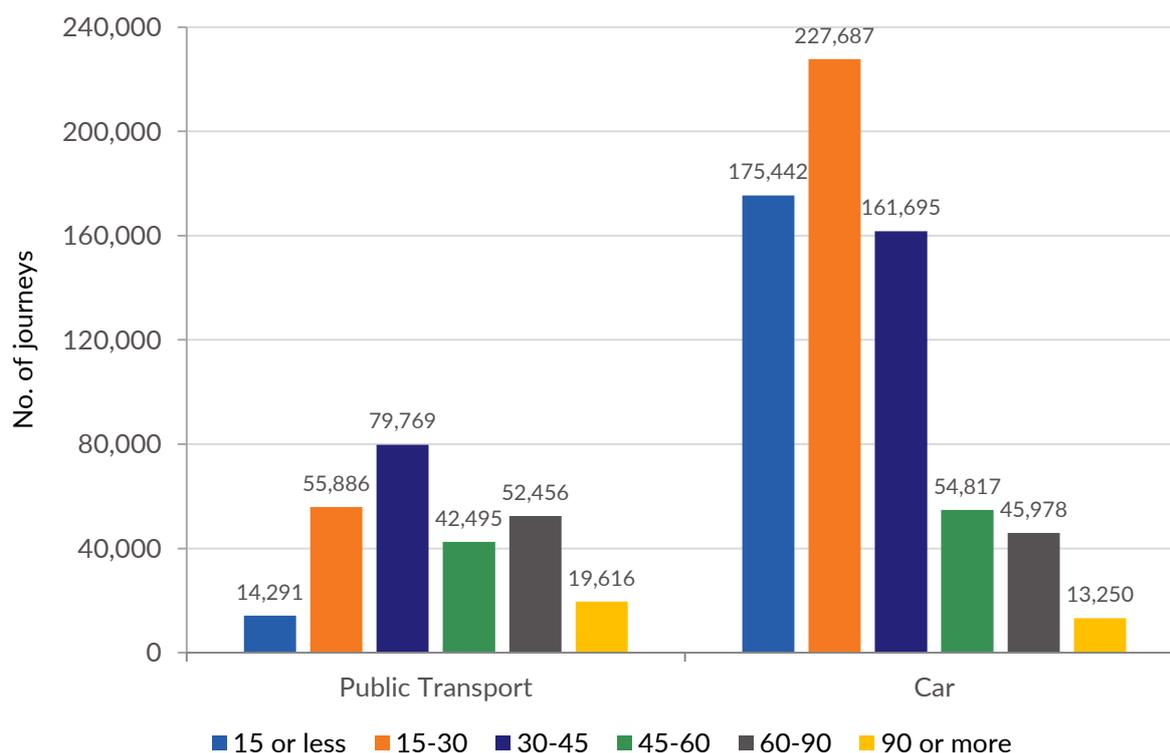
Source: CSO Census

3.4 Journey durations

Figure 3.4 and Figure 3.5 show average work commute durations for residents of urban and rural areas. In the case of urban residents, it can be seen that 56.7% of work commutes taken by public transport are completed within 45 minutes. Just 5.4% are complete within 15 minutes, perhaps indicating that people prefer other modes for very short trips, while just over a quarter of journeys take more than an hour. For commutes by car, over 80% are complete within 45 minutes and less than 10% take more than an hour. It should be noted, however, that urban areas here refers to 'aggregate towns', which the CSO defines as a population cluster of 1,500 or more inhabitants. It seems likely that work commutes by car will be longer in major urban centres such as Dublin where congestion is a well-documented and costly issue³.

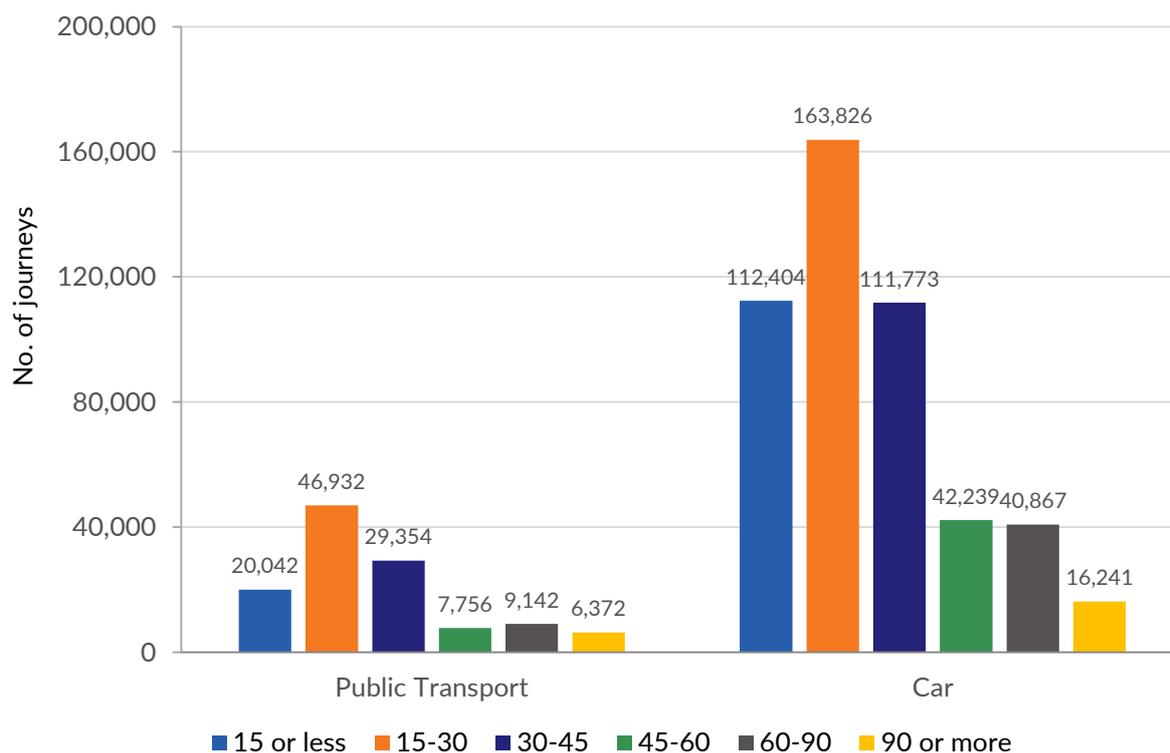
For rural areas, the car journey time distribution is broadly similar to that of urban areas, with just under 80% of trips complete within 45 minutes. Interestingly, just over 80% of work commutes by public transport taken by residents of rural areas are complete within the same timeframe. However, the absolute number of journeys taken by public transport is much lower, perhaps reflecting availability of this transport option for many rural commuters.

Figure 3.4: Work commute journey duration in minutes, urban areas, 2016



Source: CSO Census

Figure 3.5: Work commute journey duration in minutes, rural areas, 2016



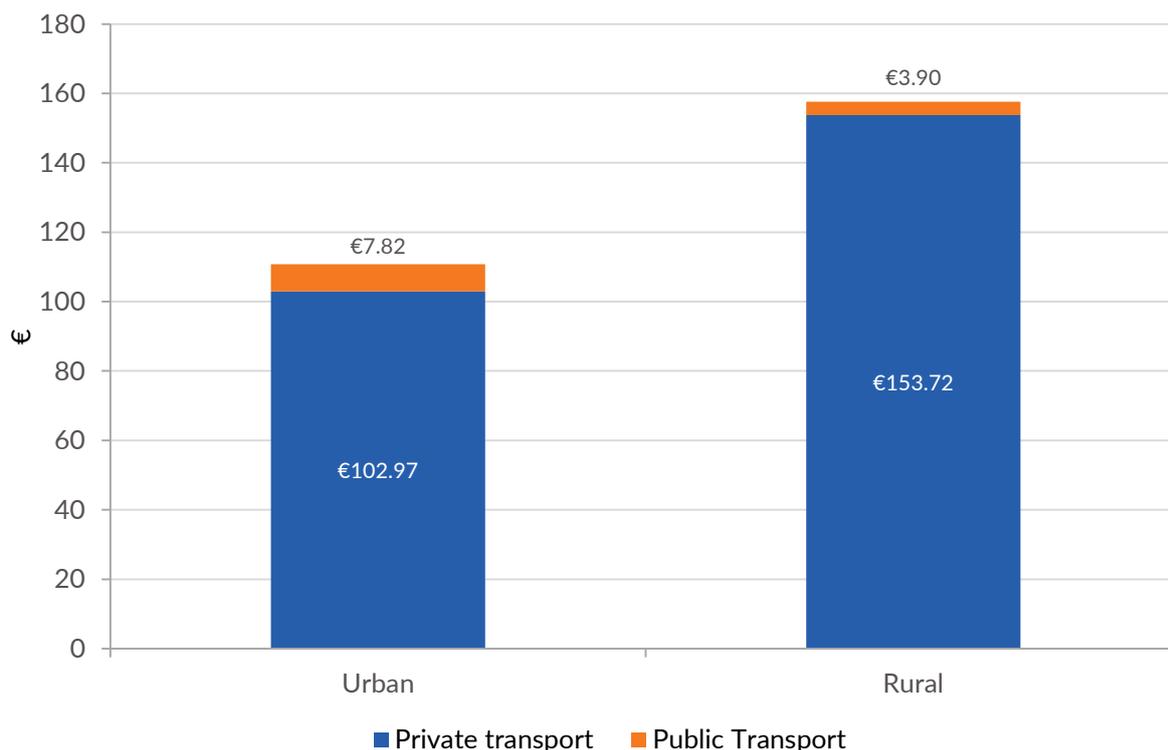
Source: CSO Census

3.5 Transport expenditure

Another indicator to consider is the amount spent on transport by rural and urban households. Figure 3.6 charts average weekly spends on private and public transport and it is clear that rural households expend significantly more on transport than urban ones. In total, rural households spend roughly €158 each week on transport compared to €111 by households in urban areas. Over the course of a year, this amounts to a difference of over €2,400. Indeed, excluding the catch-all category of miscellaneous goods, services and other expenditure, transport is the most significant weekly expense for rural households and third most significant for urban households. It is important to consider that on average, the distance travelled by rural households by private transport is longer than urban households⁴. These longer journeys require greater fuel consumption which in turn leads to higher weekly costs.

However, the CSO data also shows that urban households' relative savings in this area are more than offset by higher housing costs, which averaged €180 each week in 2015 compared to €127 for rural households. The disparity in transport spend between the two is attributable to the relatively large amount that rural households spend on private transportation. Rural households spend almost 49%, or €50, more on private transport each week than urban households. Urban households, on the other hand, spend twice as much as rural ones on public transport – albeit with neither group spending substantial amounts in this area.

Figure 3.6: Average weekly expenditure on transport, 2015



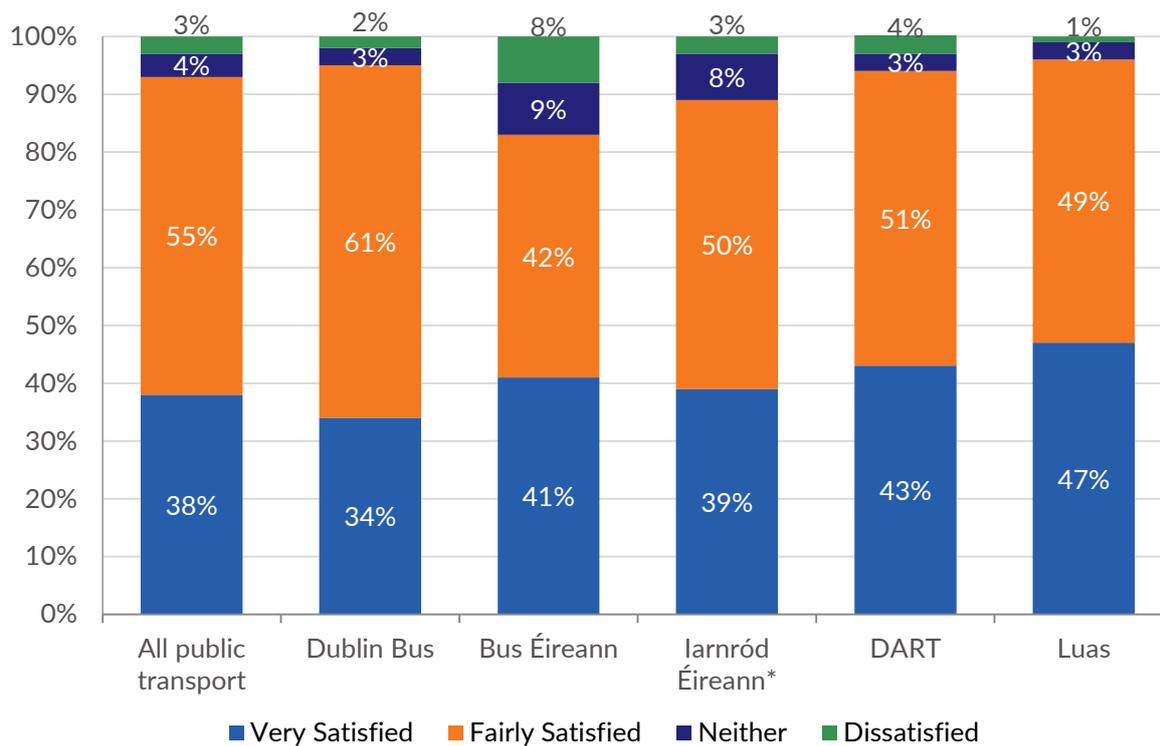
Source: CSO Household Budget Survey 2015/16

3.6 Perceptions of public transport

Customer satisfaction research conducted for the NTA in June 2018 asked passengers aged 16 and over about their satisfaction with public transport, with a total sample of 2,545 people across different sectors nationwide. Interviews were conducted over a five-week period at stops/stations, located throughout the country, and included customers waiting to board or alighting public transport services. Overall, the survey found that 93% of passengers were either fairly or very satisfied with the service they received, while 3% declared they were either fairly or very dissatisfied. This satisfaction level has improved from 91% in the previous research carried out in November 2017. At a more granular level, satisfaction levels were lowest for Bus Éireann and Iarnród Éireann passengers at 83% and 89% respectively and highest for the Luas at 96%, as shown in Figure 3.7. DART showed the greatest increase in customer satisfaction since November 2017, rising from 84% to 93% in June 2018.

The research also found that the biggest driver of public transport satisfaction is punctuality (24%), followed by frequency (18%), information (12%), stop/station facility (10%) and comfort (10%). There were variations by sector, with the Luas rated most highly by passengers on these measures, as shown in Figure 3.8. These factors were measured using different aspects e.g. punctuality was assessed through questions regarding arriving to the destination on time, reliability of arriving on time and the frequency of the service.

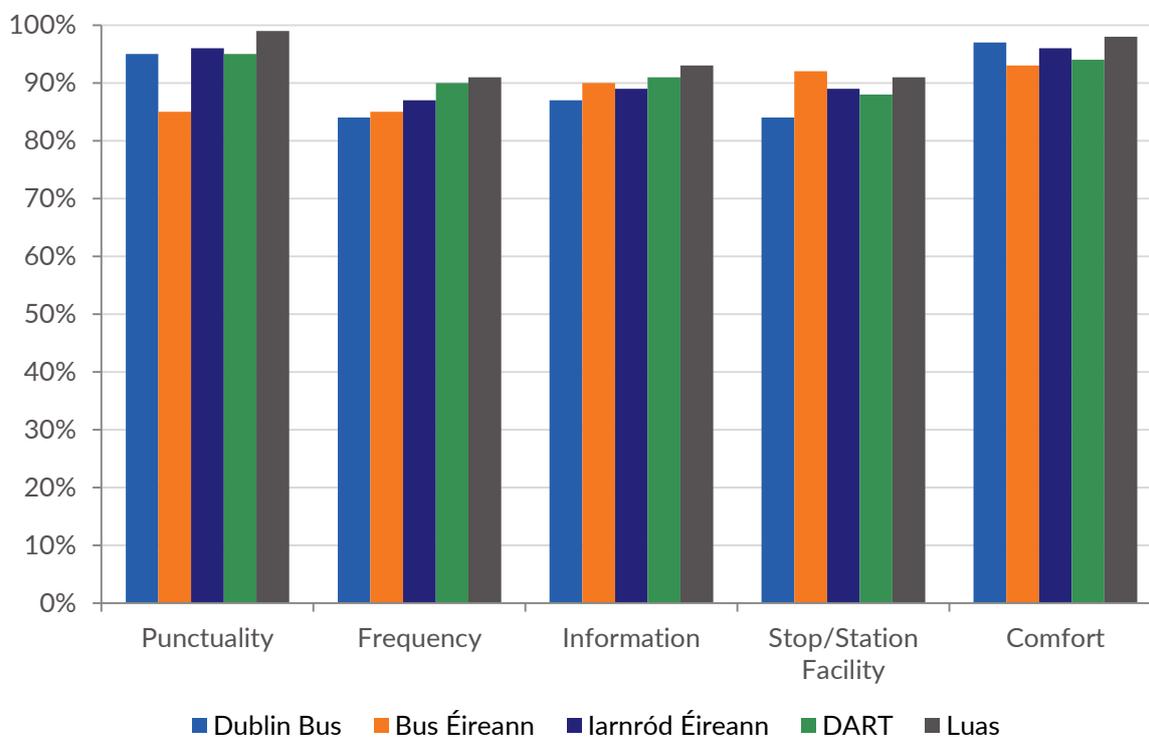
Figure 3.7: Overall satisfaction of public transport users



