

Tactran Regional Transport Strategy 2015-2036 Refresh

MONITORING FRAMEWORK

2018 PROGRESS REPORT

Draft for Partnership Board 25th September 2018

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1. Executive Summary

The purpose of the Monitoring Framework is to identify, and track, outcome indicators which inform:

- the extent to which the RTS objectives are being achieved
- the extent to which the RTS Delivery Plan, and other programmes, are achieving their intended outcomes
- whether the assumptions behind the RTS objectives remain relevant

The Regional Transport Strategy (RTS) Monitoring Framework 2018 Progress Report:

- includes data informing progress against 23 indicators
- includes data and links to information sources that help better understand the fuller picture in relation to the indicators
- maps the information against both national (e.g. the National Performance Framework) and local (e.g. Local Outcome Improvement Plans) priorities

Table 1 summarises progress against the core RTS indicators.

Table 1: Indicators at a glance				
RTS Objective	RTS Indicator	Regional & LA Data	Progress / Summary	
Economy	Ec1 Traffic on major and minor roads	LA Data	There was a small dip in traffic growth between 2010 and 2013 in Perth and Stirling, with traffic growth in Angus & Dundee appearing to be on a slight increase	
	Ec2 Numbers entering/leaving the region's stations	Regional & LA Data	Significant increases in usage across region between 2009/10 and 2015/16. Small decrease in 2016/17	
	Ec3 Proportion of congested journeys	LA Data	Perceived decreases by residents in all areas except Dundee	
	Ec4 (i) Journey time and (ii) service frequency between key locations by (a) rail (b) coach (c) air (d) car	LA Data	Number of rail services and direct routes continue to increase (inc. to Aberdeen and Edinburgh airports)	
		LA Data	Rail journey times to key destinations tend to be faster than by car (except between Perth and Edinburgh)	
		LA Data	Number of passenger services from Dundee Airport have declined	
Accessibility, Equity and Social Inclusion	A1 Proportion of working age population, with and without cars, within (i) 30 (ii) 60mins of employment centres by public transport	Regional & LA Data	Across the region, 11.3% of the working age population (approx.6527) without access to a car have access to a limited number of employment centres (1 or 2 centres) within 60mins by public transport. In addition, 6.6% (approx. 3,810) of working age residents without access to a car do not have access to any employment centre by public transport.	
	A2 Proportion of population and non-car owning households within 30mins of a primary health care facility	Regional & LA Data	91% of the population are within 30mins by walk/bus from the nearest GP However, between 10% (Angus/Stirling) and 13% (Perth & Kinross) of the population have no access by public transport to a GP. This amounts to approximately 40,428 people across the	

Table 1: Indicators at a glance

RTS Objective	RTS Indicator	Regional & LA Data	Progress / Summary	
			region, of which 1,382 live in households without access to a car	
	A3 Proportion of population and non-car owning households within 30mins drive time of an accident and emergency unit	Regional & LA Data	Over half (52.4%) of the Angus population (approx. 60,780 people) are over 30mins drive time from an A&E unit. This includes 56.6% of the over 65s that do not have access to a car (approx. 3636people)	
	A4 Proportion of 16-24 year olds and total population more than one hour from a Further Education college by public transport	Regional & LA Data	Across the region, 8.3% (approx. 5,243) of 16-24 yr olds are not able to access further education by public transport. A further 4.9% (approx. 3,100) over 60mins away by public transport. In Perth & Kinross 15.1% (approx. 2,173) of 16-24yr olds cannot access further education by public transport.	
	A5 Proportion of all/non-car owning households more than 30/60mins from retail facilities by public transport	Regional & LA Data	8.2% of the population (41,172) are not able to access a local shopping centre (containing a small supermarket and a post office), whilst 90.4% of the population are within 30mins by public transport 67.9 % of the population are within 30minutes of a regional shopping centre by public transport, whilst 3.2% (15,836) are over 60mins by public transport.	
	A6 Proportion of all/non-car owning households more than 30/60mins from recreation and leisure facilities	Regional & LA Data	Between 10% (Angus/Stirling) and 13% (Perth & Kinross) of the population have no access by public transport to a leisure centre. 1.4% of households without access to a car, have no access to a leisure centre by public transport (approximately 1395 people across the region)	
	A7 Share of lowest 5/10/15% SIMD access deprived data zones	Regional & LA Data	With the exception of Dundee, there is a significant element of each of the 3 remaining council areas that are amongst the most access deprived areas in Scotland. For example, 17% of Stirling, 20% of Angus and 21% of Perth & Kinross datazones are within	

Table 1: Indicators at a glance

RTS Objective	RTS Indicator	Regional & LA Data	Progress / Summary	
			the 10% most access deprived areas across Scotland.	
	A8 Bus frequency on strategic routes	LA Data	The RTS target for a minimum level of bus service between the main centres is being maintained	
	A9 Adults (16+) - use of local bus services, and train services in the previous month	Regional & LA Data	A slight decline in people who used the bus at least once a month across the region, with, as would be expected more frequent use of buses by Dundee residents.	
			Perhaps an increase in those who used rail at least once a month up to 2014, with a slight decline since	
	A10 Access facilities at stations	LA Data	While the level of facilities are improving, only the major stations could be considered fully accessible for people with mobility difficulties	
Environment	En1 Transport related CO2 emissions	Regional & LA Data	Transport related CO2 emissions dipped between 2008-2016, but now appear to be on rise, except in Dundee	
	En2 Percentage of the Tactran resident population who travel as a car driver, car passenger, on public transport, on foot or cycle	Regional & LA Data	SHS data suggests that modal share has remained reasonably static between 2006-2017	
Health and wellbeing	H1 Air quality – NO2 and PM10 measurements	LA Data	While there appears to be a slight improvement at monitored sites, there remain incidences above air quality thresholds	
	H2 Electric vehicle registrations	Regional & LA Data	Number of electric vehicles increasing	
	H3 Adults (16+) - frequency of walking in previous 7 days	Regional & LA Data	The frequency of walking at least once a week as a mode of travel has declined across Tactran, compared to an increase across Scotland	

Table 1: Indicators at a glance

RTS Objective	RTS Indicator	Regional & LA Data	Progress / Summary	
	H4 Proportion of children taking active travel modes to school	Regional & LA Data	Active travel to school is increasing if you include park and stride as active travel	
Safety and security	S1 Number of (a) persons (b) children killed or seriously injured in road accidents	Regional	Numbers killed or seriously injured continue to decline at a faster rate than the national milestone targets	
	S2 How safe adults feel when travelling by bus	LA Data	Improved perception of safety in Dundee and Perth & Kinross and a deterioration in Angus and Stirling	
	S3 Perceptions of safety when walking alone in the neighbourhood	LA Data	The majority of people feel safe walking in their neighbourhood, with the perception of safety appearing to be improving in most areas, except Stirling	
Integration	I1 Transport hubs with integration facilities	LA Data	The level of interchange facilities at interchange sites across the area is mixed	
	I2 Compatibility of SDP, LDPs and National Park Plans with RTS objectives	LA Data	Good compatibility	
	I3 Compatibility of RTS objectives with relevant national, regional, local strategies and policies	LA Data	Good compatibility	

1. Context for the RTS Monitoring Framework

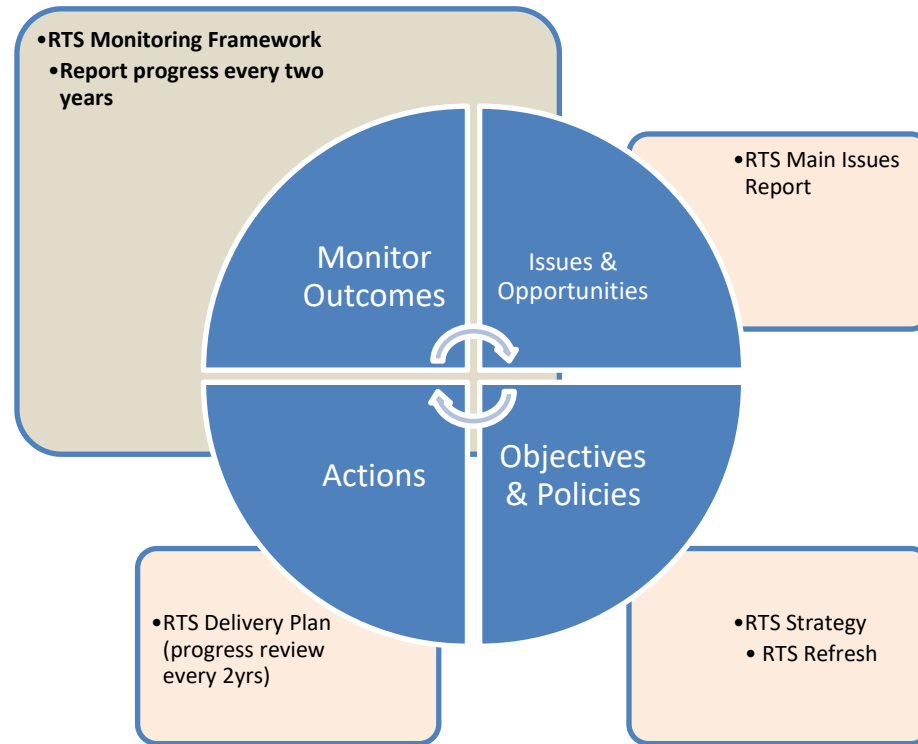
Regional Transport Strategy

Tactran’s [Regional Transport Strategy 2015-2036 Refresh](#) (RTS) was formally approved by the Minister for Transport and Islands in July 2015. In support of the RTS Refresh a monitoring framework was adopted in September 2016 (and refreshed in June 2018), with a commitment to report progress against indicators every two years.

Purpose of the RTS Monitoring Framework

The purpose of the Regional Transport Strategy Monitoring Framework is to identify, and track, outcome indicators which help inform:

- the extent to which the RTS objectives are being achieved;
- the extent to which the RTS Delivery Plan, and other programmes, are achieving their intended outcomes; and
- whether the assumptions behind the RTS objectives remain relevant



In doing so, the RTS Monitoring Framework provides an evidence base for the Partnership and its partners to make informed policy and investment decisions. The purpose of this monitoring framework however is not only to monitor the Regional Transport Strategy, but also to inform and complement the monitoring of partners' strategies and policies, such as:

- City Deals
- Local Outcome Improvement Plans (LOIPs)
- Development Plans
- Local Transport Strategies

The Framework relies on published sources of data in order to contain monitoring costs within manageable levels and recognises that additional data gathering and analysis, whilst desirable, would have potentially significant cost and other resource implications.

The framework:

- includes data informing progress against the 23 adopted RTS indicators
- includes data and links to information sources that help better understand the fuller picture in relation to the indicators
- maps the information against both national (e.g. the National Performance Framework) and local (e.g. Local Outcome Improvement Plans) priorities

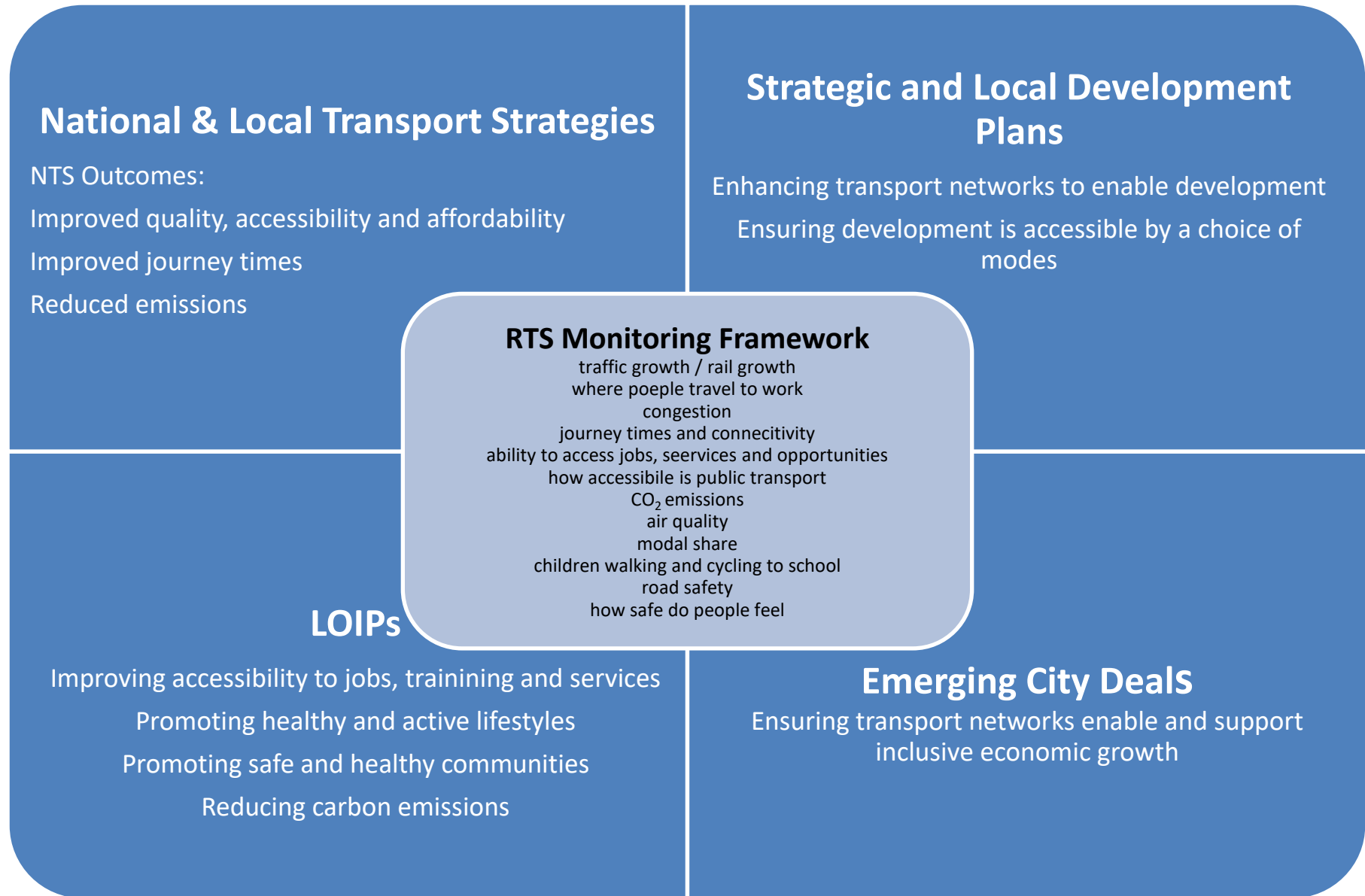
The framework was first established in 2009¹ following adoption of the RTS, and refreshed in 2016² and 2018³.

¹ Report to Partnership RTP/09/27 Regional Transport Strategy Monitoring Framework 23 June 2009

² Report to Partnership RTP/16/26 Review of RTS Monitoring Framework, 13 September 2016

³ Report to Partnership RTP/18/20 Review of RTS Monitoring Framework, 26 June 2018

Fig 2.1 RTS Monitoring Framework and National, Regional and Local Strategies



Sources of information

Throughout this report there will be references and links to other useful sources of information. It is therefore useful to identify some of these frameworks and sources upfront:

Scottish Government '[National Performance Framework and National Outcomes](#)'

Community Planning Partnership (CPP) 'Local Outcome Improvement Plans'

[Angus CPP](#)

[Dundee CPP](#)

[Perth and Kinross CPP](#)

[Stirling CPP](#)

[Transport Scotland Statistics](#) Web page collating national transport data sources including:

Scottish Transport Statistics⁴

Transport and Travel in Scotland⁵

Reported Road Casualties

[Scottish Household Survey](#)

[Scottish Indices of Multiple Deprivation \(SIMD\)](#): The Scottish Government's official tool to identify areas of multiple deprivation in Scotland

Census

[Area Profiles](#)

[Origin Destination Workplace Data \(NOMIS\)](#)

⁴ [Scottish Transport Statistics No 35: 2016 Edition](#)

⁵ [Transport and Travel in Scotland: 26 September 2017](#)

[Sustrans Travel to School Hands Up Survey](#)

Other useful references include:

[Inclusive Growth Outcomes Framework](#) the outcomes framework sets a broad lens through which inclusive growth can be viewed, while a diagnostic tool allows for initial analysis of inclusive growth to adapt to, and reflect the priorities of, a particular region of Scotland

Scottish Local Authorities Economic development Group (SLAED) [Indicators Framework](#)

Previous RTS Monitoring Reports

[2012 \(Included in 2011/12 Annual Report\)](#)

[2014 RTS Monitoring Report](#)

2. Economy

RTS1: To ensure transport helps to deliver regional prosperity

Table 3.1: Economic objectives and indicators				
National outcomes	RTS Sub-Objectives	Transport outcome indicator	Supporting information	LOIP Indicators
Productivity The number of businesses Economic participation Economic growth	1A: Ensuring that transport infrastructure and services in the region help deliver economic growth , particularly in key business and employment sectors, and in supporting town centres	Demand for travel EC1 Traffic on major roads and on minor roads EC2 Numbers entering/leaving the region's stations	Factors influencing the demands for travel <ul style="list-style-type: none"> • Population change • New development (see Local Development Plans) • Where people travel to work • How far people travel • Ability to access key employment sites by public transport⁶ Other useful data <ul style="list-style-type: none"> • Tactran Rail Station Origin & Destination Surveys 	<ul style="list-style-type: none"> • To be in the top five Scottish local authority areas for least underemployment (Angus) • Increase number of passengers using Dundee Airport (Dundee) • By 2027/28 improved connectivity through better rail links and quicker journey times (Perth & Kinross)
	1B: Improving the efficiency, reliability & integration of the movement of goods and people	Reduce congestion EC3 Proportion of congested journeys		
	1C: Addressing issues of peripherality associated with the Tactran region	Connectivity and journey times EC4 (i) Journey time and (ii) service frequency between key locations by (a) rail (b) coach (c) air (d) car		
	1D: Ensuring good connectivity between Tactran's cities and those in the rest of the UK, and with major airports			

⁶ TRACC accessibility modelling data held by Tactran

Good transport links are key to supporting the economy and enabling economic growth. Journey times and journey time reliability are key to determining business costs and opportunities.

Journey times and reliability will in turn be affected by the demand for (and capacity of) the respective transport networks. Current and future demand will be influenced by a number of factors, including:

- How many people there are (see table 3.2 below), including how many are economically active
- [Where the residents of the region travel to work](#)
- [How they travel to work](#)
- New demands for travel created by new housing and other developments (see LDPs⁷)

Table 3.2: Supporting info: Actual and projected populations

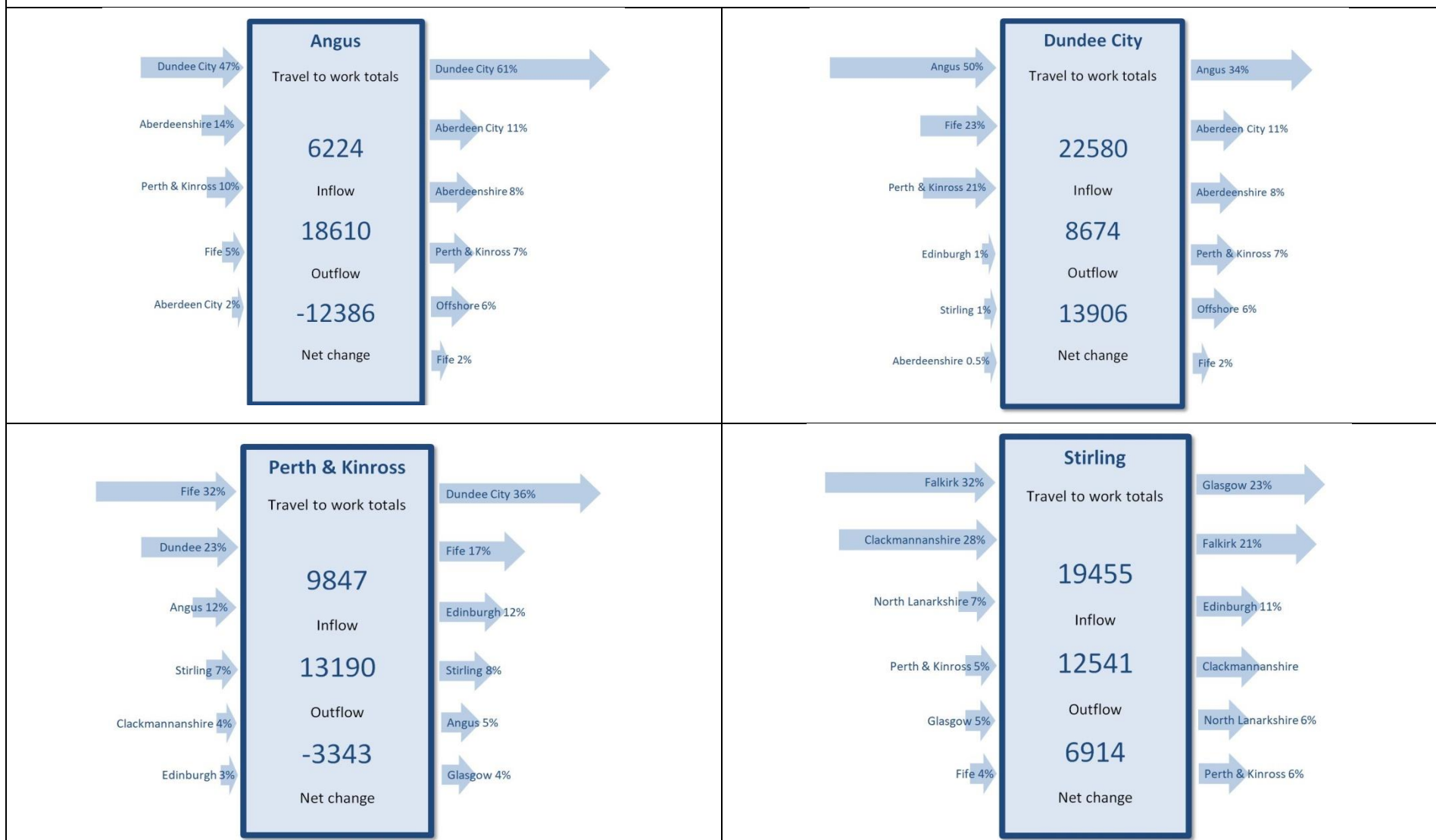
	Actual population ¹		Projected population ²	
	2017	2023	2036	
Angus Council area	116,280	118,019	119,273	
Dundee City Council area	148,710	149,170	150,239	
Perth & Kinross Council area	151,100	155,650	161,517	
Stirling Council area	94,000	96,798	101,479	
Tactran area				

Source: 1: [National Records of Scotland \(population estimates\)](#) 2: [National Records of Scotland \(population projections\)](#)

The demand for travel on the region’s transport networks is not created just by factors within the region, but also by the demand for travel through the region (for example between the Central Belt and Aberdeen or Inverness), with all of the main routes north passing through the region.

⁷ Local Development Plans: Angus, Cairngorms National Park, Dundee, Loch Lomond & The Trossachs National Park, Perth&Kinross, Stirling

Fig 3.1: Supporting info: Where people travel to work

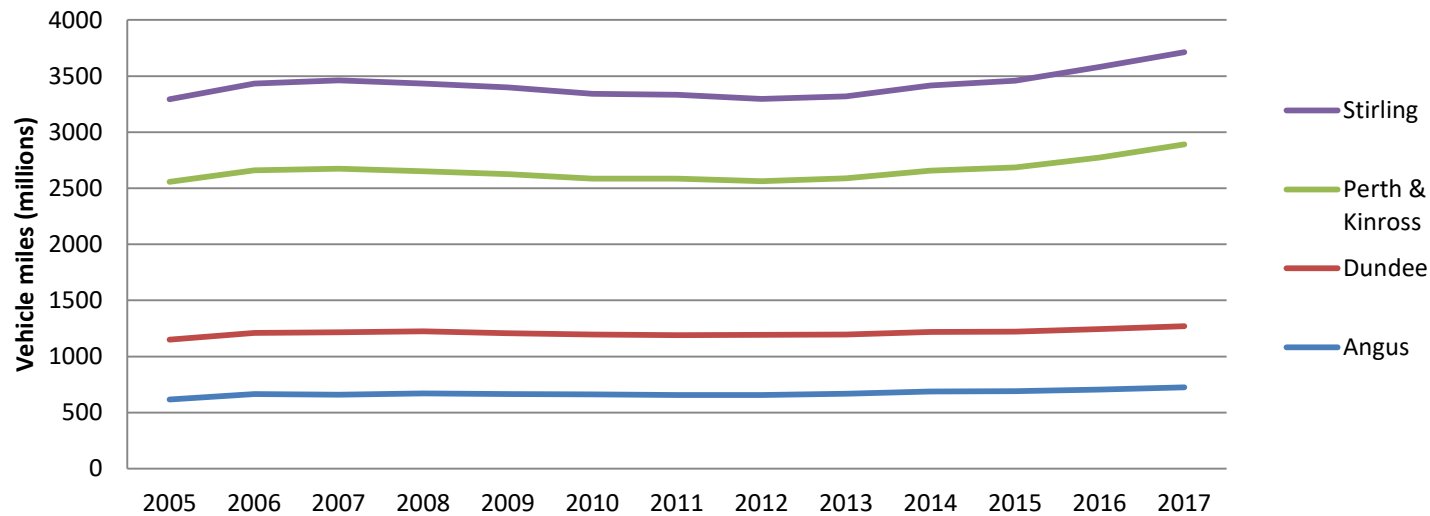


Source: [Census 2011](#)

Ensuring that transport infrastructure and services in the region help deliver economic growth, particularly in key business and employment sectors, and in supporting town centres

The transport data which provides a good indication of economic growth in an area is the number of trips being made. It reflects the demand for travel and therefore reflects the demand for goods and services in an area (including homes). Fig 3.2 indicates the volume of traffic (vehicle miles) on the regions roads, Fig 3.3 and table 3.3 the rail trips in and out of the region, Fig 3.4 port activity and Fig 3.5 passenger airport activity.

