

# Draft Tayside and Central Scotland Regional Transport Strategy 2023-2033

## DRAFT Integrated Impact Assessment<sup>1</sup> Framework

### Organisation

Tayside and Central Scotland Transport Partnership (TACTRAN)

### Created

27<sup>th</sup> April 2023

This report sets out an Integrated Impact Assessment screening of the delivery themes and associated options within the Draft TACTRAN Regional Transport Strategy 2023-2033 against a current evidence base.

### A. TACTRAN Regional Transport Strategy 2023-2033

Following publication of the Scottish Government's National Transport Strategy 2 (NTS2), Regional Transport Partnerships (RTPs) are statutorily (under the Transport (Scotland) Act (2005)) required to develop a Regional Transport Strategy (RTS) setting out how the RTPs will deliver the NTS2 at a regional and local level. The emerging RTS will consider the challenges and opportunities pertinent to the TACTRAN region and, will provide the policy context for the development of subsequent Local Transport Strategies separately covering Angus, Dundee City, Perth and Kinross, and Stirling.

22 strategic policies underpin the regional outcomes and objectives of the emerging RTS 2023-2033, including:

#### To reduce inequalities:

- Ensure active, public, and sustainable travel access to employment, education, and training locations
- Ensure transport in Scotland is accessible for all
- Remove barriers to public transport connectivity and accessibility within Scotland
- Minimise the connectivity and cost disadvantages faced by island communities and those in remote rural and rural areas, including safeguarding of lifeline services
- Improve sustainable access to healthcare facilities for staff, patients, and visitors

#### To take climate action:

- Reduce emissions generated by the transport system to mitigate climate change and improve air quality
- Support management of demand to encourage more sustainable transport choices
- Facilitate a shift to more sustainable and space-efficient modes of transport for people and goods
- Ensure the transport system adapts to the projected climate change impacts

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<sup>1</sup> Integrating the Equalities and Fairer Scotland Duty Impact Assessment (EqIA), Children's Rights and Wellbeing Impact Assessment (CRWIA), and Health Inequality Impact Assessment (HIIA).

- Improve the quality and availability of information to enable all to make more sustainable transport choices

**To help deliver inclusive economic growth:**

- Increase resilience of Scotland’s transport system from disruption and promote a culture of shared responsibility
- Increase the use of asset management across the transport system
- Provide a transport system which enables businesses to be competitive domestically, within the UK and internationally
- Ensure gateways to and from international markets are resilient and integrated into the wider transport networks to encourage people to live, study, visit and invest in Scotland
- Support Scotland to become a market leader in the development and early adoption of beneficial transport innovations
- Meet the changing employment and skills demands of the transport industry and upskill workers
- Integrate transport and wider infrastructure policies and investments, including digital and energy, to unlock greater benefits

**To improve health and wellbeing:**

- Provide a transport system that promotes and facilitates active travel choices which help to improve people’s health and wellbeing across mainland Scotland and the Islands
- Increase safety of the transport system and meet casualty reduction targets
- Implement measures that will improve perceived and actual security of Scotland’s transport system
- Continue to ensure that transport assets and services adopt the Place Principle Reduce the negative impacts which transport has on the safety, health, and wellbeing of people
- Embed the implications for transport in spatial planning and land use decision-making

The Tayside and Central Transport Partnership have developed the outcomes and objectives of the emerging RTS 2023-2033 to address regional issues by adapting the emphasis of each of the above NTS2 outcomes and associated policies and placing them in the distinctive context of the TACTRAN region.