Source: NTA/Millward Brown

*Non-DART

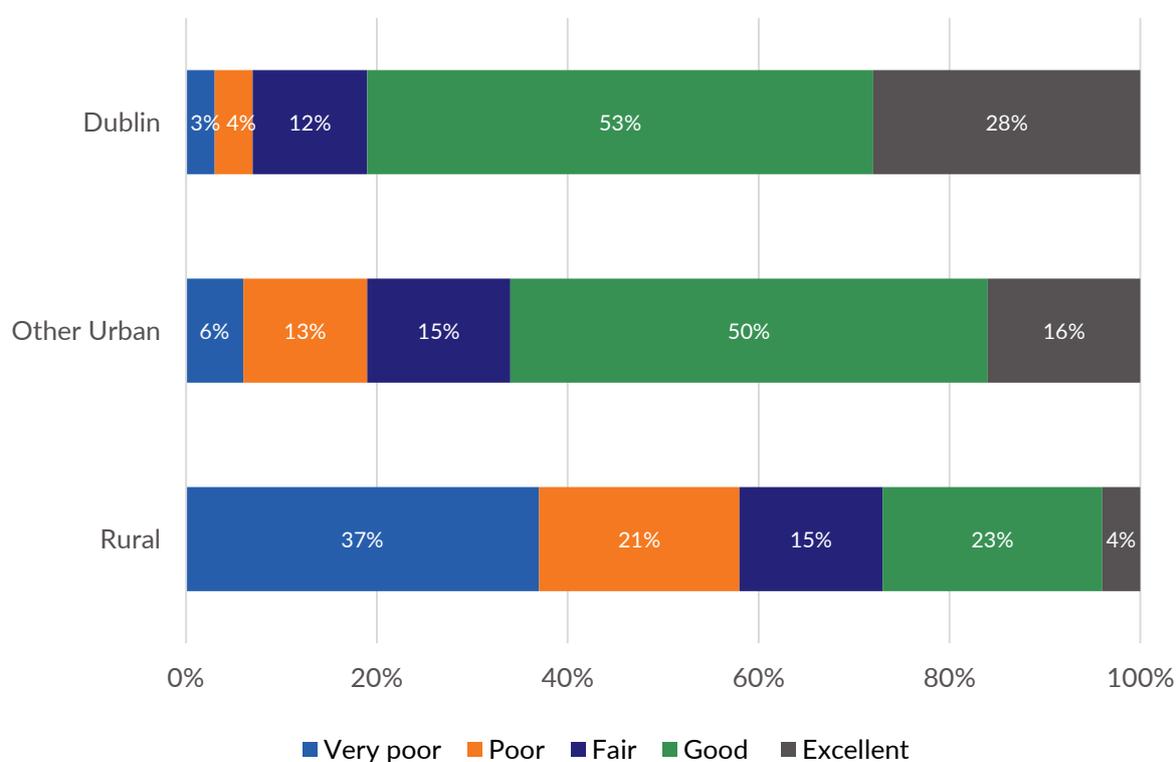
Figure 3.8: Satisfaction with aspects of public transport by service



Source: NTA/Millward Brown

Figure 3.9 shows older people's rating of the public transport options available to them. This data was taken from a 2017 report by TILDA (The Irish Longitudinal Study on Ageing) on transport patterns in community-dwelling adults aged 50 years and older in Ireland. There is a clear disparity between how older people in rural areas view their public transport options with how those options are perceived in urban areas. 19% of those living in urban areas rated their public transport options as poor or very poor, and in Dublin the comparable figure is 7%. In rural areas, however, 58% of respondents rated their public transport options as poor or very poor. Recurring themes for those in rural areas were the lack of bus routes, closure or threatened closure of existing bus routes and the need to walk long distances to catch a bus. Those in rural areas also had issues with the timing and frequency of their local public transport. A separate background paper looks at the issue of public transport in rural areas (*Background Paper 8: Public Transport in Rural Ireland*).

Figure 3.9: Older people's rating of public transport



Source: The Irish Longitudinal Study on Ageing

As outlined in the TILDA report, a contributing factor to the poor rating of public transport in rural areas is likely to be issues with accessibility. In this context, "Accessibility" is taken to mean a wider focus than access for people with mobility, sensory and cognitive impairments and also considers the accessibility of public transport amenities with respect to geographic area and population size.

Table 3.1 gives the percentage of people aged 55 and over who reported difficulty in accessing public transport in 2015 based on a 2018 report. Nationally, over 30% of respondents reported either some or great difficulty accessing public transport but this disguises a wide range of responses for different areas. Fewer than 10% of respondents reported accessibility difficulties in

three of the four Dublin Local Authorities, while in predominately rural areas such as Cork, Galway and Limerick counties and Mayo between 50% and 63% of respondents reported difficulty. Perhaps as a consequence of these accessibility issues, 69% of survey respondents said they had drove themselves in the past week while 43% of respondents over the age of 70 had been driven as a passenger.

Table 3.1: Percentage of older people reporting difficulty accessing public transport, 2015

Local Authority	Difficulty Accessing Public Transport (%)	Local Authority	Difficulty Accessing Public Transport (%)
Clare	28.1	Kilkenny	57.1
Cork County	62.6	Laois	39.8
Cork City	20.2	Limerick City	15.5
Cavan	45.2	Limerick County	59.4
Dublin City	6.0	Louth	12.0
Dublin Fingal	8.3	Meath	29.8
Dun Laoghaire-Rathdown	20.0	Mayo	50.6
South Dublin	6.3	Tipperary	26.7
Galway County	50.1	Wicklow	48.7
Galway City	14.7	Wexford	58.9
Kildare	24.2	Total	30.6

Source: Healthy and Positive Ageing Initiative (2018 report)

3.7 Concluding remarks

The objective of this Section was to develop a profile of public transport users, paying particular attention to any urban/rural split that exists and comparing public transport users with car users.

Across every category, one consistent theme is the dominance of the car as the mode of transport used by most work commuters. However, there are some areas where public transport is more favoured than others. The proportion of commuters using public transport within the GDA is much higher than in the rest of the country and within Dublin city centre it is higher again. Younger people seem to have a greater propensity to travel by public transport than older people.

Perhaps one of the factors dissuading those in rural areas from using public transport is lack of accessibility, despite competitive journey times for those who do make use of it. Almost 60% of older people living in rural areas rate their public transport options as poor or very poor, though the challenge in providing high-quality public transport in thinly populated areas should be noted.

4 Finances and funding

Summary

- Following a period of budgetary constraints due to economic circumstances, Exchequer funding for public transport has been increasing in more recent years, both for services and for capital investment in infrastructure.
- Exchequer funding for public transport as a percentage of total Exchequer funding to all sectors (e.g. education, health, housing etc.) has remained steady at 1.4% for the period 2016-2018.
- Under *Project Ireland 2040*, there is a commitment to provide €8.6 billion in capital investment in public transport over the period 2018 to 2027.
- Public Service Obligation (PSO) payments for bus and rail services have increased by 33% since 2014.

4.1 Introduction

This Section sets out the historical trends and level of funding invested in public transport services and infrastructure. The financial investment figures collated refer to current and capital investment in publicly operated heavy rail, light rail and bus transport services. The Section also briefly considers other financial supports such as the Free Travel and TaxSaver schemes.

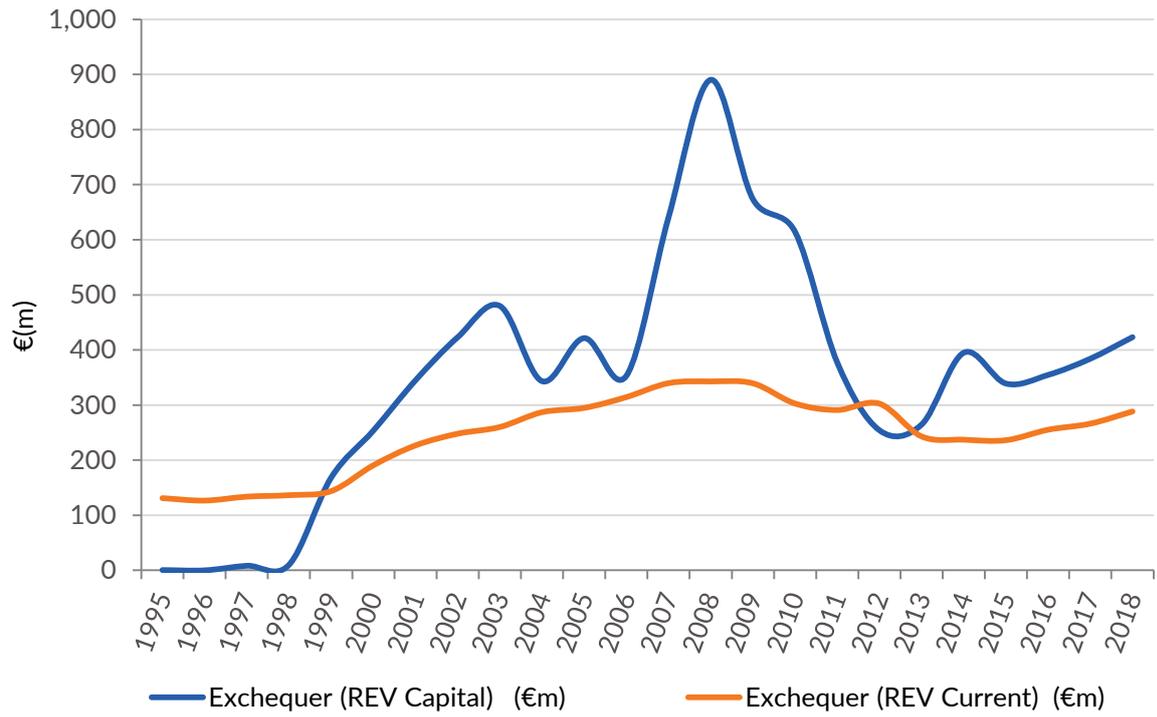
4.2 Exchequer allocations

Historically, the bulk of funding for public transport services and infrastructure in Ireland has come directly from the State (Exchequer funding) through the Transport Vote, administered by the responsible Government Department. Both capital and current funding are provided through the Transport Vote and individual categories of expenditure are identified under separate subheads (e.g. Public Service Provision Payments; Public and Sustainable Transport Investment Programme; Public Transport Agencies and Expenses).

Following necessary budgetary retrenchments during the economic and financial crisis, Exchequer funding for public transport has been increasing in more recent years, both for services (via public service obligation (PSO) arrangements) and for capital investment in infrastructure (such as rail networks, bus and rail fleet, and information technology to support the system and services for the public). Figure 4.1 shows the level of Exchequer funding provided from 1995 to 2018 for public transport.

The annual Exchequer funding (capital and current) for public transport as a percentage of total Exchequer funding to all sectors (e.g. education, health, housing etc.) and Department Votes varies over the period 1998 to 2018. In 1998, public transport funding accounted for just under 1% of total Exchequer funding. This rose to a high of 2.5% in 2008 and has remained steady for each of the years 2016, 2017 and 2018 at 1.4%. Public transport funding as a percentage of total Exchequer funding for the period 1998 to 2018 is outlined in Figure 4.2.

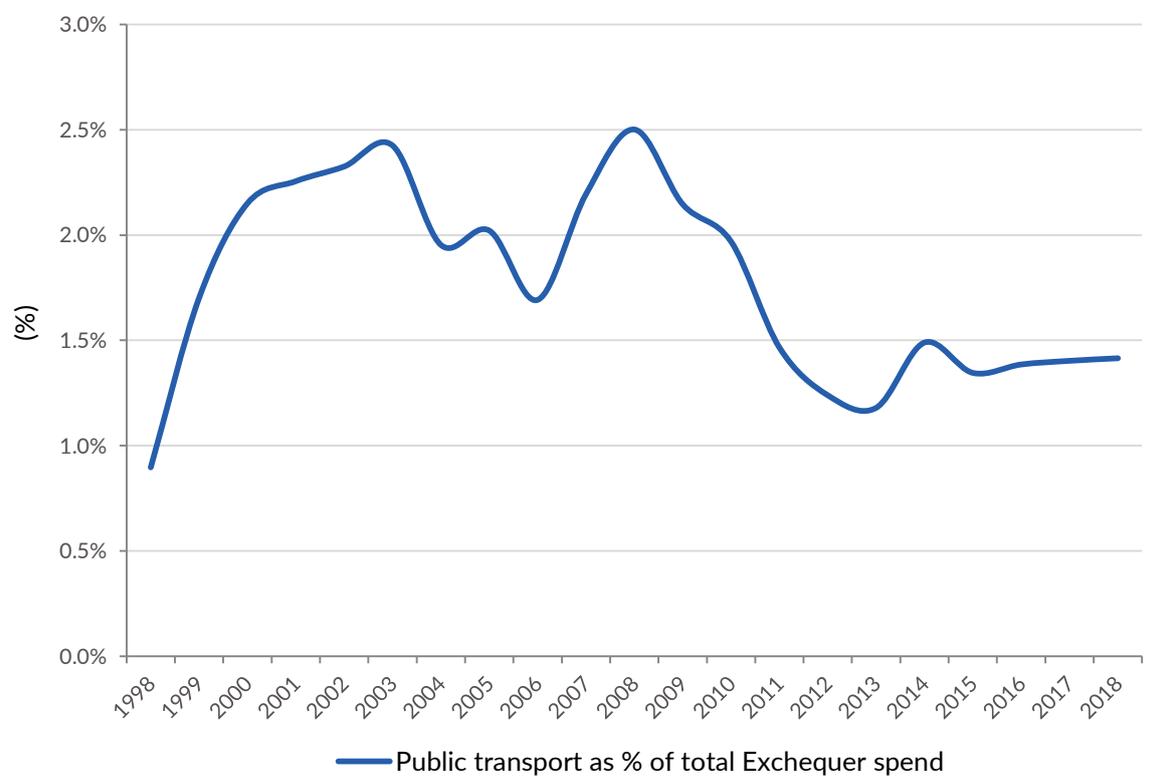
Figure 4.1: Exchequer capital and current funding expenditure, 1995-2018



Source: DPER Databank

*REV: Revised Estimate Volumes

Figure 4.2: Public transport expenditure as percentage of total Exchequer spend, 1998-2018



Source: DPER Databank

4.3 Capital funding

Unlike current expenditure – which includes recurring annual operating costs and, therefore, often shows a relatively steady trend over time – the very nature of capital investment largely involves one-off expenditure and thus the profile of spending can vary considerably over time. This is because a piece of capital infrastructure is built/acquired once, after which it is unlikely to need to be rebuilt/repurchased every year, although it will likely require to be maintained and operated annually and may, in some future year, need to be replaced.

Exchequer capital funding is provided to the various State agencies and operators tasked with planning and implementation of public transport infrastructure projects including the National Transport Authority (NTA), Transport Infrastructure Ireland (TII), local authorities and Iarnród Éireann.

Capital funding for public transport peaked in 2008 at almost €900 million under the 10 year public transport capital investment programme *Transport 21*, with investment in Luas and rail projects.

Budget 2018 provided a four-year enhanced capital envelope of over €2.7 billion to 2021 for provision of public transport infrastructure with over €400 million spent in 2018. €480 million is being provided for investment in public transport in 2019 (an increase of 18% over the funding provided in 2018) and investment in public transport infrastructure will rise to over €700 million in 2020 and to almost €1.1 billion in 2021. Under *Project Ireland 2040*⁵, €8.6 billion of capital investment has been committed up to 2027 for key public transport projects.

4.4 Capital funding for heavy rail

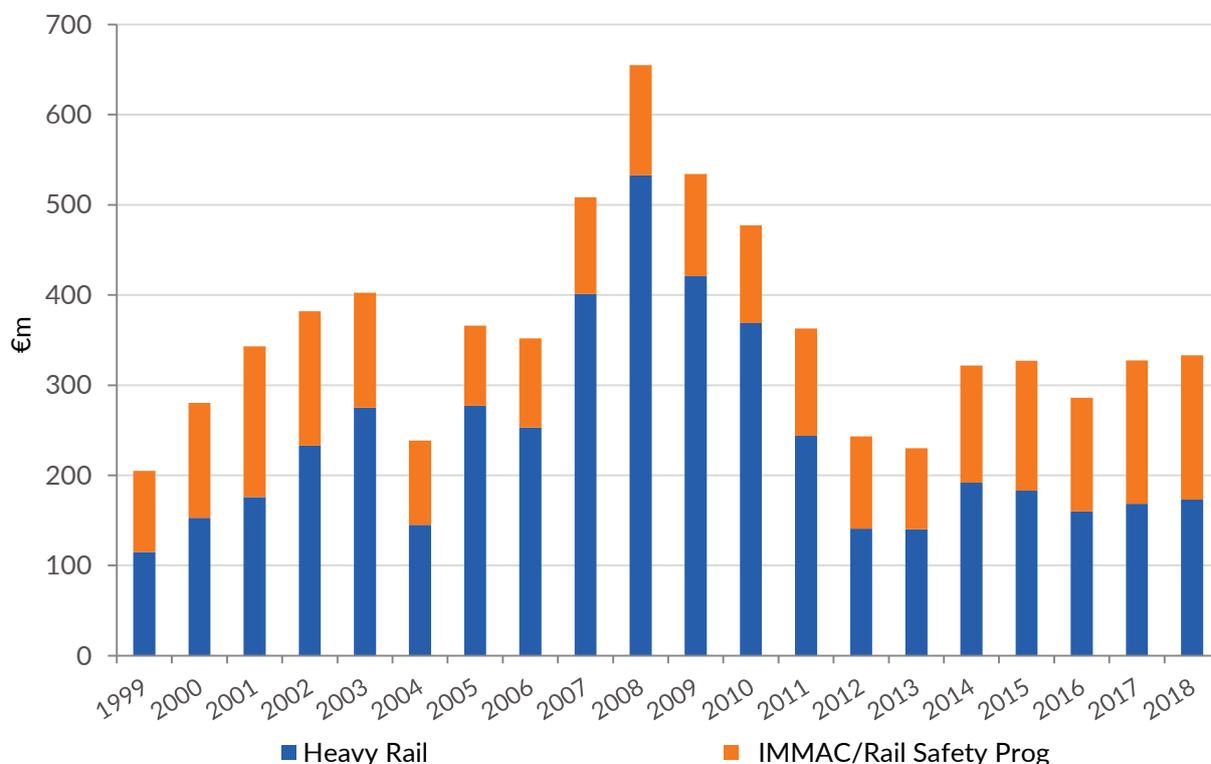
Funding for heavy rail is divided between investment for new infrastructure and fleet, and funding to maintain, manage and renew the existing transport infrastructure to keep it in an adequate condition. This latter element of funding is aimed at on-going maintenance and renewal or “steady state” investment. This is to ensure that the existing extensive transport networks are maintained to a high level to ensure quality levels of service, accessibility and connectivity for transport users.