Fig 3.2: Indicator Ec1: Annual Traffic (all vehicles major and minor roads)

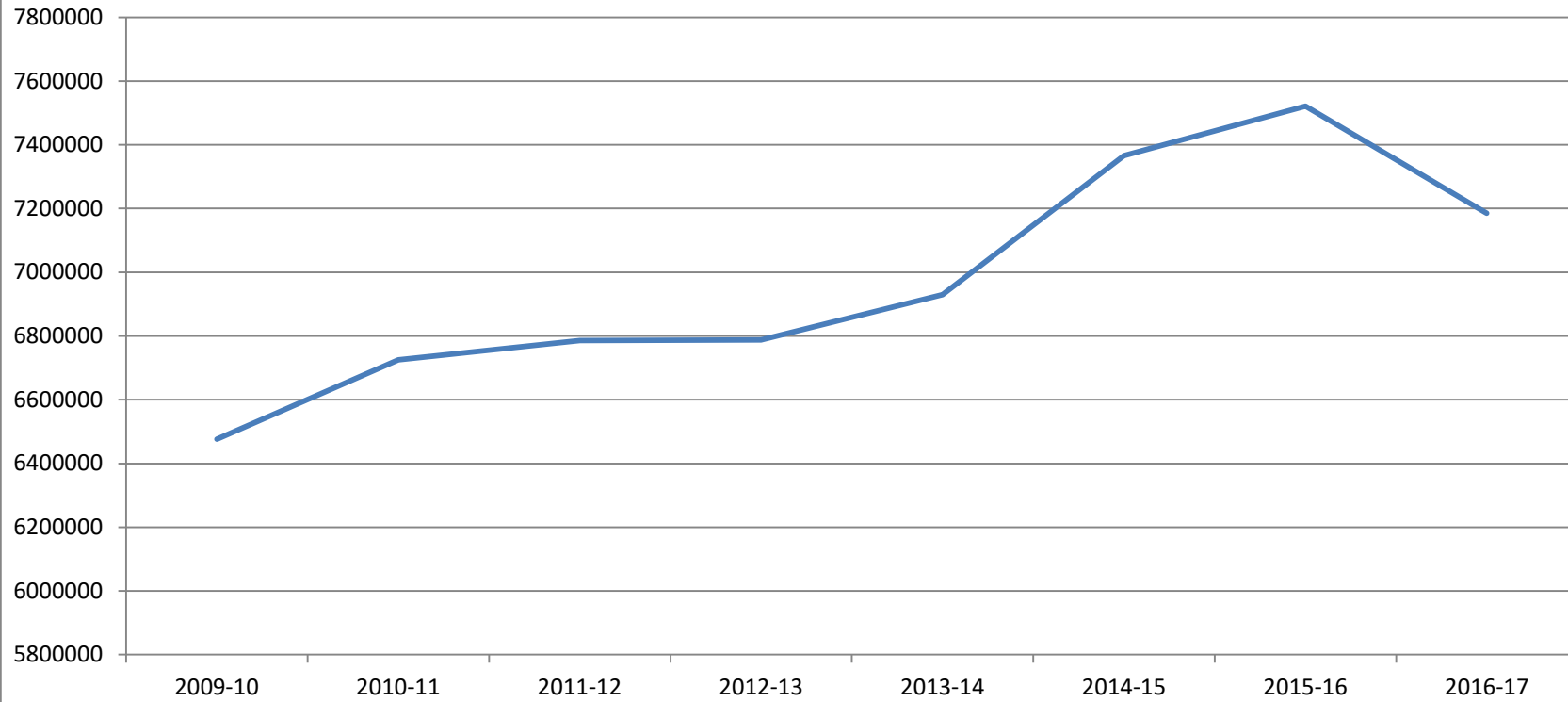


Source: DfT

Council Traffic Count Data

All four Councils undertake traffic counts for a variety of reasons. In Dundee and Stirling these are part of annual programmes enabling traffic growth patterns to be mapped

Fig 3.3: Indicator Ec2 Numbers entering/leaving the region's stations



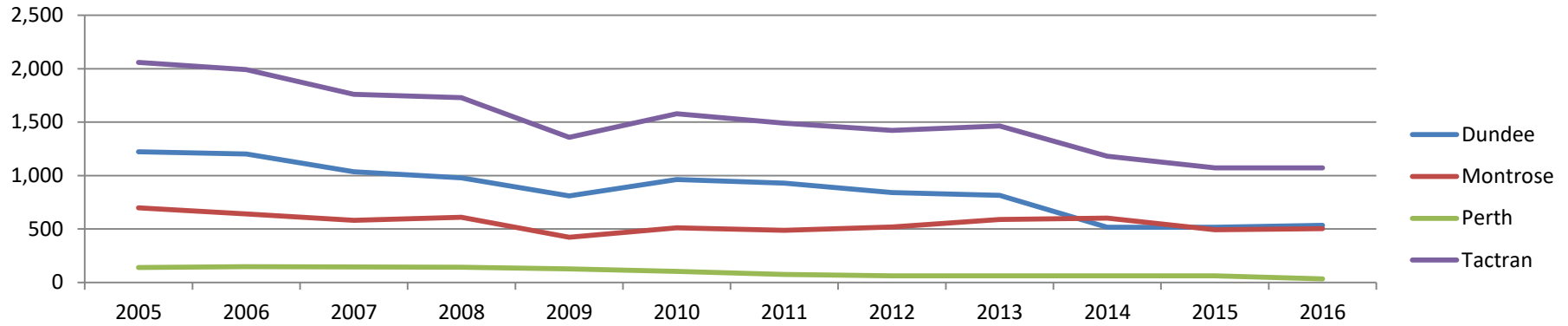
Source: Office of Rail and Road

Table 3.3: Indicator EC2: Numbers entering/leaving the region's stations

	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
Stirling	2154992	2267150	2261826	2238146	2259910	2415526	2441644	2337656
Dundee	1664210	1719844	1723018	1690486	1737732	1835978	1890134	1815342
Perth	888586	929282	959310	975364	988812	1077598	1146382	1081476
Dunblane	496720	497672	494904	504058	508522	534062	539412	519370
Arbroath	393310	404212	398892	388320	388664	392994	383102	361038
Montrose	355978	378284	386600	390140	396248	404136	388864	354190
Bridge of Allan	235238	231430	243470	248216	258722	274972	278942	271416
Pitlochry	87210	87684	90618	98340	101904	112496	121168	121342
Carnoustie	91508	91740	100698	107758	120432	123928	123920	119278
Gleneagles	31934	36782	39570	43602	49734	59350	68730	66698
Broughty Ferry	5570	5362	9288	23180	34970	41246	43276	40718
Dunkeld & Birnam	25436	26178	26506	27862	29924	31050	32022	32878
Blair Atholl	11572	13948	12608	14280	14084	16062	16652	17598
Crianlarich	11820	13544	16666	15276	13040	16752	16726	16672
Rannoch	10312	10344	9130	8266	9486	9434	8378	7780
Monifieth	1170	1288	2398	2570	3122	4680	6654	5830
Tyndrum Lower	4146	3856	3698	3928	4082	5334	5488	5510
Upper Tyndrum	3680	3784	3472	3396	3940	4562	4790	4512
Invergowrie	1758	2078	2338	2980	4674	4404	4292	4308
Balmossie	804	362	314	1078	1446	1092	992	1364
Golf Street	190	122	212	112	90	86	168	104
Barry Links	90	74	86	52	40	60	68	24
Total	6476234	6725020	6785622	6787410	6929578	7365802	7521804	7185104

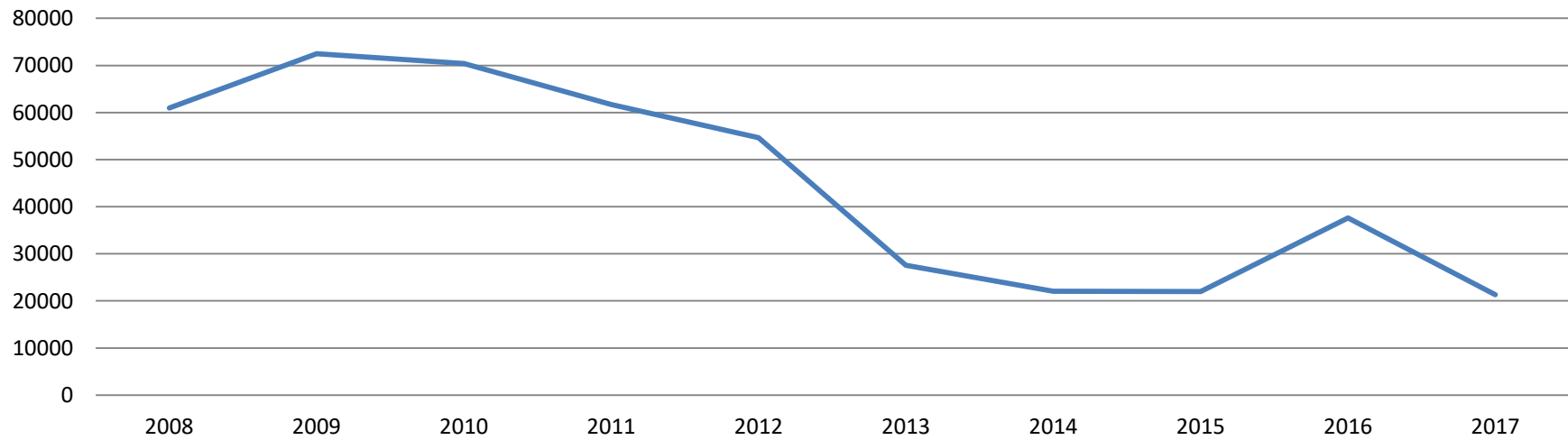
Source: [Office of Rail and Road](#)

Fig 3.4: Supporting Info: Port Freight (Tonnes)



Source: Department for Transport

Fig 3.5: Supporting Info: Passengers at Dundee Airport



Source: Civil Aviation Authority

Indicator EC1/EC2: Fig 3.2-3.3 and table 3.3 suggest:

- **Traffic growth:** there was a small dip in traffic growth between 2010 and 2013 in Perth and Stirling, with traffic growth in Angus & Dundee appearing to be on a slight increase
- **Passenger rail trips:** there has been a consistent rise in demand for travel by rail between 2009/10 and 2015/16, with a small decrease in 2016/17

In addition, Fig 3.4-3.5 suggest:

- **Port traffic:** the volume of freight being handled by the region's ports is on a decline. This may not however reflect the level of activity at a port.
- **Dundee airport:** decrease in passenger services and numbers from Dundee airport

[Tactran Rail Station Origin & Destination Surveys](#)

Tactran have undertaken a series of rail user surveys in 2009 and 2017/18 which show how rail passengers travel to the regions' train stations and where they came from and where they are going to.

Improving the efficiency, reliability & integration of the movement of goods and people

Fig 3.6: Indicator Ec3 Proportion of congested journeys



Source: Transport & Travel in Scotland

Indicator EC3: The Scottish Household Survey provides the public perception of the level of traffic congestion felt by respondents on their daily journeys. The data suggests that over the period between 2010 and 2017 there has been a decline in the level of congestion perceived by the residents of Angus, Perth & Kinross and Stirling, although not Dundee.

It must be remembered that the data refers to trips made by residents of these areas, the congestion is therefore not necessarily contained within the respective Council areas (for info: fig 3.1 highlights the % of work trips which are within the respective council areas and where people are travelling to for work)

Congestion will be informed by both capacity of the road network, and demand on the road network. It is therefore useful to note that over the period, there was also a small decrease in traffic volumes across the Perth & Kinross and Stirling areas (see Fig 3.2), although these appear to be rising again now. Looking at this data over a longer period, there appears across Scotland to have been a [decline in traffic levels between 2007 and 2011](#) (as a consequence of the economic downturn), but levels are increasing again.

Dundee and Stirling Journey Time Monitoring

The SHS data reflects perception of congestion. Dundee and Stirling Councils' have both introduced journey time monitoring to help track changes (and variability) in travel times on key routes to better inform policies and programmes to address congestion.

Addressing issues of *peripherality* associated with the Tactran region / Ensuring good *connectivity* between Tactran's cities and those in the rest of the UK, and with major airports

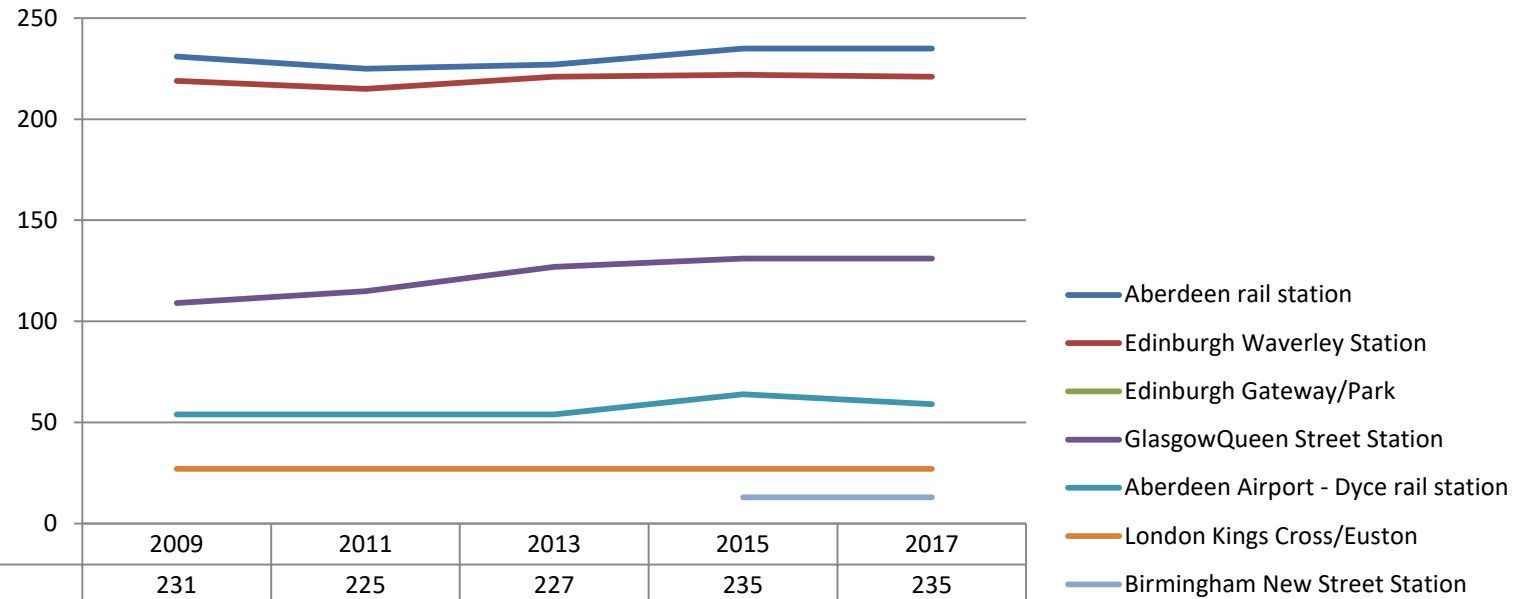
The travel choices and journey times the people and businesses of the Tactran area have to key destinations in Scotland and the rest of the UK are critical to the job choices people have, the costs to their businesses, the markets for their businesses etc. Tables 3.4-3.6 and fig 3.7-3.10 highlight the services and journey times between key locations in the region and key destinations.

Table 3.4: Indicator EC4 (i) Journey time between key locations by (a) rail (b) coach (d) road

Key regional centres	Key destinations						
(a) Rail Typical journey time (mins) - 2017							
Slowest average time	Aberdeen rail station	Edinburgh Waverley Station	Glasgow Queen Street Station	Edinburgh Gateway	Aberdeen Airport - Dyce rail station	Birmingham New Street Station	London Kings Cross/Euston*
Fastest average time							
Dundee rail station	76	83	87	74	90	386	351
Perth rail station	100	84	65	68	116	-	354
Stirling rail station	133	55	37	-	150	-	320
Montrose rail station	43	111	121	-	56	414	325
Average	88	74	63	71	119	400	338
(b) Coach Typical journey time by coach (mins) - 2018							
	Central Aberdeen	Central Edinburgh	Central Glasgow	Edinburgh Airport	Glasgow Airport	Aberdeen Airport	London
Dundee	80	90	105	-	-	-	755
Perth	120	80	65	-	-	-	620
Stirling	145	77	45	-	-	-	575
Montrose	-	-	-	-	-	-	-
Forfar	95	-	165	-	-	-	-
(c) Typical free flow journey time by Road (mins) - 2018							
	Central Aberdeen	Central Edinburgh	Central Glasgow	Edinburgh Airport	Glasgow Airport	Aberdeen Airport	London
Dundee	82	87	103	70	112	93	489
Perth	103	64	74	47	83	115	460
Stirling	143	62	39	36	45	154	431
Montrose	58	132	156	114	172	69	535
Forfar	65	107	125	88	136	75	385

Source: Traveline Scotland, National Rail Enquiries, Google Maps

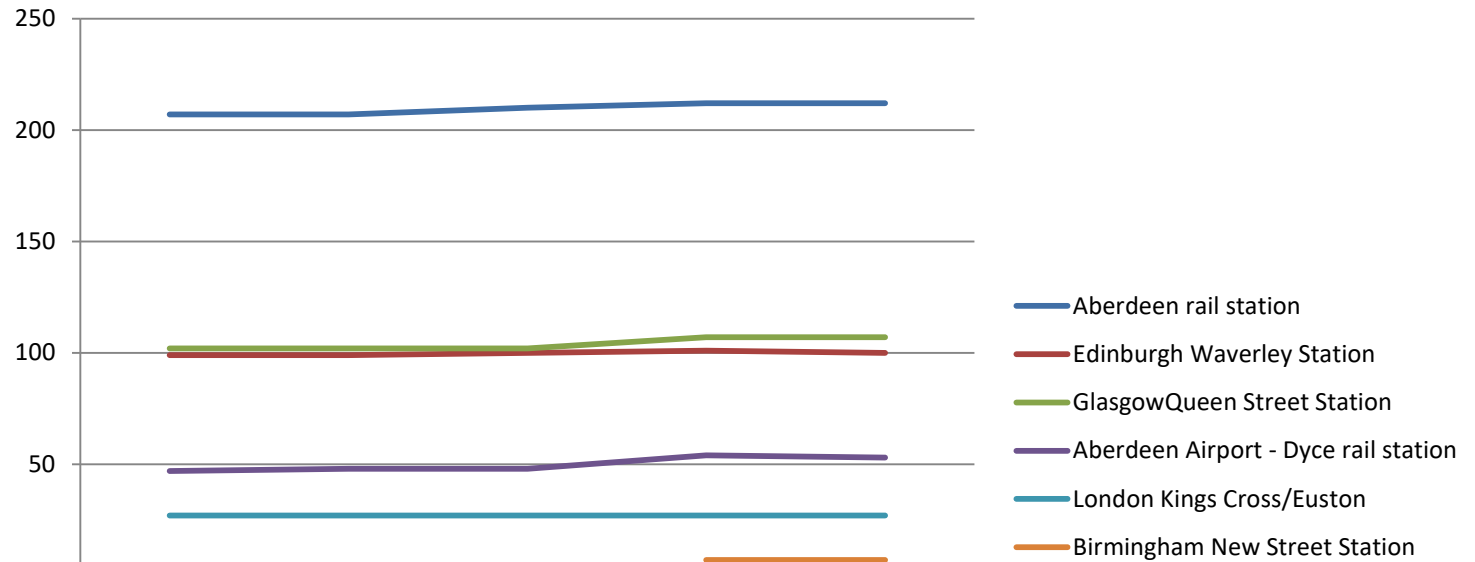
**Fig 3.7: Indicator Ec4 (ii) service frequency between key locations by (a) rail
Number of rail services per week from Dundee**



	2009	2011	2013	2015	2017
Aberdeen rail station	231	225	227	235	235
Edinburgh Waverley Station	219	215	221	222	221
Edinburgh Gateway/Park					109
Glasgow Queen Street Station	109	115	127	131	131
Aberdeen Airport - Dyce rail station	54	54	54	64	59
London Kings Cross/Euston	27	27	27	27	27
Birmingham New Street Station				13	13

Source: National Rail Enquiries

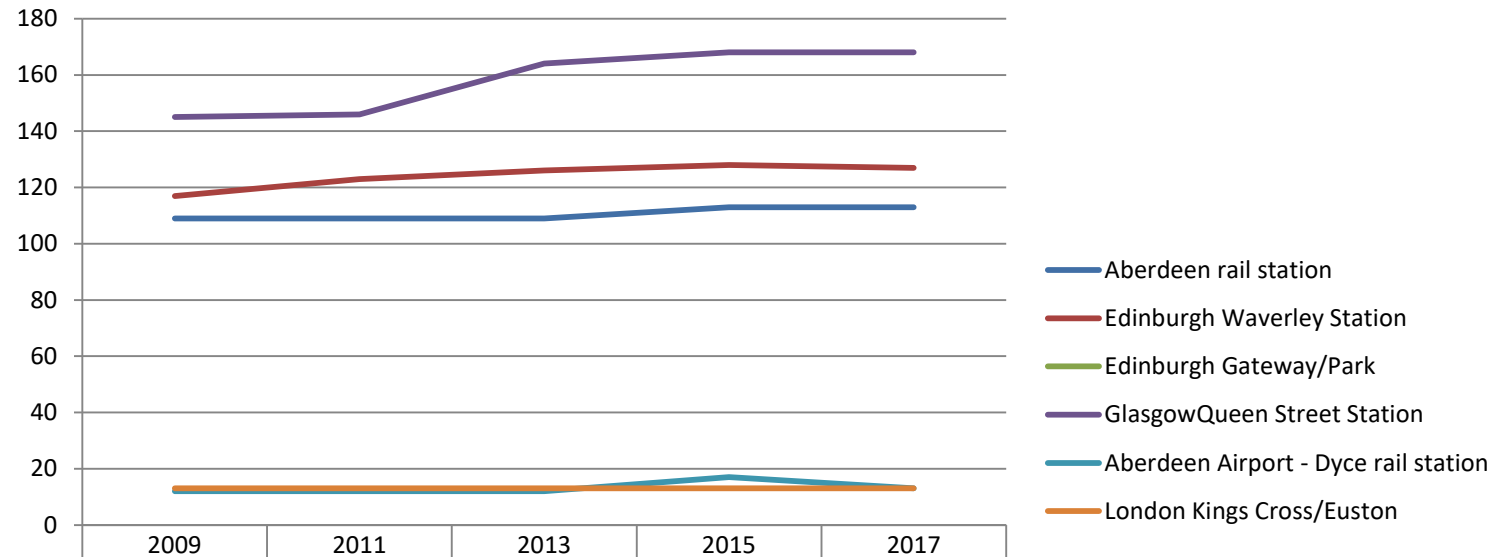
**Fig 3.8: Indicator Ec4 (ii) service frequency between key locations by (a) rail
Number of rail services per week from Montrose**



	2009	2011	2013	2015	2017
Aberdeen rail station	207	207	210	212	212
Edinburgh Waverley Station	99	99	100	101	100
GlasgowQueen Street Station	102	102	102	107	107
Aberdeen Airport - Dyce rail station	47	48	48	54	53
London Kings Cross/Euston	27	27	27	27	27
Birmingham New Street Station				7	7

Source: National Rail Enquiries

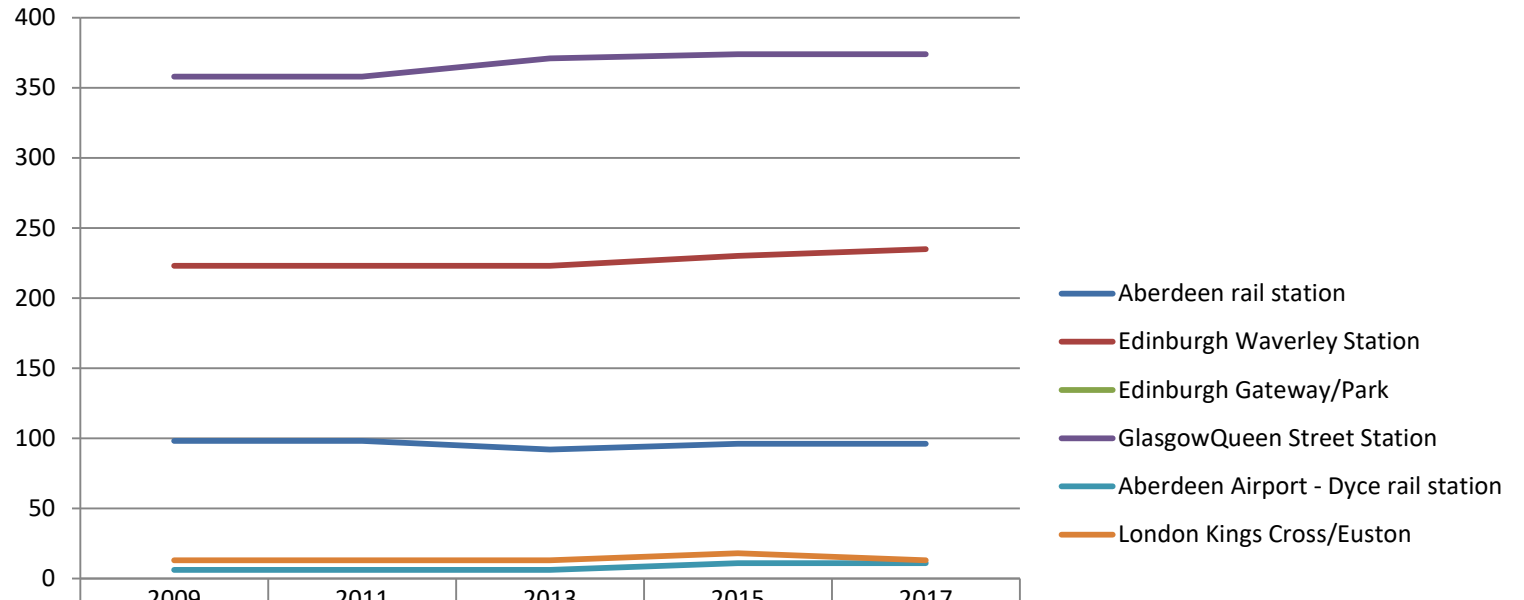
**Fig 3.9: Indicator Ec4: (ii) service frequency between key locations by (a) rail
Number of rail services per week from Perth**