TACTRAN’s primary and secondary outcomes are shown in Table 1

<b>Table 1: Draft objectives and outcomes</b>	
<b>To reduce inequalities</b>	
Primary Outcome (Draft)	Secondary Outcome (Draft)
Improved ability for young and vulnerable to access jobs, education, and services	Improve ability of 16–24-year-olds to access jobs and further education
	Improve ability of all in the lowest SIMD data zones (all domains) targeted by the respective Councils to access jobs, education, and services
	Improve ability of families targeted in local Child Poverty Action Plans to access jobs, education, and services

<b>Table 1: Draft objectives and outcomes</b>	
	Improve ability of rural communities to access jobs, education, and services
	Improve ability of people with disabilities to access jobs, education, and services
	Perception of safety and security of vulnerable and protected characteristic groups walking / on public transport
<b>To take climate action</b>	
Reduced greenhouse gas emissions	Increase EV and ULEV use
	Reduce estimated CO <sub>2</sub> emissions from transport in the TACTRAN region
Modal shift to more sustainable modes of travel	Reduce need to travel by reducing number and/or the length of trips
	Personal travel: Reduce the need to travel by car
	Reduce freight mileage by road
Reduced car mileage	Reduce the number and/or length of trips contributing to car mileage and CO <sub>2</sub> emissions
Ensure our transport networks are resilient	Ensure strategic and lifeline routes (and services) are resilient to climate change and emergencies
<b>To help deliver inclusive economic growth</b>	
Reliable inter- and intra-regional journey times	Improve journey times and journey time reliability on strategic road and rail routes for public transport to key destinations (e.g., major centres and economic locations)
	Improve journey time reliability for freight and business to key destinations (e.g., major centres and economic locations / air and seaports)
Improved ability for young and disadvantaged communities to access jobs, education, and training	Improve ability of 16–24-year-olds to access jobs, and further education
	Improve ability of all in the lowest SIMD data zones (all domains) targeted by the respective Council to access jobs and further education
	Improve ability of families targeted in local child poverty action plans to access jobs and further education
	Improve ability of working age population in rural communities to access jobs and further education
<b>To improve health and well-being</b>	
Reduced fatalities and injuries	Reduce the impact of traffic on communities on strategic routes

	Improve road safety for vulnerable users (pedestrians, cyclists, children, and elderly)
Improved air quality	Improve air quality in declared Air Quality Management Areas (AQMAs)
Improved ability for old and disadvantaged communities to access health care	Improve the ability of over 65s to access healthcare (Primary health care /Hospitals)
	Ability of all in the lowest SIMD data zones (health domain) targeted by the respective Council to access healthcare
	Ability of rural communities to access healthcare
Improved ability for the most vulnerable to access socially necessary activities	Ability of elderly and those in lowest SIMD data zones (health domain) targeted by the respective Council to access socially necessary services
Increased levels of physical activity	Levels of walking and cycling in the lowest SIMD data zones (health domain) targeted by the respective Council
	Improved ability to access active leisure facilities and green space

## **B. Legislative Context**

During the initial screening, TACTRAN concluded that a number of detailed assessments were required, comprising:

- i. Children's' Rights and Wellbeing Impact Assessment
- ii. Equalities and Fairer Scotland Duty Impact Assessment
- iii. Health Inequalities Impact Assessment

The Integrated Impact Assessment assesses the impacts of each of the primary and secondary outcomes within the emerging RTS 2023-2033 and will help to demonstrate the Tayside and Central Transport Partnership's compliance with relevant legislation which it has a legal duty to consider in the delivery of its policies, programmes, and projects.

This includes:

- Within the **Equality Act 2010** is a section dedicated to the public sector. Equalities are a key component of our work and not an afterthought. The Public Sector Equality Duty places an obligation on public authorities to give due regard, or to consciously consider, the need to: -
  1. Eliminate discrimination, harassment and victimisation;
  2. Advance equality of opportunity between those who have protected characteristics and those who don't, and
  3. Foster good relations between those who have protected characteristics and those who do not.

Supplementary legislation (the **Equality Act 2010 (Specific Duties) (Scotland) Regulations 2012**), requires TACTRAN to be proactive in meeting this general duty to address inequalities and help contribute to the Scottish Government's commitment to tackle disadvantage and discrimination, advance equality of opportunity and encourage good relations between all people.