In accordance with the requirements of EU and Irish law, capital funding is provided directly to Iarnród Éireann for the maintenance and renewal of the rail network under the Infrastructure Manager Multi-Annual Contract (IMMAC). Prior to the IMMAC funding framework, funding in this area was previously known as the Railway Safety Programme. There were three 5-year Railway Safety Programmes (1999–2003; 2004–2008 and 2009–2013).

In Ireland the first IMMAC covered the period 2014 to 2018 (extended to 2019 to allow for finalisation of new multi-annual contract period). As part of the finalisation of the next IMMAC contract for 2020 to 2024 a review of the previous contractual period has been completed and a report is currently being finalised which will be published in due course on the DTTAS website.

Figure 4.3 shows the proportion of overall capital funding in heavy rail which was allocated to the IMMAC and Rail Safety Programmes since 1999.

Figure 4.3: IMMAC/Rail Safety Programme funding as a proportion of heavy rail capital allocation, 1999-2018



Source: DTTAS/CIE Annual Reports

4.5 Current funding

The bulk of the current funding year on year is provided by Public Service Obligation (PSO) payments to the various transport operators for the operation of PSO bus and rail services. These are socially necessary but financially unviable services which are provided as a public good and are subsidised by Exchequer (or taxpayer) funding. The three main objectives of the PSO programme are to:

- Provide transport services which are socially beneficial but financially unviable;
- Encourage modal shift and public transport use through higher service provision and lower fares;
- Increase accessibility and social equity.

Current funding is also provided for administration expenses to the three non-commercial State transport agencies under the DTTAS remit:

- **National Transport Authority (NTA)** which was established in 2009.
- **Transport Infrastructure Ireland (TII)** – the National Roads Authority and the Railway Procurement Agency were merged to become TII in 2015.
- **Commission for Railway Regulation (CRR)** - the CRR, formerly known as the Railway Safety Commission, was established in 2006. The change in name was effective from

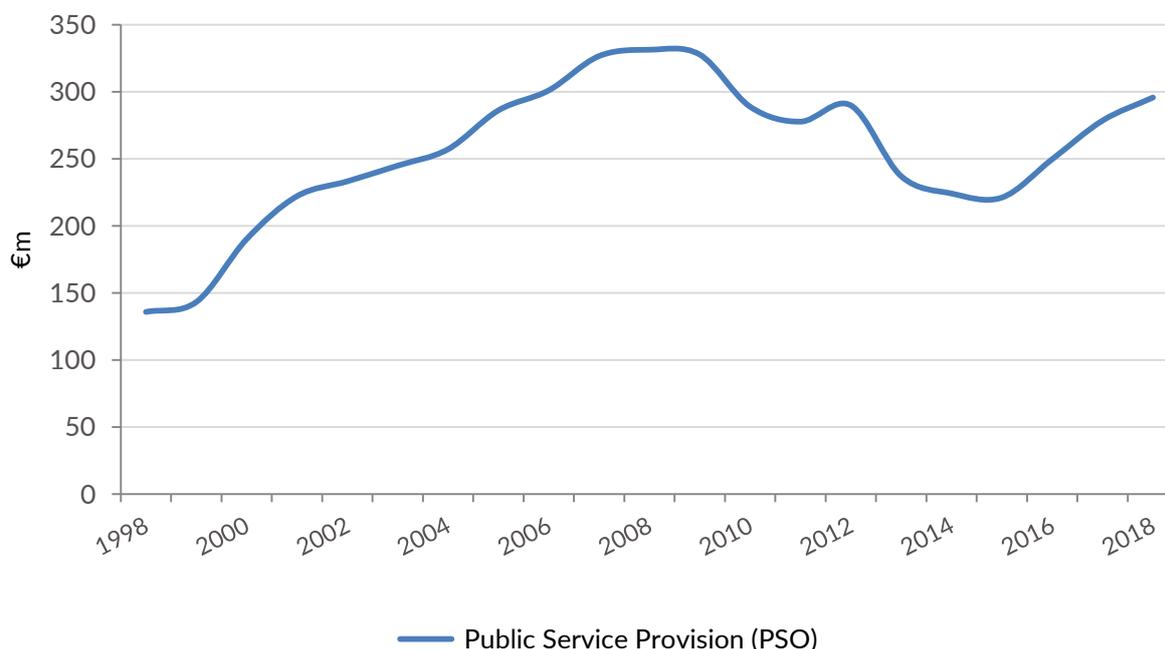
2016 and reflects the wider range of regulatory responsibilities for the railway sector in Ireland that were assigned to the Commission.

4.6 PSO funding

As mentioned, PSO funding is provided for socially necessary but commercially unviable bus and rail services in Ireland. Since 2010 there is no subvention paid directly by DTTAS for public transport services. The award of PSO funding falls under the independent statutory remit of the NTA. The allocations to the public transport companies are decided by the NTA in exercise of its statutory mandate and in accordance with the various contract arrangements that it has in place with PSO service providers.

The PSO subsidy represents one of a multiple of operator revenue streams; other sources include fare revenue; State funding through the free travel scheme from the Department of Employment Affairs and Social Protection; and funding of the school transport programme by the Department of Education and Skills, which is run on a cost recovery basis and is not included in this background paper; and independent sources such as advertising revenue. Figure 4.4 shows the annual Exchequer funding for the provision of PSO services since 1998.

Figure 4.4: Exchequer funding for PSO services (including Rural Transport Programme), 1998-2018



Source: DPER Databank

The bulk of the PSO funding goes to the three CIÉ companies namely Dublin Bus, Bus Éireann (PSO services) and Iarnród Éireann under direct award contracts. These contracts are operated on a net cost basis - the operators retain passenger revenues and also receive PSO subsidy payments. A small number of additional public transport services are provided by other operators under a gross cost contract model. This is where the services are provided following a public tender competition. The cost of providing the service is fixed based on the tender and all fare

revenue is transferred to the NTA. A more detailed account of the award of PSO contracts is included in *Background Paper 7 – Regulation of Public Transport*.

The not-for-profit companies that provide Local Link services under the Rural Transport Programme are grant-aided by the Government via the NTA. Significant change in the delivery structure for these services took place over the past few years. There are now 15 Transport Coordination Units with the role of managing the Programme at local level.

The PSO payments made to the bus and rail transport contracts since 2010, including Local Link services, are set out in Table 4.1.

Table 4.1: PSO payments 2010 – 2018

	2010	2011	2012	2013	2014	2015	2016	2017	2018*
	(€m)								
Iarnród Éireann	155.1	148.7	166.4	126.9	117.4	117.3	133.0	147.0	141.3
Dublin Bus	75.7	73.0	74.8	64.9	60.1	57.7	59.6	54.0	51.6
Bus Éireann	45.0	43.4	36.9	34.5	34.4	33.7	40.8	52.2	55.0
Local Link	11.0	10.6	9.8	9.1	10.4	10.1	11.2	13.8	18.7
Other operator & support costs	0.0	0.0	0.0	0.3	0.4	1.0	3.6	11.3	28.5
Total	286.8	275.8	287.9	235.8	222.7	219.8	248.2	278.2	295.1

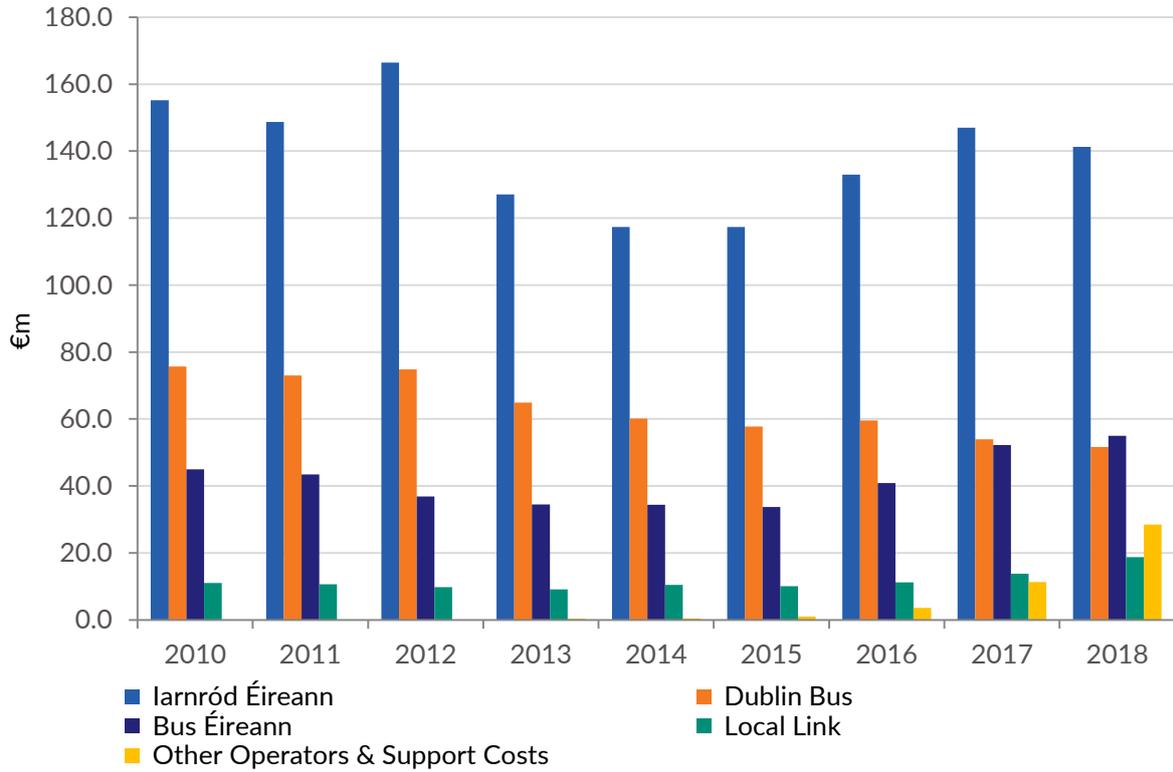
*The other operator and support costs for 2018 include costs relating to bus market opening

Source: DTTAS

PSO payments have increased by 33% since 2014 and the highest level of PSO payments to the CIÉ companies is consistently made to Iarnród Éireann. The main purpose of the subvention payment is to meet the gap between the income from fares and the cost of operating services.

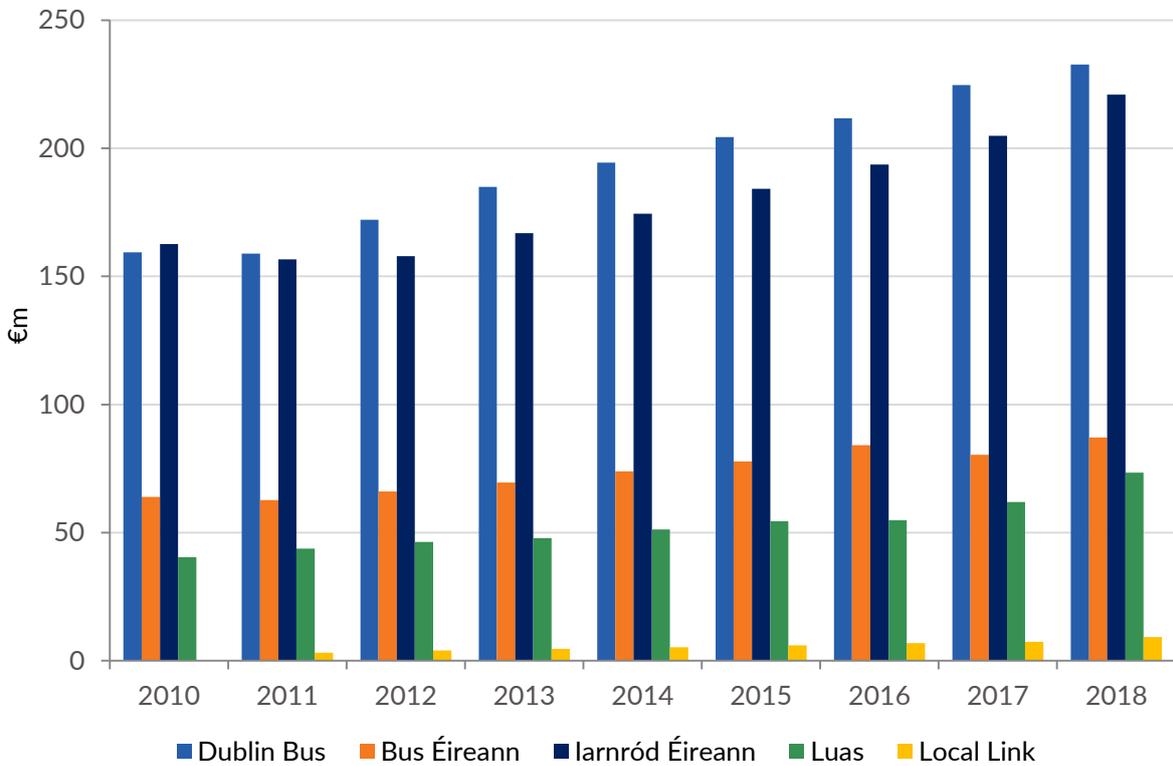
Figure 4.5 and Figure 4.6 display the PSO funding and PSO passenger revenues from 2010-2018 across the public transport operators. The passenger revenues only relate to contracted PSO services and do not include revenue from commercial services (e.g. the Dublin Bus Airlink airport service or Bus Éireann Expressway services). The passenger revenues for Dublin Bus, Bus Éireann, Iarnród Éireann and Luas are made up of cash fare revenue, Leap Card revenue and prepaid ticket sales (including Tax saver tickets), as well as the Free Travel Scheme grant from the Department of Employment Affairs and Social Protection. Local Link revenues include cash and Leap Card fare revenue, prepaid ticket sales, free travel grant and contracted revenue which is revenue paid to Local Link from agencies such as the Health Service Executive (HSE) or from community groups for the provision of specific bus services. The passenger revenues of operators is also considered in Section 6.

Figure 4.5: PSO payments, 2010-2018



Source: DTTAS

Figure 4.6: Passenger revenue across PSO services, 2010-2018

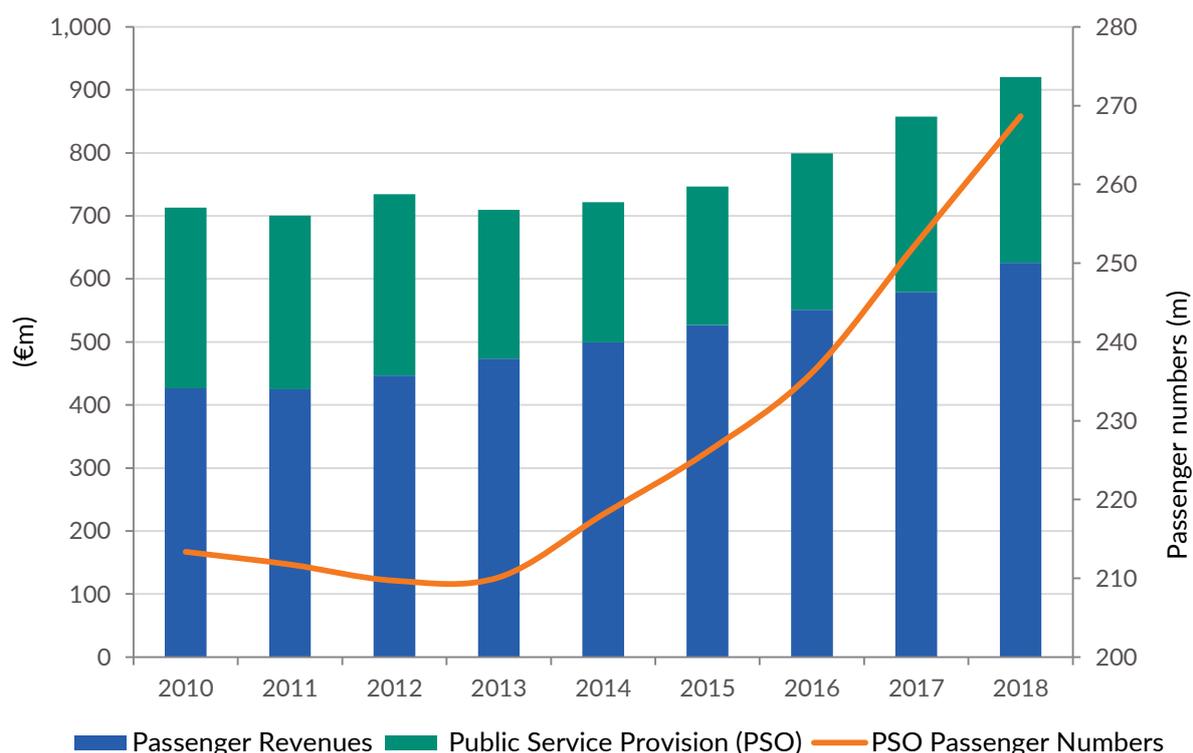


Source: NTA Bus and Rail Statistics

PSO funding was subject to a Spending Review by the Department of Public Expenditure and Reform (DPER) in 2017⁶. As part of the Spending Review for 2018, DPER also carried out an analysis of the PSO scheme for public transport, in relation to effectiveness and performance monitoring⁷.