	2009	2011	2013	2015	2017
Aberdeen rail station	109	109	109	113	113
Edinburgh Waverley Station	117	123	126	128	127
Edinburgh Gateway/Park					112
Glasgow Queen Street Station	145	146	164	168	168
Aberdeen Airport - Dyce rail station	12	12	12	17	13
London Kings Cross/Euston	13	13	13	13	13

Source: National Rail Enquiries

**Fig 3.10: Indicator Ec4: (ii) service frequency between key locations by (a) rail
Number of rail services per week from Stirling**



	2009	2011	2013	2015	2017
Aberdeen rail station	98	98	92	96	96
Edinburgh Waverley Station	223	223	223	230	235
Edinburgh Gateway/Park	6	6	6	11	11
Glasgow Queen Street Station	358	358	371	374	374
Aberdeen Airport - Dyce rail station	6	6	6	11	11
London Kings Cross/Euston	13	13	13	18	13

Source: National Rail Enquiries

Table 3.5 Indicator EC4 (i) Journey time and (ii) service frequency between key locations by (b) coach

No. of direct coach services (per week) and journey time - 2018

	Aberdeen		Edinburgh		Glasgow		Edinburgh Airport		Glasgow Airport		Aberdeen Airport		London	
	Journeys	Journey time (mins)	Journeys	Journey time (mins)	Journeys	Journey time (mins)	Journeys	Journey time (mins)	Journeys	Journey time (mins)	Journeys	Journey time (mins)	Journeys	Journey time (mins)
Dundee	134	80	83	90	118	105	0	-	0	-	0	-	14	755
Forfar	25	95	0	-	35	165	0	-	0	-	0	-	0	-
Perth	70	120	130	80	178	65	0	-	0	-	0	-	14	620
Stirling	7	145	53	77	88	45	0	-	0	-	0	-	14	575
Montrose	0	-	0	-	0	-	0	-	0	-	0	-	0	-

Source: Traveline Scotland

Indicator EC4: Tables 3.4-3.6 and fig 3.7-3.10 suggest:

- Journey times: With the exception of between Perth and Edinburgh, average rail journey times tend to be fastest, then car, then coach.
- Rail: For three of the four stations (Dundee, Montrose, Perth) there has been an increase in direct routes and for all of the four stations plus Stirling), there has been in an increase in the number of direct services, in particular to Glasgow Queen St.
- Air: there has been a decrease in passenger destinations from Dundee airport, reflected also in [passenger numbers](#)

Table 3.6: Indicator EC4 (ii) service frequency between key locations by (c) air

No. of direct services (per week)

Dundee airport destinations	2009	2011	2013	2015	2017
London	23	24	26	26	22
Belfast City	11	10	0	0	0
Birmingham	11	18	0	0	0
Jersey (May-Sep only)	4	2	2	2	0
Total	49	54	28	28	22

Source: HIAL

4. Accessibility, Equity and Social Inclusion

RTS2: To improve accessibility for all, particularly for those suffering from social exclusion

Table 4.1: Accessibility, equity and social inclusion objectives and indicators				
National outcomes	RTS Sub-Objectives	Transport outcome indicator	Supporting information	LOIP Indicators
Economic participation Young people's participation	2A: Improving access to employment	Ability to access services by public transport A1 Proportion of working age population, with and without cars, within 30/60mins of employment centres by public transport	Availability and attractiveness of public transport A8 Bus frequency on strategic routes Adults (16+) - who used a local bus services in the past month - percentages who agreed with each statement Percentage of people very or fairly satisfied with the quality of public transport	16-19 yr olds in learning, training or work (Angus/Dundee/Perth/Stirling)
Income inequalities Cost of living Healthy life expectancy	2B: Improving access to public services, including health and education	A2 Proportion of population and non-car owning households within 30mins of a primary health care facility by public transport A3 Proportion of population and non-car owning households Within 30mins drive time of A&E A4 Proportion of 16-24 year olds and total population more than one hour from a further education college by public transport	Demand for travel Where people travel to work Purpose of trips (national data only) % 16-74yr olds economically active Distance travelled (T&T) Average distance travelled to work (ONS)	Number of datazones within Scotland's most deprived 15% employment/income/overall (Stirling)
Relative poverty after housing costs / Cost of living Loneliness	2C: Improving access to retail, recreation, leisure and tourist facilities	A5 Proportion of all/non-car owning households more than 30/60mins from retail facilities by public transport A6 Proportion of all/non-car owning households more than 30/60mins from recreation and leisure facilities	Vulnerable groups % Aged 16 to 24 unemployed Car ownership Households with home internet access	

Table 4.1: Accessibility, equity and social inclusion objectives and indicators

National outcomes	RTS Sub-Objectives	Transport outcome indicator	Supporting information	LOIP Indicators
	<p>2D: Reducing severance and social and economic isolation caused by transport, or by a lack of it</p>	<p>A7 Share of SIMD16 national datazones by access domain</p> <p>A9 Adults (16+) - use of (a) local bus services, and (b) train services in the previous month</p>		<p>communities better connected and data used locally to provide an early warning system and more personalised services (P&K)</p>
	<p>2E: Improving the accessibility and inclusivity of transport system</p>	<p>How accessible is the transport network <i>A10 Access for all facilities at stations</i></p>	<p>Demand/vulnerable groups</p> <p>Adults aged 60+ - possession of a concessionary fare pass, and use in the past month (SHS Table15)</p> <p>Long term health problem or disability</p> <p>Age</p> <p>Number of blue badges on issue (STS table 1.21)</p> <p>Confidence</p> <p>People with a disability satisfaction with bus service (Transport Focus Bus Passenger Survey)</p>	<p>% of residents satisfied with public transport in their area (Dundee)</p>

Reducing severance and social and economic isolation caused by transport, or by a lack of it

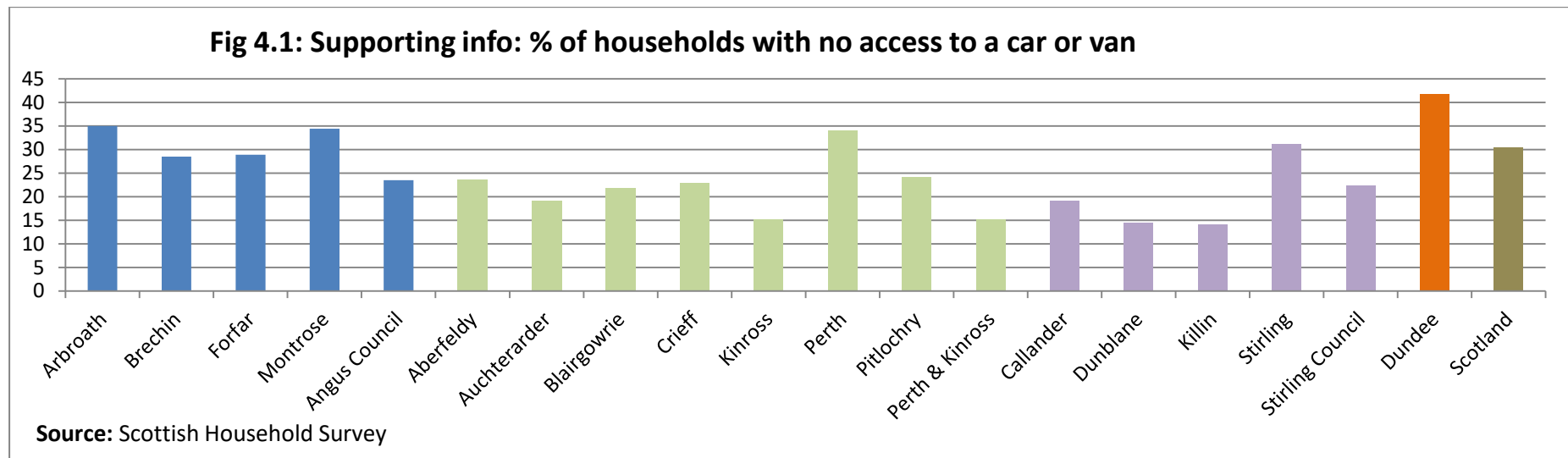
Vulnerable Groups

People’s ability to access jobs, services and opportunities is essential to them leading fulfilling lives. Doing so reduces the personal and public costs of social exclusion. Those who are most likely find it difficult to access goods, services or opportunities include:

- people without access to a car (for example young, e.g. 16-19yr olds)
- [people with mobility or learning difficulties](#) and the [elderly](#)
- people from our most deprived neighbourhoods as defined by the [Scottish Indices of Multiple Deprivation](#)

Within the Tactran region the issue of ability to access jobs, services and opportunities is exacerbated by the [rural nature](#) of much of our area.

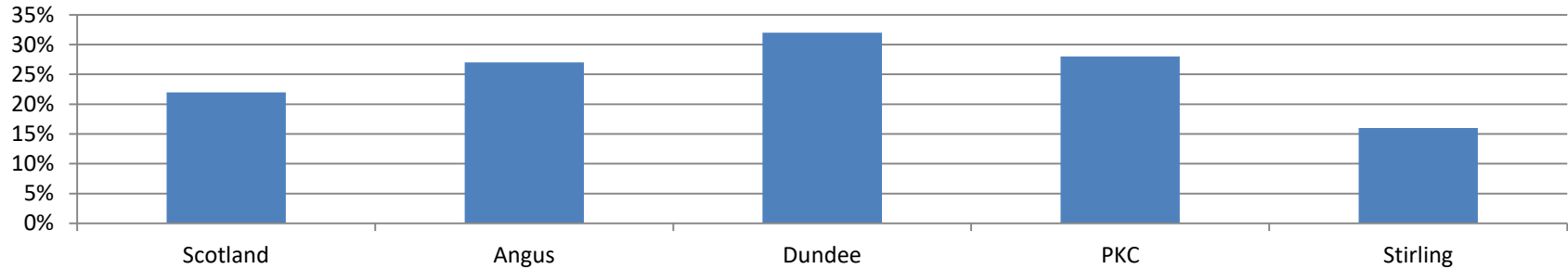
Car ownership: Fig 4.1 highlights the level of car ownership across the region. Whilst in general approximately 73% of households⁸ have access to at least one car or van (and 23% do not), it is important to recognise that even in our rural areas over 1in 4 households (using Aberfeldy as an example) may not have access to a car or van.



⁸ % households without access to a car or van: Angus 23.5%; Dundee 41.8%; Perth & Kinross 21.1%; Stirling 22.3% ([Census](#))

People with mobility or learning difficulties / Age profile of region: Fig 4.2 highlights the % of people in each council area with mobility or learning difficulties. And figure 4.3 highlights the age profile of the region.

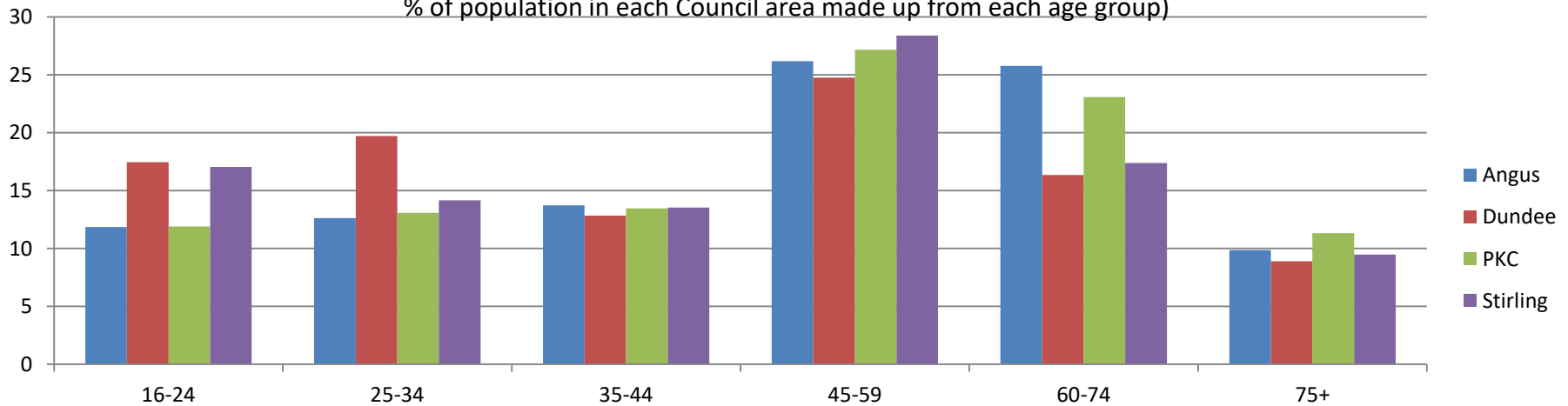
Fig 4.2: Supporting info: % of people with long-term physical or mental health condition



Source: Scottish Household Survey

Fig 4.3: Supporting info: Age profile of local authority areas

(% of population in each Council area made up from each age group)



Source: Scottish Household Survey

Rural/ urban split within the region: Table 4.2 highlights that approximately 37% of the region’s population live in small towns and rural areas.

Table 4.2: Supporting info: % of region’s population living in urban and rural areas

Council Area	Large urban			Other urban			Accessible small towns		Remote small towns		Accessible rural		Remote rural	
	Pop (2011)	%	Persons	%	Persons	%	Persons	%	Persons	%	Persons	%	Persons	
Angus	115,978	7.6	8814	53.9	62512	11.6	13453	0.0	0	26.1	30270	0.7	812	
Dundee City	147,268	99.5	146532	0.0	0	0.0	0	0.0	0	0.5	736	0.0	0	
Perth & Kinross	146,652	1.2	1760	31.5	46195	10.3	15105	10.9	15985	33.2	48688	12.9	18918	
Stirling	90,247	0.0	0	53.2	48011	13.4	12093	0.0	0	26.6	24006	6.9	6227	
Tactran	500,145	31.4	157105.8	31.3	156719	8.1	40652	3.2	15985	20.7	103701	5.2	25957	
Scotland	5,295,403	34.6	1832209	36.2	1916936	8.5	450109	3.5	185339	11.2	593085	5.9	312429	

Source: [Scottish Government Urban Rural Classification](#)

Existence and attractiveness of transport services

The ability to access, jobs, services and opportunities by public transport will depend on:

- availability (and cost of transport) of public or community transport
- the barriers that people with mobility or learning difficulties will experience (see ‘[Improving the accessibility and inclusivity of transport system](#)’)

Bus services between major centres: The RTS Refresh 2016 proposed that a desired minimum level of frequency between major centres across the region should be 60minutes. Fig 4.3 shows the bus services between our main centres. Tables 4.5-4.12 and Figs 4.7-4.12 will look at the level of service and its impact on people being able to access jobs, services and opportunities in more detail.

Fig 4.3: Indicator A8 Bus frequency on strategic routes (Mon-Fri 0800-1800)

Strategic Route	Min Frequency	Actual Frequency	Strategic Route	Min Frequency	Actual Frequency
Arbroath - Dundee	60 mins	10 mins	Dundee - Perth	60 mins	30 mins
Brechin - Stracathro	60 mins	20 mins	Perth - Blairgowrie	60 mins	30 mins
Brechin - Montrose	60 mins	60 mins	Perth - Pitlochry/Aberfeldy	60 mins	60 mins
Brechin - Forfar	60 mins	30 mins	Perth - PRI	60 mins	10 mins
Brechin - Arborath (direct)	60 mins	60 mins	Perth - Crieff	60 mins	30 mins
Forfar - Arbroath	60 mins	60 mins	Perth - Auchterarder - Stirling	60 mins	60 mins
Forfar - Dundee	60 mins	30 mins	Perth - Kinross - Edinburgh	60 mins	60 mins
Montrose - Arbroath	60 mins	30 mins	Stirling - Crieff	60 mins	60 mins
Dundee - Blairgowrie	60 mins	30 mins	Stirling - Larbert	60 mins	15 mins
Dundee - Ninewells	60 mins	5 mins	Stirling - Callander	60 mins	60 mins

Source: Traveline Scotland

Indicator A8: Figure 4.3 suggests there is a reasonable minimum level of service between our main centres.

However, even if there is a bus or train service, people may not be using it for a variety of reason such as:

- awareness
- cost
- [perception of security](#)
- convenience ([Transport and Travel in Scotland LA Tables](#))

Indicator A9: Figs 4.5 and 4.6 show, respectively, the use of bus and train in the previous month, suggesting:

- A slight decline in people who used the bus at least once a month across the region, with, as would be expected more frequent use of buses by Dundee residents.
- Perhaps an increase in those who used rail at least once a month up to 2014, with a slight decline since (see also [passenger numbers](#))

Fig 4.5: Indicator A9 Adults (16+) - use of (a) local bus services at least once in the previous month

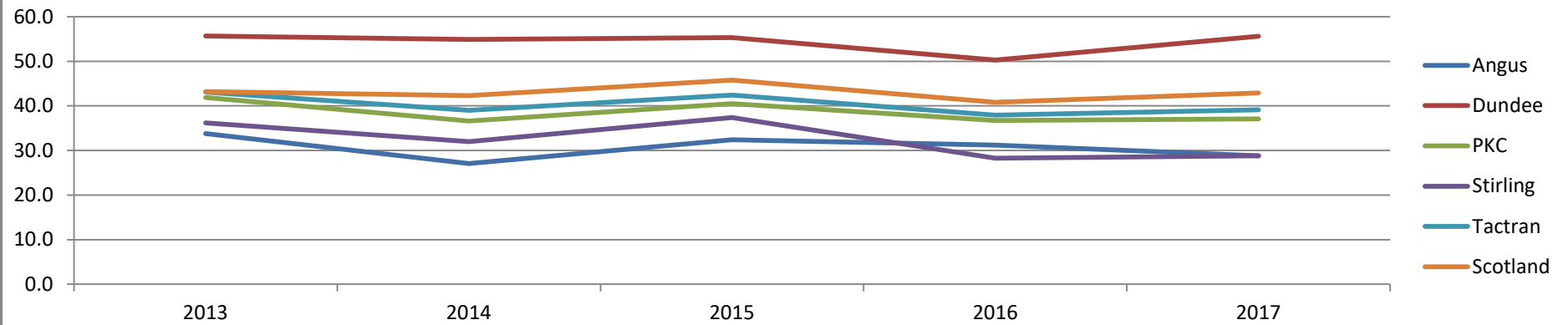
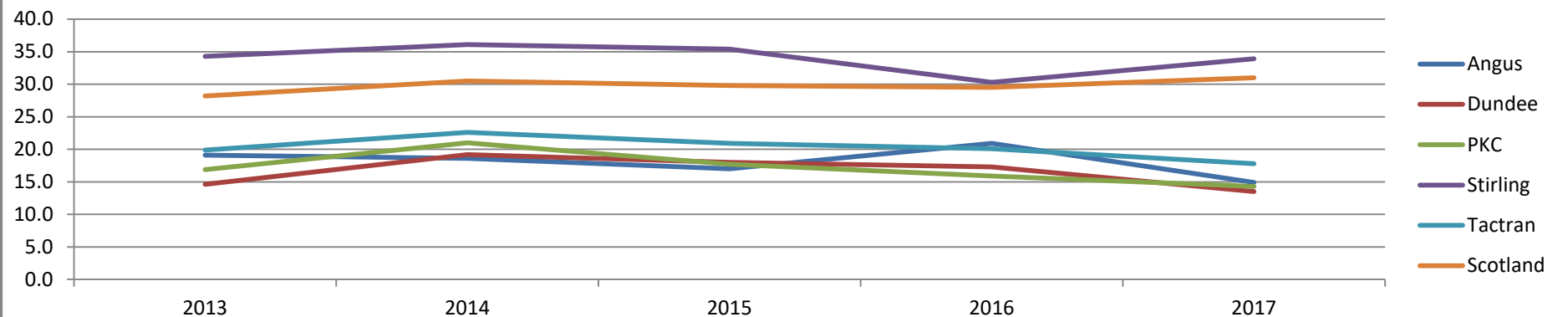


Fig 4.6: Indicator A9 Adults (16+) - use of (b) train services at least once in the previous month



Source: T&T: Adults (16+) – use of local bus services, and train services in the previous month: 2016/17 (16+)

Areas with poor accessibility

% of datazones with poor accessibility: Fig 4.4 shows the proportion of the Council areas which are within the most access deprived datazones as defined in the Scottish Indices of Multiple Deprivation (SIMD) and hence provides an overall perception of the scale of access issues faced by across the region. The SIMD assess the level of accessibility by considering:

- Average drive time to a petrol station / GP surgery / post office / primary school in minutes / retail centre / secondary school in minutes
- Public transport travel time to a GP surgery / post office / retail centre in minutes

Table 4.4: Indicator: A7 share of SIMD16 national datazones by access domain

	Total Data Zones	5%			10%			15%		
		Number of most deprived	% local share	% national share	Number of most deprived	% local share	% national share	Number of most deprived	% local share	% national share
Angus	155	20	12.90%	5.75%	31	20.00%	4.45%	39	25.16%	3.73%
Dundee	188	0	0.00%	0.00%	3	1.60%	0.43%	5	2.66%	0.48%
Perth & Kinross	186	17	9.14%	4.89%	39	20.97%	5.60%	55	29.57%	5.26%
Stirling	121	8	6.61%	2.30%	20	16.53%	2.87%	27	22.31%	2.58%
Tactran Region	650	45	6.92%	0.642%	93	14.31%	1.33%	126	19.38%	1.80%
Scotland	7006									

Source: <https://www.gov.scot/Topics/Statistics/SIMD>

Indicator A7: With the exception of Dundee which has good levels of accessibility due to its urban nature, the data highlights that there is a significant element of each of the 3 remaining council areas that are amongst the most access deprived areas in Scotland. For example, 17% of Stirling, 20% of Angus and 21% of Perth & Kinross datazones are within the 10% most access deprived areas across Scotland.

Tables 4.6-4.13 and Figs 4.7-4.12 show the ability to access jobs, services and opportunities by bus. We have also identified the proportion of the most vulnerable groups who are able to access jobs, services and opportunities by bus.

Improving access to employment

When considering how far people travel to work (whether out of choice or necessity), it is useful to note that the average journey time to work in 2016 for each of the Council areas, which is shown in Table 4.5.