The Equality Act 2010 explains that having due regard to advancing quality of opportunity involves:

- i. Removing or minimising disadvantages affecting people due to their protected characteristics<sup>2</sup>;
  - ii. Taking steps to meet the needs of people with certain protected characteristics where these are different from the needs of other people; and
  - iii. Encouraging people with certain protected characteristics to participate in public life or in other activities where their participation is disproportionately low.
- The **Fairer Scotland Duty (part 1 of the Equality Act 2010)** places a legal responsibility on public bodies in Scotland to actively consider how they can reduce inequalities of outcome caused by socio-economic disadvantage when making strategic decisions.

In broad terms, socio-economic disadvantage means living on a low income compared to others in Scotland, with little or no accumulated wealth, leading to greater material deprivation, restricting the ability to access basic goods and services. Socio-economic disadvantage can be experienced in both places and communities of interest, leading to further negative outcomes such as social exclusion. Disadvantage can also arise depending on the social class; this is more difficult to measure and will require further consideration.

Whilst Regional Transport Partnerships are not statutorily required to complete a Fairer Scotland Duty Assessment, TACTRAN concluded that it important to assess this aspect as the emerging RTS 2023-2033 has the potential to impact on the above.

On this basis TACTRAN is required to consider potential impacts on individuals and communities by:

- i. Place: on specific vulnerable areas or communities (SIMD, regeneration, rural) e.g., housing, transport.
- ii. Pockets: household resources, (Income, benefits, outgoings) ability to access a service
- iii. Prospects: peoples life chances e.g., access to, or ability to access employment, training, services (such as council or health) or support.

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<sup>2</sup> These are age, disability, gender reassignment, marriage and civil partnership, pregnancy and maternity, race, religion or belief, sex, and sexual orientation.

- The **Children and Young People (Scotland) Act 2014 (Section 1)** incorporates the United Nations Convention on the Rights of the Child<sup>3</sup> (UNCRC) into national Scottish law. TACTRAN is required to respect, protect, and fulfil the UNCRC.

The United Nations Convention on the Rights of the Child is complemented by the Getting it Right for Every Child (GIRFEC) approach to improving the wellbeing of children and young people in Scotland. Developed from the UNCRC, it defines the wellbeing of children by using eight indicators, including: safe, healthy, achieving, nurtured, active, respected, responsible, and included<sup>4</sup>.

The **Child Poverty (Scotland) Act 2017** aims to reduce the number of children living in poverty in Scotland. A key focus is to reduce inequality and poverty within the formative years of children's lives.

- TACTRAN recognises that the strategic decisions the Partnership makes profoundly influences the health and wellbeing of the diverse communities in Angus, Dundee City, Perth and Kinross, and Stirling.

The **Constitution of the World Health Organisation**, approved in 1948, defines health and well-being as "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity"

The definition encompasses physical, mental, and social health and well-being and considers the health impact on individuals and communities through a framework of the social determinants of health. These factors, such as environment, transport, housing, access to services and employment can all interact to a greater or lesser extent with an individual's lifestyle choices and genetic makeup to influence health and well-being.

## C. Screening of Integrated Social and Equality Impacts

The Integrated Impact Assessment provides a high-level impact assessment based on a comprehensive current evidence base, comprising an Equalities and Fairer Scotland Duty Impact Assessment (EFSDIA), a Health Inequalities Impact Assessment (HIIA) as well as a Children Rights and Wellbeing Impact Assessment (CRWIA).

These assessments frameworks are presented in order below.