The overall allocation of PSO subsidy funding and passenger revenue as against PSO passenger numbers across all operators is reflected in Figure 4.7.

Figure 4.7: PSO subsidy/passenger revenue and passenger numbers, 2010-2018



Source: NTA

4.7 Other financial supports

4.7.1 Free Travel Scheme revenue

The Department of Employment Affairs and Social Protection (DEASP) Free Travel Scheme is available to all persons aged 66 and over living permanently in the State. Some people under 66 may also qualify, such as carers in receipt of a Carer's Allowance and certain other persons in receipt of a Disability Allowance or Invalidity Pension.

Free travel under the Free Travel Scheme (FTS) is available on many transport services including bus, train, tram and some ferry services. It is available on PSO services and on a large number of commercial services. As of 2018, over 900,000 people were eligible to avail of the FTS.

Figure 4.8 shows the level of funding provided to public transport operators since 1998 by DEASP for the FTS, with the total number of free travel pass holders over the same period.

Figure 4.8: DEASP Free Travel funding & Free Travel Scheme recipients, 1998-2018



Source: DEASP Statistical Reports

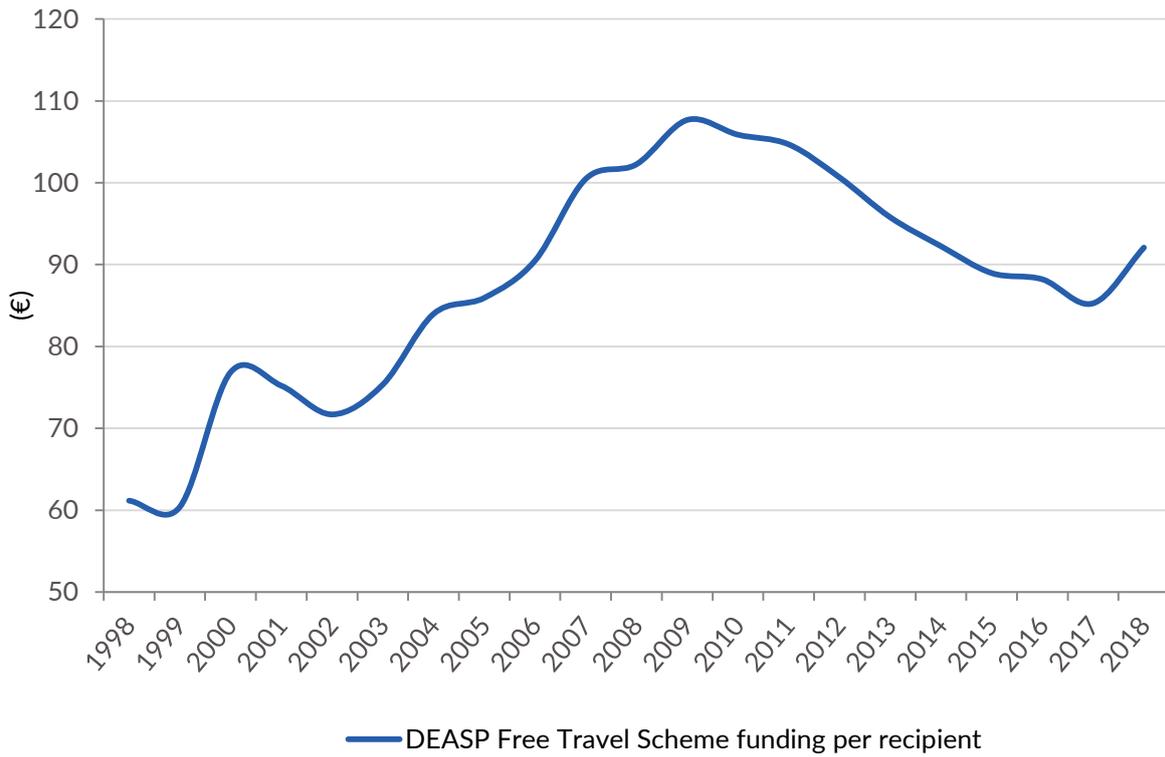
Up until 2012, the level of funding provided by the DEASP was reviewed annually and adjusted on the basis of changes in fares and numbers of eligible participants. However, the link with fares and scheme participant numbers was disrupted by a freeze on the level of funding to public transport operators introduced by the *National Recovery Plan 2011 to 2014*⁸.

Given the fare increases over that period, as well as the increase in FTS passenger numbers, there is now an ever growing deficit in the level of funding received under the FTS and the number of FTS customers availing of the PSO services and the average fare paid for these passengers from the DEASP vote. Figure 4.9 shows the actual revenue received from DEASP per individual travel pass from 1998 to 2018. This includes funding to both PSO and commercial operators including Bus Éireann Expressway services. DEASP provided increased funding for Expressway services in 2018 to bring it into line with other commercial operators.

Figure 4.10 shows funding by DEASP to individual operators since 2013 and for comparison passenger numbers carried by the operators under the FTS for the same years are shown in Figure 4.11. Passenger journeys under the FTS are continuing to grow. Dublin Bus and Bus Éireann FTS passenger journeys increased by 23% and 21% respectively over the period 2013-2018 while Iarnród Éireann FTS passenger journeys grew by 9.3%.

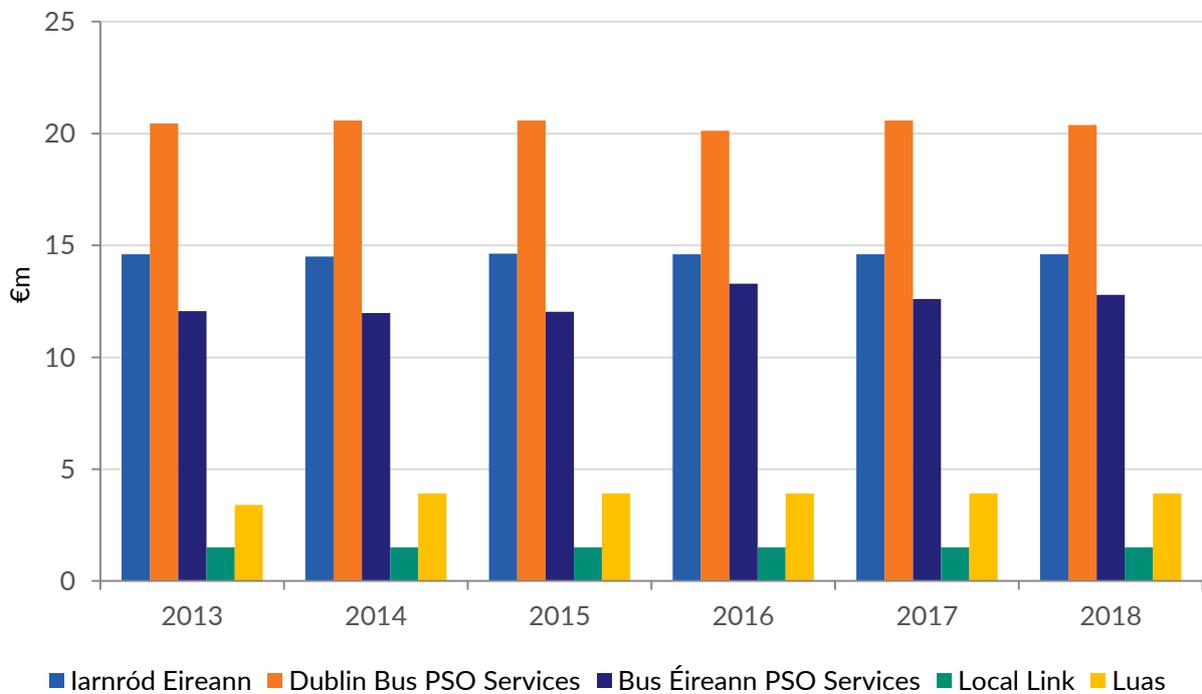
In recent years, the funding gap has been met by increased PSO funding and increases in fares by the fare paying public transport customers. DTTAS is currently engaging with DEASP to seek to rebalance the share of funding of the scheme from DEASP with a view to moving towards pre-*National Recovery Plan* arrangements.

Figure 4.9: DEASP Free Travel Scheme funding per recipient, 1998-2018



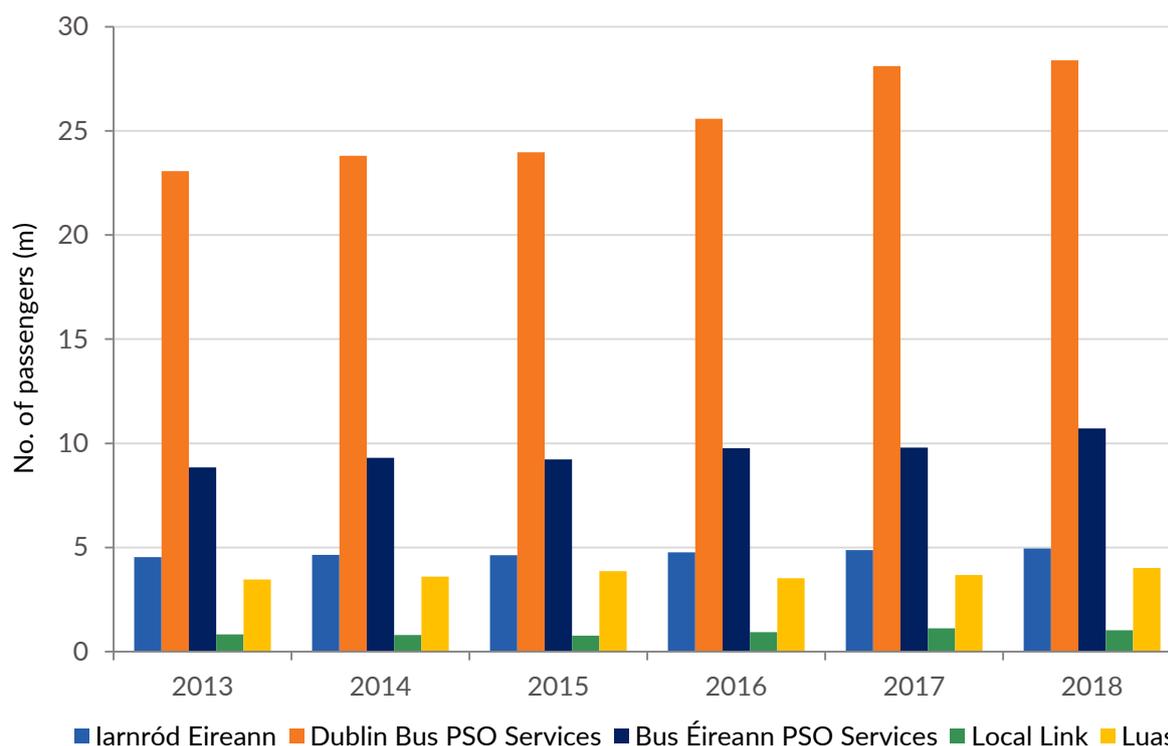
Source: DEASP Statistical Reports

Figure 4.10: DEASP funding per Free Travel Scheme (€m) by operator, 2013-2018



Source: NTA Bus and Rail Statistics

Figure 4.11: DEASP Free Travel Scheme passenger journeys by operator, 2013-2018



Source: NTA Bus and Rail Statistics

4.7.2 TaxSaver Scheme

The TaxSaver ticket scheme is a Government initiative launched in 1999 with the intent of incentivising the use of public transport and encouraging a modal shift to public transport from private car. It operates on the basis that an employer pays for the ticket on behalf of an employee, typically at the start of the year, and the payment is then deducted from the employee's salary over the course of the year. Although such a payment out of an employee's income should be made from after-tax income, Section 118B of the *Taxes Consolidation Act 1997* provides that the remuneration foregone shall be exempt from tax. In this way the employee, over the course of a year, only pays the net cost of the travel pass and the tax foregone is borne by the Exchequer.

Information on the costs to the Exchequer was only available for the years 2014 to 2016 and was an estimated cost, as per Department of Public Expenditure and Reform, of €3.5 million per annum for each of the 3 years.

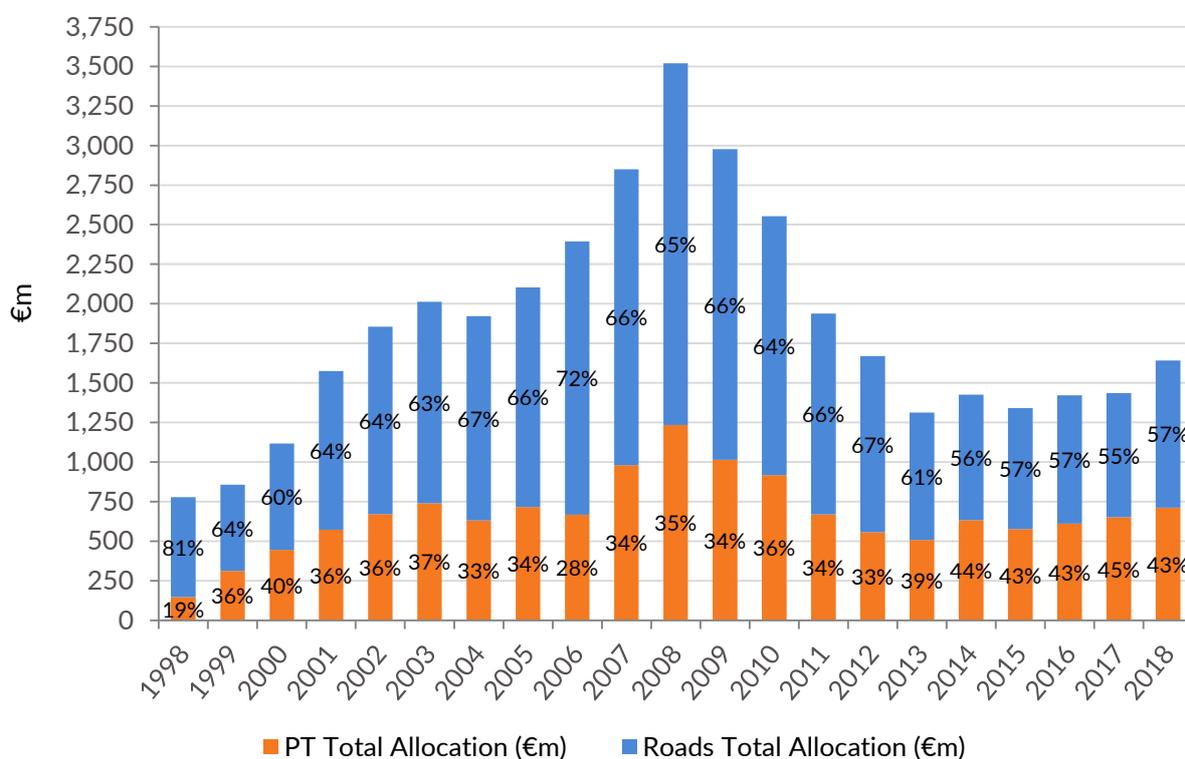
An exercise was subsequently carried out with the assistance of the NTA and DTTAS' Strategic Research and Analysis Division, using figures from 2016. This analysis indicated that the figure for tax forgone in 2016 was €28.5m. This is considerably higher than the estimate provided by DPER. Reconciliation of these figures may be appropriate for further review.

4.8 Investment in roads

Investment, both capital and current, in national, regional and local roads has historically been greater than that provided to public transport. The responsibility for national roads moved to the Department of Transport in 2002 and regional and local roads followed in 2008.

The total network of roads in Ireland is almost 100,000 km, which is over twice the European average in terms of length per head of population. The roads network is vital not just for private car usage but also for freight transport and for the safe and efficient running of road-based public transport services. Figure 4.12 shows the investment levels in public transport and roads over the past 20 years.

Figure 4.12: Comparison of road and public transport funding allocations, 1998-2018



Source: DPER Databank

4.9 Concluding remarks

Following necessary budgetary retrenchments during the economic and financial crisis, Exchequer funding for public transport has been increasing in more recent years, both for services and for capital investment in infrastructure.

The annual Exchequer funding for public transport as a percentage of total Exchequer funding to all sectors (e.g. education, health, housing etc.) has varied over the period 1998 to 2018. In 1998, public transport funding accounted for just under 1% of total Exchequer funding. This rose to a high of 2.5% in 2008 and has remained steady at 1.4% for the period 2016-2018.

As capital investment largely involves one-off expenditure, the profile of spending can vary considerably over time. Capital funding for public transport peaked in 2008 at almost €900 million. In recent years there was a substantial increase in capital funding in 2018 and *Project*

Ireland 2040 commits to provide €8.6 billion in capital investment in public transport over the period 2018-2027.

