

Travel to Work :

Commuting into, out of and within the City of Edinburgh

March 2016

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*This report is based on 2011 Census data published by National Records of Scotland
Whilst reasonable care has been taken in the analysis and presentation of these data, the
report is offered for general guidance only and users should undertake their own verification
if used for business critical purposes.*

*Detailed Census results together with further information on definitions, methodologies etc.
are available from the 'Scotland's Census 2011' website:*

<http://www.scotlandscensus.gov.uk/en/>

Travel to Work Analysis

Introduction

This report analyses the findings of the 2011 census results relating to travel to work. The census form included questions on address of usual residence, address of employment and mode of travel to work. The answers to these questions are used to generate tables of mode of travel for all areas of residence to all areas of employment. Census results for travel to work are different from other census statistics in that data do not relate solely to particular geographic areas but to origin-destination pairs of geographic areas.

Workplace origin-destination data provide a valuable insight into commuter flows, helping to inform transport and land use policy.

This report will examine commuter flows into, out of and within the City of Edinburgh Council area and in particular, the mode of transport used. It will also compare transport flows at the local authority level to those observed ten years previously.

Summary

- In total there are nearly 285,500 people aged between 16 and 74 working in the City of Edinburgh Council area.
- One third of people working in the city commute in from other local authority areas. This amounts to nearly 95,000 inward trips per day.
- 47,100 Edinburgh residents commute out of the city to work in other local authority areas.
- Three quarters of inward commuters, do so from neighbouring authorities, the most popular origins being West Lothian, East Lothian and Midlothian.
- Two thirds of workers commuting from other council areas do so using a car.
- Only a third of trips that start and finish within the city are made by car
- When compared to other modes of transport, car journeys are most prevalent to employment centres on the periphery of the city with public transport more prevalent for journeys to the city centre.
- Since 2001, the number of trips to work by car have decreased both for car drivers (9%) and car passengers (35%).
- Trips made by public transport have increased by 9% for bus and 52% for rail.
- Trips to work by bicycle have increased by 59% and walking by 16%
- The largest proportional increase has been by people working from home which has more than doubled since 2001 (137% increase)
- Proportionally and numerically, the number of trips into Edinburgh from Fife has increased by more than any other council area.

1. Net Commuting to/from Edinburgh

Being the largest employment centre for the south east of Scotland, there are significantly more people commuting into Edinburgh from elsewhere in Scotland than there are travelling out. The census showed that in 2011, there were 237,839 people aged 16-74, resident in Edinburgh and working. This compares to 285,469 people working within the City of Edinburgh Council area, meaning that there is net in-commuting of 47,630.

Of the 285,469 people working in the City, two thirds (190,743) are Edinburgh residents. The remaining 94,726 workers are commuting in from elsewhere in the UK. (Workers who are normally resident outwith the UK are not included in the analysis).

Of the 237,839 Edinburgh residents who work, 47,096 (20%) work outside of the council area.

2. Commuting into Edinburgh

Over 75% of in commuters to the City do so from bordering authorities with 18,900 travelling from West Lothian, 18,400 from both East Lothian and Midlothian, 14,500 from Fife and 4,100 from Scottish Borders. Other authorities with high level of in commuting to Edinburgh include Falkirk (6,200), North Lanarkshire (2,500), Glasgow City (2,400) and South Lanarkshire (2,200).

2,500 workers commute into Edinburgh from England.

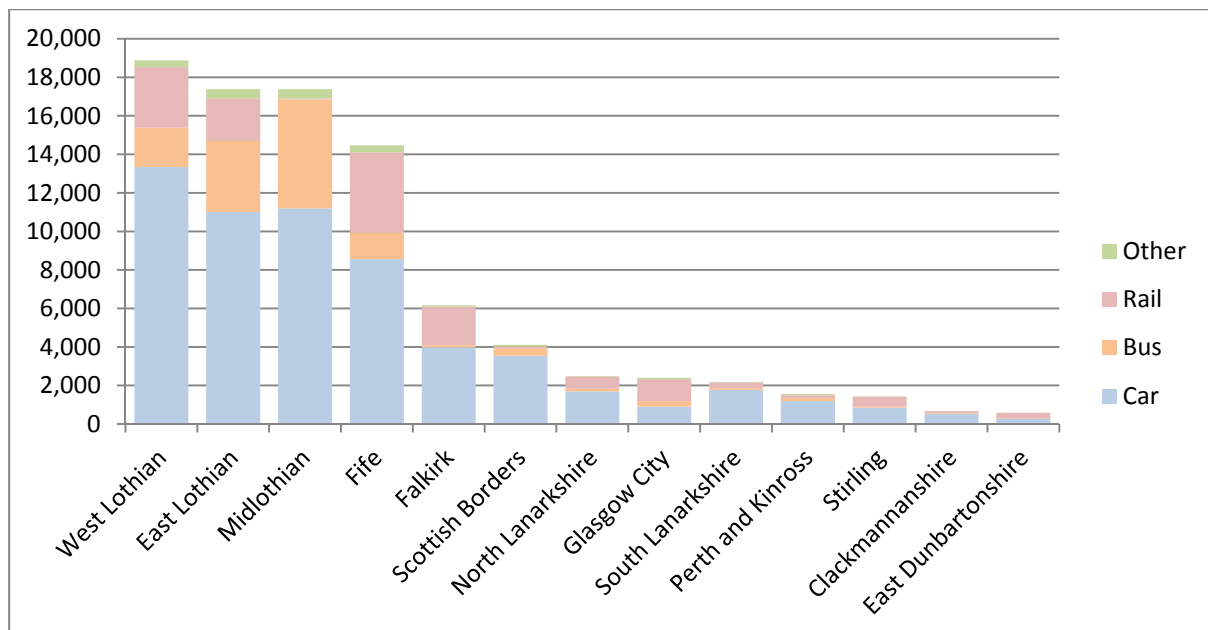
Nearly two thirds of workers commuting into Edinburgh from other local authorities do so as either car drivers or passengers in cars. However, commuters travelling completely within the City are less car-reliant with less than a third of journeys being made by car.

Rail is the next most popular means of travelling into the City accounting for 16% of journeys followed by bus (15%). This pattern isn't followed by all local authorities with East Lothian, Midlothian and Scottish Borders having a greater reliance on bus travel than rail. For trips made wholly within Edinburgh, bus travel is the second most used mode of transport only slightly less popular than car accounting for 29% of all journeys.

Walking and cycling do not account for many cross border trips, especially for non-bordering local authorities. However, for journeys within the council area, walking accounts for 20% of all journeys to work (38,284) and cycling accounts for 5% (9,282).

Graph 1 below shows the breakdown of journeys to work in Edinburgh by local authority area and mode of travel. Only council areas with at least 500 journeys to Edinburgh are included in the graph.