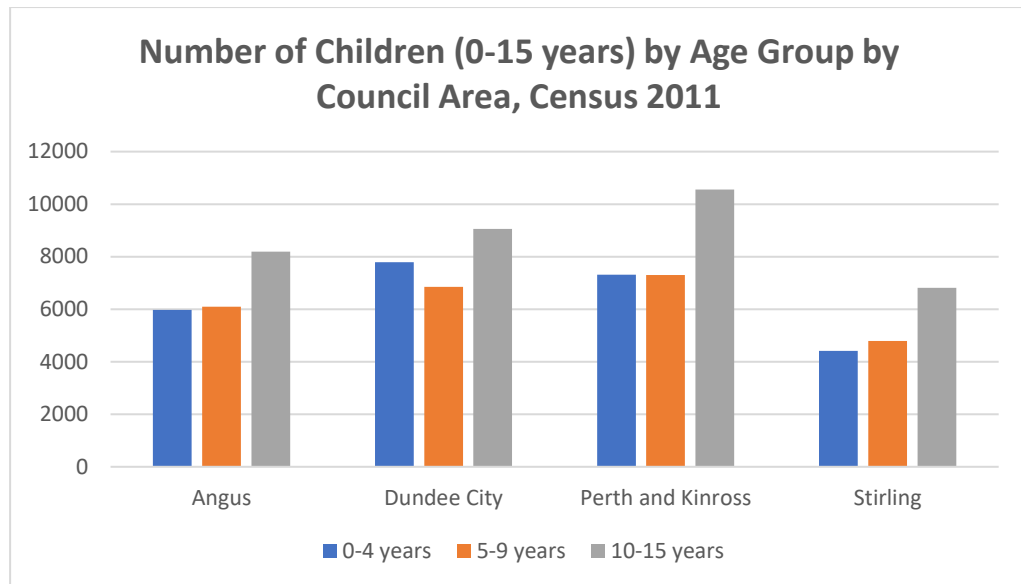
### i. Children Rights and Wellbeing Impact Assessment

In 2011, there were 85,152 children (0-15 years) in the region. The number and proportion of children varies by Local Authority. In terms of absolute numbers, Stirling has the smallest child population (16,015) while Angus has a population of 20,258, Dundee City of 23,704 and Perth and Kinross of 25,175 children. Dundee City has the smallest proportion of children (16.1% of the population of the Council area) and Stirling the largest (17.8%).

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<sup>3</sup> The UNCRC considers a child as any human being below 18 years old, unless majority is attained earlier under the law applicable to the child. In Scotland, a minor is a person under the age of 18 in most circumstances (NSPCC, 2019).

<sup>4</sup> Cp. Section 96(2) of the Children and Young People (Scotland) 2014 Act.



Source: Scotland's Census, 2011

22% of households in Angus include children. Single parent families make up 5% of households in Angus (equivalent to 23% of all households with children)<sup>5</sup>.

20% of households in Dundee City include children. Single parent families make up 8% of households in Dundee City (equivalent to 40% of all households with children)<sup>6</sup>.

22% of households in Perth and Kinross include children. Single parent families make up 5% of households in Perth and Kinross (equivalent to 23% of all households with children)<sup>7</sup>.

23% of households in Stirling include children. Single parent families make up 5% of households in Stirling (equivalent to 22% of all households with children)<sup>8</sup>.

Type of Household	Angus	Dundee City	Perth and Kinross	Stirling	Scotland
Single Parents	4%	5%	4%	5%	5%
Small Families	10%	12%	14%	16%	12%
Large Families	8%	3%	4%	2%	5%
Households w/ Children	22%	20%	22%	23%	22%
Households w/o Children	78%	80%	78%	77%	78%

Source: Scottish Household Survey, Annual Report 2018 – Local Authority Tables

<sup>5</sup> Scottish Household Survey, Annual Report 2018 – Local Authority Tables

<sup>6</sup> Scottish Household Survey, Annual Report 2018 – Local Authority Tables

<sup>7</sup> Scottish Household Survey, Annual Report 2018 – Local Authority Tables