Current expenditure includes recurring annual operating costs and, therefore, shows a more relatively steady trend over time than capital investment. The majority of current funding is provided by Public Service Obligation (PSO) payments to the various transport operators for the provision of these socially necessary but commercial unviable bus and rail services. The award of PSO funding falls under the independent statutory remit of the NTA. The bulk of the PSO funding goes to the 3 CIÉ companies - Dublin Bus, Bus Éireann (PSO services) and Iarnród Éireann. The NTA also provides funding to the not-for-profit companies that provide Local Link services under the Rural Transport Programme. PSO payments have increased by 33% since 2014.

Another source of funding for transport operators is State funding through the Free Travel Scheme from the Department of Employment Affairs and Social Protection (DEASP). While there have been year on year increases on the number of FTS passengers since 2013, the funding of the scheme by DEASP has not kept pace with the increase in passenger journeys.

5 Availability and reliability

Summary

- While bus stop and train station provision generally rises with a county's population density, disparities in availability do exist between similar counties.
- PSO bus and heavy rail services are exceeding targeted operation levels set by the NTA.
- 97% of Luas timetabled kilometres were delivered in 2018. This compares to 98% in 2017.

5.1 Introduction

This Section focuses on the provision of public transport services in terms of availability and reliability. It considers the availability of public transport amenities with respect to geographic area and population size. With regard to reliability, operation levels and punctuality of services are examined.

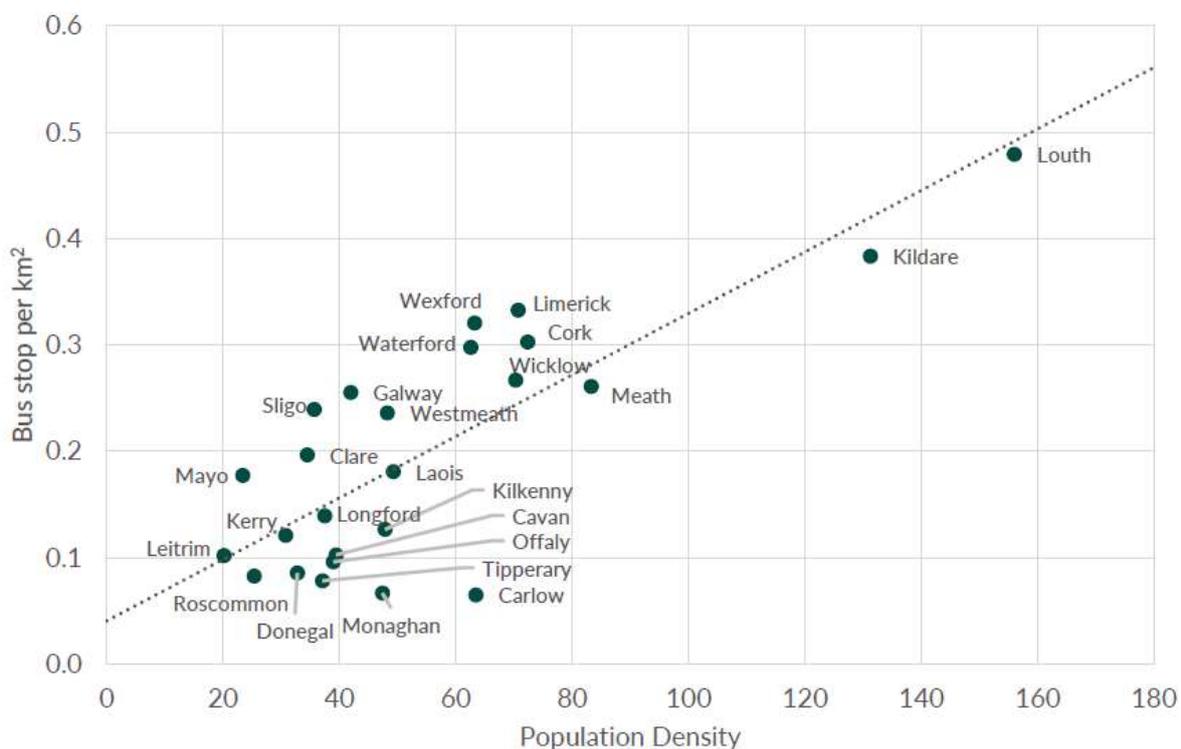
5.2 Distribution of bus stops

Figure 5.1 illustrates the distribution of bus stops per square kilometre with respect to population density. A line of proportionality represents the average bus stop distribution with respect to population density for all counties except for Dublinⁱ. Data points above the line indicate a county that is served above the national average with respect to population density; conversely, data points below the line indicate a county that is below the national average.

A clear deviation can be seen between counties of comparable average population densities with respect to bus stop distribution. One such example is Carlow with a population density of 63.5 people per square kilometre and corresponding bus stop distribution of less than one bus stop for every 10 square kilometres. By contrast, Wexford has a similar population density of 63.3 people per square kilometre but a bus stop distribution of 1 bus stop for every 3 square kilometres.

ⁱ Dublin county has a population density an order of magnitude greater than the next county. Because of this disparity Dublin has been excluded from Figure 5.1 as its inclusion would severely skew the results.

Figure 5.1: Bus stops versus population density by county, 2017



Source: Transport for Ireland

Based on the average, Kerry and Louth have a proportional bus stop distribution with respect to population density. Kerry, for example, has one bus stop per 10 square kilometres and a population density of 30.7 people per square kilometre. In roughly the same proportion, Louth has one bus stop per two square kilometres and a population density of 156.0.

The counties of Carlow, Tipperary and Monaghan are significantly below national average with respect to population density. Mayo, Sligo, Galway, Waterford, Wexford and Limerick are the best served counties when it comes to bus stop provision.

One recent development to note when considering the distribution of bus stops is the Rural Transport Programme (Local Link). The vast majority of Local Link services are demand responsive services which do not make use of fixed stops and are not reflected in the above data. The programme facilitated 2 million passenger journeys in 2018 and has improved accessibility in rural areas where it operates.

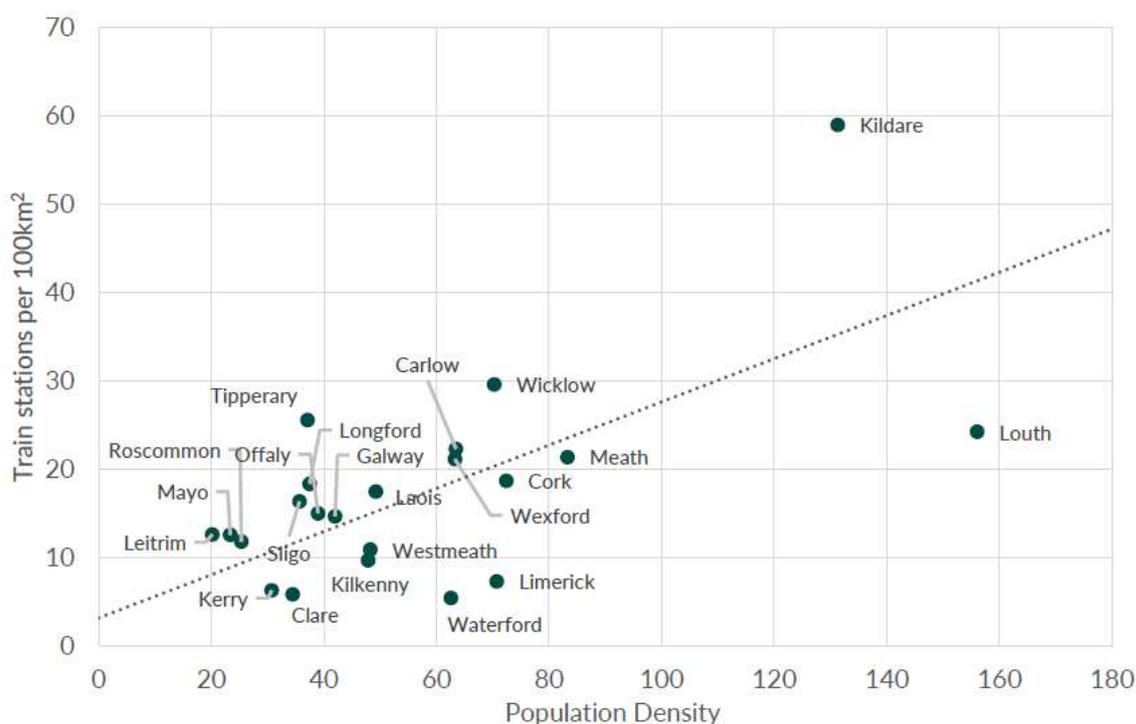
5.3 Distribution of train stations

Figure 5.2 shows the distribution of rail stations per 100km² with respect to population density. Again excluding Dublin, a line of proportionality represents the average distribution of train stations with respect to population density for relevant countiesⁱⁱ. As before, data points above the line indicate that a county is served above the national average with respect to population

ⁱⁱ Cavan, Donegal and Monaghan are not served by rail and are excluded from this analysis.

density while data points below the line indicate that a county has a train station provision lower than the average.

Figure 5.2: Train stations versus population density by county, 2017



Source: Iarnród Éireann, Station List A-Z

Galway, Meath and Cork all have a roughly average distribution of rail stations with respect to their population density. Galway, for example, has a population density of 41.9 people per square kilometre and 14.6 train stations per 100km², while Meath has a population density of 83.3 and 21.3 train stations per 100km². By contrast, Wicklow and Limerick have similar population densities at 70.3 and 70.7 residents per square kilometre respectively, but Wicklow has a four times greater provision of rail stations in comparison.

The counties of Louth, Limerick and Waterford are below the national average of rail amenities with respect to population density. Kildare, on the other hand, is significantly above the national average. However, it should be emphasised that this analysis only considers the physical location of train stations and not the frequency with which they’re serviced. For a county such as Louth, with two well-served stations in Dundalk and Drogheda, considering the number of stations in isolation may create a misleading impression.

5.4 Reliability

Public service contracts between the main service operators and NTA set performance standards regarding the reliability, punctuality and quality of services provided. The NTA monitors performance on a quarterly basis to ascertain whether the operators have met the required Key Performance Indicators (KPIs) set out in their contracts.

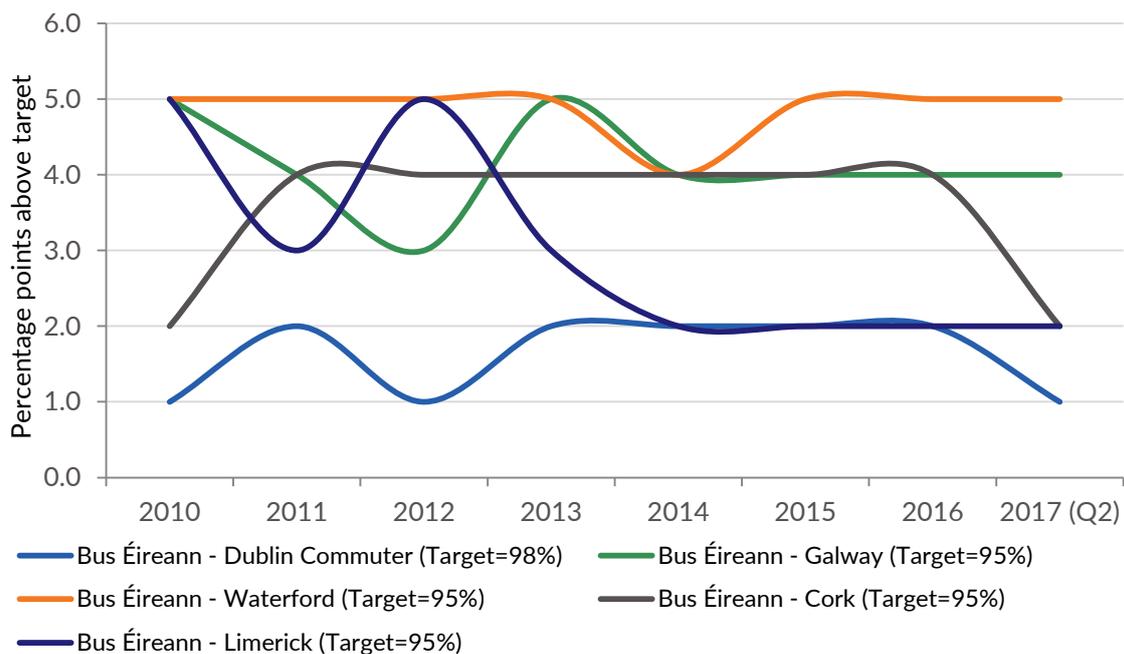
Figure 5.3, Figure 5.4, and Figure 5.5 detail the performance of services against these targets, and show that Public Service Obligation (PSO) bus and heavy rail services exceeded target operation levels each year from 2010 to Q2 of 2017ⁱⁱⁱ. The reliability of Luas services is measured in terms of the percentage of timetabled kilometres delivered and Figure 5.6 shows these percentages for each of the years 2010 to 2017.

From end 2016 and in 2017, the NTA rolled out new service quality performance indicators in respect of its contracts with Dublin Bus and Bus Éireann and commissioned independent monitoring of operator performance. Service quality performance is now monitored on an on-going basis by independent mystery shopping surveys commissioned directly by the NTA. The surveys assess such items as bus cleanliness, driver performance, customer service, provision of customer information and operation of correct bus route. Reliability and low-frequency punctuality performance are now monitored by the NTA through the assessment of automatic vehicle location data from each bus service operated compared to the scheduled timetable. These were previously self-reported by the operators. In 2018, deductions in performance payments were applied to Bus Éireann and Dublin Bus for failing to meet reliability and punctuality performance standards in some cases.

In 2016, as a result of industrial action, Luas services did not operate on 12 days between February and May and Dublin Bus services did not operate on 6 days during September and October. As a result of industrial action in 2017, Bus Éireann services did not operate on 21 days between March and April 2017, and Iarnród Éireann services did not operate on 2 days during November 2017. On 16 October 2017, Storm Ophelia caused the cancellation of all public transport services nationwide while storm damage to the Luas Red Cow depot also led to cancellation of Luas services on the following day. In 2018, public transport services were impacted by Storm Emma and the cold spell which struck Ireland in late February/early March. Heavy snowfall caused significant disruption to services during that period.

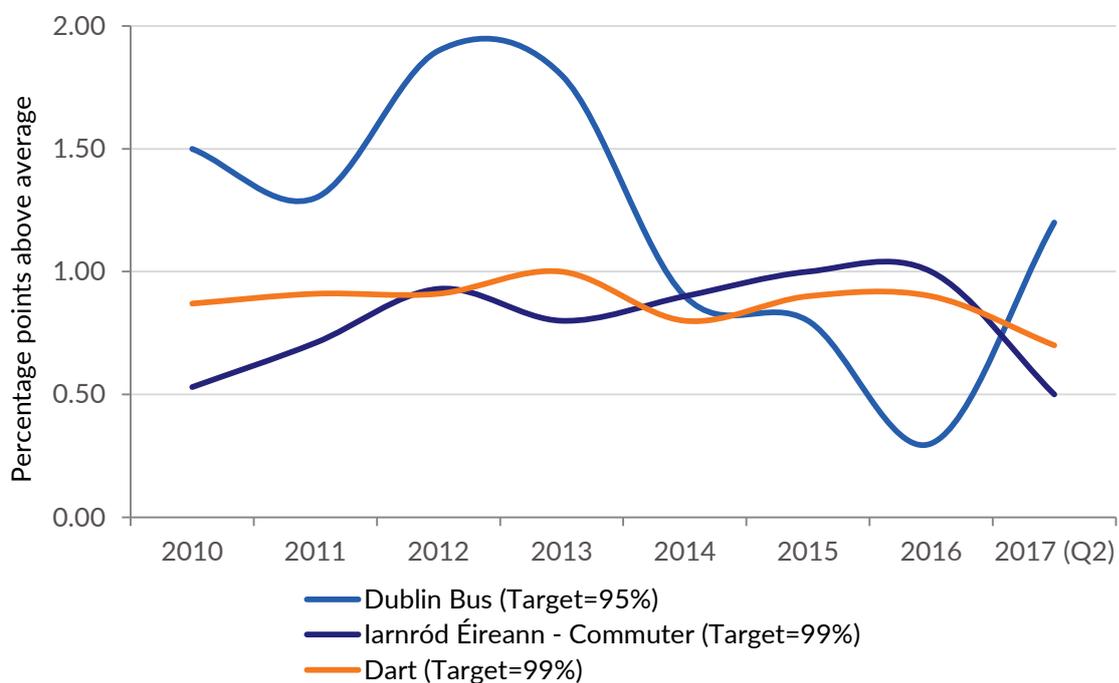
ⁱⁱⁱ A revised reporting format was implemented in Q3 2017 prevents comparisons with most recent data.