Graph 1. In-commuting to City of Edinburgh Council area by mode

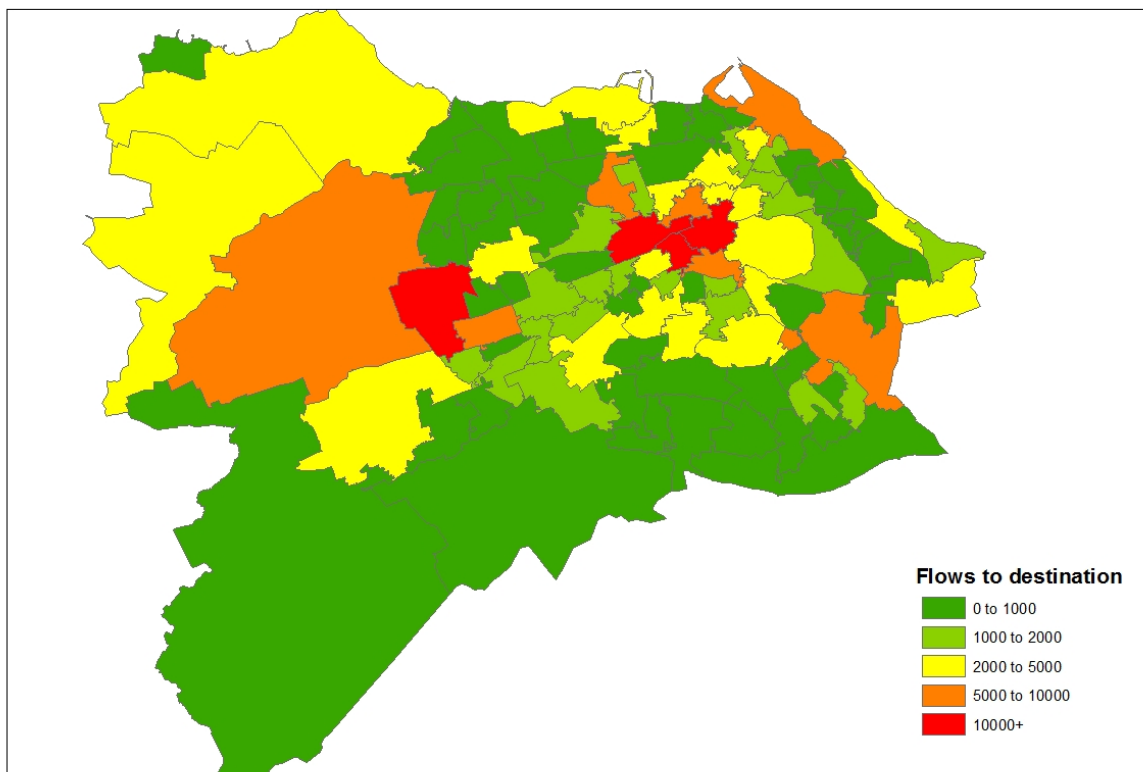


Destination of Commuters: all journeys

Travel to work statistics by mode of transport are available for small area geographies known as intermediate geography zones (IGZs); arbitrary areas designed to be roughly equal in size and large enough to preserve confidentiality of Census data. The City of Edinburgh council area contains 101 IGZs. Map 1 below shows the number of travel to work trips made to each zone in Edinburgh. Some of the trips will originate in the same zone as the destination.

The areas with the most trips made to them are the City Centre (IGZs of Old Town and Leith Street, Tollcross, Dean, West End and West Coats and Edinburgh Park).

All travel to work flows

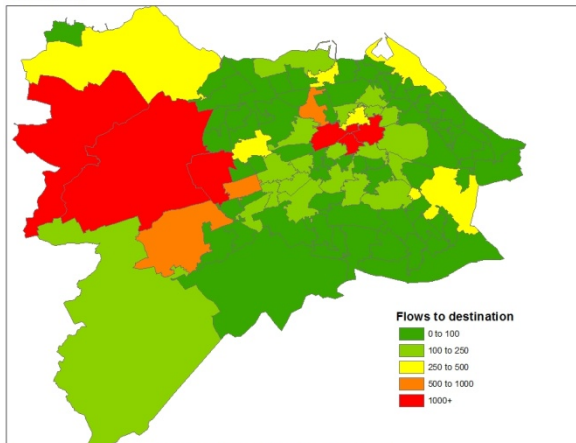


There are some variations in flows to destinations based upon the origin of workers. The following maps show the destinations of workers from the six local authorities with the highest level of commuting to the City; East Lothian, Midlothian, West Lothian, Fife, Falkirk and Scottish Borders.

The centres of employment remain the most popular destinations for commuters from all local authorities but commuting to areas closer to the origin is also a factor. West Lothian and Falkirk have much higher levels of commuting to the West of the City, East Lothian to the East, Midlothian to the South and Fife to North West. Commuting from Scottish Borders is mainly concentrated in the two biggest employment centres – The City Centre and Edinburgh Park

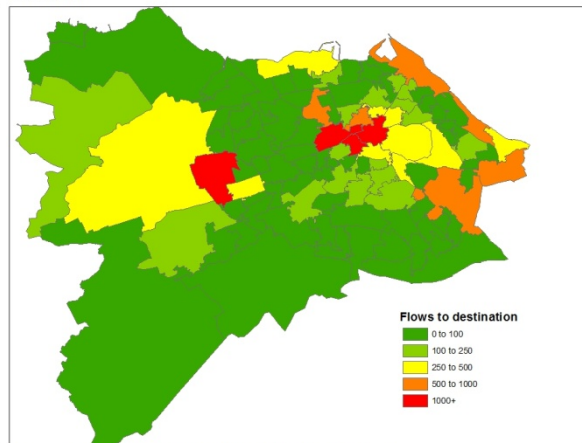
Journey to work from neighbouring authorities: all journeys

West Lothian



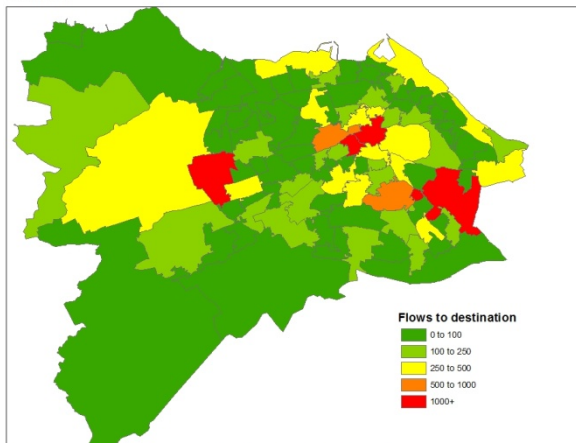
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East Lothian



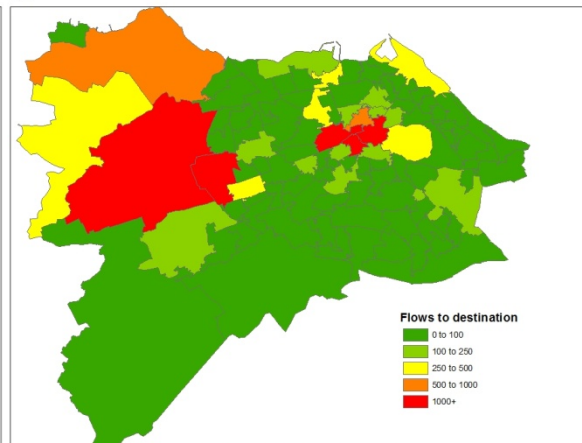
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Midlothian