Table 4.5 Supporting info: The time it takes to commute from home to work (minutes)

	2009	20110	2011	2012	2013	2014	2015	2016
Angus	27	21	25	33	29	25	25	23
Dundee	26	23	24	23	21	22	20	22
Perth & Kinross	19	19	22	26	20	28	31	29
Stirling	32	27	26	27	26	22	29	31

Source: [Office of National Statistics: Labour Force Survey](#)

For information, the Joseph Rowntree Foundation published work in July 2018 mapping access by public transport to employment. The mapping covered Angus, Dundee and Perth & Kinross, but not Stirling, and can be found at https://drive.google.com/drive/folders/1cVB00kroBN-eo_PXXqgR3CgWgow2z0IA

Table 4.6: Indicator A1(i) Working Age Population (%) with access to X or more employment sites by public transport within 30 minutes

	Number of employment sites																			
	Tactran Region				Angus				Dundee City				Perth and Kinross				Stirling			
	0	0.5-2	3-4	5-10	0	0.5-2	3-4	5-10	0	0.5-2	3-4	5-10	0	0.5-2	3-4	5-10	0	0.5-2	3-4	5-10
residents all	22.4	22.7	36.6	18.3	16.3	52.2	31.5	0.0	0.6	9.6	63.9	25.9	48.4	15.1	24.2	12.3	25.6	20.3	16.8	37.3
residents without car	7.0	13.0	47.4	32.5	3.5	47.5	49.0	0.0	0.3	4.6	61.8	33.3	26.5	7.4	32.3	33.9	8.3	11.0	14.8	65.9
16-19yr olds	20.0	22.6	35.3	22.1	15.9	52.2	31.9	0.0	0.4	8.3	55.7	35.6	49.2	15.5	24.3	11.0	20.1	25.8	18.1	36.0
65+ all	25.5	23.7	37.4	13.4	14.1	54.3	31.6	0.0	0.5	6.3	74.8	18.4	52.1	17.0	21.5	9.4	31.5	18.8	17.0	32.7
65+ without car	13.2	18.7	48.5	19.6	4.7	50.5	44.7	0.0	0.1	4.2	74.2	21.5	39.5	13.7	27.0	19.8	18.6	15.3	19.2	46.9
lowest 20% simd datazones all	1.7	9.2	56.1	33.0	0.0	36.6	63.4	0.0	0.1	6.4	64.4	29.1	14.7	0.0	47.0	38.2	0.5	10.5	14.6	74.5
lowest 20% simd datazones without car	1.1	7.2	55.3	36.5	0.0	32.7	67.3	0.0	0.1	5.2	62.4	32.3	9.3	0.0	43.7	47.0	0.2	7.9	10.9	81.0

Fig 4.7: Indicator A1(i) Working Age Population (%) with access to X or more employment sites by public transport within 30 minutes

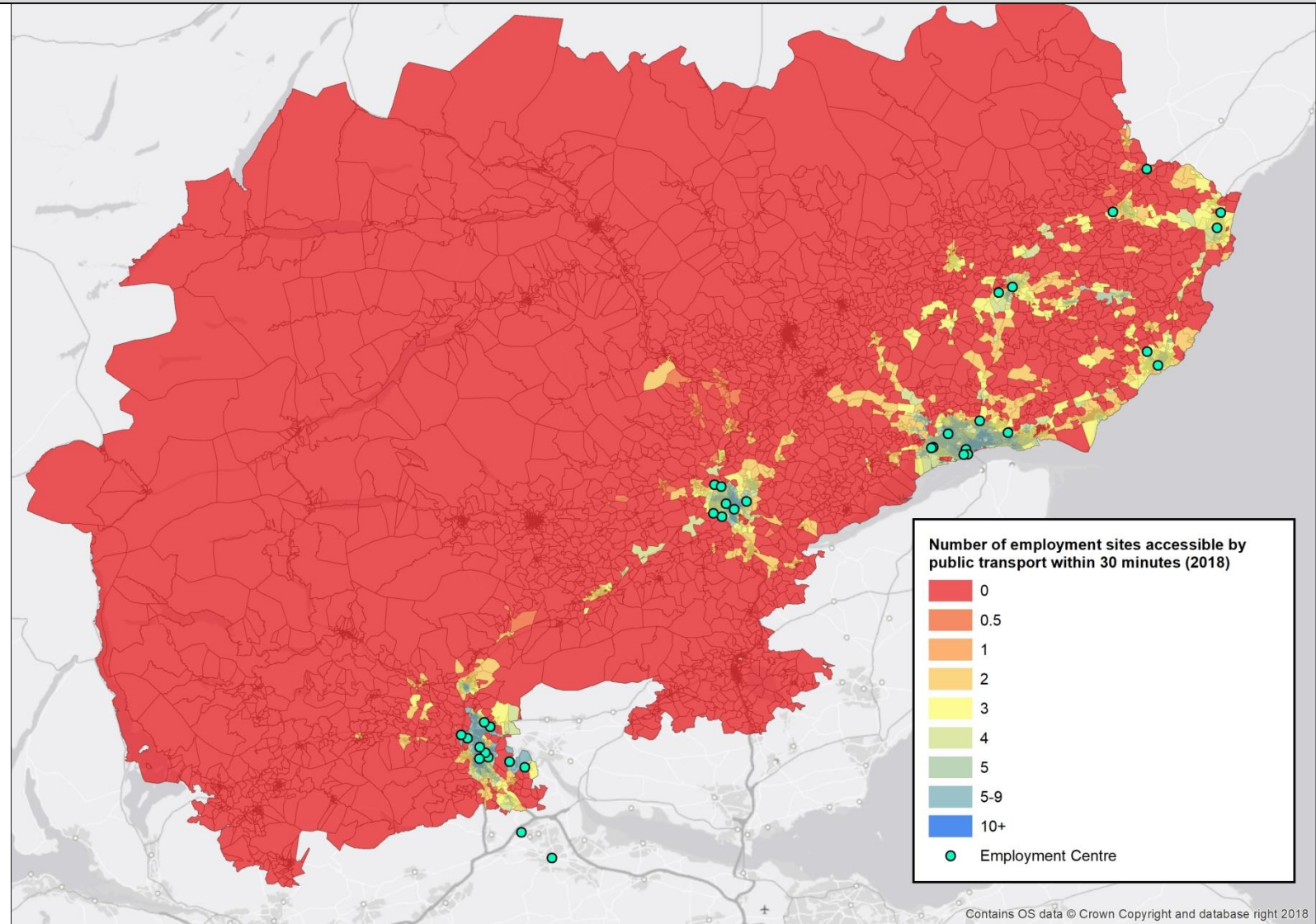
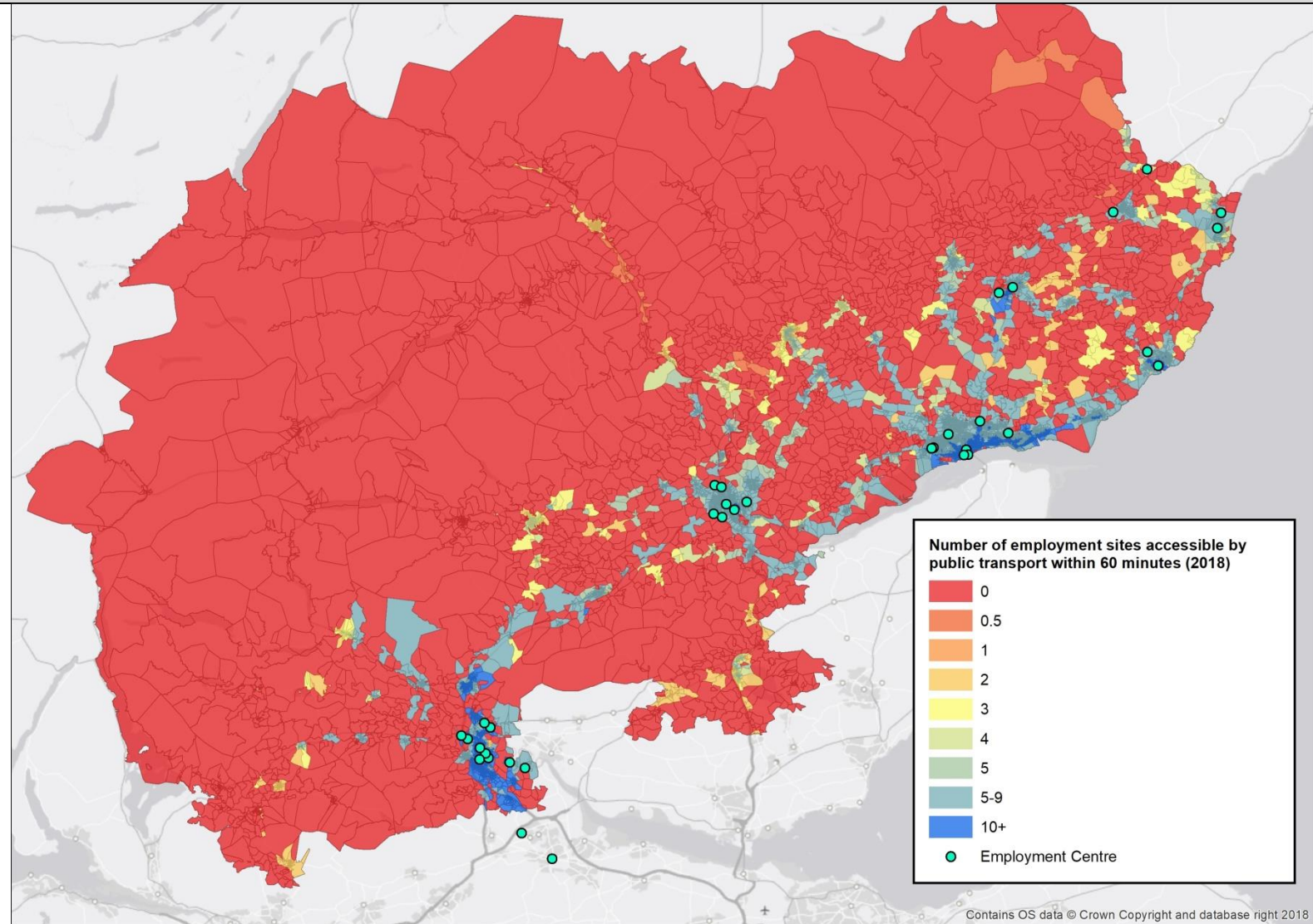


Table 4.7: Indicator A1(ii) Population (%) with access to X or more employment sites by public transport within 60 minutes

	Number of employment sites																			
	Tactran Region				Angus				Dundee City				Perth and Kinross				Stirling			
	0	0.5-2	3-4	5-10	0	0.5-2	3-4	5-10	0	0.5-2	3-4	5-10	0	0.5-2	3-4	5-10	0	0.5-2	3-4	5-10
residents all	20.5	21.3	37.2	21.0	10.5	52.6	36.8	0.1	0.1	8.8	61.4	29.7	47.6	14.3	23.7	14.4	24.5	14.9	18.2	42.3
residents without car	6.6	11.3	46.7	35.5	2.0	41.4	56.5	0.0	0.0	3.9	59.5	36.6	26.2	7.0	29.5	37.2	8.2	8.4	13.0	70.4
16-19yr olds	18.1	21.7	35.1	25.1	10.1	52.9	37.0	0.0	0.1	7.5	52.8	39.6	48.6	14.6	23.2	13.6	18.2	22.8	18.4	40.6
65+ all	23.7	21.9	38.1	16.2	8.3	54.5	37.2	0.1	0.1	5.7	71.4	22.9	51.7	15.7	21.4	11.3	30.6	11.5	18.9	39.1
65+ without car	12.5	16.4	48.5	22.7	2.2	45.2	52.6	0.1	0.0	3.6	70.6	25.8	39.3	12.5	25.4	22.8	18.3	11.2	18.4	52.2
lowest 20% simd datazones all	1.7	8.5	53.5	36.3	0.0	35.3	64.7	0.0	0.1	5.7	61.9	32.2	14.7	0.0	40.5	44.7	0.5	10.2	11.2	78.1
lowest 20% simd datazones without car	1.1	6.5	52.8	39.7	0.0	31.1	68.9	0.0	0.1	4.5	60.1	35.4	9.3	0.0	37.9	52.8	0.2	7.4	7.5	84.9

Fig 4.8: Indicator A1(ii) Population (%) with access to X or more employment sites by public transport within 60 minutes



Improving access to public services, including health and education

Table 4.8 : Indicator A2 Proportion of population and non-car owning households within 30mins of a primary health care facility (GP) by public transport

	Tactran Region			Angus			Dundee City			Perth and Kinross			Stirling		
	<30 min	30-60 min	No Access	<30	30-60	no access	<30	30-60	no access	<30	30-60	no access	<30	30-60	no access
All population	91.0%	0.9%	8.1%	88.2%	1.7%	10.0%	99.5%	0.0%	0.5%	86.0%	0.8%	13.0%	88.6%	1.6%	9.8%
No car population	98.3%	0.3%	1.4%	97.2%	0.7%	2.2%	99.8%	0.0%	0.2%	96.8%	0.3%	2.8%	97.0%	0.9%	2.1%
All 65+ population	91.7%	0.9%	7.3%	90.5%	1.6%	7.9%	99.5%	0.0%	0.5%	87.9%	0.7%	11.2%	88.3%	1.5%	10.1%
No car 65+ population	97.9%	0.5%	1.6%	97.0%	0.9%	2.1%	99.9%	0.0%	0.1%	96.7%	0.3%	2.8%	95.7%	1.3%	3.0%
Population in lowest 20% SIMD (Health Domain)	99.9%	0.0%	0.1%	100.0%	0.0%	0.0%	99.9%	0.0%	0.1%	100.0%	0.0%	0.0%	99.7%	0.0%	0.3%

Table 4.9: Supporting info: Access to Hospitals by Public Transport

	Tactran			Angus			Dundee			Perth & Kinross			Stirling		
	< 60 Mins	> 60 Min	No Access	< 60 Mins	> 60 Min	No Access	< 60 Mins	> 60 Min	No Access	< 60 Mins	> 60 Min	No Access	< 60 Mins	> 60 Min	No Access
All population	64.7%	27.1%	8.2%	19.8%	70.1%	10.1%	99.5%	0.0%	0.5%	70.9%	16.0%	13.1%	55.5%	34.0%	10.4%
Population with no car access	78.2%	20.4%	1.4%	17.3%	80.5%	2.2%	99.7%	0.0%	0.2%	83.9%	13.3%	2.9%	78.7%	19.2%	2.1%
All 65+ population	62.1%	30.4%	7.5%	21.3%	70.6%	8.0%	99.5%	0.0%	0.5%	68.5%	20.3%	11.3%	51.5%	37.8%	10.7%
Population 65+ with no car acces	72.6%	25.7%	1.7%	21.4%	76.4%	2.2%	99.9%	0.0%	0.1%	79.5%	17.6%	2.9%	68.9%	28.0%	3.2%
Population in Lowest 20% SIMD (Health Domain)	96.5%	3.4%	0.1%	40.3%	59.7%	0.0%	99.9%	0.0%	0.1%	100.0%	0.0%	0.0%	84.4%	15.3%	0.3%

Fig 4.9: Supporting info: Access to Hospitals by Public Transport

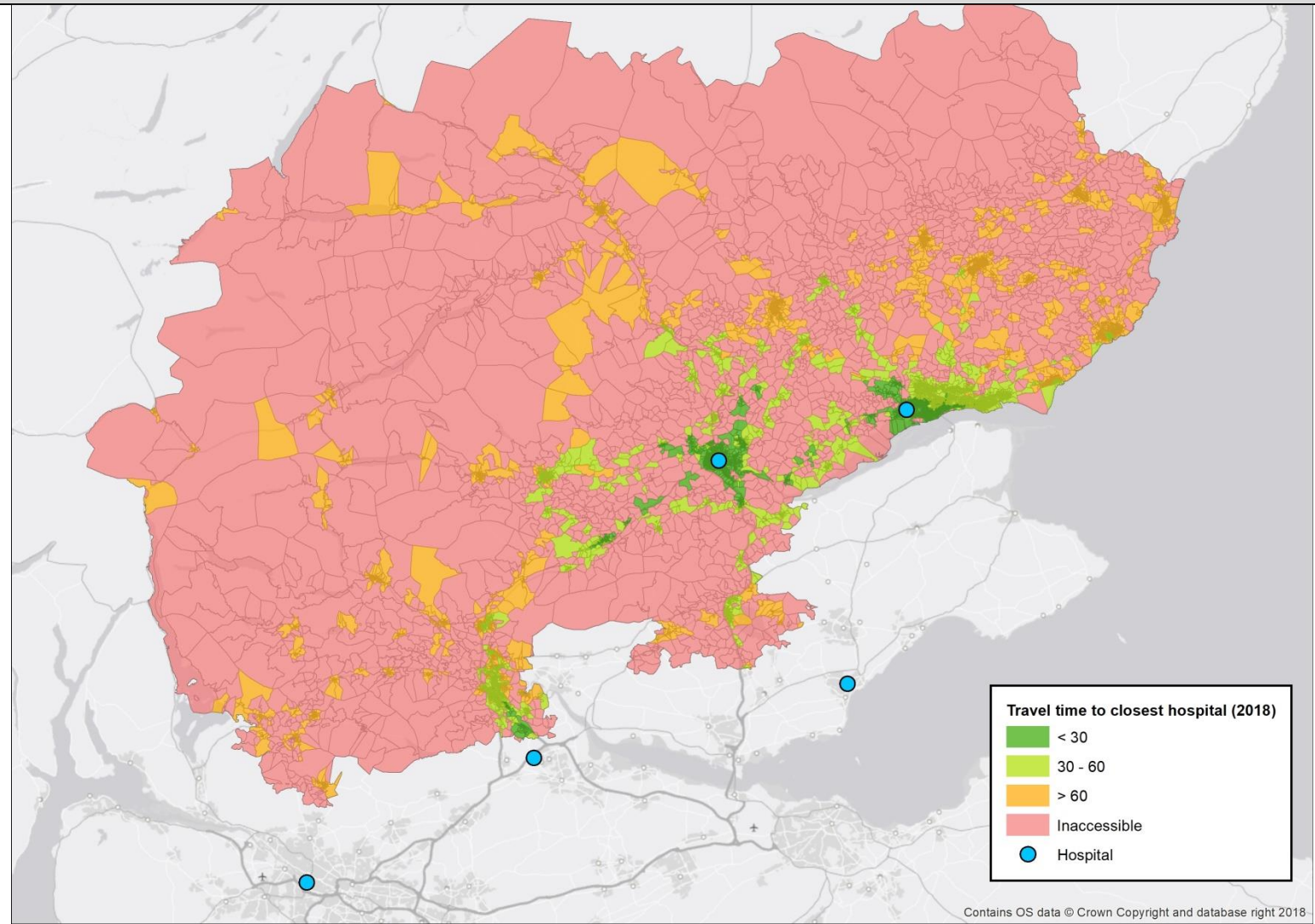


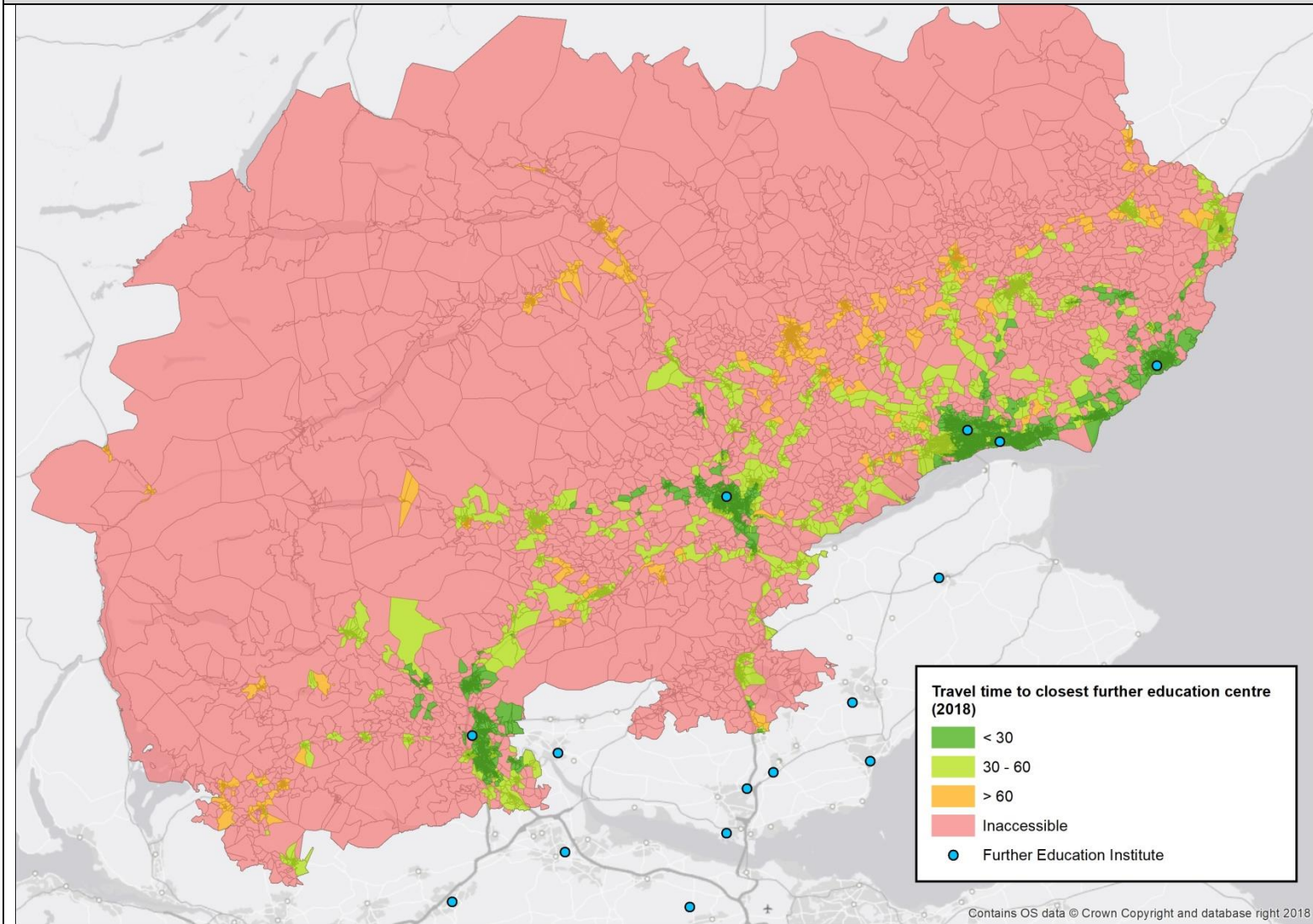
Table 4.10: Indicator A3 Proportion of population and non-car owning households Within 30mins drive time of A&E

	Tactran Region		Angus		Dundee City		Perth and Kinross		Stirling	
	<30 min	30-60 min	<30	30-60	<30	30-60	<30	30-60	<30	30-60
All population	83.4%	16.3%	47.5%	52.4%	100.0%	0.0%	90.9%	8.6%	90.1%	9.3%
No car population	86.0%	13.8%	36.1%	63.9%	100.0%	0.0%	93.8%	5.9%	94.5%	5.1%
All 65+ population	81.5%	18.2%	48.9%	51.1%	100.0%	0.0%	88.4%	11.0%	87.7%	11.8%
All population in lowest 20% SIMD (Health Domain)	98.1%	1.9%	0.0%	100.0%	100.0%	0.0%	100.0%	0.0%	100.0%	0.0%

Table 4.11: Indicator A4 Proportion of 16-24 year olds and total population more than one hour from a Further Education college by public transport (AM Peak)

	Tactran			Angus			Dundee			Perth & Kinross			Stirling		
	< 60 Mins	> 60 Min	No Access	< 60 Mins	> 60 Min	No Access	< 60 Mins	> 60 Min	No Access	< 60 Mins	> 60 Min	No Access	< 60 Mins	> 60 Min	No Access
All population	82.8%	6.8%	10.3%	82.1%	4.7%	13.1%	98.5%	0.2%	1.3%	68.6%	16.0%	15.4%	81.3%	5.5%	13.1%
No car population	92.9%	4.1%	3.0%	89.9%	3.6%	6.5%	98.8%	0.2%	1.0%	82.0%	14.3%	3.7%	93.2%	2.9%	4.0%
All 16-24 year olds	86.8%	4.9%	8.3%	83.7%	4.5%	11.8%	97.9%	0.4%	1.6%	70.7%	14.2%	15.1%	86.2%	3.4%	10.4%
16-24 in lowest 20% SIMD (All Domains)	98.5%	1.2%	0.3%	97.6%	0.0%	2.4%	99.9%	0.0%	0.1%	88.3%	11.7%	0.0%	100.0%	0.0%	0.0%

Fig 4.10: Indicator A4 Proportion of 16-24 year olds and total population more than one hour from a Further Education college by public transport (AM Peak)



Improving access to retail, recreation, leisure and tourist facilities

	Tactran Region				Angus			Dundee			Perth & Kinross			Stirling		
	<30 min	30-60 min	>60 Min	No Access	30-60	60>	no access	30-60	60>	no access	30-60	60>	no access	30-60	60>	no access
All population	67.9%	20.7%	3.2%	8.2%	16.2%	0.1%	10.0%	13.4%	0.0%	0.5%	38.0%	6.0%	13.1%	10.7%	7.5%	10.4%
No car population	85.1%	12.1%	1.3%	1.4%	6.5%	0.0%	2.2%	8.1%	0.0%	0.2%	29.5%	4.1%	2.9%	7.4%	3.4%	2.1%
All 65+ population	66.0%	22.5%	4.0%	7.5%	16.9%	0.1%	7.9%	11.3%	0.0%	0.5%	41.8%	7.5%	11.3%	12.0%	9.6%	10.7%
No car 65+ population	79.6%	16.7%	2.0%	1.7%	9.5%	0.0%	2.2%	9.0%	0.0%	0.1%	38.7%	5.3%	2.9%	11.7%	5.5%	3.1%
Population in lowest 20% SIMD (All Domains)	90.3%	9.5%	0.1%	0.1%	0.0%	0.0%	0.0%	11.0%	0.0%	0.1%	14.9%	1.4%	0.0%	4.9%	0.0%	0.0%

Fig 4.11 : Indicator A5 Proportion of all/non-car owning households more than 30/60mins from retail facilities by public transport