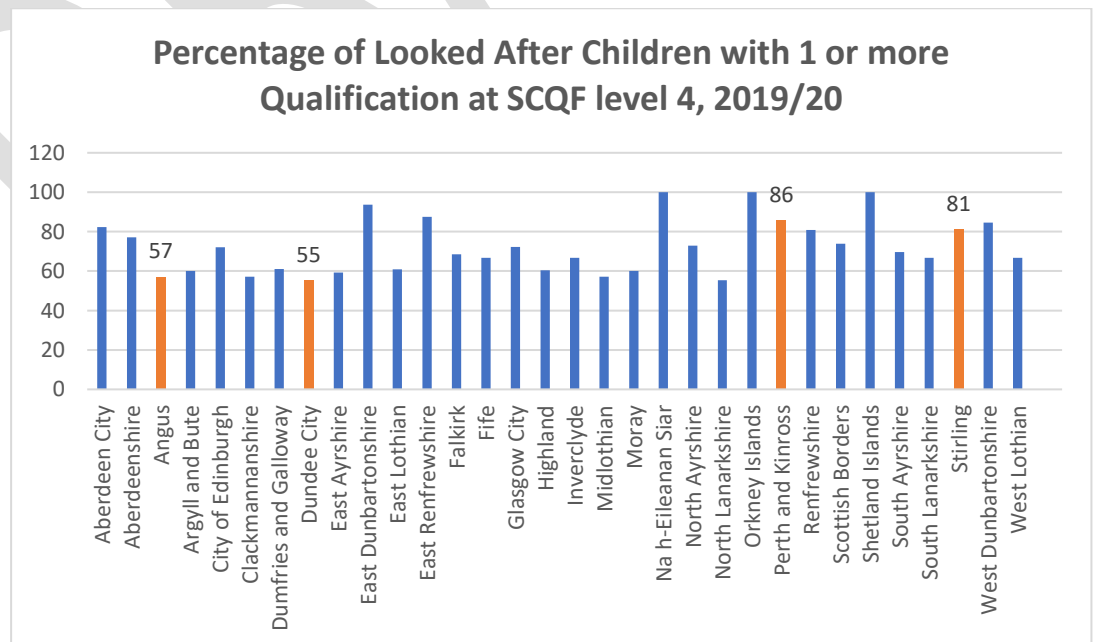
<sup>8</sup> Scottish Household Survey, Annual Report 2018 – Local Authority Tables

On 31st July 2020, there were 265 looked after children (LAC) in Angus – equivalent to 1.1% of the 0-17 years population of Angus. This is slightly lower than the equivalent rate for Scotland of 1.4%. Most (60%) looked after children are boys, and just under a quarter (23%) are under 5 years old. Eight per cent of looked after children in Angus are known to have a disability.

On the same reference date, there were 493, 285 and 246 LACs in Dundee City, Perth and Kinross, and Stirling respectively, accounting for 1.8%, 1.0% and 1.4% of the 0-17 years population. Most looked after children in those three Local Authorities are boys, and 25% (Dundee City), 20% (Perth and Kinross) and 17% (Stirling) are under 5 years old. 17% of looked after children in Dundee City are known to have a disability. Figures for Perth and Kinross, and Stirling are 7% and 9% respectively.

Findings from the Scottish Government on Education Outcomes for Looked After Children indicate that there has been an improvement in leaver attainment over the past few years. However, the outcomes for LACs are still considerably lower than those for all pupils. For example, in Scotland in 2019/20 only 38% of looked after children left school with 1 or more SCQF at level 5 compared to 86% of all pupils. Part of the reason for this is that looked after children tend to leave school at earlier ages. In 2019/20 almost three quarters (72%) of looked after school leavers were aged 16 and under (i.e., they left school at the earliest point they could) compared to just over one quarter (28%) of school leavers more generally.

Levels of attainment vary significantly for looked after children across Scotland. Figures for 2019/20 show that in Angus 57% of LACs left school with 1 or more qualification at SCQF level 4 compared to the average of 70% for Scotland. Figures for Dundee City, Perth and Kinross, and Stirling are 55%, 86%, and 81% respectively<sup>9</sup>.



Source: Scottish Government (2020): Education Outcomes for Looked After Children 2019/20

<sup>9</sup> SCOTTISH GOVERNMENT (2020): Education Outcomes for Looked After Children 2019/20



While improved, the outcomes for looked after children entering positive destinations are worse than those for all pupils. In Scotland in 2019/20, 75% of looked after children had positive destinations compared to 92% of all pupils. In Angus the figure was significantly lower than the Scottish average at 57% (both figures based on 9-month follow-up survey and children who were looked after for the full year). Figures for Dundee City, Perth and Kinross, and Stirling were 66%, 90% and 63% respectively<sup>10</sup>.