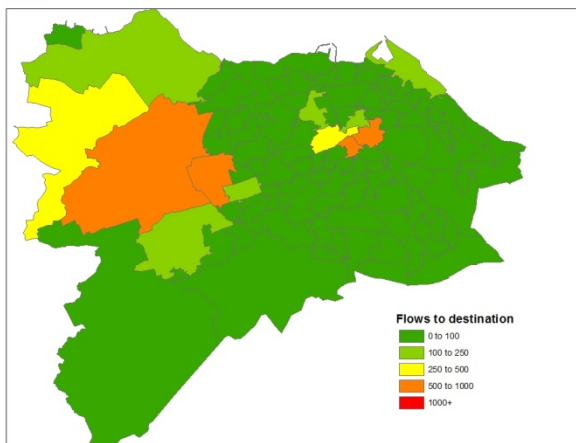
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Fife



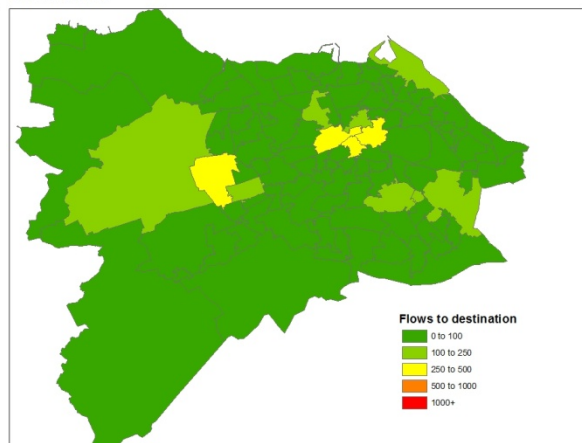
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Falkirk



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Scottish Borders



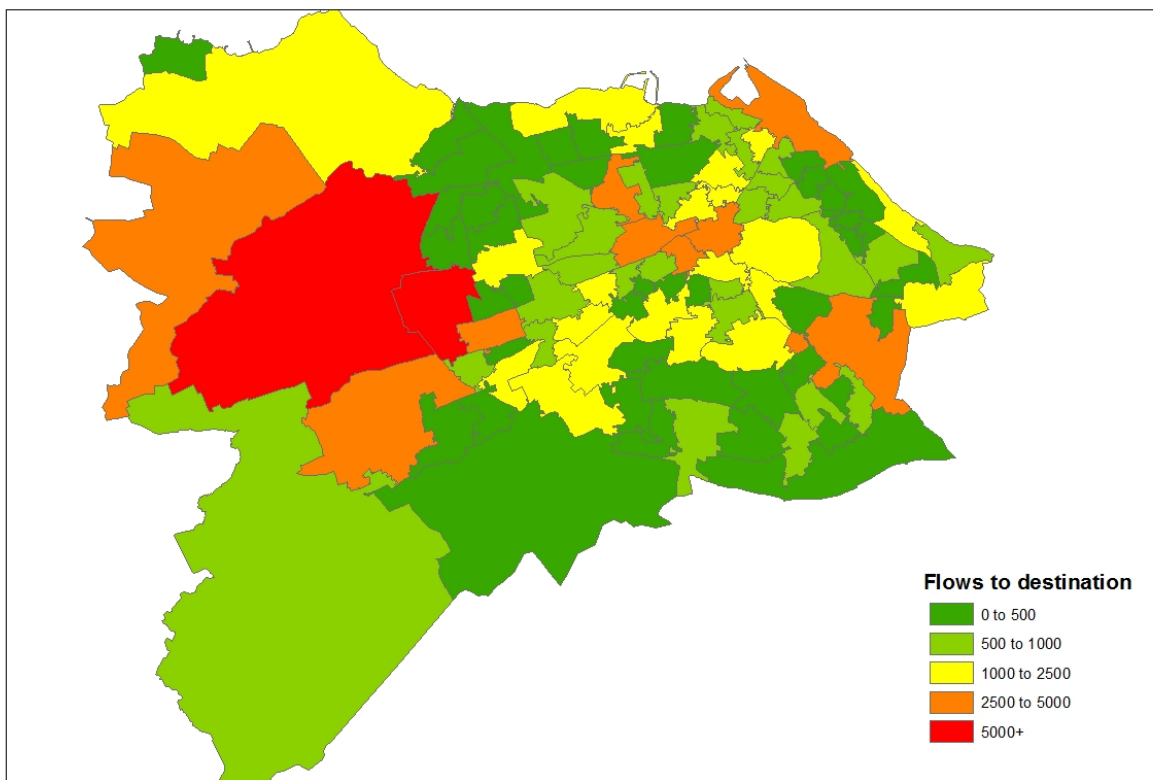
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Destination of Commuters: car journeys

The map below shows the destination of workers who journey to work by car – this includes car drivers and passengers in cars. Car journeys are the most popular mode of transport to work accounting for 46% of all journeys into or within the City.

Being the most popular mode of transport for journeys to work, the concentration of destinations for car journeys follow a similar pattern to travel to work as a whole. However, due to high levels of public transport accessibility and scarcity of free parking, the city centre has lower concentrations of journeys when compared to average for all journeys.

Travel to work flows: Car

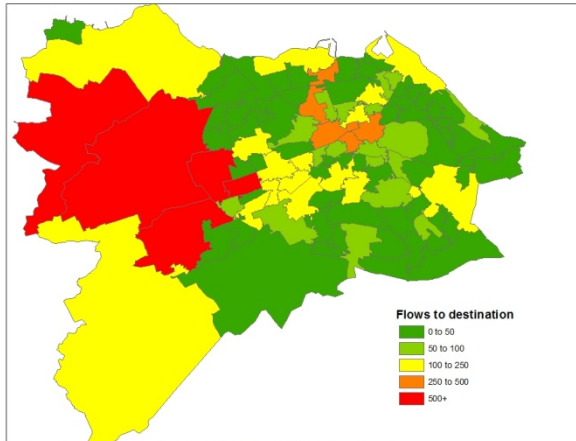


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The commuting from neighbouring authorities shows a similar pattern to total trips but has a lower concentration of flows to the city centre with higher concentrations to the zones close to authority borders.