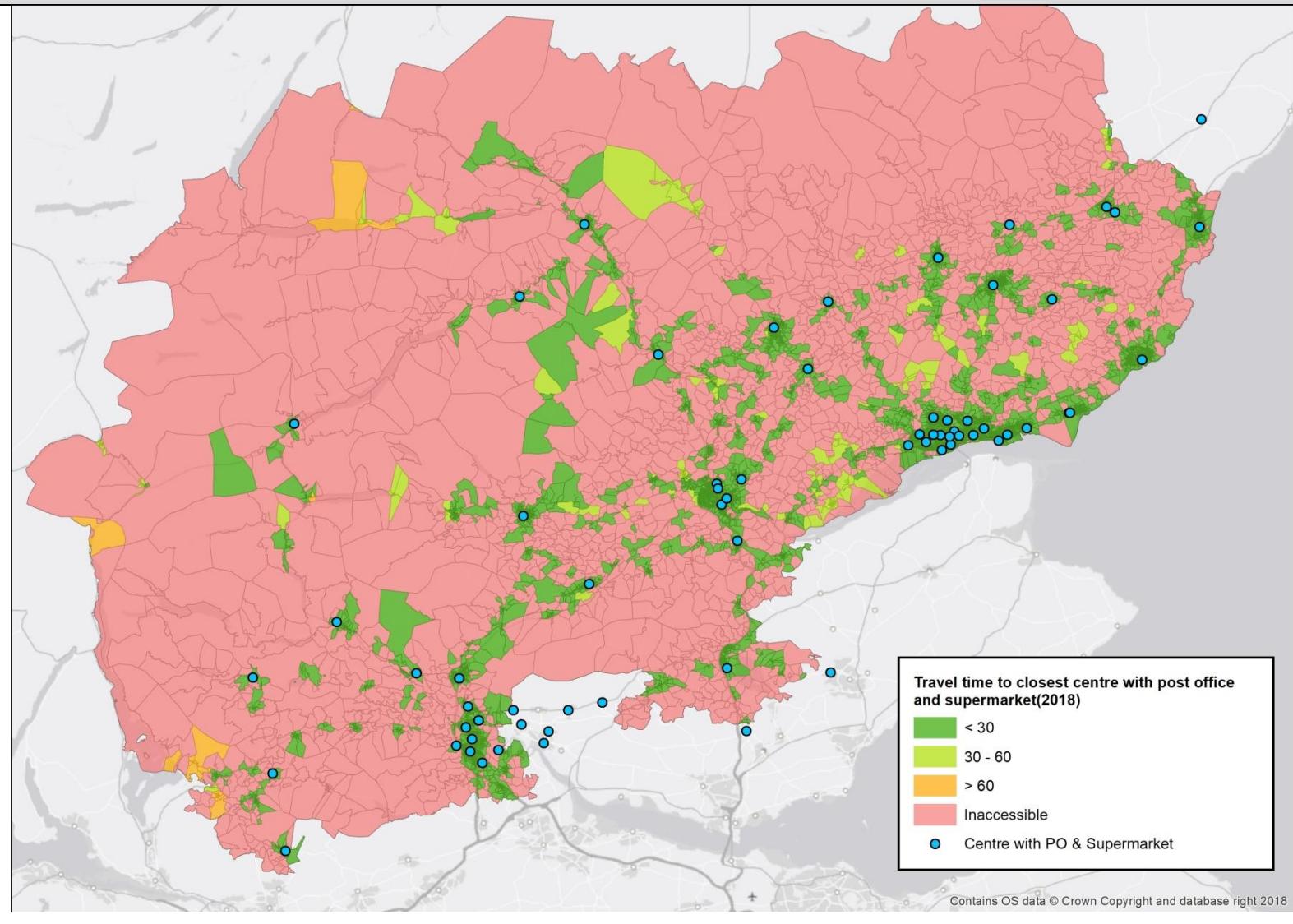
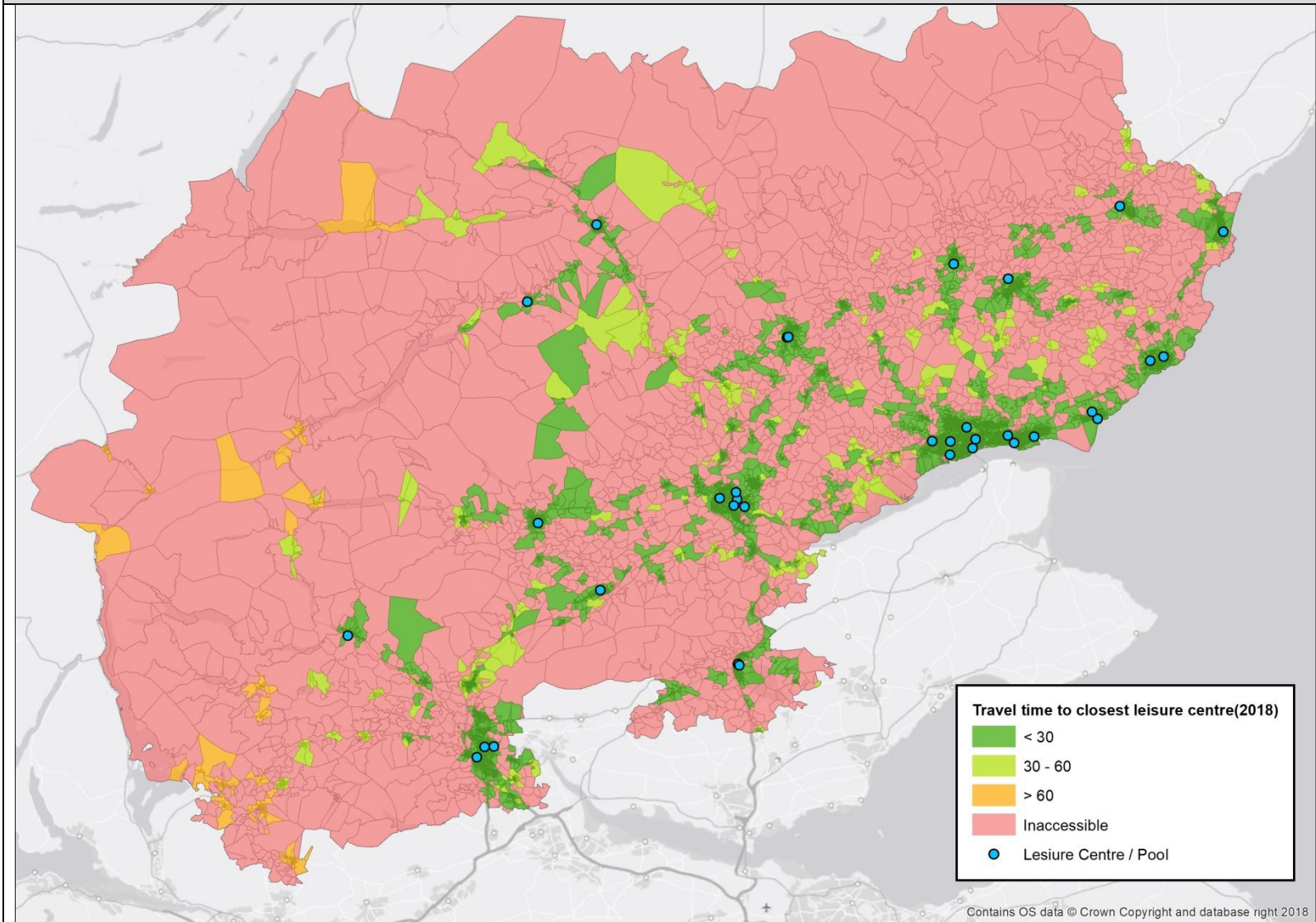


Table 4.13: Indicator A6 Proportion of all/non-car owning households more than 30/60mins from recreation and leisure facilities

				Angus			Dundee			Perth & Kinross			Stirling		
	30-60 min	> 60 Min	No Access	< 60 Mins	> 60 Min	No Access	< 60 Mins	> 60 Min	No Access	< 60 Mins	> 60 Min	No Access	< 60 Mins	> 60 Min	No Access
All population	4.5%	1.4%	8.2%	89.9%	0.0%	10.0%	99.5%	0.0%	0.5%	86.9%	0.1%	13.0%	82.1%	7.5%	10.4%
No car population	1.5%	0.5%	1.4%	97.8%	0.0%	2.2%	99.8%	0.0%	0.2%	97.1%	0.1%	2.8%	94.4%	3.4%	2.1%
All 65+ population	4.4%	1.7%	7.5%	92.1%	0.0%	7.9%	99.5%	0.0%	0.5%	88.7%	0.2%	11.2%	79.6%	9.7%	10.7%
No car 65+ population	2.4%	0.8%	1.6%	97.8%	0.0%	2.2%	99.9%	0.0%	0.1%	97.0%	0.2%	2.8%	91.3%	5.5%	3.1%
All population in lowest 20% SIMD (All Domains)	0.6%	0.0%	0.1%	100.0%	0.0%	0.0%	99.9%	0.0%	0.1%	100.0%	0.0%	0.0%	100.0%	0.0%	0.0%

Fig 4.12: Indicator A6 Proportion of all/non-car owning households more than 30/60mins from recreation and leisure facilities



Indicators A2-A6: Tables 4.6-4.13 and Figs 4.7-4.12 suggest:

- Very little difference in the ability to access jobs, services and opportunities by public transport between 2015 and 2018
- Most people in Dundee are able to access most services within a reasonable time by walking/public transport
- Most people living in the most deprived datazones have reasonable access by walking/public transport to most services, due to the fact that most of these datazones are within our major settlements
- Approximately 8% of the population live in areas where there is no public transport access. In addition, approximately 1.4%-3% of the population do not have access to a car or van AND live in an area where there is no access to services (this % increases to approximately 6.6% of the population when considering no car AND no public transport to access to employment centres)

Public transport access to employment opportunities

- Across the region, 11.3% of the working age population (approx. 6527) without access to a car have access to a limited number (1 or 2 centres) of employment centres within 60mins by public transport. In addition, 6.6% (approx. 3,810) of working age residents without access to a car do not have access to any employment centre by public transport.
- Within Perth & Kinross approximately 26% of residents are without access to a car and almost half of 16-19 years olds cannot access major employment opportunities by public transport.

Public transport access to GPs

- 91% of the population are within 30mins by walk/bus from the nearest GP
- However, between 10% (Angus/Stirling) and 13% (Perth & Kinross) of the population have no access by public transport to a GP. This amounts to approximately 40,428 people across the region, of which 1,382 live in households without access to a car

Public transport access to major hospitals

- Over 25% of the population over the age of 65 without cars are over 60mins from one of the major hospitals. This amounts to approximately 7,140 people. In Angus, this rises to 76.4% of over 65s without access to a car.

Drive time to accident and emergency units

- Approximately 83% of the population are within 30minutes drive of an A&E unit. However, over half (52.4%) of the Angus population (approximately 60,780people) are over 30mins drive time from an A&E unit. This includes 56.6% of the over 65s that do not have access to a car (approximately 3636people)

Public transport access to further education

- Across the region, 8.3% (approx. 5,243) of 16-24 yr olds are not able to access further education by public transport. A further 4.9% (approx. 3,100) over 60mins away by public transport.
- In Perth & Kinross 15.1% (approx. 2,173) of 16-24yr olds cannot access further education by public transport, whilst in Angus and Stirling, these proportions are respectively 11.8% and 10.4%

Public transport access to retail

- 8.2% of the population (41,172) are not able to access a local shopping centre (containing a small supermarket and a post office), whilst 90.4% of the population are within 30mins by public transport
- 67.9 % of the population are within 30minutes of a regional shopping centre by public transport, whilst 3.2% (15,836) are over 60mins by public transport.

Public transport access to leisure centre

- Between 10% (Angus/Stirling) and 13% (Perth & Kinross) of the population have no access by public transport to a leisure centre. 1.4% of households without access to a car, have no access to a leisure centre by public transport (approximately 1395 people across the region)

Improving the accessibility and inclusivity of transport system

[People with mobility or learning difficulties](#) can face a range of barriers when travelling from A to B. They require confidence that the whole trip can be undertaken, and that this can be done safely. Whilst Indicator A10 'Access facilities at stations' (Table 4.14) does not cover the entire journey, it provides information to inform people with mobility difficulties of the ability to use one aspect of strategic transport infrastructure (i.e. rail stations) during their journey.

Table 4.14: Indicator A10 Access facilities at rail stations

	Step free access to all platforms	Ramp for train access	accessible toilet	Induction loop at ticket booth	Height adjustable ticket booth	Accessible ticket machine
Stirling	N	Y	Y	Y	Y	Y
Dundee	Y	Y	Y	Y	Y	Y
Perth	Y	Y	Y	Y	Y	Y
Dunblane	Y	Y	Y	Y	Y	Y
Arbroath	Y	Y	Y	Y	Y	Y
Montrose	Y	Y	Y	Y	Y	Y
Bridge of Allan	Y	Y	N	N/A	N/A	Y
Pitlochry	N	Y	Y	Y	N	N/A
Carnoustie	Y	N	N	N/A	N/A	Y
Gleneagles	Y	N	N	N/A	N/A	N/A
Broughty Ferry	Y	Y	N	N/A	N/A	N/A
Dunkeld & Birnam	N	N	N	N/A	N/A	N/A
Blair Atholl	Y	N	N	N/A	N/A	N/A
Crianlarich	N	Y	Y	N/A	N/A	N/A
Rannoch	N	N	Y	N/A	N/A	N/A
Monifieth	N	N	N	N/A	N/A	N/A
Tyndrum Lower	Y	N	N	N/A	N/A	N/A
Upper Tyndrum	N	N	N	N/A	N/A	N/A
Invergowrie	N	N	N	N/A	N/A	N/A
Balmossie	N	N	N	N/A	N/A	N/A
Golf Street	N	N	N	N/A	N/A	N/A
Barry Links	N	N	N	N/A	N/A	N/A

Source: [ScotRail \(Stations and facilities\)](#) – NB data taken from ScotRail website, however ramps for train access are available at more stations than website currently notes

Indicator A10: While the level of facilities are improving, only the major stations could be considered fully accessible for people with mobility difficulties

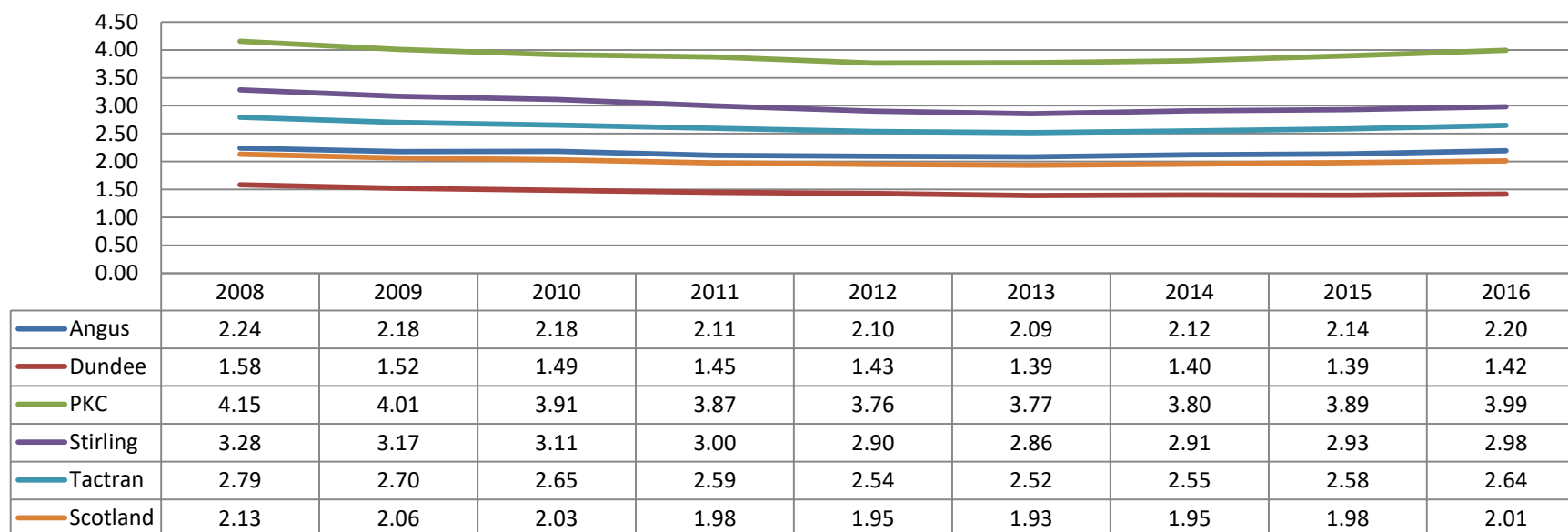
5. Environment

RTS3 To ensure that the transport system contributes to safeguarding the environment and promotes opportunities for improvement

Table 5.1: Environmental objectives and indicators				
<u>National outcomes</u>	RTS Sub-Objectives	Transport outcome indicator	Supporting information	LOIP Indicators
Condition of protected nature sites Perception of Scotland Carbon footprint Greenhouse gas emissions Journeys by active travel	3A: Contributing to achievement of the Scottish national targets and obligations on greenhouse gas emissions	En1 Transport related CO ₂ emissions	Context & Climate Change Plan Transport Indicators ‘CLIMATE CHANGE PLAN The Third Report on Proposals and Policies 2018-2032’ Proportion of electric vehicles H4 Electric vehicle registrations Outcomes Liftshare CO ₂ saving Public sector CO2 emissions	CO ₂ emissions (Angus/Perth & Kinross) Proportion of active travel trips (Dundee/Perth & Kinross)
	3B: Promoting a transport system that respects both the natural and the built environment	No indicator identified.	Protected natural and built environments SNH Protected Areas HES Designations Place Standard Tool	
	3C: Promoting a shift towards more sustainable modes	En2 Percentage of the Tactran resident population who travel as a car driver, car passenger, on public transport, on foot or cycle	Reason for changing mode of travel to work (TATIS)	

Contributing to achievement of the Scottish national targets and obligations on greenhouse gas emissions

Fig 5.1: Indicator En1 Transport related CO₂ emissions
Per Capita Emissions (t)



Source: Department for Business, Energy and Industrial Strategy

Indicator EN1: Figure 5.1 highlights the trend in per capita CO₂ emissions due to transport. It suggests a dip in CO₂ since 2008, however it also suggests small incline since 2013.

Whilst it is useful to note that this mirrors the dip in traffic across the region across Scotland, it should be noted that these estimates are calculated by the Department for Transport using traffic estimates. Those factors which have an influence on CO₂ emissions include:

- [Number of vehicular trips made by individuals](#)
- [How far people travel](#)
- [How they travel](#) (principally the mode share between car and bus/train/walking/cycling; but also the proportion of vehicles which have the potential to reduce CO₂ emissions, such as electric vehicles)

For information, it is useful to note that currently, transport accounts for 27% of total Scottish CO₂ emissions.⁹ To address climate change aspirations, the Scottish Government have adopted the [Climate Change Plan](#) which includes both climate change (outcome) targets, and transport (output) indicators to track progress.

Promoting a transport system that respects both the natural and the built environment

While processes exist to help ensure this happens, it is difficult to identify an indicator that measures the extent to which infrastructure respects the natural and built environment. For example, major infrastructure schemes will be required to undertake Environmental Impact Assessments which will appropriately consider the natural and built environment, however for smaller schemes where planning permissions are not required, such considerations are subject to the priorities of the specific design process. It is suggested that sensitive natural and built sites be identified (as included within each of the local development plans), which will assist the partnership to identify whether potential infrastructure its relationship to protected sites can be considered.

Promoting a shift towards more sustainable modes

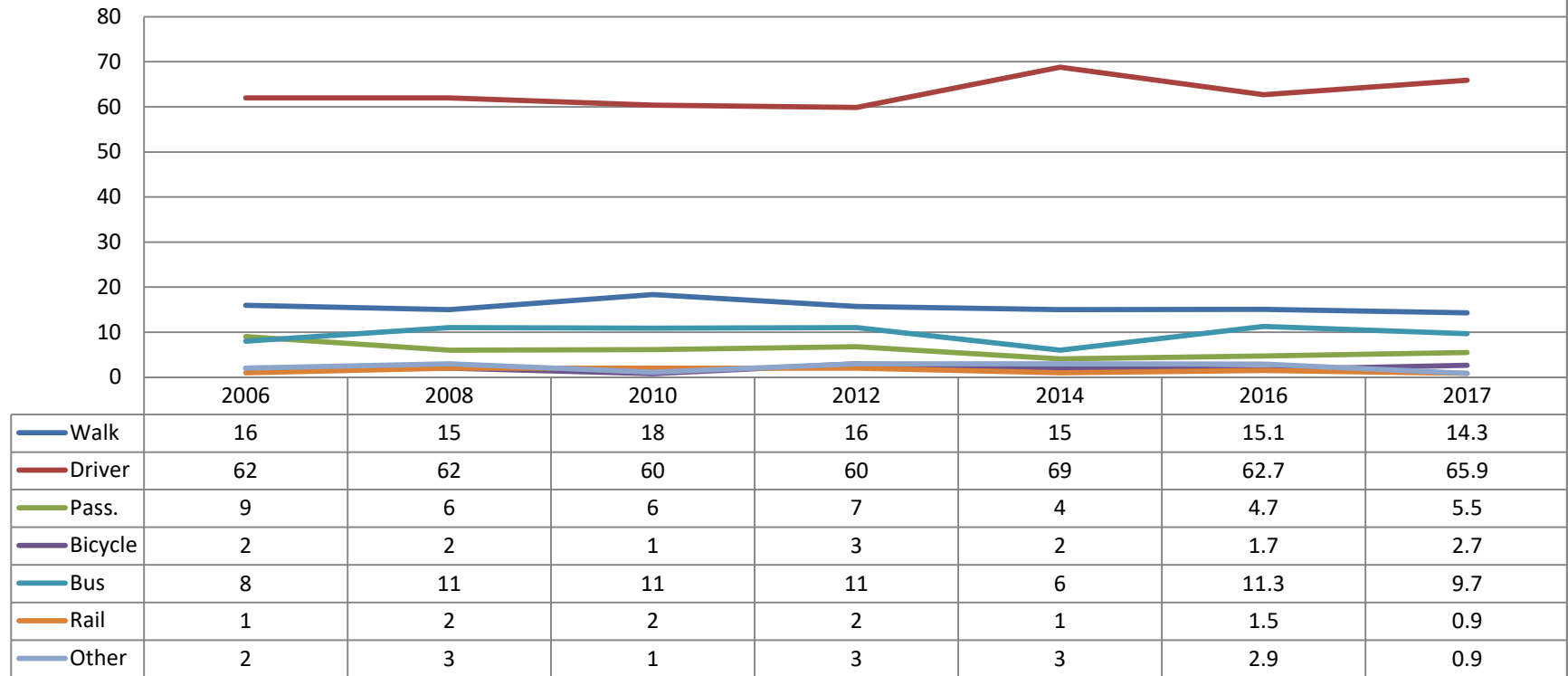
The proportion of people choosing to walk and cycle, or use bus and train, or drive or be a car passenger, is a critical indicator informing progress against:

- economic objectives (congestion)
- environmental objectives (carbon emissions)
- health objectives (active travel / air quality)

Figs 5.2-5.3 show the Scottish Household Survey mode of travel to work results across the region between 2006-2017, and for each of the Council areas in 2017. Fig 5.4 shows the proportional split between car travel and sustainable modes to assist consideration of the data in relation to environmental objectives.

⁹ Scottish Government [‘CLIMATE CHANGE PLAN The Third Report on Proposals and Policies 2018-2032’](#) February 2018 p103

Fig 5.2: Indicator En2 Percentage of the Tactran resident population who travel to work as a car driver, car passenger, on public transport, on foot or cycle



Source: Transport & Travel in Scotland

Fig 5.3: Indicator En2 Percentage of the Tactran resident population who travel to work as a car driver, car passenger, on public transport, on foot or cycle to work: By Council area (Source: Transport & Travel in Scotland 2017)

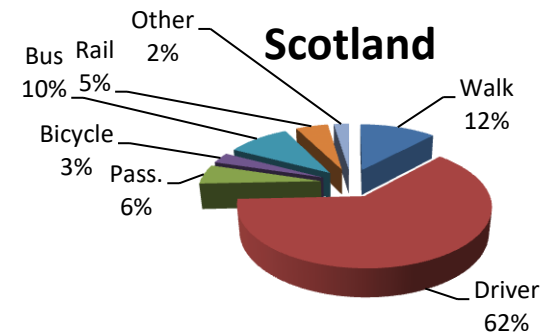
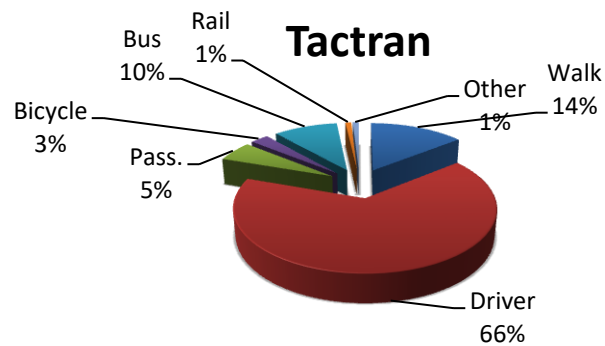
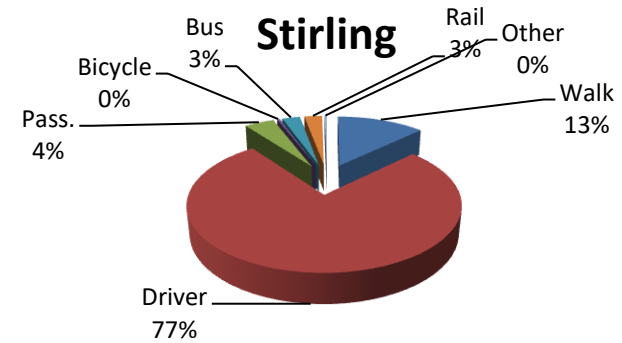
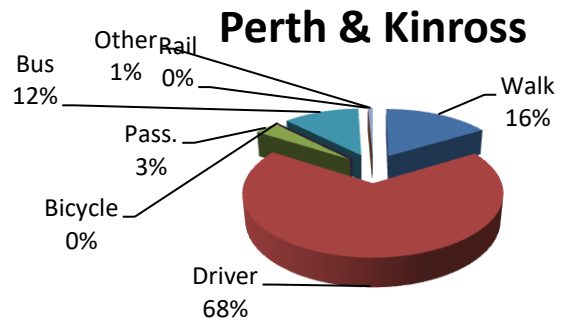
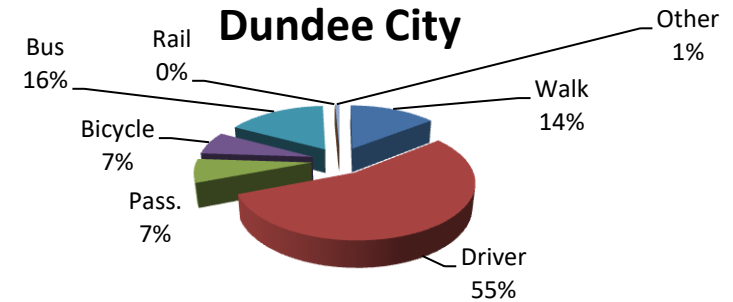
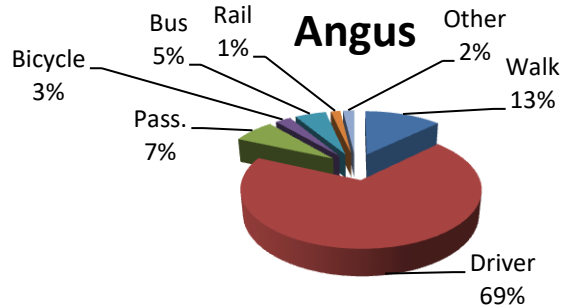
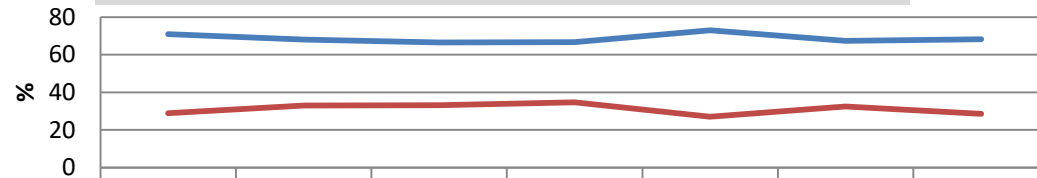