Figure 5.3: Bus Éireann urban services operated as planned versus target, 2010 - 2017



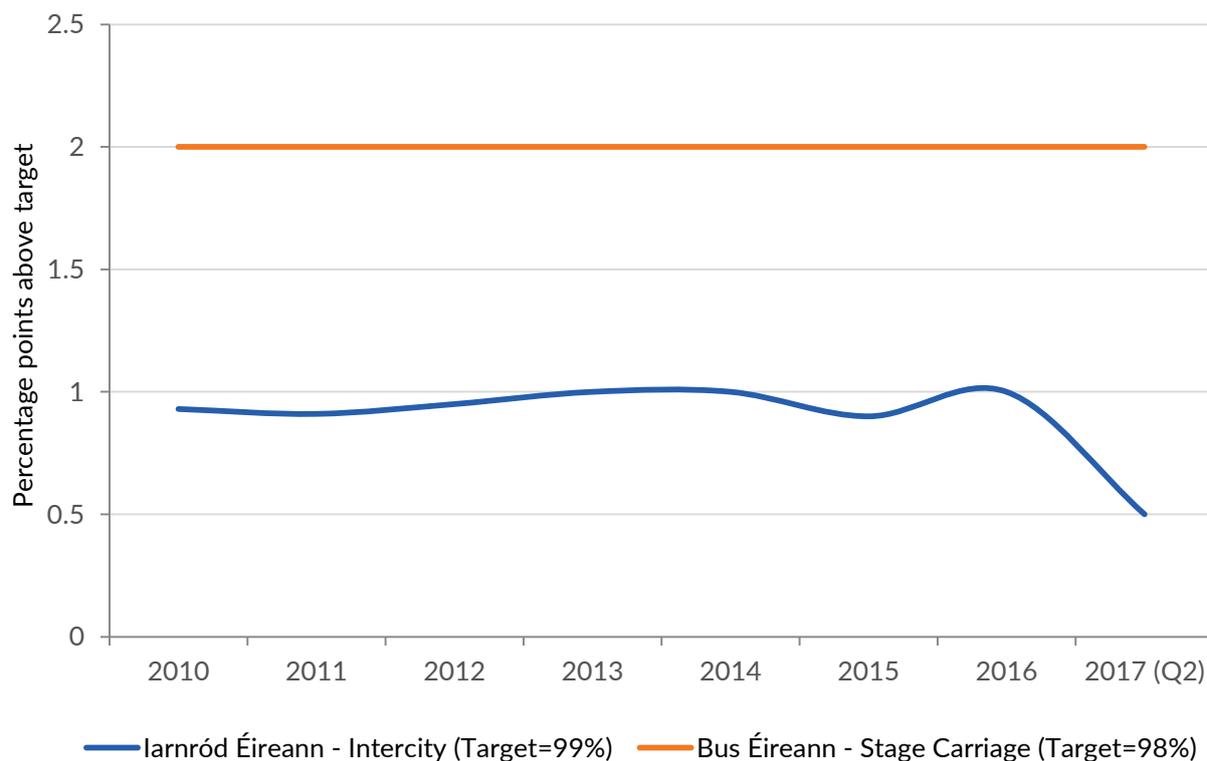
Source: NTA

Figure 5.4: GDA bus and heavy rail services operated as planned versus target, 2010 - 2017



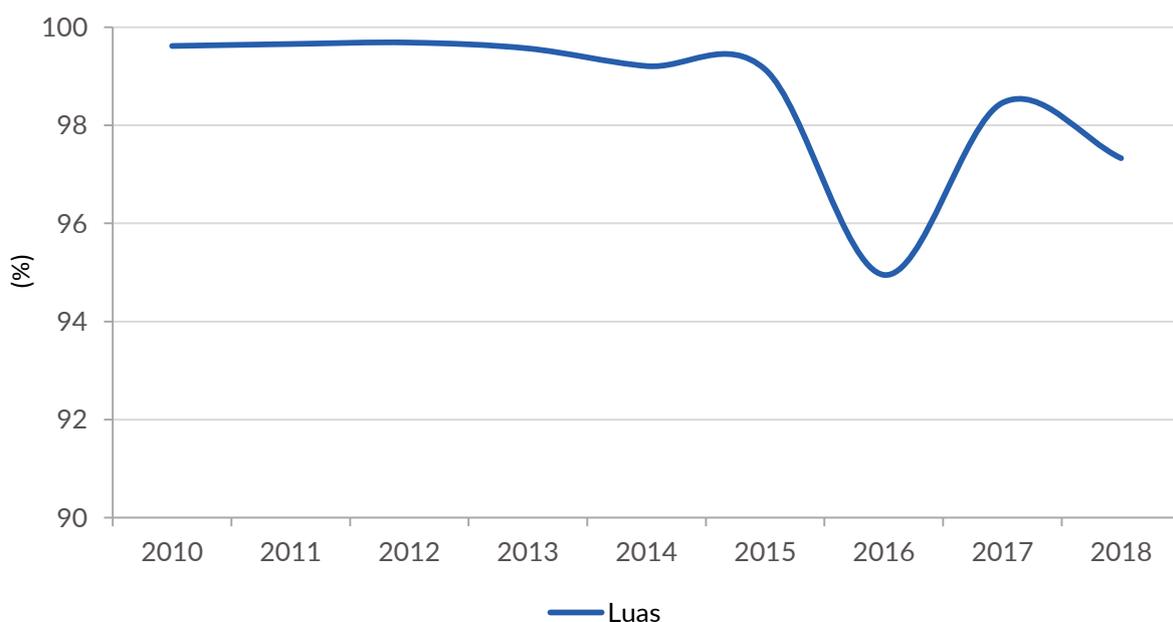
Source: NTA

Figure 5.5: Intercity bus and rail services operated as planned versus target, 2010 - 2017



Source: NTA

Figure 5.6: Luas services - Percentage of timetabled kilometres delivered, 2010-2018



Source: NTA

5.5 Concluding remarks

Excluding Dublin, the provision of bus stops and train stations broadly rises with a county's population density. Given the relatively low number of train stations across the country, bus stops are probably the more robust indicator of availability of the two. However, the location of public transport infrastructure provides only a partial picture of availability – information about the frequency of services would also be required to make a rounded judgement. Nevertheless, looking at station/stop infrastructure suggests that several counties seem to be particularly poorly served by public transport such as Cavan, Donegal and Monaghan, which have no passenger rail service and below average levels of bus stop provision. This situation is improved by Local Link services in rural areas.

With regards to reliability, all PSO operators perform well against the annual targets set for them by the NTA. PSO bus and heavy rail services are exceeding targeted operation levels set by the NTA. In 2018, 97% of Luas timetabled kilometres were delivered compared to 98% in 2017. Since 2017, reliability and low-frequency punctuality performance are now monitored by the NTA through the assessment of automatic vehicle location data from each bus service operated compared to the scheduled timetable. These were previously self-reported by the operators.

6 Operator statistics

Summary

- As Ireland's economic recovery has gathered pace, there has been robust annual growth in public transport passenger numbers since 2012.
- Passenger revenues have increased for all PSO operators since 2010, with Dublin Bus and Iarnród Éireann having significantly more income than other providers.
- A levelling off of growth in operating costs per passenger since 2009 combined with rising passenger revenues have meant that all three CIÉ companies have improved their cost recovery since 2011.
- Most PSO services are wheelchair accessible, except for Bus Éireann intercity and rural coaches which are becoming progressively more accessible as older vehicles are replaced.

6.1 Introduction

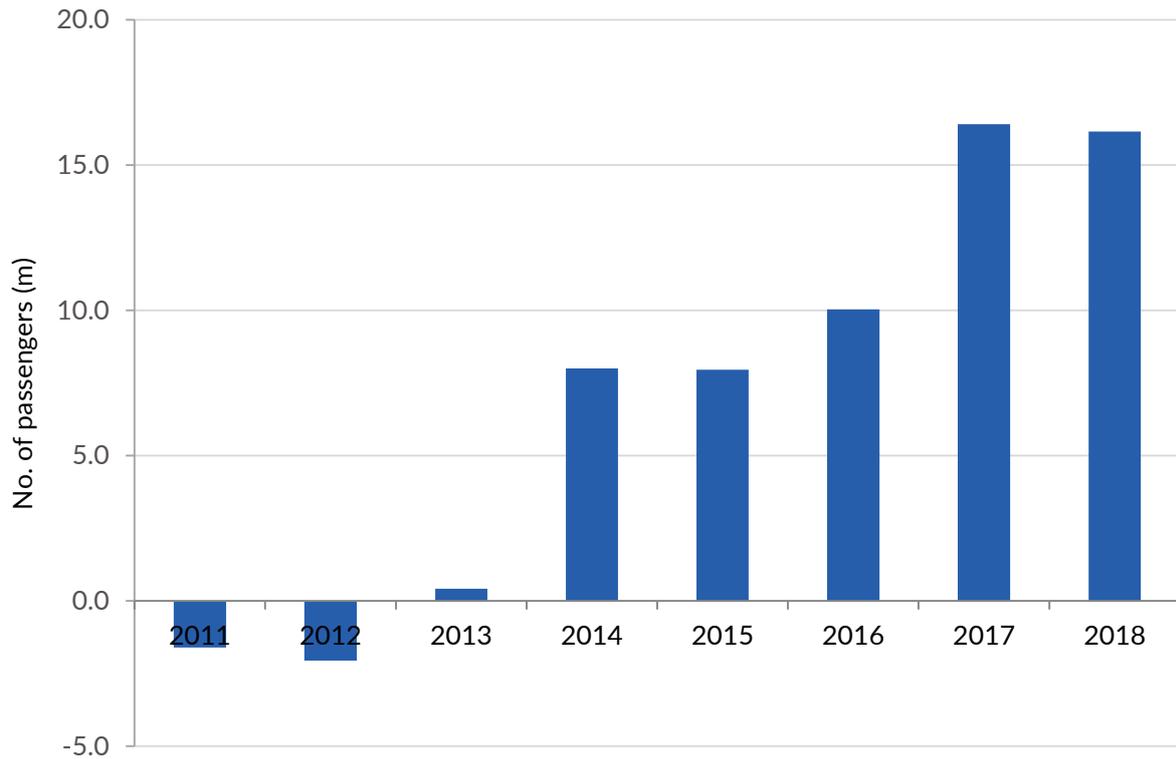
This Section focuses on operator statistics. It considers annual passenger numbers for public transport generally and for specific operators, financial information relating to revenue, fares and costs, and the age and condition of the public transport fleet. It also looks at the wheelchair accessibility of the PSO public transport fleet.

6.2 Passenger numbers

Public transport passenger numbers are correlated with the performance of the wider economy and particularly with growth trends in employment. This can be seen in Figure 6.1, with annual passenger numbers decreasing in 2011 and 2012 but subsequently increasing at the time of economic recovery.

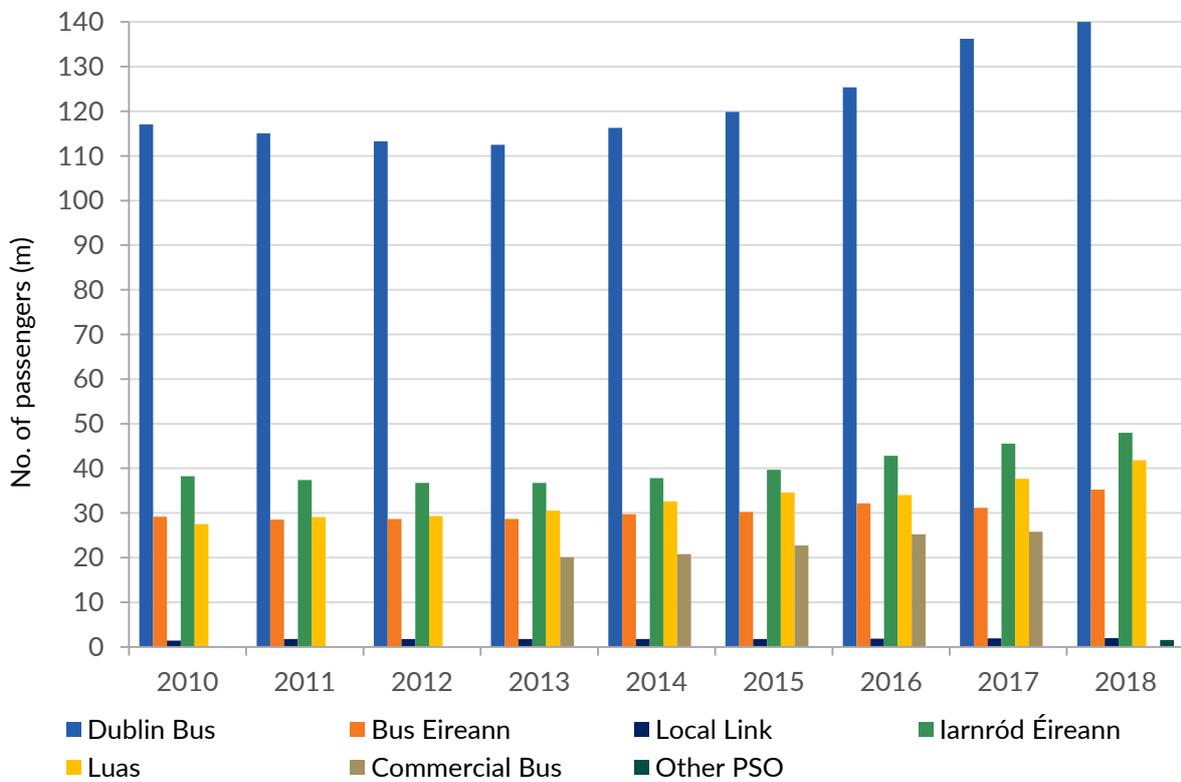
The growth in passenger numbers has been seen across all PSO operators, as shown in Figure 6.2. Since 2010, passenger numbers for Dublin Bus have increased by 20%, for Bus Éireann by 21%, for Iarnród Éireann by 25%, for Luas by over 50% and the Local Link bus services by over 40%. Other bus operators providing PSO services include Go-Ahead which entered the PSO market in 2018 and other private operators. Since 2013, the number of journeys on commercial bus has increased by 37%.

Figure 6.1: Year-on-year change in public transport passenger numbers, 2011 - 2018



Source: NTA Bus and Rail Statistics
Note: Excludes commercial bus figures

Figure 6.2: Annual passenger numbers by operator, 2010 - 2018

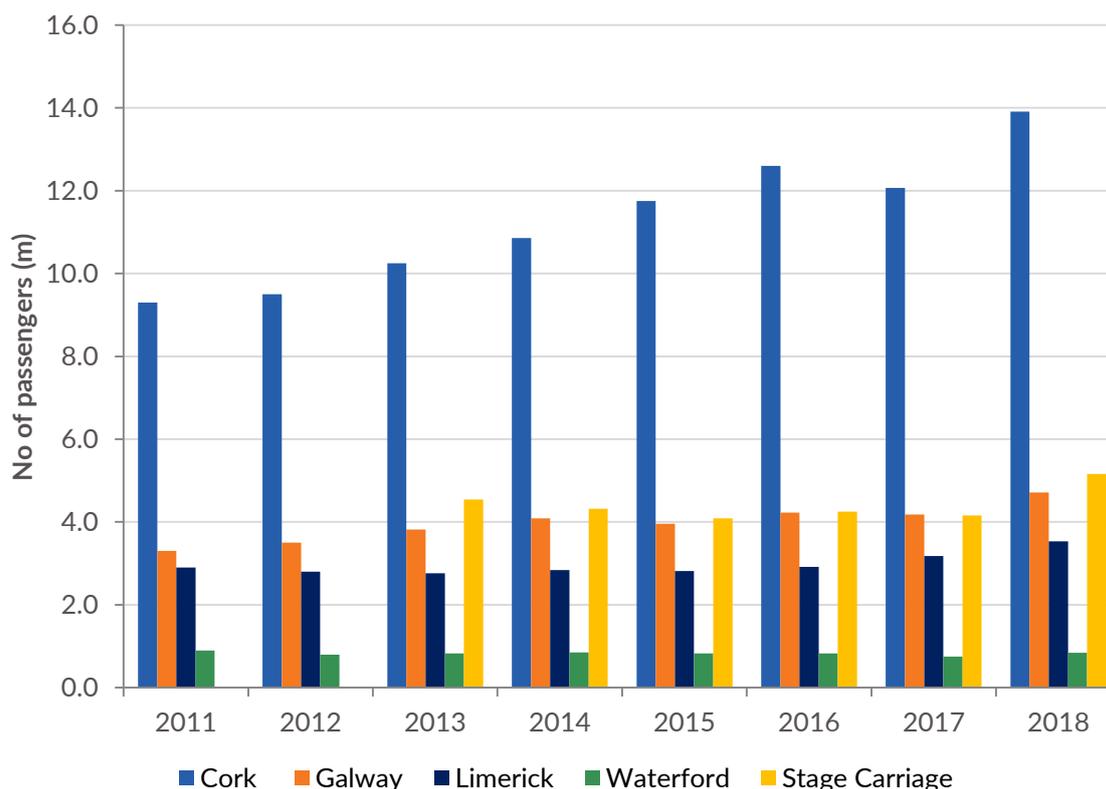


Sources: NTA Bus and Rail Statistics,

*Dublin Bus and Bus Éireann are PSO only, Commercial bus passenger numbers only available since 2013

Changes to bus passenger numbers in some of the regional cities have been less consistent with wider economic growth, as shown in Figure 6.3. In the years 2011 to 2018, Cork and Galway experienced significant increases of 50% and 43% respectively. Waterford passenger numbers, on the other hand, decreased by 17% between 2011 and 2017, before increasing by 12% between 2017 and 2018. Passenger numbers in Limerick increased by 22% since 2011 following a dip in 2013. Bus Éireann Stage Carriage services, which are services linking satellite towns and villages to the main towns and cities, have grown by 14% since 2013.