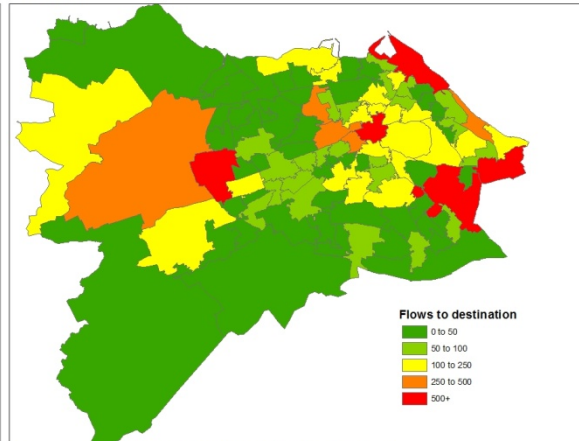
Journey to work from neighbouring authorities: car journeys

West Lothian



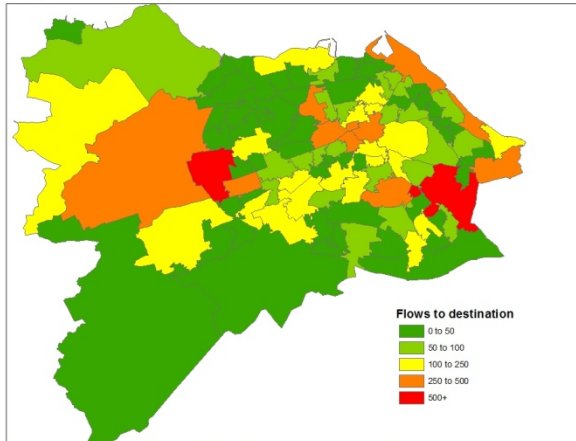
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East Lothian



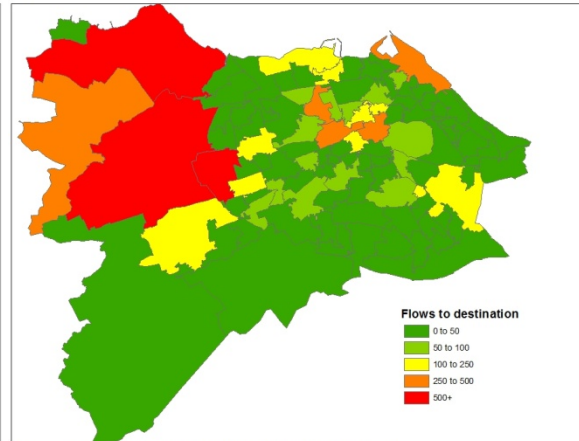
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Midlothian



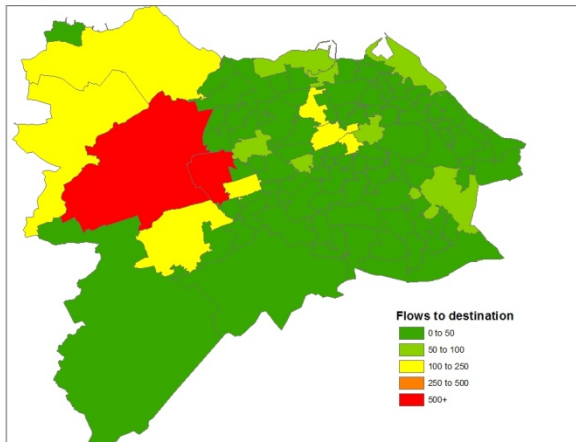
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Fife



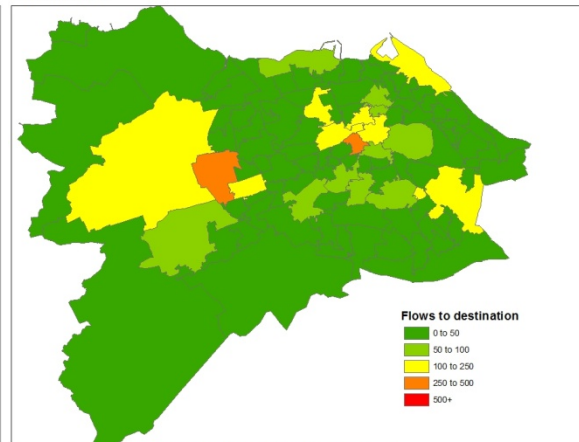
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Falkirk



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Scottish Borders



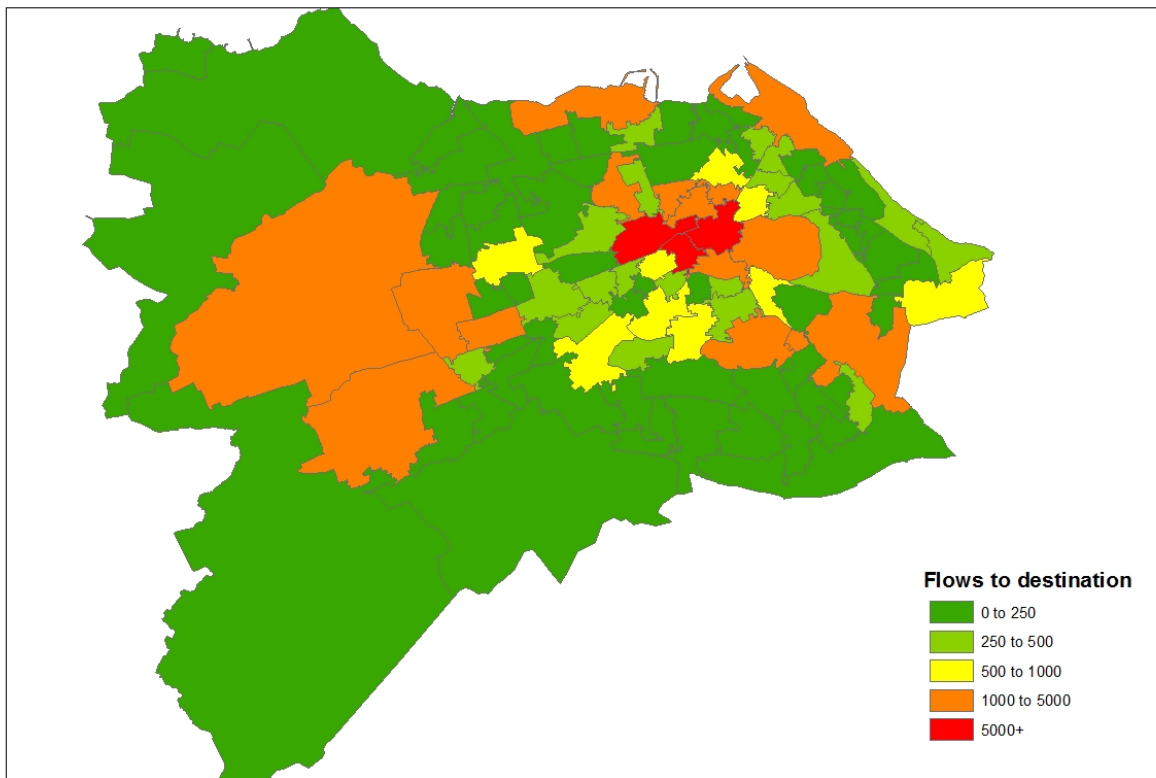
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Destination of Commuters: bus journeys

The map below shows the destinations of people travelling to work by bus. Travelling by bus is the second most popular mode of transport to work.

The pattern for destinations of people travelling by bus is very similar to the pattern for all modes of transport. This is due to all employment locations being readily accessible by bus. The West of Edinburgh, including the Rural West, Queensferry and Edinburgh Park have lower concentrations of bus travellers than the all mode average.