Data on achievement against expected levels (Early Level, First Level, Second Level, Third Level or better, and Fourth Level) is given at four stages – P1, P4, P7 and S3 – in four areas: reading, writing, listening and talking, and numeracy.

	Reading		Writing		Listening		Numeracy	
	Angus	Scotland	Angus	Scotland	Angus	Scotland	Angus	Scotland
P1	83	82	81	79	87	87	85	85
P4	81	78	75	73	88	85	79	77
P7	84	80	78	74	87	86	77	76
S3 <sup>11</sup>	95	91	95	90	95	91	95	90
S3 <sup>12</sup>	67	55	72	52	63	57	63	59

Source: Scottish Government, Achievement of Curriculum for Excellence Datasets 2018/19, Table 10.1 et seqq.

In almost every stage and area, the proportion of pupils in Angus achieving the expected level is higher than the equivalent proportion for Scotland as a whole.

	Reading		Writing		Listening		Numeracy	
	Dundee	Scotland	Dundee	Scotland	Dundee	Scotland	Dundee	Scotland
P1	82	82	76	79	89	87	84	85
P4	78	78	70	73	86	85	73	77
P7	82	80	77	74	87	86	76	76
S3 <sup>13</sup>	84	91	90	90	91	91	85	90
S3 <sup>14</sup>	49	55	52	52	54	57	50	59

Source: Scottish Government, Achievement of Curriculum for Excellence Datasets 2018/19, Table 10.1 et seqq.

In almost every stage and area, the proportion of pupils in Dundee City achieving the expected level is lower than the equivalent proportion for Scotland as a whole. The only exception to this is the proportion of P7 pupils achieving the expected standard is the same or better as in Scotland.

	Reading		Writing		Listening		Numeracy	
	Perth Kinross	Scotland	Perth Kinross	Scotland	Perth Kinross	Scotland	Perth Kinross	Scotland
P1	76	82	71	79	90	87	87	85
P4	74	78	66	73	91	85	82	77
P7	76	80	67	74	90	86	81	76
S3 <sup>15</sup>	83	91	82	90	94	91	91	90
S3 <sup>16</sup>	55	55	50	52	56	57	64	59

Source: Scottish Government, Achievement of Curriculum for Excellence Datasets 2018/19, Table 10.1 et seqq.

<sup>10</sup> IBID

<sup>11</sup> Third Level or better

<sup>12</sup> Forth Level

<sup>13</sup> Third Level or better

<sup>14</sup> Forth Level

<sup>15</sup> Third Level or better

<sup>16</sup> Forth Level

While in every stage of both the 'Reading' and 'Writing' area, the proportion of pupils in Perth and Kinross achieving the expected level is lower than the equivalent proportion for Scotland as a whole, the proportion of pupils achieving the expected standard at every stage for the 'Listening' and 'Numeracy' areas are better as in Scotland.

	Reading		Writing		Listening		Numeracy	
	Stirling	Scotland	Stirling	Scotland	Stirling	Scotland	Stirling	Scotland
P1	86	82	83	79	90	87	87	85
P4	82	78	79	73	91	85	82	77
P7	84	80	81	74	90	86	81	76
S3 <sup>17</sup>	93	91	92	90	94	91	91	90
S3 <sup>18</sup>	53	55	51	52	56	57	64	59

Source: Scottish Government, Achievement of Curriculum for Excellence Datasets 2018/19, Table 10.1 et seqq.