Figure 6.3: Bus Éireann passenger numbers in regional cities, 2011 - 2018



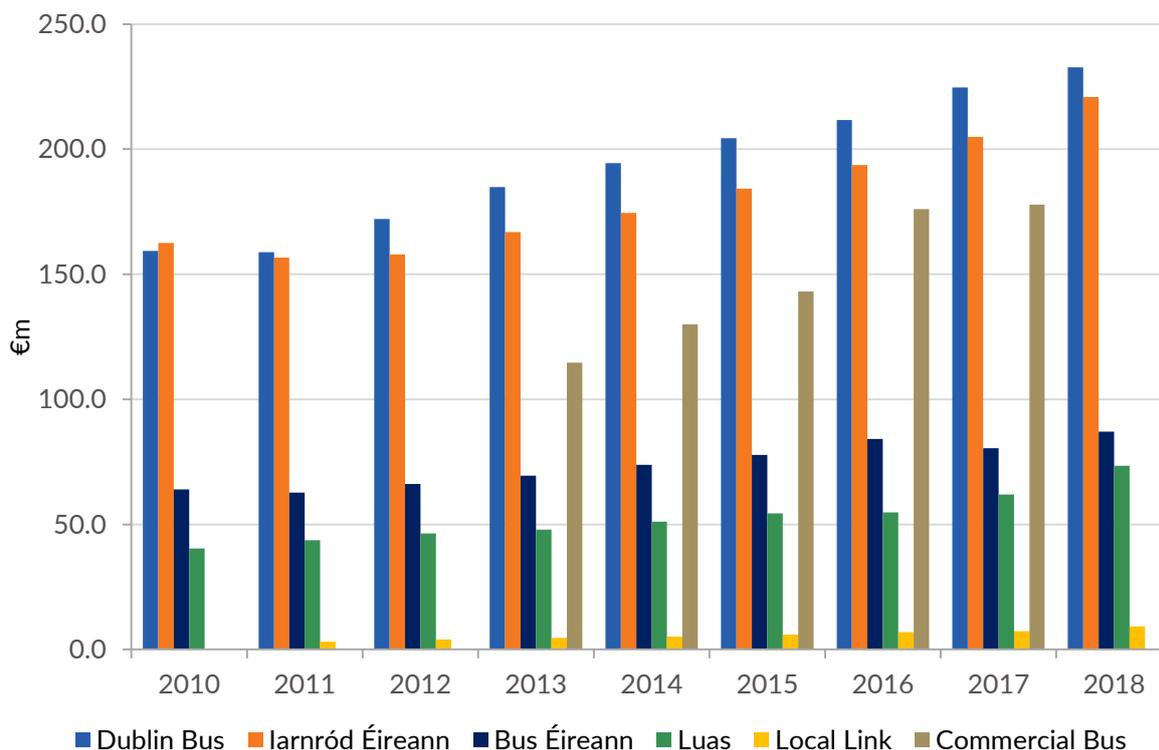
Source: NTA Bus and Rail Statistics

6.3 Revenues and fares

Section 4 briefly looked at passenger revenues across PSO operators. As illustrated in Figure 6.4, at the aggregate level, passenger revenues have increased significantly since 2011 across all operators. In 2018, Dublin Bus generated the greatest amount of passenger revenue at €233m, with Iarnród Éireann close behind at almost €221m. Commercial bus operators had combined revenue of €178m in 2017, an increase of 55% since 2013 – this includes Bus Éireann Expressway and Dublin Bus Airlink services, along with other licenced commercial operators.

The levels of passenger revenues of the remaining operators are some way behind the top three groupings. Bus Éireann PSO services generating €87m in 2018 and Luas just over €73m. However, passenger revenues for Luas increased by €11m or 18% between 2017 and 2018 due to the opening of Luas Cross City. The Local Link passenger revenues of less than €9.2m are negligible when compared with the other operators, though this does represent an almost trebling of revenue since 2011.

Figure 6.4: Public transport passenger revenues by operator, 2010 - 2018



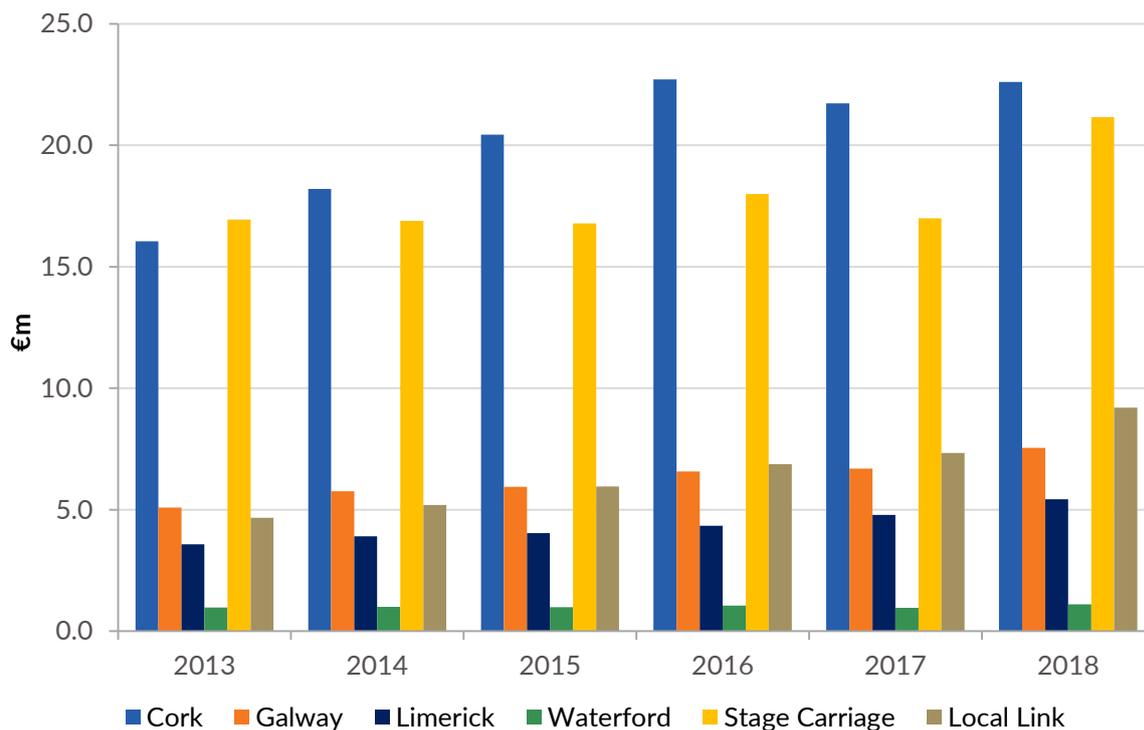
Sources: NTA Bus and Rail Statistics; NTA Commercial Bus Services Statistics

Note: 2018 commercial bus figures not available at time of publishing

Figure 6.5 shows the passenger revenues of the regional bus services which have all increased since 2013. Passenger revenues for Cork city have grown from €16m in 2013 to over €22m in 2018. This is likely to have been fuelled in large part by the sustained growth in passenger numbers for the Cork regional bus service discussed in Section 6.2.

Figure 6.6 shows the average fare by operator in real terms between 2006 and 2018 which shows average fare increases across all operators over that period. There are a variety of factors which contribute to this including journey type within the services and the average distance of trips. The primary factor, however, is the fare structure set out by each operator. Significant fare increases were approved by the NTA for 2012 and 2013 while average fare increases were moderate in 2014, 2015 and 2016.

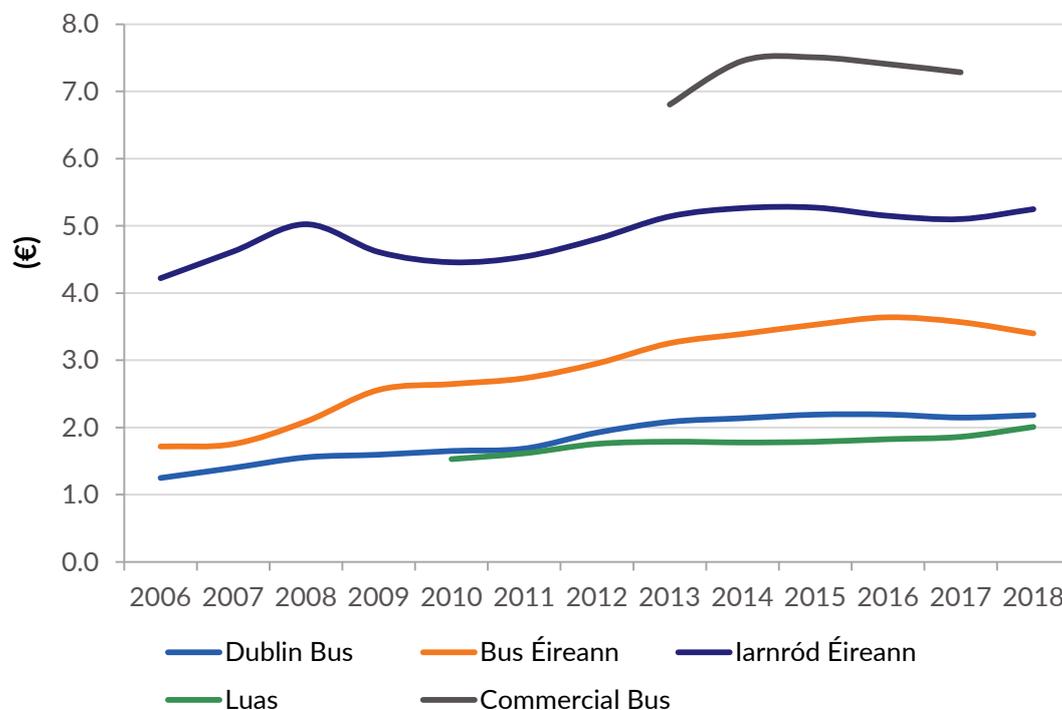
Figure 6.5: Regional public transport passenger revenues (bus), 2013 - 2018



Source: NTA Bus and Rail Statistics

*Includes Bus Éireann regional services and Local Link

Figure 6.6: Average fare by operator (excluding Free Travel Scheme), 2006 - 2018 (2006 prices)



Source: Operator Annual Reports; NTA Annual Report; NTA Commercial Bus Services Statistics

*Dublin Bus is PSO only ** Bus Éireann is PSO only, does not include Schools Transport Schemes

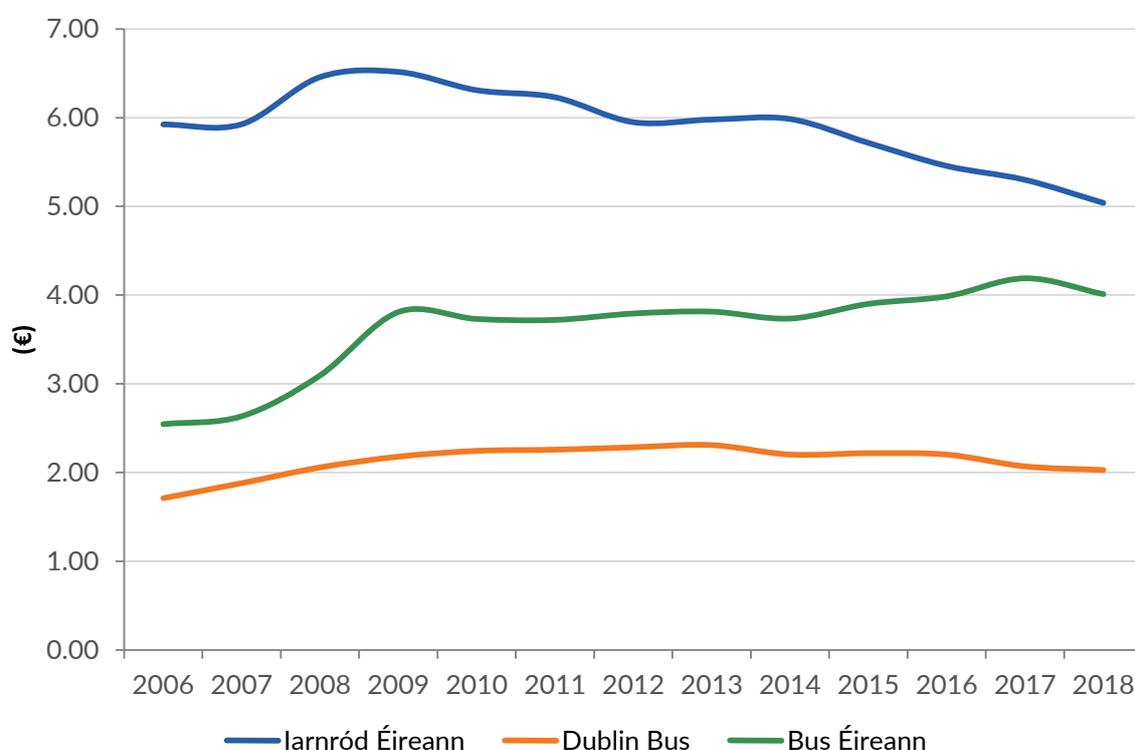
Note: 2018 commercial bus figures not available at time of publishing

6.4 Operating costs

As can be seen in Figure 6.7, the operating cost per passenger for each of the operators grew between 2006 and 2009. Since 2009 the operational cost per passenger has been more stable with recent decreases for Iarnród Éireann between 2015 and 2018. When considering these figures, it is important to bear in mind that there are a number of external factors that have a significant impact on operating costs which operators have little influence over, such as the price of fuel.

It should also be noted that the data in Figure 6.7 and also in Figure 6.8 does not include capital costs. This is particularly relevant to Iarnród Éireann and the provision of heavy rail services where capital costs are a large element of Exchequer support to service provision.

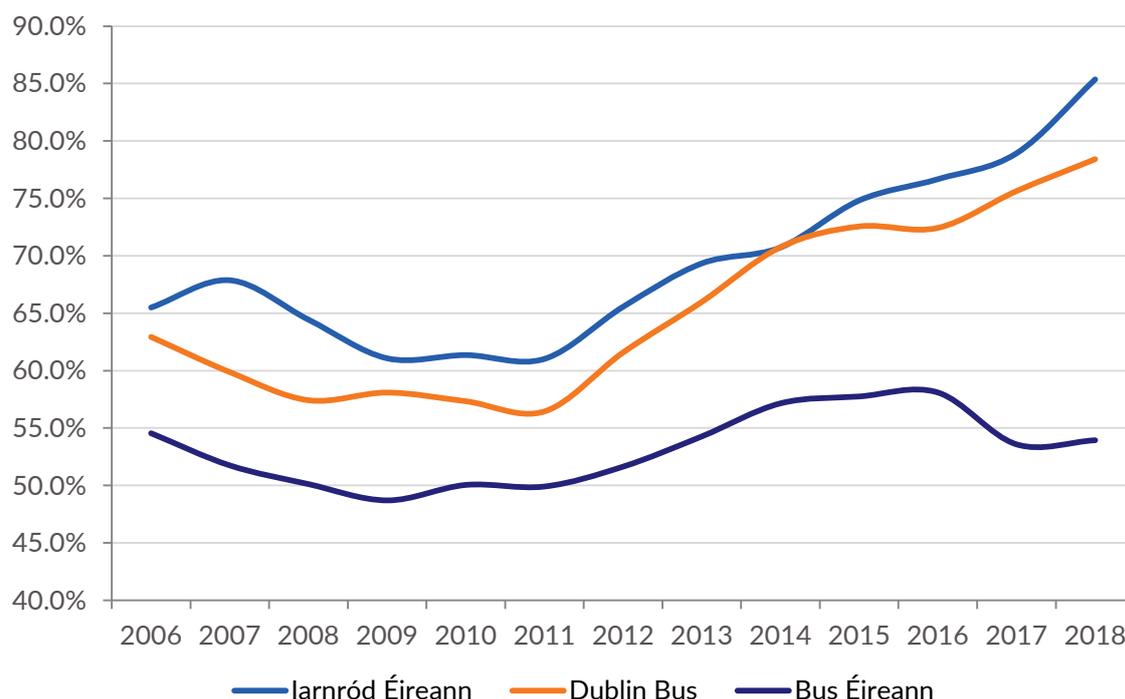
Figure 6.7: Operating cost per passenger, 2006 - 2018



Source: NTA

Bringing Figure 6.6 and Figure 6.7 together, Figure 6.8 shows the proportion of operating costs that the three Córas Iompair Éireann (CIÉ) companies recover through fares. Recovery of operating costs is obviously a significant consideration when setting fares, though the desire to subsidise the use of public transport and the promotion of economic or social goals must also be considered.

Figure 6.8: Cost recovery (fares/operating cost), 2006 - 2018



Source: NTA

From 2011 onwards there has been an upturn in the proportion of operating costs recovered through fares across the three companies – a 24 percentage point increase at Iarnród Éireann, 22 percentage points at Dublin Bus and 4 percentage points at Bus Éireann – although there has been a reduction in 2017 and 2018 for Bus Éireann. As previously noted, significant fare increases were introduced in 2012 and 2013 with moderate fare increases in 2014, 2015 and 2016. The operating costs from 2011 onwards did not experience a corresponding increase.