Travel to work flows: Bus



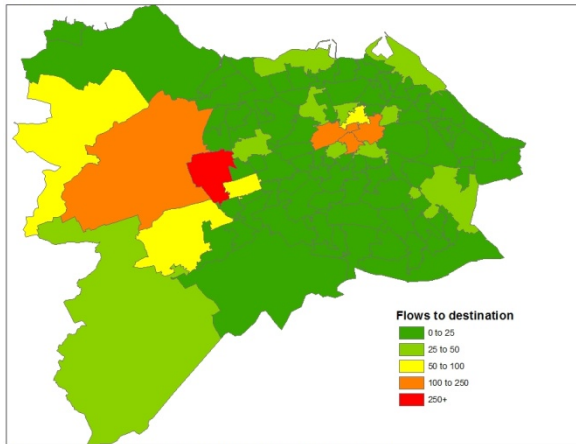
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Commuting by bus from neighbouring authorities shows the City centre as the main destination with other areas along the main arterial routes from each authority also being popular destinations. Only West Lothian has high numbers travelling to Edinburgh Park by bus.

Scottish Borders and Falkirk have very few commuters to Edinburgh using the Bus.

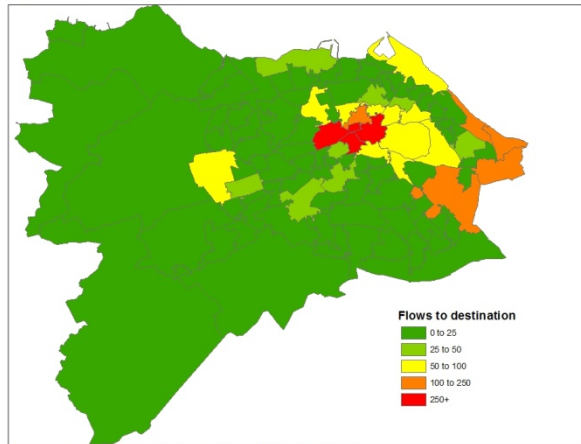
Journey to work from neighbouring authorities: bus journeys

West Lothian



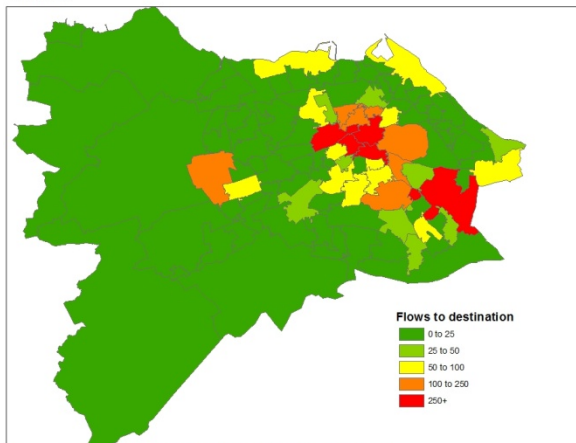
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East Lothian



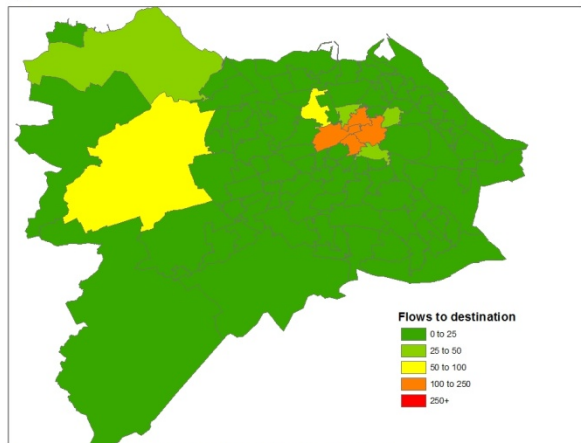
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Midlothian



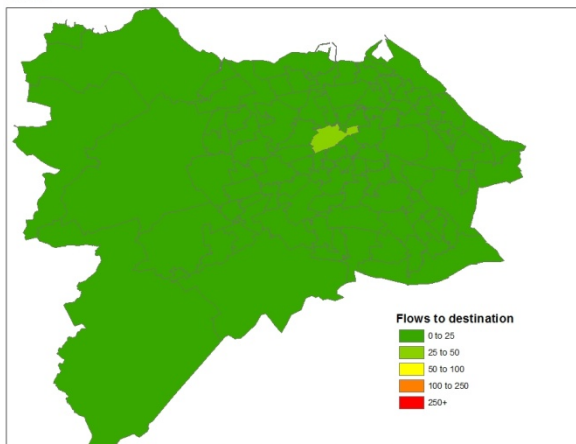
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Fife



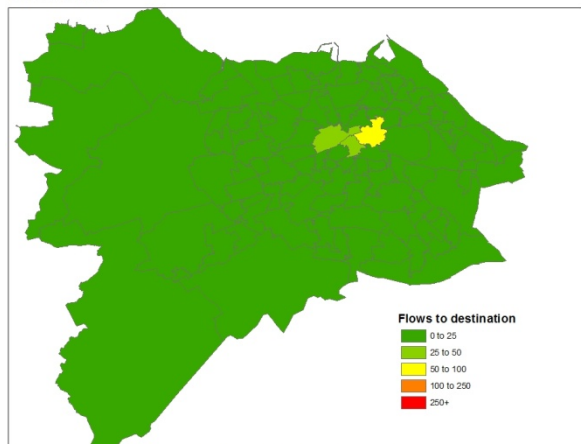
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Falkirk