Fig 5.4: Supporting Info: Car vs 'Sustainable' Modes



	2006	2008	2010	2012	2014	2016	2017
— Car	71	68	66.5	66.7	72.9	67.4	68.2
— Other	29	33	33.2	34.7	27	32.5	28.5

Stirling mode share cordon count

Stirling Council undertake a mode share cordon count around the City Centre every two years to supplement the SHS and census modal share data

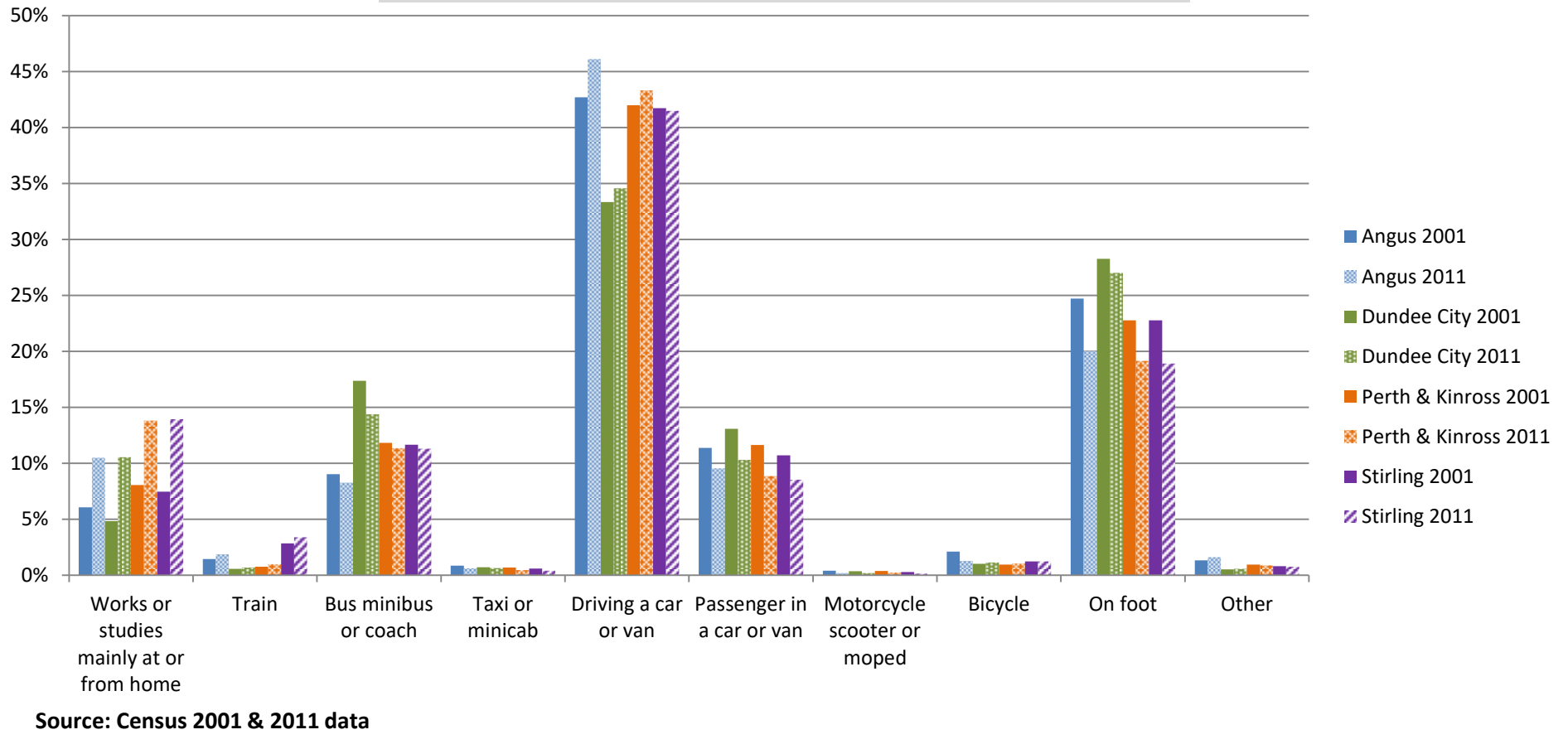
Indicator EN2: The Scottish Household Survey mode share travel to work data suggests that:

- there has been little change in mode share between 2006 and 2017
- approximately 2/3 of commuting trips are made by car (either as driver or passenger), which mirrors the national picture
- perhaps the biggest differences across the region in 2017 are:
 - bus use between Angus/Stirling (5%/3%) and Dundee/Perth & Kinross (16%/12%) and
 - rail use between Stirling (3%) and Angus/Dundee/Perth & Kinross (1%/0%/0%)¹⁰
 - bike trips in Dundee (7%) and Angus/Perth&Kinross /Stirling (0%/3%/0%)
- whilst the SHS data is local authority area wide, averaging both urban and rural populations, it is interesting to note that there is little difference between the entirely urban area of Dundee and the areas of Angus, Perth & Kinross and Stirling which have significant urban/rural splits.

The SHS data is collected on a bi-annual basis, and allows tracking of mode share on a regular basis. Nonetheless, as it is a relatively small sample size, it is useful to cross reference it with the more detailed census data (Fig 5.5), although, due to the collection periods this is only able to reflect longer term trends.

¹⁰ Suggest the 0% of rail commuting trips in Dundee and Perth&Kinross (and cycle trips in Angus and Stirling) reflect the sample sizes used. Other data sources, such as the census data and Tactran Rail User Surveys, show that there are rail (and cycle) commuting trips originating in these Council areas. With small sample sizes it is recommended that reference is also paid to the longer term trends.

Fig 5.5: Supporting info: Mode split for travel to work (Census)



A significant point the census data highlights that the SHS doesn't is the significant increase (effectively doubling) between 2001-2011 of the % of people working or studying from home.

Both the SHS and Census data only reflect the mode of travel to work, so it may be useful to note that this only accounts for just under a quarter of all trips (See Fig 5.2). Perhaps the most significant points to note concerning the change in purpose of trips in Scotland between 2007 and 2017 are:

- increase in education trips
- little change in the number of retail trips being made (albeit, this does not reflect the type or destination of retail trip)

Table 5.2: Supporting Info: Percentage of journeys made by purpose of travel 2007-2017 (Scotland)

	2007	2008	2009	2010	2011	2012 ¹	2013	2014	2015	2016	2017
Commuting	23.6	24.2	23.8	26.5	25.8	23.4	22.5	23.0	22.4	23.4	24.7
Business	1.5	1.2	1.2	0.9	0.7	1.9	2.5	2.3	2.2	1.9	1.9
Education	3.4	3.1	3.7	3.5	3.6	6.2	6.5	6.6	6.8	6.6	6.6
Shopping	23.4	22.8	23.1	23.3	21.1	23.1	23.1	22.6	23.8	23.4	23.3
Visit Hospital or other health	2.6	2.4	2.5	2.5	2.3	2.2	2.0	2.0	2.1	2.1	2.3
Other personal business	6.9	6.2	6.9	6.4	6.9	3.4	4.3	3.4	4.4	4.3	3.3
Visiting friends or relatives	10.9	12	11.2	10.8	11.9	11.3	12.1	10.6	11.3	10.9	10.0
Eating/Drinking	4.8	4.3	4.1	3.7	4.1	2.8	3.2	3.0	3.6	3.3	3.3
Sport/Entertainment	7.1	7.3	7.9	6.8	7.6	5.3	5.4	5.5	6.1	4.1	6.2
Holiday/daytrip	1.7	2	2.3	1.9	1.8	0.9	1.0	1.1	1.3	1.1	1.4
Other Journey	0.2	0.1	0.5	0.4	0.3	4.8	3.0	4.9	1.5	2.4	3.1
Escort	8	7.5	6.7	7.3	7.5	1.2	1.6	1.6	1.9	1.6	1.9
Go Home	2.6	3.2	3.2	2.7	3.4	8.0	7.3	6.9	7.8	7.0	6.9
Go for a walk	3.6	3.7	2.9	3.2	3	5.9	5.7	6.3	4.8	6.1	5.1
Sample size (=100%)	20,520	20,450	18,680	16,300	17,590	19,740	20,180	19,930	18,710	19,050	18,330

Source: [Transport and Travel in Scotland 2017 Table 17](#)

6. Health and wellbeing

RTS4 To promote the health and wellbeing of communities

Table 6.1 Health & wellbeing objectives and indicators				
National outcomes	RTS Sub-Objectives	Transport outcome indicator	Supporting information	LOIP Indicators
Child social and physical development Mental wellbeing Healthy weight Physical activity	4A: Helping to meet or better all statutory air quality requirements in the Tactran region	H1 Air quality – (a) NO ₂ and (b) PM10 measurements	Context Defra Air Quality Summary Number of electric vehicles H2 Electric vehicle registrations Outcome Impact of air quality on health ¹¹	<ul style="list-style-type: none"> active travel to school for primary and secondary pupils (Angus) least rate of death under 75 (Angus) healthy weight at primary 1 (Angus/Dundee/Perth&Kinross/Stirling) Active Travel (walking and cycling) as a proportion of trips to work (Dundee) Air Quality measured as NO₂ emissions (Dundee) % of electric vehicles in the City (Dundee) /increased number of electric charging stations (Perth&Kinross) improved health and wellbeing as a result of reducing air pollution (Perth&Kinross) a significant reduction in health and social inequalities (Perth&Kinross) increase in distinct participants involved in physical activity (Perth&kinross)
Healthy life expectancy	4B: Helping to reduce noise generated on the Tactran transport network	<i>Review subject to Transport Scotland 's Transportation Noise Action Plan</i>	Noise modelling data	
Journeys by active travel	4C: Promoting a culture of active and healthy lifestyles	H3 Adults (16+) - frequency of walking in previous 7 days H4 Proportion of children taking active travel modes to school	Opportunity Number of bikes available for private use by household How far people travel Perception of Quality of Place (results of Place Standard Tool)	

¹¹ 'Air pollution levels linked to 'spikes' in hospital and GP visits' Dundee University Research Project <https://www.dundee.ac.uk/news/2018/air-pollution-levels-linked-to-spikes-in-hospital-and-gp-visits.php>
<http://erj.ersjournals.com/content/52/1/1702557>

Table 6.1 Health & wellbeing objectives and indicators

National outcomes	RTS Sub-Objectives	Transport outcome indicator	Supporting information	LOIP Indicators
			Outcomes Child obesity Sustrans and LA cycle count data	<ul style="list-style-type: none"> • datazones in Scotlands' 10% most deprived for health (Stirling) • road traffic casualties (Stirling)

Helping to meet or better all statutory air quality requirements in the Tactran region

Figures 6.1 and 6.2 respectively show the average PM10 and NO2 emissions at the monitoring stations across the region, and also highlight the emission trends at these locations against the national air quality targets (link).

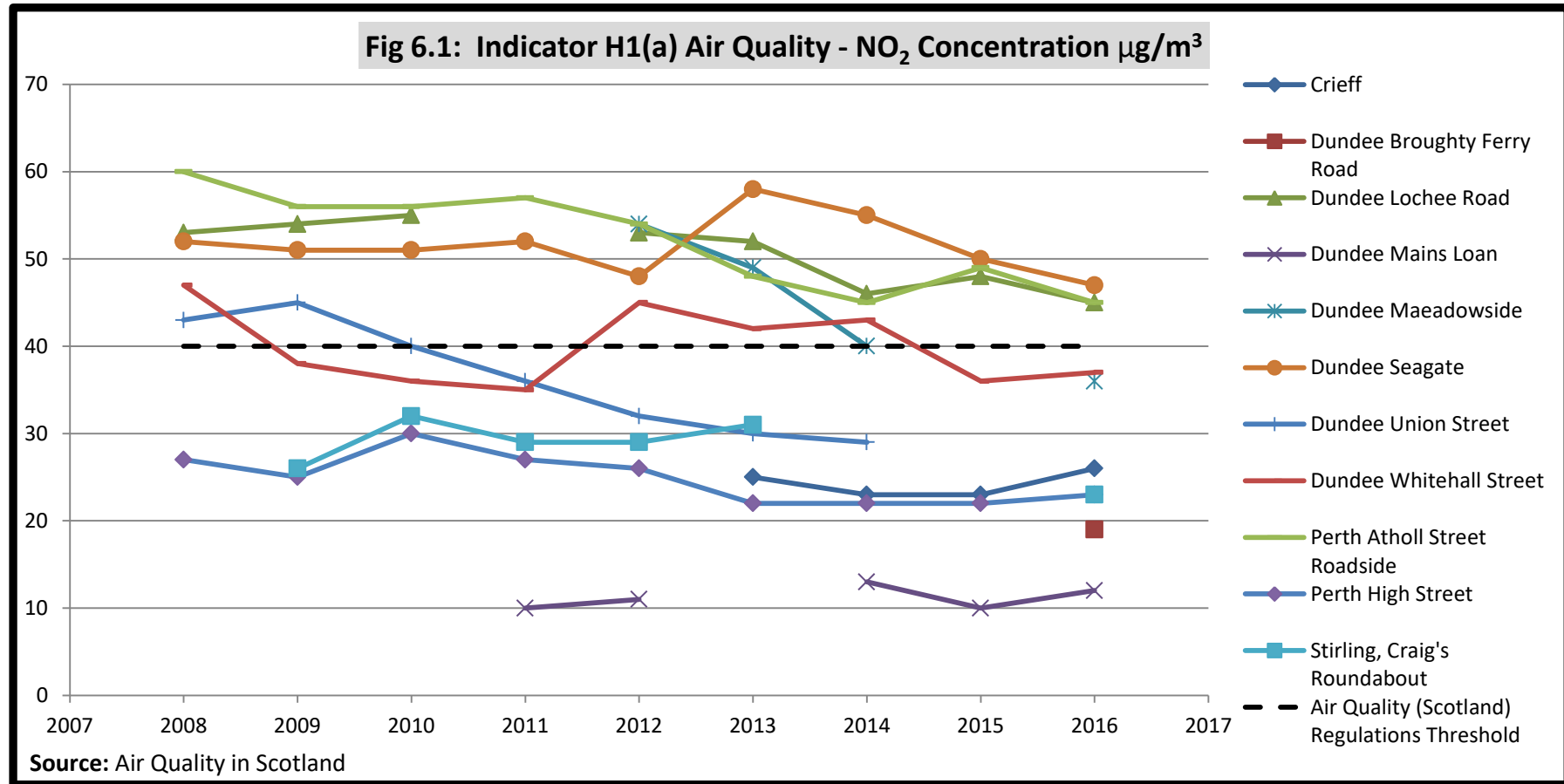
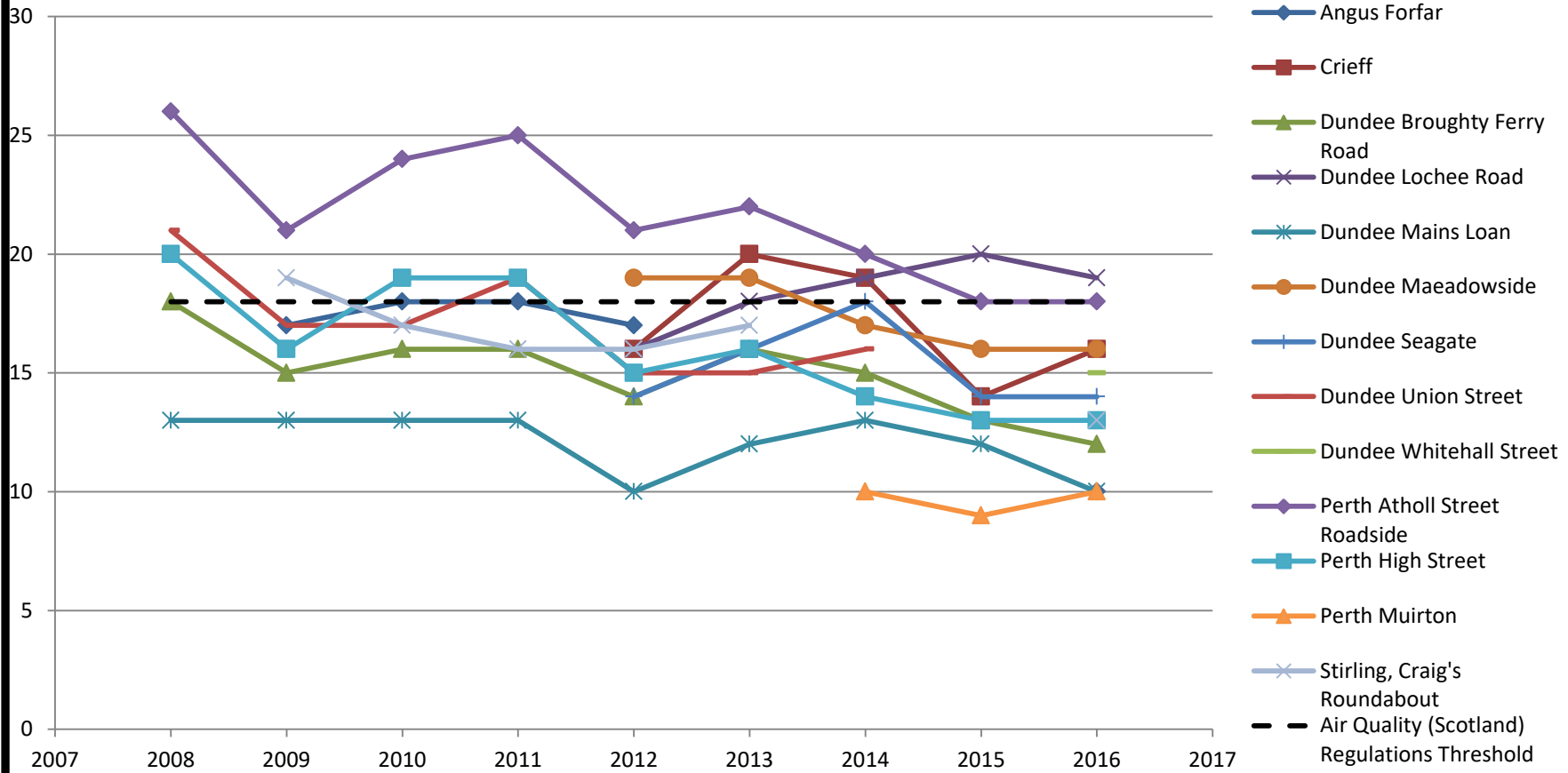


Fig 6.2: Indicator H1(b) Air Quality - PM10



Source: Air Quality in Scotland

Indicator H1: From figs 6.1-6.2 it can be seen that:

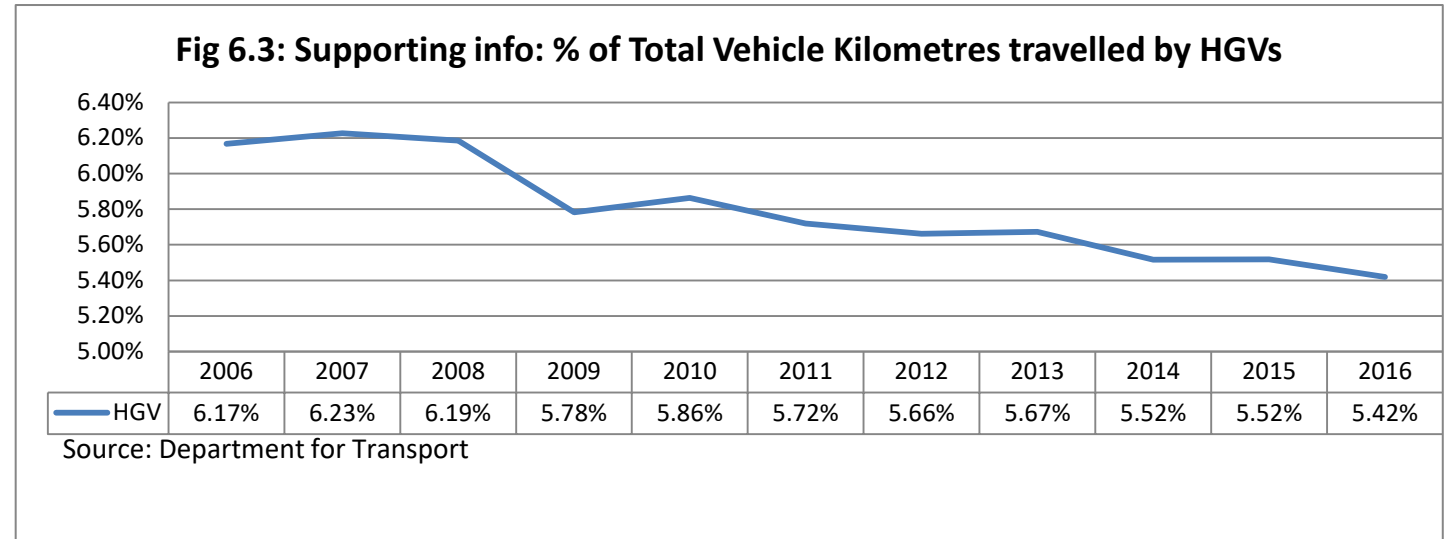
- sites in Dundee (Seagate, Whitehall St and Lochee Rd) and Perth (Atholl St) have regularly exceeded the National Target for NO2
- sites in Crieff, Dundee (Meadoside and Lochee Rd) and Perth (Atholl St/High St) have regularly exceeded the National Target for PM10

These measurements resulted in the identification of Air Quality Management Areas for Crieff, Dundee City Centre and Perth City Centre. Subsequently the declaration within the Scottish Government’s programme for government 2017/18 of Low Emission Zones to be extended to the AQMAs.

The air quality in any location is subject to both the sources (i.e. traffic) and the local environment. The primary reference for air quality in each council area will be their respective annual Air Quality Monitoring Reports¹².

However, to give an indication of general trends that affect air quality it is useful to note:

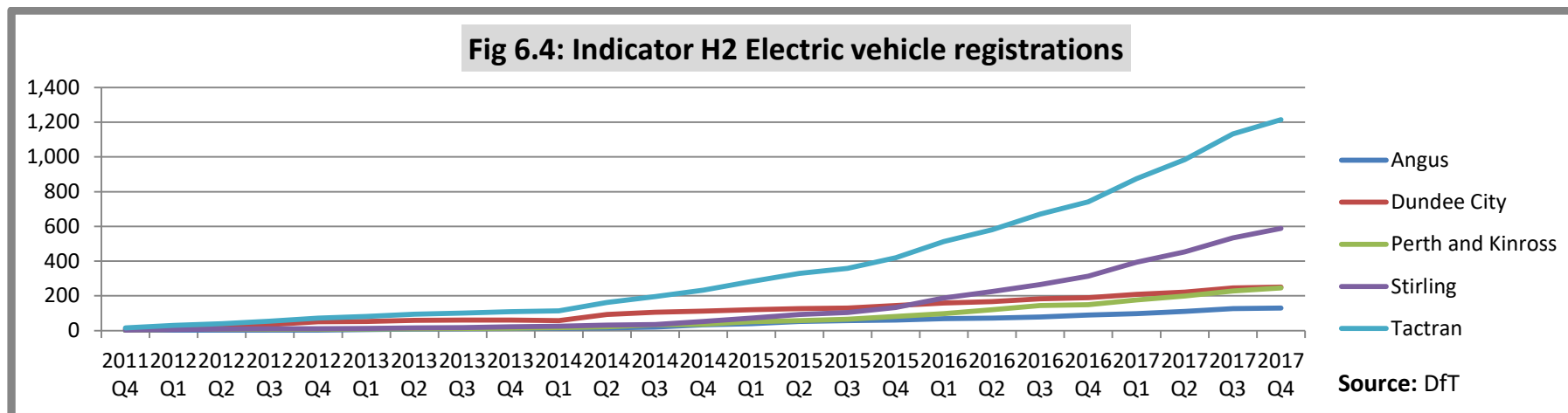
- [Traffic volumes](#) and in particular [congestion](#) levels
- [Volume of diesel vehicles and HGVs](#) (see Fig 6.3)



To address both climate change aspirations and issues of local air quality, the Scottish Government have set targets in the Climate Change Plan including the ‘% of car/van sales that are classified as low emission’. The proportion of motor vehicles that are electric is a key indicator of progression towards this target. Fig 6.4 show the growth of electric vehicle registrations across the region since 2011, however this continues to need to be understood as a % of the total new sales (2018: 2.1%¹³).

¹² Air quality monitoring reports: [Angus](#), [Dundee](#), [Perth&Kinross](#), [Stirling](#)

¹³ Scottish Government [‘CLIMATE CHANGE PLAN The Third Report on Proposals and Policies 2018-2032’](#) February 2018



Helping to reduce noise generated on the Tactran transport network

A noise indicator was proposed in the monitoring framework approved in 2016, anticipating work emerging from Transport Scotland’s Transportation Noise Action Plan. This work identified candidate noise management areas (i.e. potential locations where estimated traffic volumes suggest that noise levels may exceed acceptable tolerances). This work is ongoing, and introducing a Noise indicator will be kept under review subject to the outputs of the Transportation Noise Action Plan. The Scottish Government have mapped anticipated noise levels based on transport sources at [‘Scotland’s noise’](#) webpage.