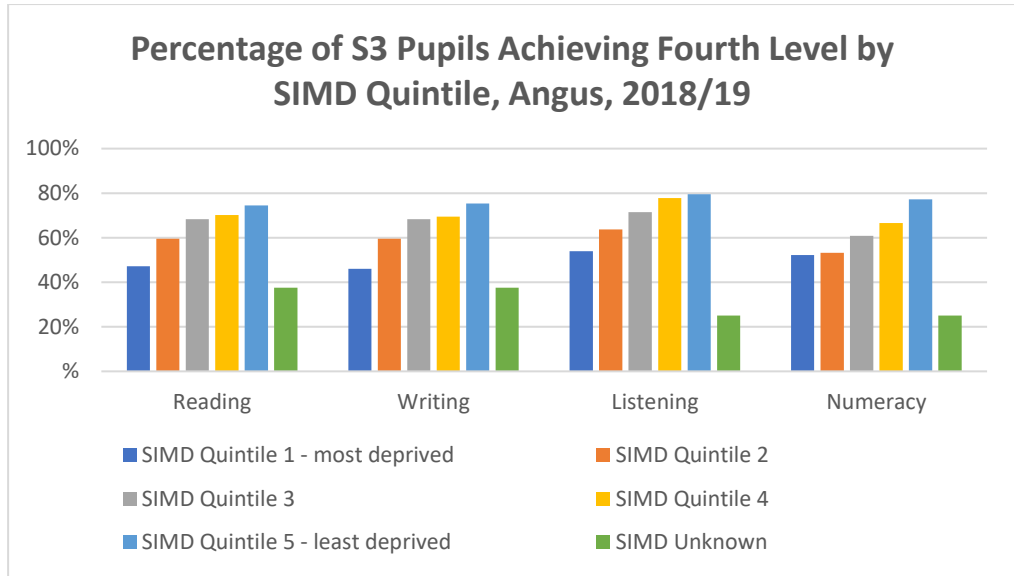
In almost every stage and area, the proportion of pupils in Stirling achieving the expected level is higher than the equivalent proportion for Scotland as a whole.

Achievement of expected levels varies significantly by deprivation. In Angus, Dundee City, Perth and Kinross, and Stirling in all subject areas, a smaller proportion of those in the most deprived 20% (SIMD 2016) achieved the expected level than those in the least deprived 20%. This is particularly evident when considering the percentage of S3 pupils achieving Fourth Level, for example only 23% of S3 pupils from the most deprived quintile achieved Fourth Level reading compared to 70% of pupils from the least deprived quintile.

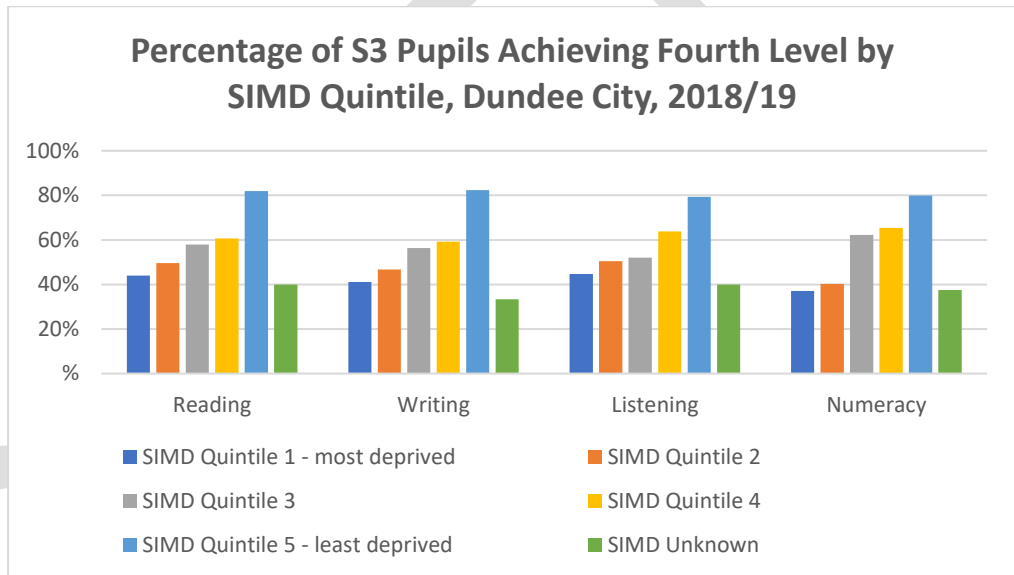
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<sup>17</sup> Third Level or better