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Scottish Borders

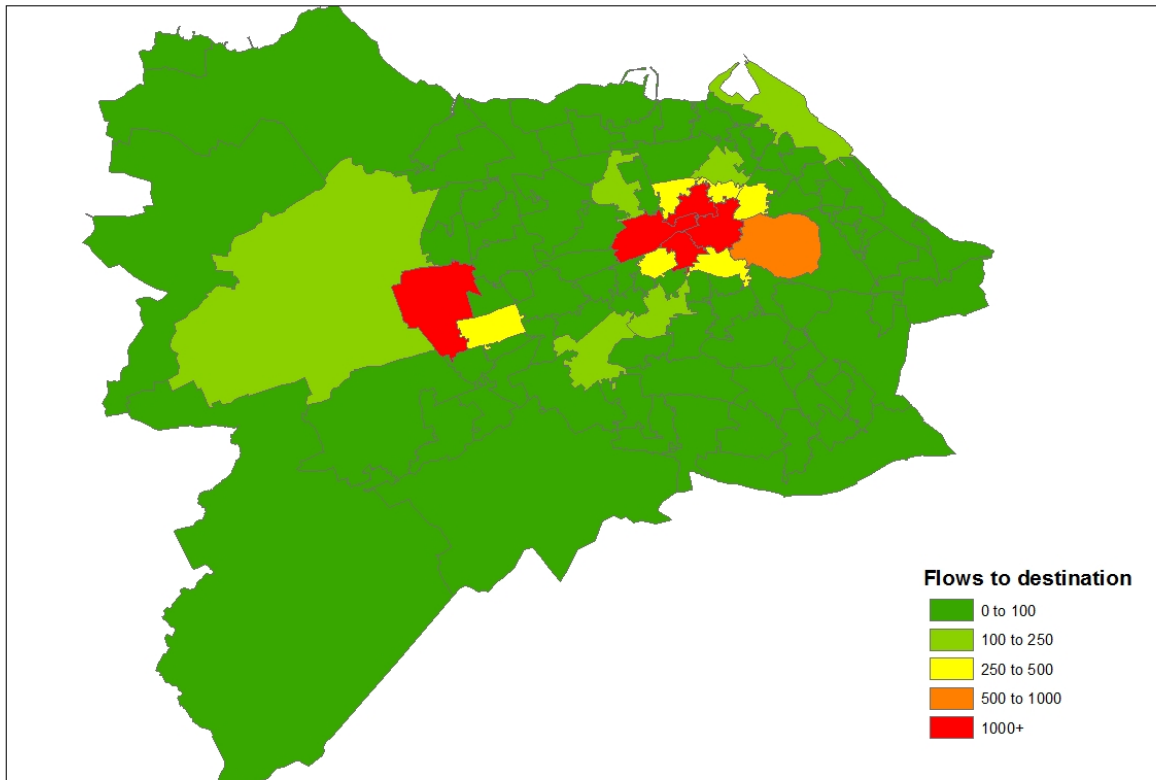


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Destination of Commuters: rail journeys

The map below shows the destinations of people travelling to work in the City by rail. Due to the limited number of stations, it is not surprising that areas close to the City Centre and Edinburgh Park are the only popular destinations.

Travel to work flows: Rail



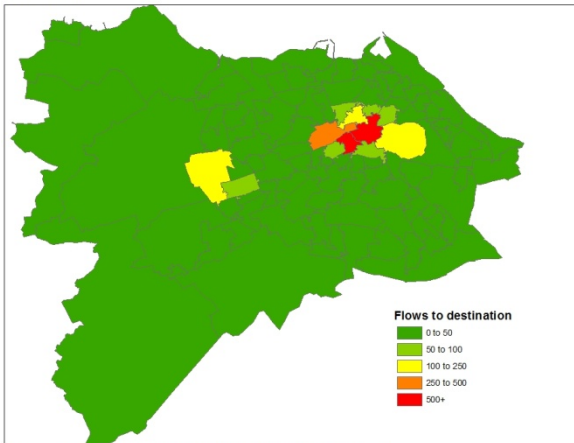
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For people commuting from neighbouring authorities the same pattern is broadly observed with concentration mainly in the city centre and less so for Edinburgh Park.

The census was undertaken prior to the opening of the Borders rail line so there were no commuters to the City from Scottish Borders or Midlothian by train.

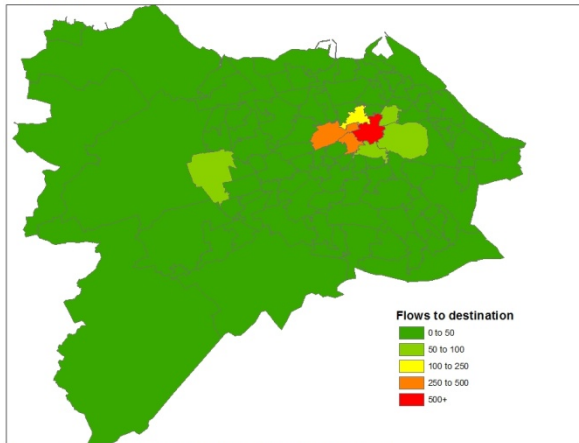
Journey to work from neighbouring authorities: rail journeys

West Lothian



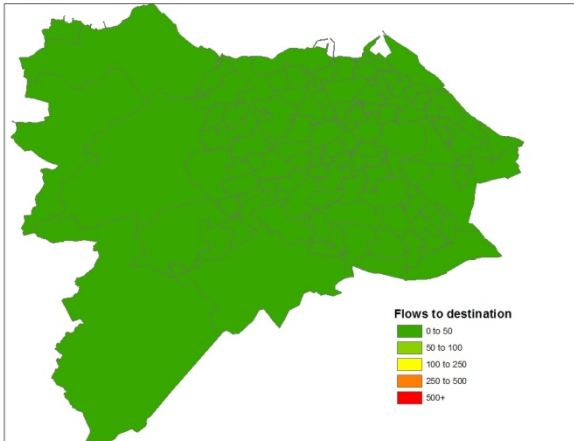
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East Lothian



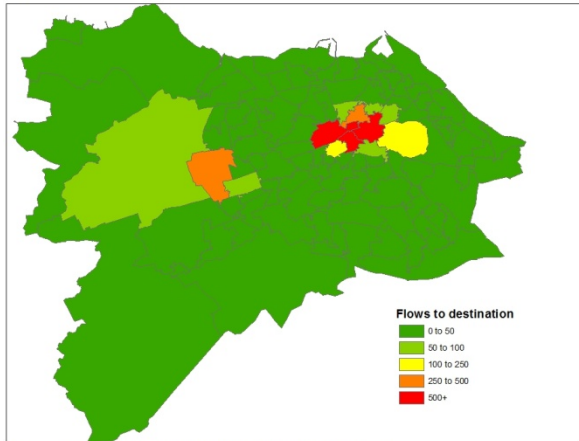
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Midlothian



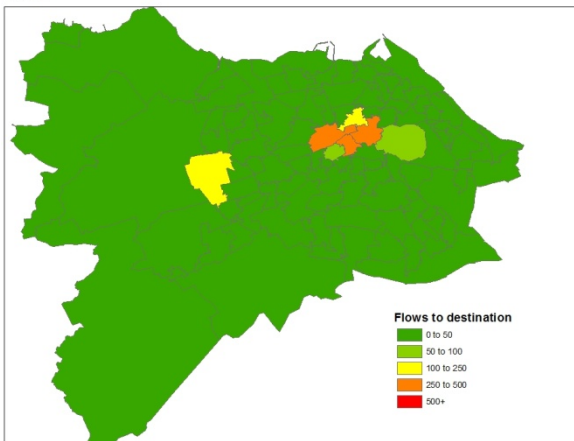
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Fife



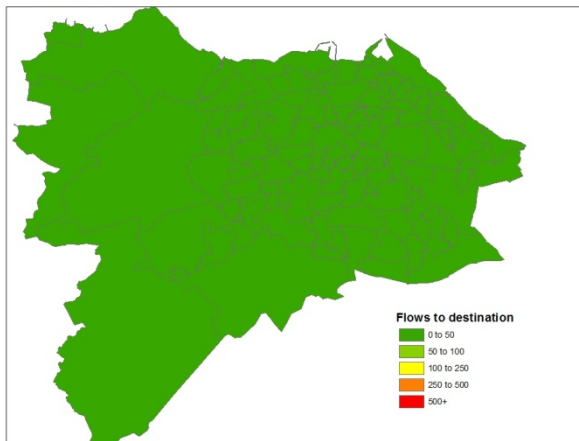
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Falkirk