Promoting a culture of active and healthy lifestyles

Promoting active and healthy lifestyles is a major theme for each of the four community planning partnership both for physical and mental wellbeing.

Numbers walking and cycling

[Mode share](#) gives an indicator of the proportion of trips being made by walking and cycling, albeit we must remember that this only relates to commuting trips (approximately 1 in 4 trips) and also the trip types which are not necessarily those that are most likely to be made by walking or cycling. Nonetheless the mode share data suggests that approximately:

- 15% of work trips are made by walking and
- 2% of work trips are made by cycle

Fig 6.5 shows the frequency of walking as a mode of travel in the last seven days for each of the Local Authority areas.

Indicator H3: Fig 6.4 suggests that the frequency of walking at least once a week as a mode of travel has declined across Tactran, a trend reflected in both SHS and Census travel to work data.

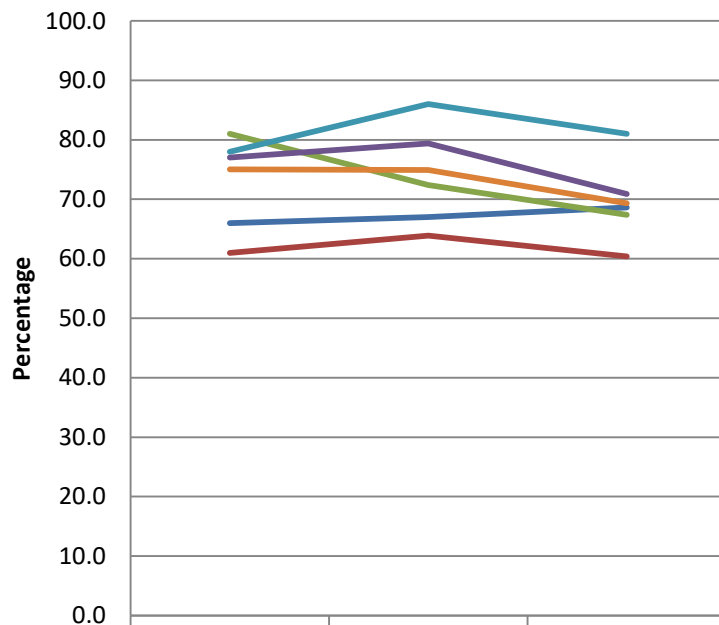
Council and Sustrans Cycle Count Data: The Council's and Sustrans have a network of cycle counters which provide both an indication of cyclists on a route, and when combined a indicator of rate of growth of cycling within an area

Sustrans BikeLife: Bike Life is an assessment of city cycling development including infrastructure, travel behaviour, satisfaction, the impact of cycling, and new initiatives.

Dundee & Stirling are preparing bikelife reports.

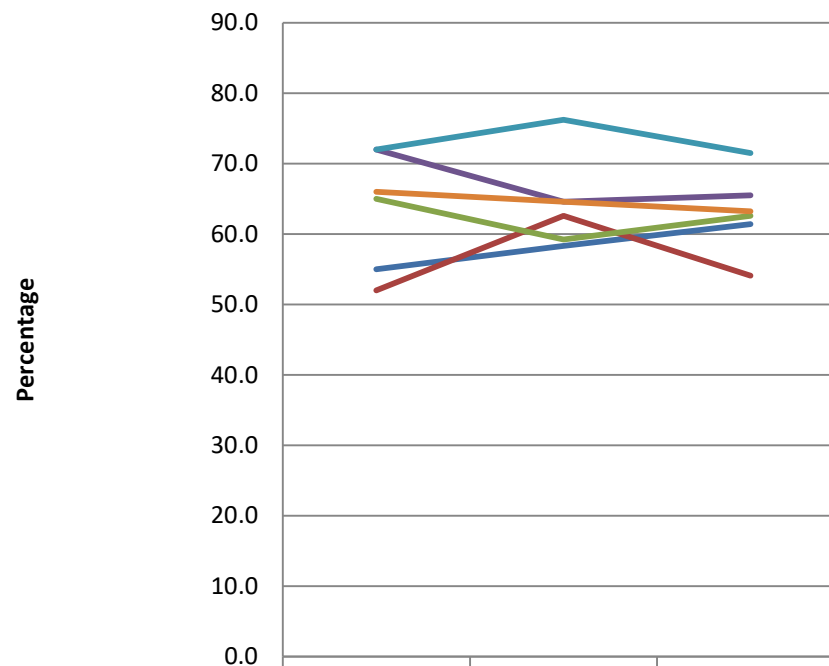
<https://www.sustrans.org.uk/bikelife>

Fig 6.5: Indicator H3 % of People walking at least once as means of transport in previous 7 days



	2012	2014	2016
Scotland	66.0	67.0	68.6
Angus	61.0	63.9	60.4
Dundee City	81.0	72.4	67.4
Perth & Kinross	77.0	79.4	70.9
Stirling	78.0	86.0	81.0
Tayside & Central	75.0	74.9	69.3

Fig 6.6: Supporting info: % of People walking at least once for pleasure/fitness in previous 7 days



	2012	2014	2016
Scotland	55.0	58.3	61.4
Angus	52.0	62.6	54.1
Dundee City	65.0	59.2	62.6
Perth & Kinross	72.0	64.6	65.5
Stirling	72.0	76.2	71.5
Tayside & Central	66.0	64.6	63.2

Source: [TATIS \(local authority tables\)](#)

Walking and cycling to school

Fig 6.7 summarises the proportion of children taking active travel modes to school, and tables 6.2 -6.6 show the detailed information for each council area.

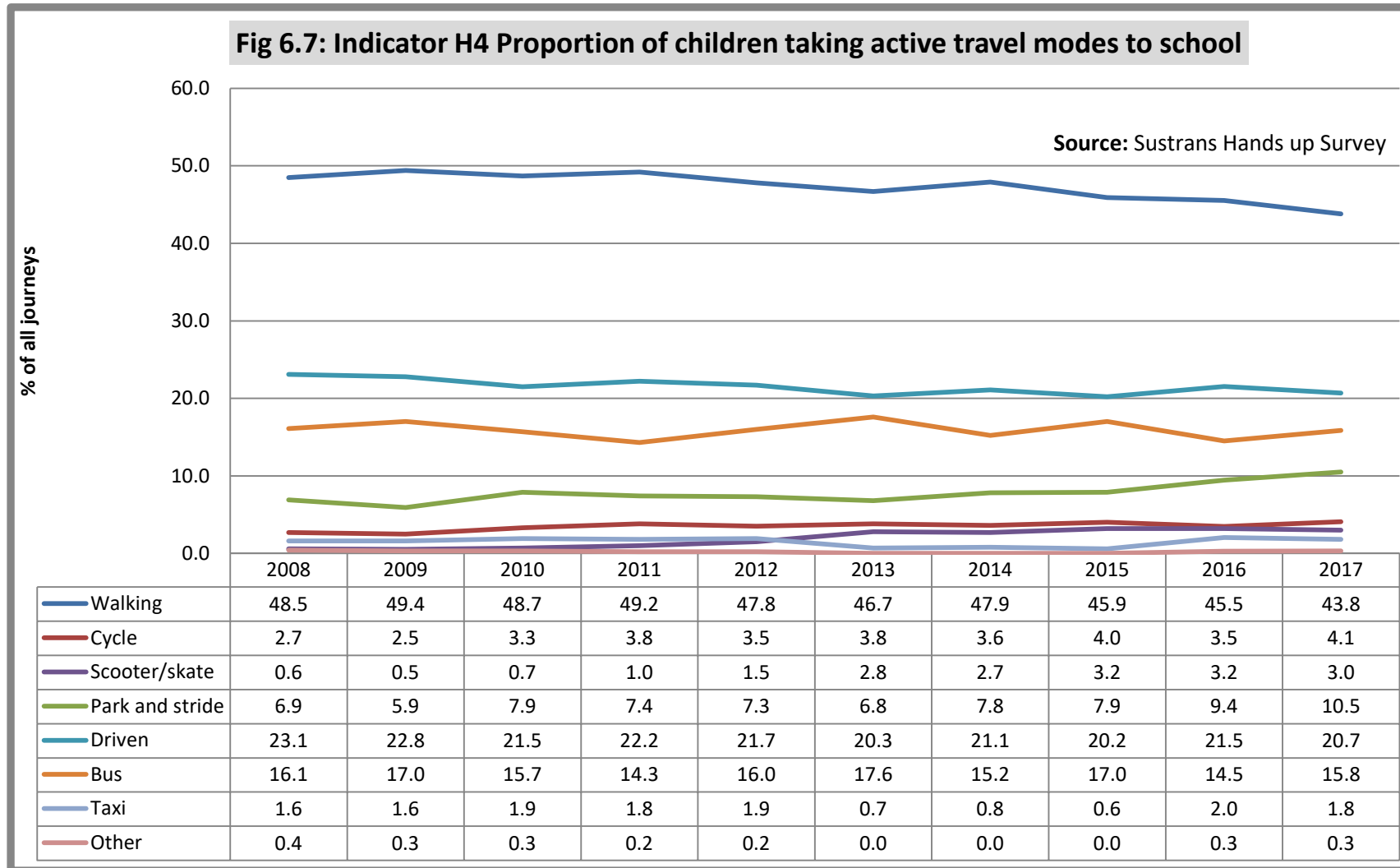


Table 6.2: Indicator H2 Proportion of children taking active travel modes to school: Angus

School Type	Year	Walk	Cycle	Scooter / Skate	Park & Stride	Driven	Bus	Taxi	Other	Total
Primary	2008	51.8%	2.3%		7.3%	24.8%	11.5%	1.7%		6,790
Primary	2009	54.6%	2.6%	0.3%	7.0%	26.2%	7.4%	1.6%	0.2%	6,767
Primary	2010	51.3%	2.3%	0.4%	7.0%	29.8%	7.4%	1.6%	0.3%	5,575
Primary	2011	50.9%	3.4%	0.6%	7.8%	27.6%	7.4%	2.1%	0.2%	6,188
Primary	2012	50.3%	3.3%	1.6%	7.3%	27.4%	8.6%	*	*	6,414
Primary	2013	52.7%	3.2%	2.7%	6.5%	25.1%	8.2%	1.5%	0.1%	6,044
Primary	2014	49.6%	3.4%	3.3%	8.1%	27.2%	7.0%	*	*	7,735
Primary	2015	47.8%	4.5%	4.7%	8.4%	25.8%	7.1%	1.4%	0.2%	8,249
Primary	2016	49.1%	3.4%	3.2%	8.0%	26.7%	8.7%	0.9%	0.2%	3,902
Primary	2017	46.3%	4.7%	5.2%	10.0%	26.6%	6.3%	*	*	6,741
Secondary	2008	47.2%	5.4%	*	4.3%	13.6%	28.4%	0.6%	*	3,147
Secondary	2009	55.5%	3.1%	0.2%	3.0%	11.5%	25.1%	1.2%	0.3%	4,530
Secondary	2010	54.8%	3.2%	*	3.6%	12.2%	24.8%	1.1%	*	5,426
Secondary	2011	57.2%	2.6%	0.3%	3.2%	11.9%	23.6%	0.9%	0.2%	4,623
Secondary	2012	54.5%	1.3%	0.5%	4.6%	10.7%	27.3%	0.9%	0.3%	3,926
Secondary	2013	52.2%	1.5%	*	3.6%	13.0%	28.4%	0.9%	*	4,667
Secondary	2014	54.1%	2.4%	0.2%	3.9%	13.2%	24.7%	1.3%	0.2%	5,437
Secondary	2015	54.8%	2.7%	0.1%	3.8%	12.6%	24.8%	1.1%	0.1%	5,227
Secondary	2016	58.1%	1.3%	0.7%	4.6%	10.4%	23.4%	0.9%	0.7%	1,351
Secondary	2017	54.0%	2.0%	0.5%	4.2%	13.3%	24.8%	0.9%	0.4%	4,619

Source: [Sustrans Hands Up Survey](#)

Table 6.3: Indicator H2 Proportion of children taking active travel modes to school: Dundee

School Type	Year	Walk	Cycle	Scooter / Skate	Park & Stride	Driven	Bus	Taxi	Other	Total
Primary	2008	55.5%	0.7%	0.3%	10.9%	27.2%	3.1%	1.7%	0.8%	7,696
Primary	2009	56.1%	0.7%	0.4%	6.8%	29.9%	4.2%	1.3%	0.5%	6,784
Primary	2010	52.1%	0.7%	0.4%	12.7%	27.4%	4.4%	1.8%	0.4%	4,826
Primary	2011	54.6%	1.2%	0.6%	9.3%	27.8%	4.7%	1.6%	0.2%	5,917
Primary	2012	54.1%	1.7%	0.9%	10.7%	27.1%	3.2%	1.8%	0.4%	5,352
Primary	2013	50.1%	3.1%	4.4%	9.5%	27.3%	3.5%	*	*	5,462
Primary	2014	50.6%	2.7%	3.2%	10.7%	27.8%	3.3%	*	*	8,442
Primary	2015	47.6%	3.6%	3.9%	13.2%	26.4%	3.6%	1.7%	0.0%	5,347
Primary	2016	47.4%	3.5%	3.7%	12.8%	27.5%	2.9%	1.9%	0.3%	8,495
Primary	2017	46.3%	4.5%	3.6%	16.4%	24.6%	2.5%	1.7%	0.5%	9,185
Secondary	2008	51.9%	3.4%	0.7%	6.8%	20.8%	14.1%	1.3%	1.0%	3,658
Secondary	2009	-	-	-	-	-	-	-	-	-
Secondary	2010	68.5%	2.1%	*	4.4%	14.0%	9.6%	*	0.0%	387
Secondary	2011	49.8%	1.1%	0.6%	6.9%	20.7%	19.4%	1.4%	0.2%	2,828
Secondary	2012	41.9%	0.9%	0.4%	4.8%	24.0%	26.4%	1.1%	0.5%	3,000
Secondary	2013	51.8%	2.0%	0.3%	6.2%	20.3%	17.6%	1.4%	0.4%	1,476
Secondary	2014	56.7%	1.0%	0.2%	7.6%	20.0%	13.1%	1.3%	0.1%	3,598
Secondary	2015	48.6%	0.8%	*	6.0%	21.9%	21.7%	0.8%	*	4,166
Secondary	2016	48.4%	1.0%	0.4%	6.4%	19.1%	23.2%	1.3%	0.3%	5,079
Secondary	2017	48.5%	1.5%	0.2%	6.3%	20.7%	21.3%	1.2%	0.3%	4,849

Source: [Sustrans Hands Up Survey](#)

Table 6.4: Indicator H2 Proportion of children taking active travel modes to school: Perth & Kinross

School Type	Year	Walk	Cycle	Scooter / Skate	Park & Stride	Driven	Bus	Taxi	Other	Total
Primary	2008	46.0%	3.0%	1.1%	6.3%	30.3%	11.3%	2.0%	0.0%	7,247
Primary	2009	49.4%	3.4%	0.9%	8.0%	27.4%	8.1%	2.6%	0.1%	7,105
Primary	2010	49.7%	5.1%	1.2%	9.2%	24.3%	7.8%	2.6%	0.1%	9,109
Primary	2011	46.9%	6.1%	2.0%	8.5%	25.4%	8.7%	2.3%	0.2%	8,988
Primary	2012	46.7%	5.7%	3.2%	8.5%	24.8%	8.1%	2.7%	0.1%	9,275
Primary	2013	43.5%	6.1%	4.8%	9.1%	24.4%	10.0%	*	*	9,158
Primary	2014	44.1%	6.3%	5.1%	10.9%	23.2%	7.9%	2.0%	0.5%	9,505
Primary	2015	42.9%	6.4%	6.2%	11.7%	22.9%	7.6%	1.8%	0.4%	9,569
Primary	2016	43.6%	6.6%	6.5%	13.0%	21.5%	7.1%	1.6%	0.1%	6,427
Primary	2017	41.2%	6.7%	5.6%	14.6%	22.6%	7.1%	2.0%	0.2%	7,313
Secondary	2008	36.8%	1.9%	*	2.5%	10.9%	46.2%	1.2%	*	3,009
Secondary	2009	36.2%	1.1%	0.2%	2.8%	12.1%	46.0%	1.1%	0.6%	4,718
Secondary	2010	35.4%	2.0%	0.2%	3.7%	10.4%	46.7%	1.3%	0.3%	4,157
Secondary	2011	35.2%	2.7%	0.1%	3.3%	11.8%	45.8%	0.8%	0.3%	4,144
Secondary	2012	38.0%	1.8%	0.2%	4.0%	11.7%	43.1%	0.9%	0.2%	5,680
Secondary	2013	41.1%	0.9%	0.1%	2.4%	10.8%	43.4%	1.2%	0.1%	6,049
Secondary	2014	42.2%	0.7%	0.2%	2.3%	11.5%	41.9%	1.2%	0.1%	6,060
Secondary	2015	40.6%	0.6%	0.2%	2.6%	9.3%	45.3%	1.2%	0.2%	5,995
Secondary	2016	37.7%	1.0%	0.2%	2.4%	11.6%	45.4%	1.4%	0.3%	4,885
Secondary	2017	36.8%	1.0%	0.2%	3.0%	12.4%	45.0%	1.5%	0.2%	4,512

Source: [Sustrans Hands Up Survey](#)

Fig 6.5: Indicator H2 Proportion of children taking active travel modes to school: Stirling

School Type	Year	Walk	Cycle	Scooter / Skate	Park & Stride	Driven	Bus	Taxi	Other	Total
Primary	2008	50.1%	5.4%	1.7%	7.9%	25.7%	6.3%	2.3%	0.5%	4,954
Primary	2009	50.8%	4.8%	1.5%	7.5%	28.9%	4.9%	*	*	3,648
Primary	2010	49.5%	5.7%	2.0%	11.7%	25.8%	4.3%	*	*	4,221
Primary	2011	48.6%	7.5%	2.3%	12.3%	24.3%	3.7%	0.9%	0.5%	4,105
Primary	2012	48.7%	8.5%	2.0%	10.3%	25.2%	4.0%	1.3%	0.2%	3,834
Primary	2013	46.6%	9.2%	5.5%	10.5%	22.9%	3.3%	2.0%	0.0%	4,515
Primary	2014	49.3%	7.8%	5.4%	10.3%	22.5%	3.5%	1.1%	0.1%	5,491
Primary	2015	47.4%	8.3%	5.5%	9.8%	23.6%	4.0%	*	*	6,164
Primary	2016	43.4%	6.3%	6.0%	13.6%	24.3%	3.9%	2.1%	0.3%	4,888
Primary	2017	45.7%	8.1%	5.5%	13.5%	22.3%	3.4%	1.5%	0.1%	5,978
Secondary	2008	36.6%	0.7%	0.2%	2.5%	13.1%	45.7%	1.2%	0.2%	3,151
Secondary	2009	29.0%	2.3%	*	3.2%	12.7%	50.8%	1.8%	*	2,574
Secondary	2010	38.1%	2.9%	0.3%	5.9%	13.6%	36.0%	2.1%	1.2%	2,170
Secondary	2011	52.4%	4.3%	0.4%	4.6%	17.9%	18.2%	1.6%	0.5%	1,337
Secondary	2012	54.0%	2.8%	*	4.5%	13.9%	21.1%	3.0%	*	1,584
Secondary	2013	38.0%	1.1%	*	3.1%	8.6%	48.1%	1.0%	*	1,977
Secondary	2014	37.4%	1.5%	*	2.8%	14.1%	42.2%	1.6%	*	3,339
Secondary	2015	39.0%	1.4%	0.1%	3.3%	13.3%	40.7%	2.0%	0.1%	3,962
Secondary	2016	53.5%	1.1%	*	6.7%	14.3%	22.4%	1.0%	*	1,666
Secondary	2017	37.2%	1.4%	*	3.1%	14.8%	41.8%	1.4%	*	4,589

Source: [Sustrans Hands Up Survey](#)

Indicator H2: The [Sustrans travel to school](#) data suggests that across the region between 2008 and 2017:

- Whilst walking to school is by far the most popular mode (approximately 44%), there appears to have been a decline since 2008, which is almost matched by an increase in those 'parking and striding'.
- A small and gradual increase in those cycling to approximately 4% of all trips
- Hence, active travel to school is increasing if you include park and stride as active travel

However, when primary and secondary schools are considered in more detail across the Council areas:

- Angus
 - Little difference between % of primary and secondary children walking to school. At the primary age the % of those walking has declined while those cycling/park and striding/using scooters has increased. No decline in the % of primary pupils being driven to school
 - A greater % of primary children cycle compared to secondary pupils
 - Approximately twice as many primary pupils are driven to school compared to secondary pupils
- Dundee
 - Little difference between % of primary and secondary children walking to school. At the primary age the % of those walking has declined while those cycling/park and striding/using scooters has increased. No long term indication of a decline in the % of primary pupils being driven to school
 - A greater % of primary children cycle compared to secondary pupils
 - A similar % of primary and secondary pupils are driven to school
- Perth & Kinross
 - Little difference between % of primary and secondary children walking to school. At the primary age the % of those walking has declined while those cycling/park and striding/using scooters has increased. % of primary pupils being driven to school has declined.
 - A greater % of primary children cycle compared to secondary pupils
 - Approximately twice as many primary pupils are driven to school compared to secondary pupils
 - Approx. 45% secondary pupils catch a bus to school
- Stirling
 - Little difference between % of primary and secondary children walking to school. At the primary age the % of those walking has declined while those cycling/park and striding/using scooters has increased. Slight decline in % of primary pupils being driven to school.
 - A greater % of primary children cycle compared to secondary pupils. Approximately 8% of primary pupils cycle to school
 - Approximately twice as many primary pupils are driven to school compared to secondary pupils
 - Approx. 40% secondary pupils catch a bus to school

7. Safety and Security

RTS5 To improve the real and perceived safety and security of the transport network

Table 7.1: Safety and security objectives and indicators				
<u>National outcomes</u>	RTS Sub-Objectives	Transport outcome indicator	Supporting information ¹⁴	LOIP Indicators
Premature mortality	5A: Improving transport related safety	S1 Number of (a) persons / (b) children killed or seriously injured in road accidents	Accident rates	road traffic casualties, rate per 10,000 pop (Stirling)
Perceptions of local area	5B: Improving real or perceived levels of personal security related to the transport network	S2 How safe adults feel when travelling by bus S3 people who feel very/fairly safe walking alone in their neighbourhood	Experiences of bus use Transport Focus – Bus Passenger Survey	
Journeys by active travel				

¹⁴ Trends/factors influencing outcome indicator such as factors generating or constraining demand

Improving transport related safety

Figures 7.1 and 7.2 show the number of (a) persons and (b) children killed or seriously injured in road accidents

Fig 7.1: Indicator S1(a) Number of persons killed or seriously injured in road accidents

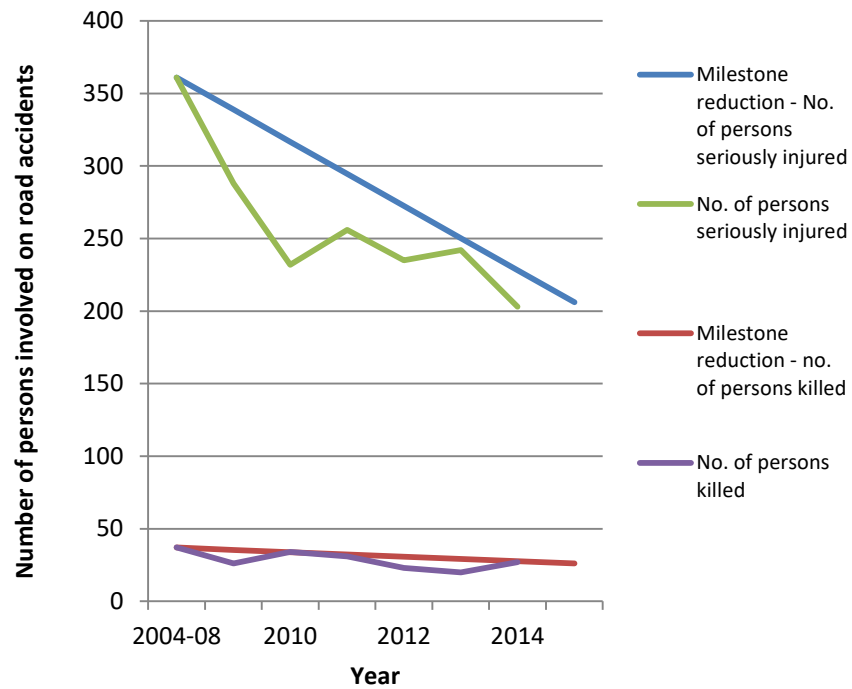
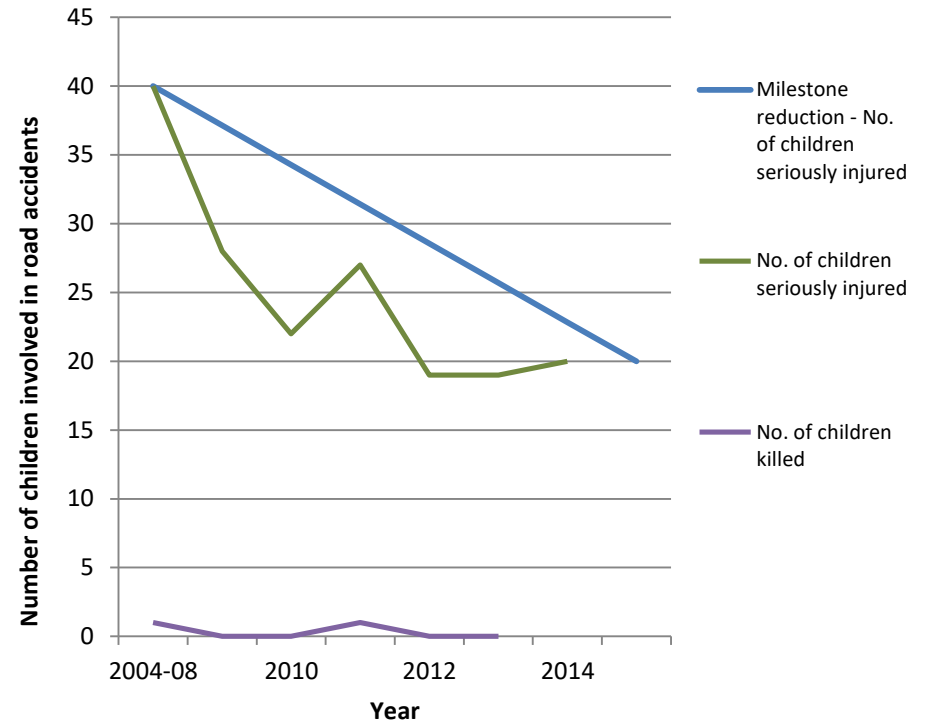


Fig 7.2: Indicator S1(b) Number of children killed or seriously injured in road accidents



Source: [Reported Road Casualties Scotland 2016](#)).