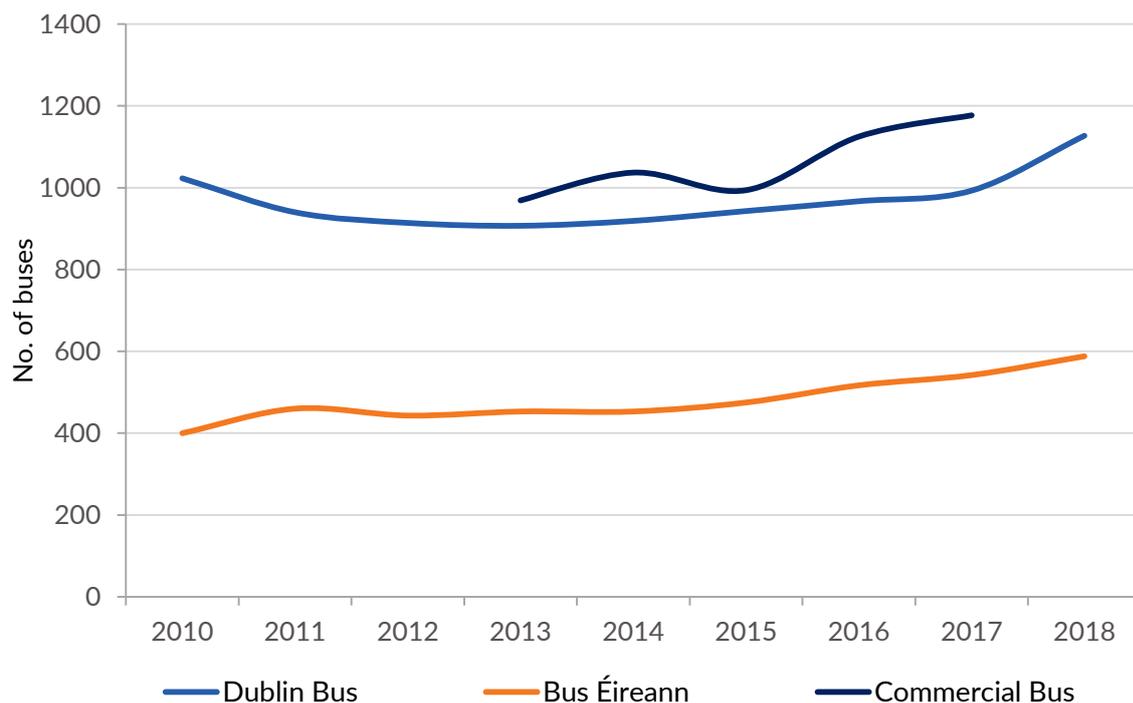
6.5 Public transport bus fleet

Despite the overall increase in passenger journeys from 2010 to 2018, Figure 6.9 shows that this has not necessarily resulted in a corresponding increase in the size of the bus fleet. For instance, Dublin Bus passenger journeys increased by 20% over the period 2010 to 2018 compared to a 10% increase in the company’s fleet size. However, for the period 2013 to 2018, the passenger numbers and fleet size of Dublin Bus both increased by 24%. Bus Éireann’s fleet size, on the other hand, increased by 47% against a passenger journey increase of 21% over the period 2010 to 2018. Over the shorter period from 2013 to 2017, the commercial bus fleet increased by 21% while passenger journeys increased by 28%.

It should of course be noted that vehicles referred to in Figure 6.9 encompass a broad variety, such as inter-city coaches, low-floor urban double and single decker buses, as well as midi and mini buses. These vehicles have a range of different designs and passenger seat capacities so percentage changes in fleet size will not necessarily result in a proportional change in capacity.

Figure 6.10 shows the average age of the bus fleet across both PSO and commercial bus services. The age of a vehicle can influence accessibility standards, vehicle emission levels, fuel efficiency, vehicle safety features, maintenance requirements, and reliability. It must also be considered that passengers may prefer travelling on newer buses with enhanced features and designs and the effect that the age of an individual bus or fleet can have on attracting and maintaining customers. The change in average fleet age over time can also be an indicator of the trend of investment in fleet for expansion and/or replacement.

Figure 6.9: Bus fleet size, 2010 - 2018

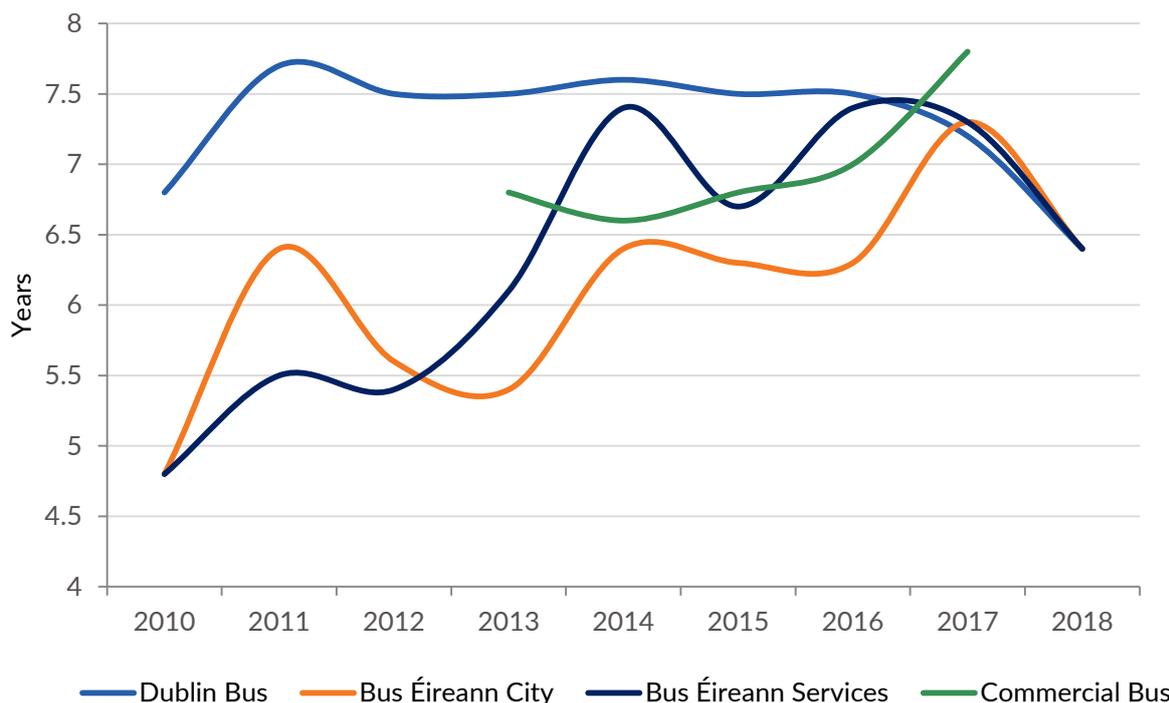


Sources: NTA Bus and Rail Statistics; NTA Commercial Bus Statistics

*Dublin Bus 2018 figure includes 140 buses allocated to Go-Ahead Ireland

Note: 2018 commercial bus figures not available at time of publishing

Figure 6.10: Average age of bus fleet, 2010 - 2018



Sources: NTA Bus and Rail Statistics; NTA Commercial Bus Statistics

*Dublin Bus 2018 figure includes 140 buses allocated to Go-Ahead Ireland

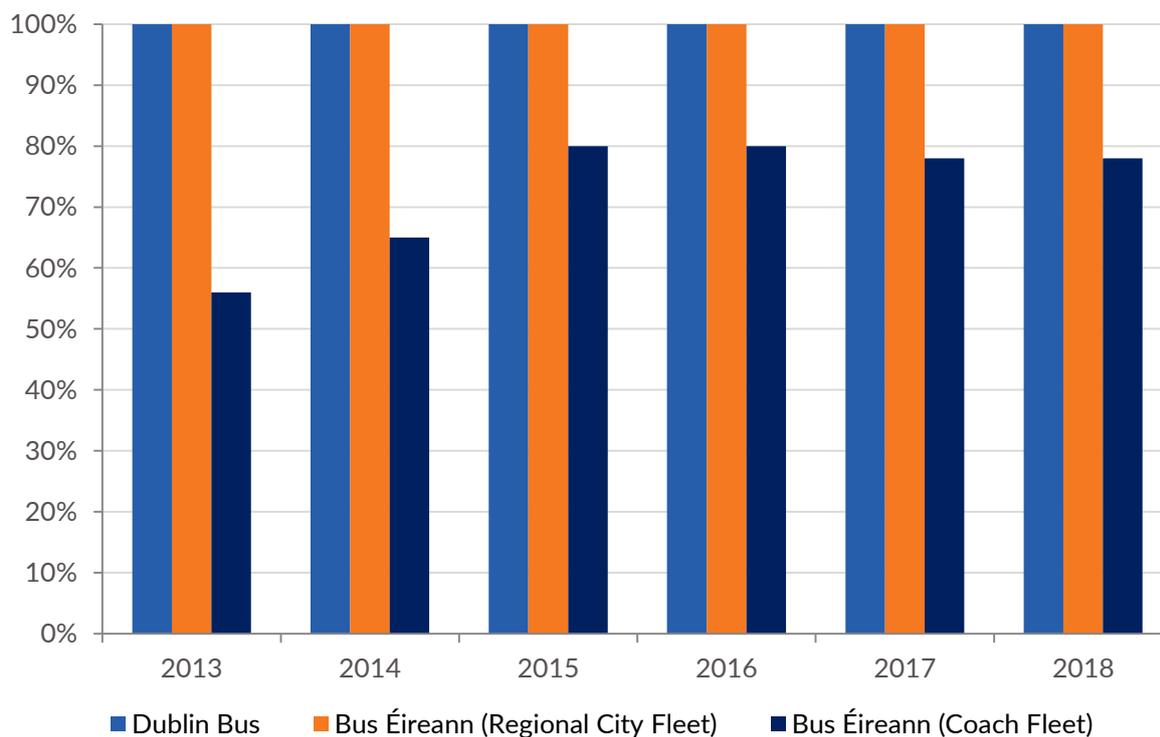
Note: 2018 commercial bus figures not available at time of publishing

6.6 Accessibility of public transport

Figure 6.11 outlines the wheelchair accessibility of the PSO bus fleet. The Dublin Bus and Bus Éireann urban fleets are fully wheelchair accessible and fitted with ramps to facilitate wheelchair users. The Bus Éireann coach fleet is designed to have storage capacity close to ground level to facilitate longer journeys. To provide access for wheelchair users on such coaches a lift must be used to reach the high floor. Bus Éireann are progressively increasing the accessibility of their coach fleet by ensuring all future new and replacement buses purchased are accessible, and between 2013 and 2018 the proportion of coaches that are accessible grew from 56% to 78%.

In the rail sector, Luas fleets are wheelchair accessible. Iarnród Éireann trains require wheelchair users to use a ramp when transferring between the station platform and trains. A portable ramp is used for this purpose and these are currently available at staffed stations and on board some trains. On-board audio and “next-stop” announcements are available on bus and rail services and these are looked at in more detail in *Background Paper 1 – Public Transport and Accessibility*.

Figure 6.11: Wheelchair accessibility of bus fleet, 2013 - 2018



Source: Operator Annual Reports

6.7 Concluding remarks

At the national level public transport passenger numbers have generally moved in line with the overall economy over the last decade, decreasing in 2011 and 2012 and increasing since. In the regional cities the changes have varied, ranging from a 50% increase in Cork to a 7% decrease in Waterford since 2011.

As might be expected in an improving economy, passenger revenue has increased across the operators. Passenger revenues for Luas have increased by over 80% since 2010, particularly between 2017 and 2018, due to the opening of Luas Cross City. Dublin Bus passenger revenue has seen an increase of 46% since 2010 with both Bus Éireann and Iarnród Éireann showing increases of 36% over the same period. Regionally, in line with passenger number increases, Cork's Bus Éireann service has seen an increase of 41% in passenger revenues between 2013 and 2018. Similarly, Limerick City's Bus Éireann service and Galway City's Bus Éireann service have seen increases in passenger revenues of 52% and 48% respectively – although these are at lower revenue levels. As well as increased passenger numbers, the increase in revenue can be partially attributed to an increase in fares between 2012 and 2016.

The three CIÉ companies have all improved their cost recovery percentage since 2011.

7 Conclusion

From 1986 to 2016, the number of people commuting by public transport increased by 14%, and by 10% in the shorter period from 2011 to 2016. However, population and economic growth saw the overall number of people commuting increase by 62% from 1986 to 2016, meaning that public transport's modal share has actually declined. People are four times more likely to commute by car than by public transport, and over thirteen times more likely to use their car when considering all journeys, not just commutes.

Public transport does constitute a significant amount of commuting journeys made within the Greater Dublin Area but a negligible amount outside. Public transport users are more likely to be younger with the likelihood of a worker commuting by public transport declining with age. In urban areas, commuting times by public transport are, on average, longer than those by car. This disparity is not reflected in rural areas, with commuting times by public transport and by car being broadly similar.

The greater dependence on the private car for transport in rural areas and longer average journey lengths are reflected by the fact that rural households, on average, spend over 40% more each week on transport than urban households, though this is offset by lower housing costs.

Among public transport users, satisfaction is high overall at 93% but this varies by service, while punctuality is reported as the biggest driver of satisfaction. Perceptions of public transport are much more negative in rural areas, with 58% of older people living in rural areas rating their public transport options as poor or very poor compared to 7% in Dublin.

Exchequer spend on public transport as a percentage of total Exchequer spend decreased from a high of 2.5% in 2008 to 1.2% in 2012 following a period of budgetary constraints due to economic circumstances. This figure has risen to 1.4% in 2018. Capital funding for public transport peaked in 2008 and there was a substantial increase in capital funding in 2018, increasing by 10% from 2017. Under *Project Ireland 2040*, there is a commitment to provide €8.6 billion in capital investment in public transport over the period 2018-2027.

PSO payments have increased by 33% since 2014 and the highest level of PSO payments to the CIÉ companies is consistently made to Iarnród Éireann. While there have been fluctuations in current expenditure in line with economic prosperity, the fluctuations in capital expenditure have been more pronounced. This is also reflective of the nature of funding for one-off expensive capital projects e.g. building Luas.

While bus stop and train station provision generally rises with a county's population density, disparities do exist between similar counties.

With regards to reliability and punctuality, all PSO operators perform well against the annual targets set for them by the NTA. Since 2017, reliability and low-frequency punctuality performance are now monitored by the NTA through the assessment of automatic vehicle

location data from each bus service operated compared to the scheduled timetable. These were previously self-reported by the operators.

Most PSO services are wheelchair accessible and the public transport fleet is becoming progressively more accessible as older vehicles are replaced.

At the national level, public transport passenger numbers have generally moved in line with the overall economy over the last decade, decreasing in 2011 and 2012 and increasing since. In the regional cities the changes have varied, ranging from a 50% increase in Cork to a 7% decrease in Waterford since 2011.

Passenger revenue has also increased across the operators. Passenger revenues for Luas have increased by over 80% since 2010, particularly between 2017 and 2018, due to the opening of Luas Cross City. Dublin Bus passenger revenue has seen an increase of 46% since 2010 with both Bus Éireann and Iarnród Éireann showing increases of 36% over the same period. Regionally, in line with passenger number increases, Cork's Bus Éireann service has seen an increase of 41% in passenger revenues between 2013 and 2018. Similarly, Limerick City's Bus Éireann service and Galway City's Bus Éireann service have seen increases in passenger revenues of 52% and 48% respectively – although these are at lower revenue levels. As well as increased passenger numbers, the increase in revenue can be partially attributed to an increase in fares between 2012 and 2016. The three CIÉ companies have all improved their cost recovery percentage since 2011.

Acronyms

CSO	Central Statistics Office
DEASP	Department of Employment Affairs and Social Protection
DPER	Department of Public Expenditure and Reform
DTTAS	Department of Transport, Tourism and Sport
FTS	Free Travel Scheme
GDA	Greater Dublin Area
IMMAC	Infrastructure Manager Multi-Annual Contract
NTA	National Transport Authority
PSO	Public Service Obligation
REV	Revised Estimates Volume
TILDA	The Irish Longitudinal Study on Ageing

Data Sources

Central Statistics Office, *Census 2016* ([Available Online](#))
Central Statistics Office *National Travel Survey* ([Available Online](#))
Central Statistics Office, *Household Budget Survey 2015/2016* ([Available Online](#))
Central Statistics Office *Transport Omnibus*, ([Available Online](#))
Department of Health, *Healthy and Positive Ageing Initiative* ([Available Online](#))
Iarnród Éireann ([Available Online](#))
Bus Éireann, *Annual Reports* ([Available Online](#))
Dublin Bus, *Annual Reports* ([Available Online](#))
Iarnród Éireann, *Annual Reports* ([Available Online](#))
National Transport Authority, *Customer Satisfaction Research 2018* ([Available Online](#))
National Transport Authority, *National Household Travel Survey* ([Available Online](#))
Dublin City Council, National Transport Authority, *Canal Cordon Report* ([Available Online](#))
NTA *Statistical Bulletins*, ([Available Online](#))
Transport for Ireland ([Available Online](#))
Trinity College Dublin, *The Irish Longitudinal Study on Ageing* ([Available Online](#))

References

- ¹ Government of Ireland, *A Programme for a Partnership Government*, (2016) ([Available Online](#))
- ² Eurostat, *Energy, transport and environment indicators*, (2018) ([Available Online](#))
- ³ Department of Transport, Tourism and Sport. *The Costs of Congestion: An Analysis of the Greater Dublin Area*, (2017) ([Available Online](#))
- ⁴ Central Statistics Office, *Census of Population 2016 – Profile 6 Commuting in Ireland* ([Available Online](#))
- ⁵ Government of Ireland, *Project Ireland 2040*, (2017), ([Available Online](#))
- ⁶ Department of Public Expenditure and Reform, *Spending Review 2018, Public Service Obligation (PSO) Funding for Public Transport*, (2017) ([Available Online](#))
- ⁷ Department of Public Expenditure and Reform, *Spending Review 2018 – Public Service Obligation (PSO) Funding for Public Transport: Analysis of Performance Measurement* ([Available Online](#))
- ⁸ Government of Ireland, *The National Recovery Plan 2011-2014*,(2010) ([Available Online](#))



An Roinn Iompair,
Turasóireachta agus Spóirt
Department of Transport,
Tourism and Sport