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Scottish Borders



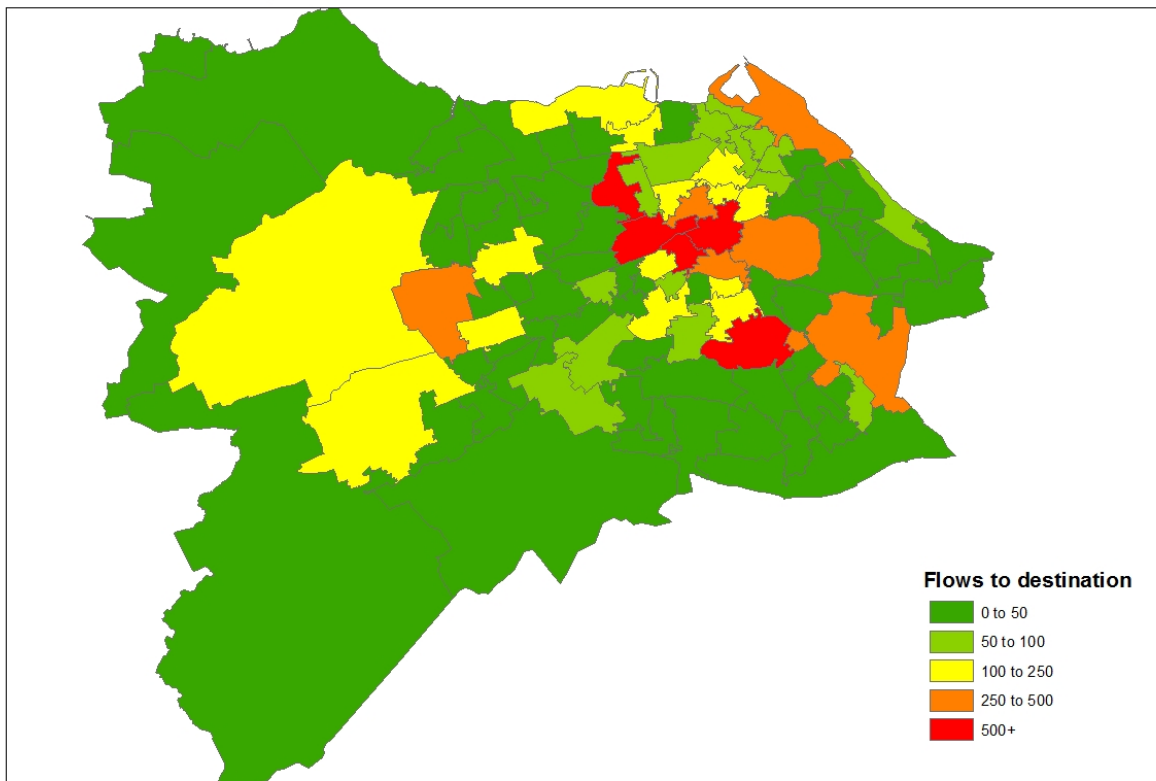
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Destination of Commuters: cycle journeys

As Cycle journeys tend to be shorter than by motorised modes of transport, the pattern for commuters travelling by bicycle is mostly concentrated in areas of high density population, especially such areas close to major employment centres.

Areas to the west of the City are less popular destinations for cyclists than for the all trip average.

Travel to work flows: Bicycle



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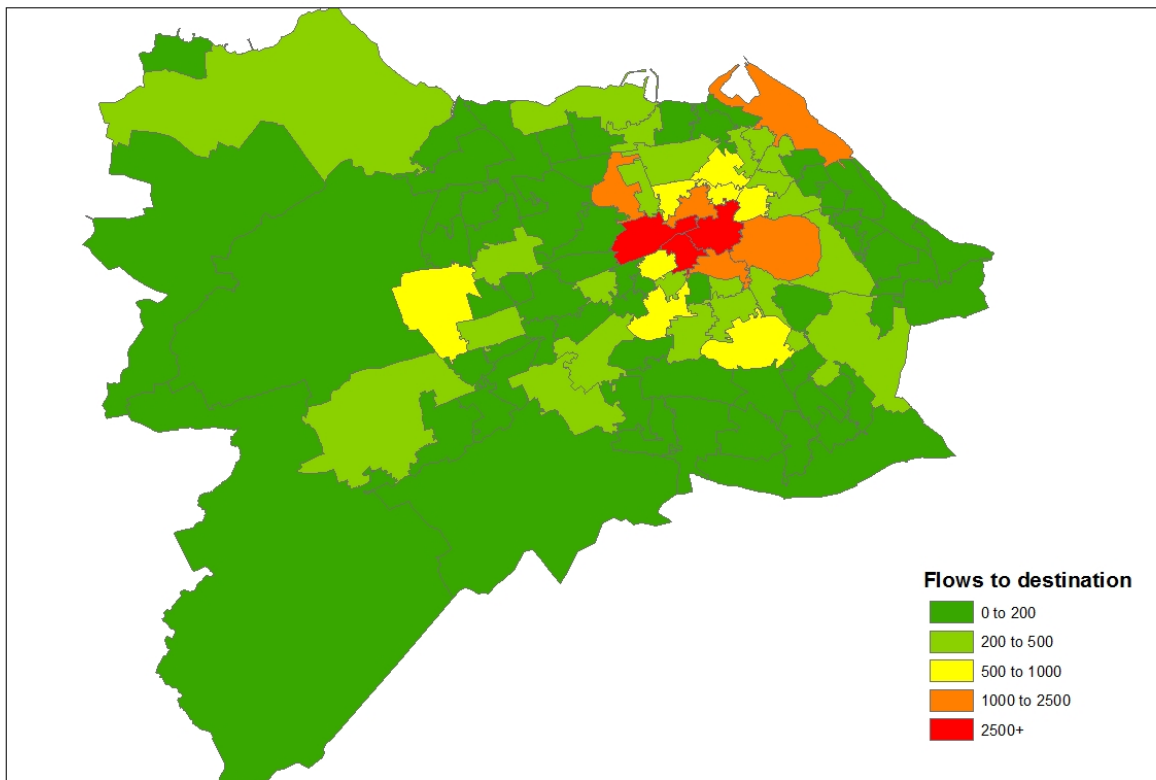
There are very few cross boundary trips by bicycle so maps for neighbouring authorities have not been prepared.

Destination of Commuters: journeys on foot

People walking to work display a similar pattern to cycling. Again, such trips tend to be short so the high density residential areas with local employment opportunities have the highest concentrations of people walking to work.

Edinburgh Park is a less popular destination for walkers than for any other mode of transport.

Travel to work flows: Walking



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Again, as walking journeys tend to be relatively short, few cross boundary trips are made so commuting from neighbouring authorities has not been mapped.