Indicator S1: Numbers killed or seriously injured continue to decline at a faster rate than the national milestone targets

Improving real or perceived levels of personal security related to the transport network

People’s perceptions about safety on buses or train, and indeed their neighbourhoods will influence whether they choose to use the bus or train, or walk or cycle, or indeed whether as parents they encourage or allow their children to choose these modes of travel. Fig 7.3-7.5 show how safe people feel walking in their neighbourhood and using the bus and train.

Fig 7.3: Indicator S2 How safe adults feel when travelling by bus in the evening

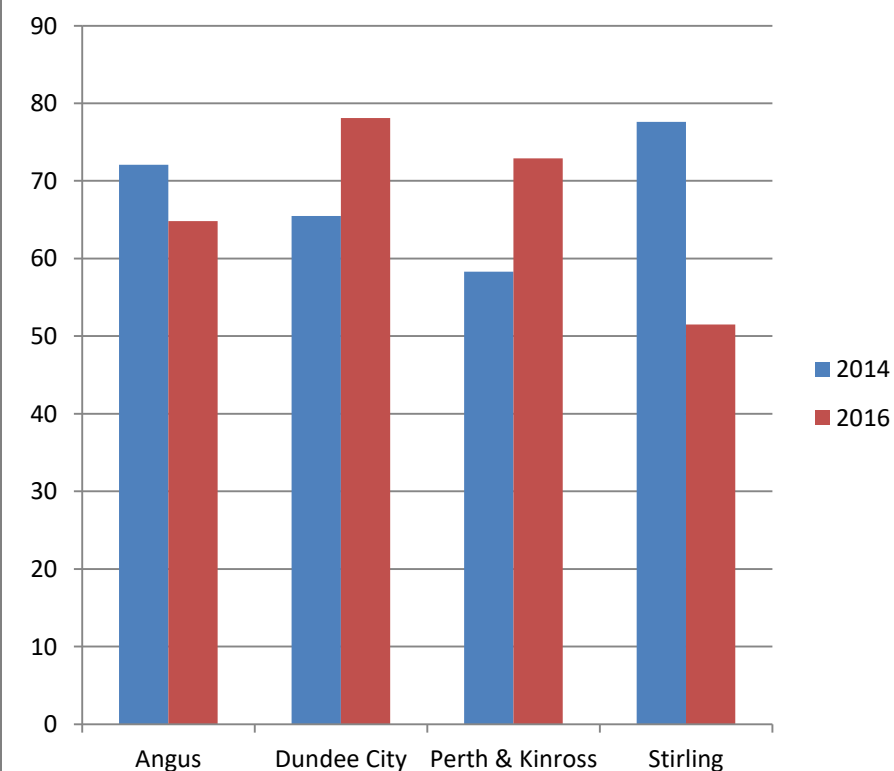
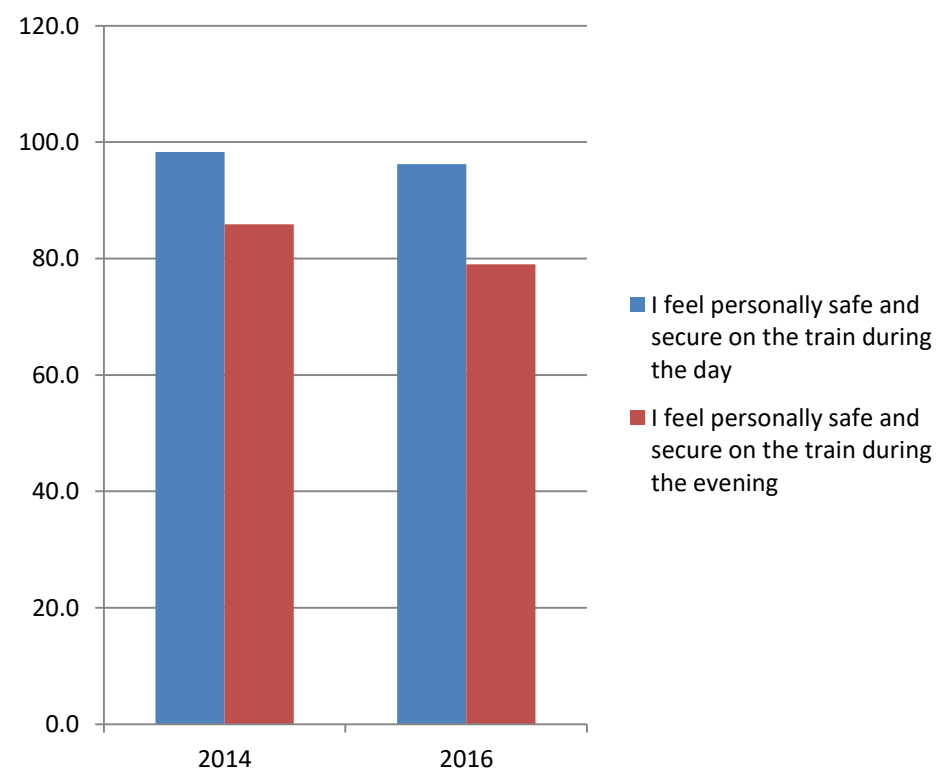
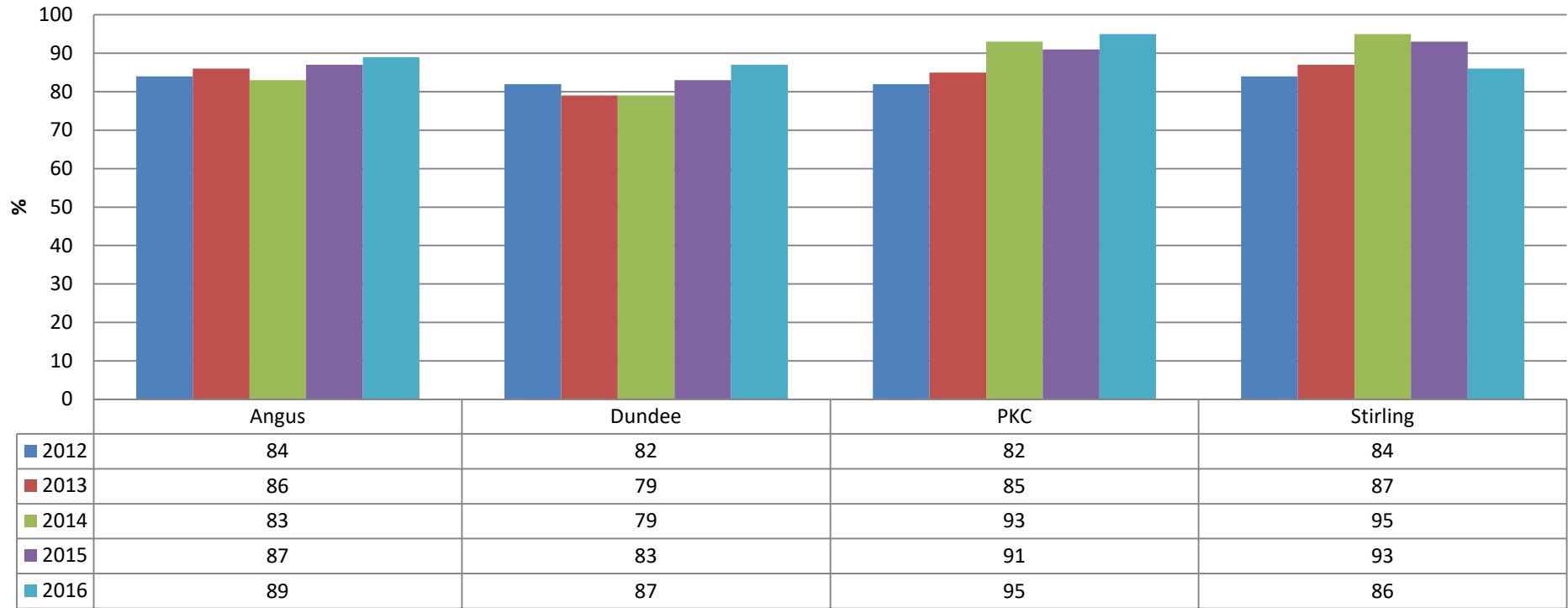


Fig 7.4: Supporting Info: How safe adults feel when travelling by train



Source: [TATIS \(local authority tables\)](#)

Fig 7.5: Indicator S3 %people who feel very/fairly safe walking alone in their neighbourhood



Source: [TATIS \(local authority tables\)](#)

Indicator S2/S3: The data suggests:

- Improved perception of safety when travelling by bus in Dundee and Perth & Kinross and a deterioration in Angus and Stirling
- The majority of people feel safe walking in their neighbourhood. With the perception of safety appearing to be improving in most areas, except Stirling
- A small decrease in the perception of safety on the train

8. Integration

RTS6 To improve integration, both within transport and between transport and other policy areas

Table 8.1: Integration objectives and indicators				
High level outcomes	RTS Sub-Objectives	Transport outcome indicator	Supporting information ¹⁵	LOIP Indicators
National Transport Strategy : Improve integration...by working to ensure a smooth connection between different forms of transport	6A: Improving integration of all transport modes	I1 Transport hubs with integration facilities	Difficulties experienced when changing between Public Transport (TATiS Social Survey Tables) Bus Passenger Survey – Transport Focus	A low carbon hub at Broxden (Perth&Kinross) A integrated bus/rail interchange in Perth Centre (Perth&Kinross)
	6B: Ensuring integration with land-use planning	I2 Compatibility of SDP, LDPs and National Park Plans with RTS objectives		
	6C Ensuring a fit with other relevant national, regional, local strategies and policies	I3 Compatibility of RTS objectives with national, regional and local strategies		

¹⁵ Trends/factors influencing outcome indicator such as factors generating or constraining demand

Improving integration of all transport modes

Table 8.2: Indicator I1 Transport hubs with integration facilities									
	Onward bus/coach/rail connections		Cycle Integration			Car parking		Taxi	Facilities and information
Strategic Interchanges	Bus/rail station nearby	Coach service	Cycle Parking	Cycle Hire	NCN within 1/2mile	Number of car parking spaces (including public long stay nearby)	Number of EV charging points	Rank (y/n)	Info re. onward bus/coach/rail travel (y/n)
A90 Interchange (Forfar)	N	Y	N	N	N	0	0	N	Y
Aberfeldy (Chapel Street)	N	N	N	N	Y	0	0	N	Y
Arbroath Rail Station	Y	N	Y	N	Y	18	0	Y	Y
Arbroath Bus Station	Y	N	N	N	Y	0	0	N	Y
Auchterarder (High Street)	Y	N	N	N	N	50	1	N	Y
Blairgowrie (Wellmeadow)	N	N	N	N	N	50	0	Y	Y
Brechin (Clerk Street)	N	N	N	N	N	0	0	N	Y
Broxden P&R	N	Y	Y	N	Y	400	6	N	Y
Callander (Station Road)	N	N	N	N	Y	194	1	N	Y
Castleview P&R	N	Y	Y	Y	Y	200	2	N	Y
Crianlarich Rail Station	Y	Y	Y	N	N	10	0	N	Y
Crieff (High Street)	N	Y	N	N	N	0	0	N	Y
Dundee Bus Station	Y	Y	N	N	Y	0	1	Y	Y
Dundee city centre	Y	N	Y	N	Y	0	1	Y	Y
Dundee Rail Station	Y	N	Y	Y	Y	0	0	Y	Y
Forfar (East High Street)	N	N	N	N	N	0	0	N	Y
Gleneagles Rail Station	Y	N	Y	N	N	40	0	N	Y
Killin	N	N	Y	N	Y	40	1	N	Y

Table 8.2: Indicator I1 Transport hubs with integration facilities									
	Onward bus/coach/rail connections		Cycle Integration			Car parking		Taxi	Facilities and information
Strategic Interchanges	Bus/rail station nearby	Coach service	Cycle Parking	Cycle Hire	NCN within 1/2mile	Number of car parking spaces (including public long stay nearby)	Number of EV charging points	Rank (y/n)	Info re. onward bus/coach/rail travel (y/n)
Kinross (Muirs)	N	Y	N	N	Y	0	0	N	Y
Kinross P&R	N	Y	Y	N	Y	126	4	N	Y
Kirriemuir (High Street)	N	N	N	N	N	0	0	N	Y
Montrose (High Street)	N	N	Y	N	Y	24	0	N	Y
Ninewells	N	N	Y	N	Y	1000+	1	Y	Y
Perth Bus Station	Y	Y	Y	N	Y	0	0	Y	Y
Perth Mill Street	Y	N	N	N	Y	450	2	Y	Y
Perth Rail Station	Y	N	Y	Y	Y	160	0	Y	Y
Perth South Street	Y	Y	Y	N	Y	0	0	Y	Y
Pitlochry (Atholl Road)	Y	Y	Y	N	Y	0	0	N	Y
Pitlochry Rail Station	Y	Y	Y	N	Y	12	0	Y	Y
Scone P&R	N	N	Y	N	N	50	0	N	Y
Springkerse P&R	N	N	Y	Y	Y	215	0	N	Y
Stirling Bus Station	Y	Y	Y	Y	Y	1300	0	Y	Y
Stirling Rail Station	Y	N	Y	Y	Y	276	1	Y	Y
Tyndrum	Y	Y	N	N	N	0	0	N	Y

Source: Network Rail/ScotRail & Local Authorities

Indicator I1: Table 8.2 suggests the level of interchange facilities at ‘interchange sites across the area is mixed

Ensuring integration with land-use planning

Table 8.3: Indicator I2 Compatibility of SDP, LDPs and National Park Plans with RTS objectives

	1. Economy <ul style="list-style-type: none"> strategic transport interventions identified in action plans 	2. Accessibility, Equity & Social Inclusion <ul style="list-style-type: none"> Promote access for all to jobs, services and opportunities 	3. Environment <ul style="list-style-type: none"> Promote sustainable modes 	4. Health & Wellbeing <ul style="list-style-type: none"> Reduce health impacts Promote active travel 	5. Safety & Security <ul style="list-style-type: none"> Promote safety and security 	6. Integration Locate to: <ul style="list-style-type: none"> Reduce demand for travel and enable travel by more sustainable modes Mode integration
TayPlan (Adopted 2017) link	P3 First Choice for investment	P5 Town Centres First	P2 Shaping Better Quality Places			P1 Location priorities
	P10 Connecting People Places & Markets			P8 Green Networks		P5 Town Centres First
Angus LDP (Adopted Sept 2016) link	TC11 Park and Ride Facilities	DS2 Accessible Development				Spatial strategy TC11 Park and Ride Facilities
		DS3 Design Quality and Placemaking				
					DS4 Amenity	
Dundee LDP (Proposed Plan 2017) link	P55 Dundee Airport P57 Transportation Interchanges	P21 Town Centre First Principle		P29 Outdoor Access & the Dundee Green Network	P56 parking	P21 Town Centre First Principle
				P40 Air quality		
		P54 Safe & Sustainable Transport				
Perth & Kinross LDP (Proposed Plan 2017) link	P4 Perth City Transport & Active Travel	P1 Placemaking		P15 Public Access	P1 Placemaking	P4 Perth City Transport & Active Travel
		P13 Retail & Commercial Leisure Proposals		P55 Air quality Management Areas	P8 Rural Business & Diversification	P7 Employment & Mixed use areas

Table 8.3: Indicator I2 Compatibility of SDP, LDPs and National Park Plans with RTS objectives

	1. Economy <ul style="list-style-type: none"> strategic transport interventions identified in action plans 	2. Accessibility, Equity & Social Inclusion <ul style="list-style-type: none"> Promote access for all to jobs, services and opportunities 	3. Environment <ul style="list-style-type: none"> Promote sustainable modes 	4. Health & Wellbeing <ul style="list-style-type: none"> Reduce health impacts Promote active travel 	5. Safety & Security <ul style="list-style-type: none"> Promote safety and security 	6. Integration <p>Locate to:</p> <ul style="list-style-type: none"> Reduce demand for travel and enable travel by more sustainable modes Mode integration
		P58 Transport Standards & Accessibility Requirements				P13 Retail & Commercial Leisure Proposals
Stirling LDP (Modified Plan May 2018) link	P3 Provision of infrastructure	P1.1 Site Planning		P1.3 Green infrastructure & open space	P1.1 Site Planning	Spatial Strategy
		P2.6 Supporting Town Centres	P4 Greenhouse gas Reduction			P2.6 Supporting Town Centres
		P2.7 Retail & Footfall generating uses		P2.7 Retail & Footfall generating uses		
		P3.1 Addressing the travel demands of new development				
Loch Lomond & the Trossachs LDP (2015) Link		Overarching Policy 2 Development Requirements				Spatial Strategy
		Transport Policy 2				
				Transport Policy 3		
Cairngorms LDP (adopted 2015) link		P2 Supporting Economic Growth	P3 Sustainable Design			Spatial Strategy
			P2 Supporting Economic Growth			

Indicator I2: Table 8.3 suggests that there is good compatibility of SDP, LDPs and National Park Plans with RTS objectives

Ensuring a fit with other relevant national, regional, local strategies and policies

Table 8.4: Indicator I3 Compatibility of RTS objectives with relevant national, regional, local strategies and policies

	1. Economy: To ensure transport helps to deliver regional prosperity.	2. Accessibility, Equity & Social Inclusion: To improve accessibility for all, particularly for those suffering from social exclusion.	3. Environment: To ensure that the transport system contributes to safeguarding the environment and promotes opportunities for improvement.	4. Health & Well-Being: To promote the health and well-being of communities.	5. Safety & Security: To improve the real and perceived safety and security of the transport network.	6. Integration: To improve integration, both within transport and between transport and other policy areas.
National Transport Strategy	Promote economic growth	Promote social inclusion	Protect our environment and improve health		Improve safety	Improve integration
Angus LOIP	Economy		Environment	People	Environment	
Dundee City Plan	Fair Work & Enterprise			Health, Care & Wellbeing	Community Safety & Justice	
		Building Strong & Empowered Communities				
				Children & Families		
Perth & Kinross LOIP	Promoting a prosperous, sustainable and inclusive economy			Giving every child the best start in life		Promoting a prosperous, sustainable and inclusive economy
		Creating a safe and sustainable place for future generations				
				Supporting people to lead independent, healthy and active lives		
Stirling Plan	Prosperous Stirling		Resilient Stirling	Healthy Stirling	Resilient Stirling	

Indicator I3: Table 8.4 suggests that there is good compatibility of RTS objectives with relevant national, regional, local strategies and policies

Other useful data sources

Cycling Scotland Annual Cycling Monitoring Reports

KPMG Report to the Confederation of Passenger Transport (Scotland) 'Trends in Scottish bus patronage' November 2017

[Shaping Perth's Transport Future: A Transport Strategy for Perth and the Wider Region](#)

Rural Youth Project '2018 Survey Report'

[Stirling LTS 2017-2027 and monitoring reports](#)

[Tactran Rail User Surveys](#)

West Highland Community Rail Partnership 'Potential Rail Use Survey' February 2017

[Office of Rail and Road](#)

[TayPlan 'Travel to Work Area Analysis' March 2016](#)

[TayPlan Demography & households Analysis 2017](#)

Appendix B

Accessibility Modelling Definitions

Employment Centres		Further Education Establishments		
Employment Centres	Type	Further Education Institution	Town	Postcode
Abertay University	University	Dundee College - Kingsway	Dundee	DD3 8LE
Arbroath Town Centre	Town Centre	Perth College	Perth	PH1 2NX
Bandeath Industrail Estate	Industrial estates/business parks	Angus College Arbroath	Arbroath	DD1 3EA
Brechin Business Park	Industrial estates/business parks	Forth Valley College Alloa	Alloa	FK10 1PX
Broadleys Business Park	Industrial estates/business parks	Forth Valley College Falkirk	Falkirk	FK2 9AD
Broxden Business Park	Industrial estates/business parks	Forth Valley College Stirling	Stirling	FK8 1RR
Castle Business Park	Industrial estates/business parks	Adam Smith College	Kirkcaldy	KY1 1EX
Claverhouse Industrial Estate	Industrial estates/business parks	Adam Smith College - Southfield Campus	Glenrothes	KY6 2SD
Dundee City Centre	City Centre	Carnegie College	Dunfermline	KY11 8DY
Dundee University	University	Cumbernauld College	Cumbernauld	G67 1HU
Fallin	Industrial estates/business parks	Elmwood College	Cupar	KY15 4JB
Forfar Town Centre	Town Centre	Carnegie College, Cowdenbeath Campus	Cowdenbeath	KY4 8HW
Forties Road Business Park	Industrial estates/business parks	Carnegie College, Rosyth Campus	Rosyth	KY11 2EA
Inveralmond Industrial Estate	Industrial estates/business parks	West Highland College UHI - Fort William	Fort William	PH33 6FF
Kingsway West Industrial Estate	Industrial estates/business parks	Oatridge College	Broxburn	EH52 6NH
Kirkton Industrial Estate	Industrial estates/business parks	Dundee College - Gardyne Campus	Dundee	DD5 1NY
Montrose Town Centre	Town Centre	Carnegie College, Halbeath Campus Fife KY11 8DY		
Dundee Ninewells Hospital	Hospital			

Employment Centres		Further Education Establishments		
Employment Centres	Type	Further Education Institution	Town	Postcode
Dundee Ninewells Technology Park	Industrial estates/business parks	Oban College	Oban	PA34 4RY
Orchardbank Industrial Estate	Industrial estates/business parks	Glasgow (city centre to cover various FE colleges)		
Perth Royal Infirmary	Hospital			
Perth City Centre	City Centre			
Springkerse Industrial Estate	Industrial estates/business parks			
Stirling Innovation Park	Industrial estates/business parks	Hospitals		
Stirling Royal Infirmary	Hospital	Hospital	Location	Postcode
Stirling City Centre	City Centre	Ninewells Hospital	Dundee	DD2 1SY
Stirling University	University	Perth Royal Infirmary	Perth	PH1 1NX
Strathcathro Hospital	Hospital	Forth Valley Hospital	Larbert	FK5 4WR
West Pitkerro Industrial Estate	Industrial estates/business parks	Queen Elizabeth Hospital	Glasgow	G51 4TF
SSE Perth	Office	Victoria Hospital	Kirkcaldy	KY2 5AH
Aviva	Office			
Prudential Craigforth	Office			
Murray Royal	Hospital			
Forth Valley Royal Hospital	Hospital			

Leisure Destinations					
Sport Centre Name	Swimming	Postcode	Sport Centre Name	Swimming	Postcode
Angus			PKC		
Arbroath Sports Centre	Yes	DD11 3EW	Breadlebane Community Campus	Yes	PH15 2DU
Brechin Community Campus	Yes	DD9 6LB	Live Active Atholl	No	PH16 5EA
Carnoustie Sports Centre	No	DD7 7JB	Bells Sport Centre	No	PH1 5HS
Forfar Community Campus	Yes	DD8 3TG	Blaigowrie High School Recreation Centre	No	PH10 6PW
Montrose Sports Centre	Yes	DD10 8TR	Live Active Blaigowrie	Yes	PH10 6PN

Leisure Destinations					
Sport Centre Name	Swimming	Postcode	Sport Centre Name	Swimming	Postcode
Saltire Leisure Centre	No	DD11 5JN	Live Active Auchterarder	No	PH3 1BL
Webster's Sports Centre	Yes	DD8 5AT	Live Active Letham Centre	No	PH1 2HJ
Carnoustie High School	Yes		Live Active Loch Leven	Yes	KY13 8SY
Monifieth High School	Yes		Live Active Rodney	No	PH2 7AA
Dundee			Strathearn Community Campus	Yes	PH7 3JN
Olympia Leisure Centre	Yes	DD1 3JU	Perth Leisure Pool	Yes	PH2 0HZ
Lochee Swim Centre	Yes	DD2 3AQ	Loch Leven Community Campus	No	KY13 8FQ
Grove Swim & Sports Centre	Yes	DD5 1AB	North Inch Community Campus	No	PH1 5BF
St. Paul's Swim & Sports Centre	Yes	DD3 0EH	Stirling		
Harris Swim and Sports Centre	Yes	DD2 1NL	Forthbank Stadium	No	FK7 7UJ
D.I.S.C	No	DD4 7AA	Stirling HS	No	FK8 2PA
Douglas Sports Centre	No	DD4 8TG	The Peak at Stirling Sports Village	Yes	FK8 1QZ
Lynch Sports Centre	No	DD2 4SR	Mclaren Community Leisure Centre	Yes	FK17 8JP