2. Commuting out of Edinburgh

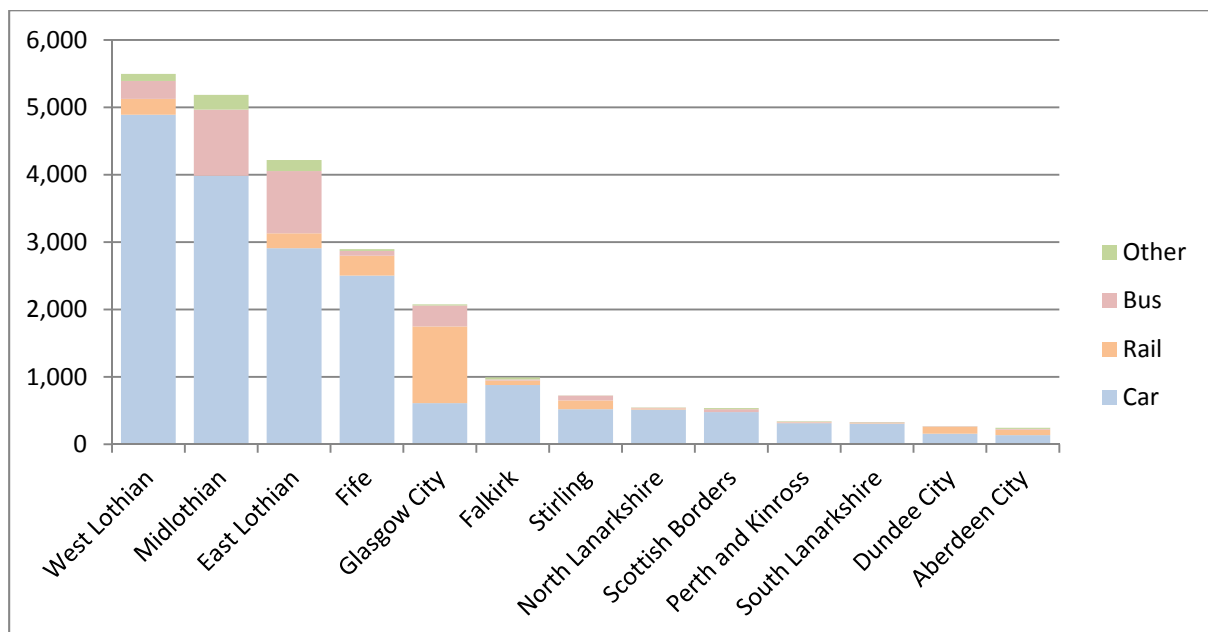
There are considerably less workers commuting out of Edinburgh to work in other local authorities than there are commuting in. Aberdeen City and Dundee City are the only council areas with net outward commuting from Edinburgh but the numbers are small. There are 275 people commuting from Edinburgh to Aberdeen City with 77 workers commuting the other way. For Dundee City there are 282 commuting from Edinburgh compared to 246 commuting in.

The Local authorities with the highest number of commuters from Edinburgh are the other Lothian authorities and Fife. There is also significant commuting from Edinburgh to Glasgow.

As with in-commuting, the use of the car is the most popular means of transport followed by bus and rail. For more distant council areas for which there are fewer overall trips, rail takes over from bus as the second most popular means of transport. Glasgow City is the only council area with over 500 workers commuting from Edinburgh for which Rail is the most popular mode of transport.

Graph 2 below shows the means of transport of workers from Edinburgh commuting to other local authority areas.

Graph 2: Out-commuting from City of Edinburgh Council area by mode



3. Comparisons with 2001

Excluding those travelling to work in Edinburgh from outside Scotland, the number of people working in the City increased from 264,700 in 2001 to 282,800 in 2011 – an overall increase of 7%.

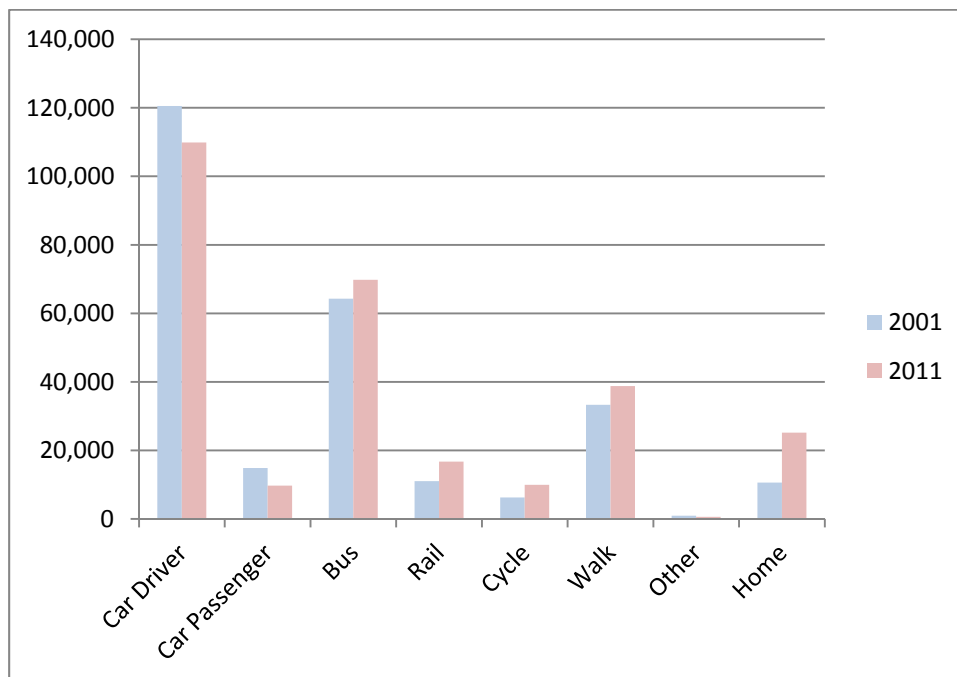
The increase in trips to work are all due to an increase in sustainable transport methods with growth in workers using public transport, walking and cycling and a reduction in people using cars to travel to work, either as a driver or as a passenger.

Proportionally, the biggest increase in travel method was cycling with 59% more trips to work followed by rail (52%), walking (16%) and bus (9%). Trips by car drivers declined by 9% and car passengers by 35%. Trips by car accounted for 51% of all trips to work in 2001. The proportion declined to 42% of all trips in 2011.

People working mainly home more than doubled between 2001 and 2011 – from 10,600 to 25,200.

Mode of travel to work for 2001 and 2011 is compared in Graph 3 below.

Graph 3: Mode of travel to work 2001 and 2011



Mode of travel for inward commuting

Inward commuting to Edinburgh has increased from all other local authorities which have a significant level of flow to the City (250 plus trips) with the exception of Midlothian from which there is small decrease in trips (2% decrease).

Proportionally, the local authority areas from which commuting has increased the most are North Lanarkshire (48%), Glasgow (38%), South Lanarkshire (33%), Falkirk (30%) and Fife (28%). Fife and Falkirk are also the two authorities which from which the numerical increase in trips has been greatest with 3,100 and 1,400 additional trips respectively.

Rail transport has experienced the greatest increase in trips into the city, both numerically and proportionally. Since 2001, the number of trips to work in Edinburgh by train has increased by 1,100 from West Lothian, 1,000 from Fife, 900 from East Lothian and 900 from Falkirk. Although starting from a lower start point in 2001, rail trips from Glasgow to Edinburgh have increased by 97%, from South Lanarkshire by 180% and from North Lanarkshire by 212%.

Commuting by Car has increased by a modest amount since 2001 with the largest increases being from Fife (1,400), Falkirk (700) and Scottish Borders (400). Trips to work by Car have decreased by 1,000 from Midlothian – a reduction of 8%.

Graph 4 below compares the trips to work from other local authorities in 2001 and 2011.

Graph 4: Mode of travel to work in Edinburgh 2001 and 2011