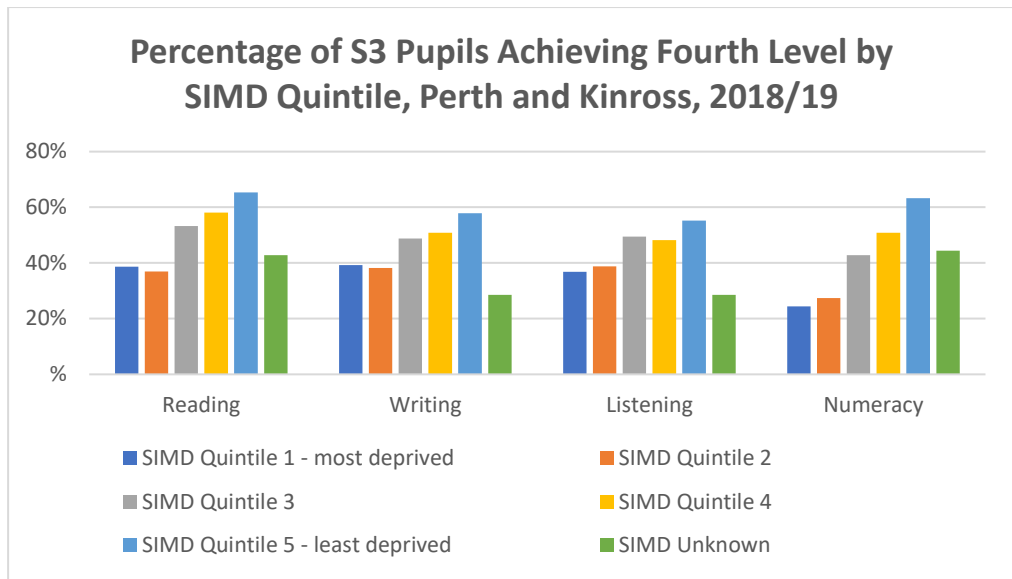
<sup>18</sup> Forth Level



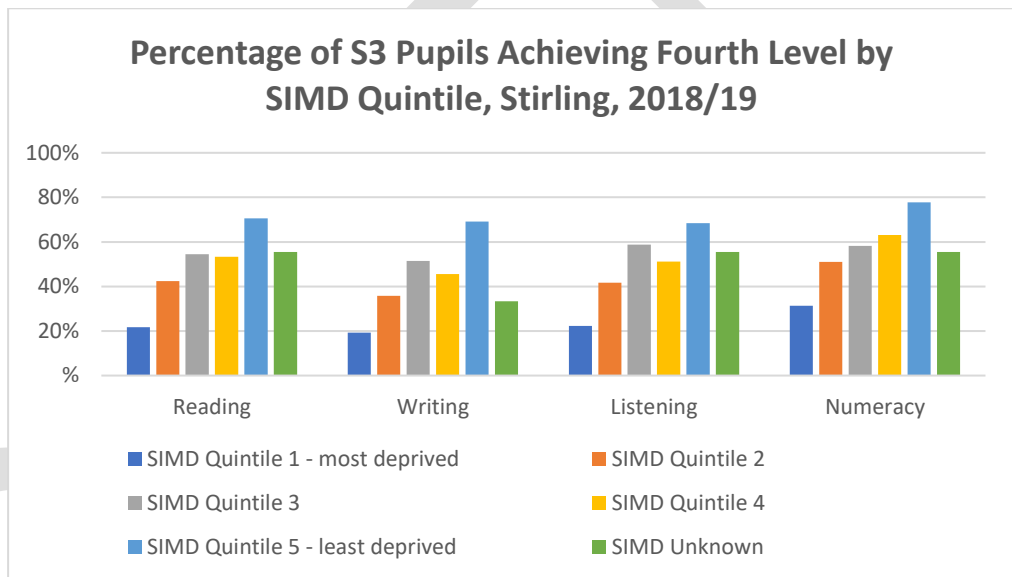
Source: Scottish Government, Achievement of Curriculum for Excellence Datasets 2018/19, Table 11.1



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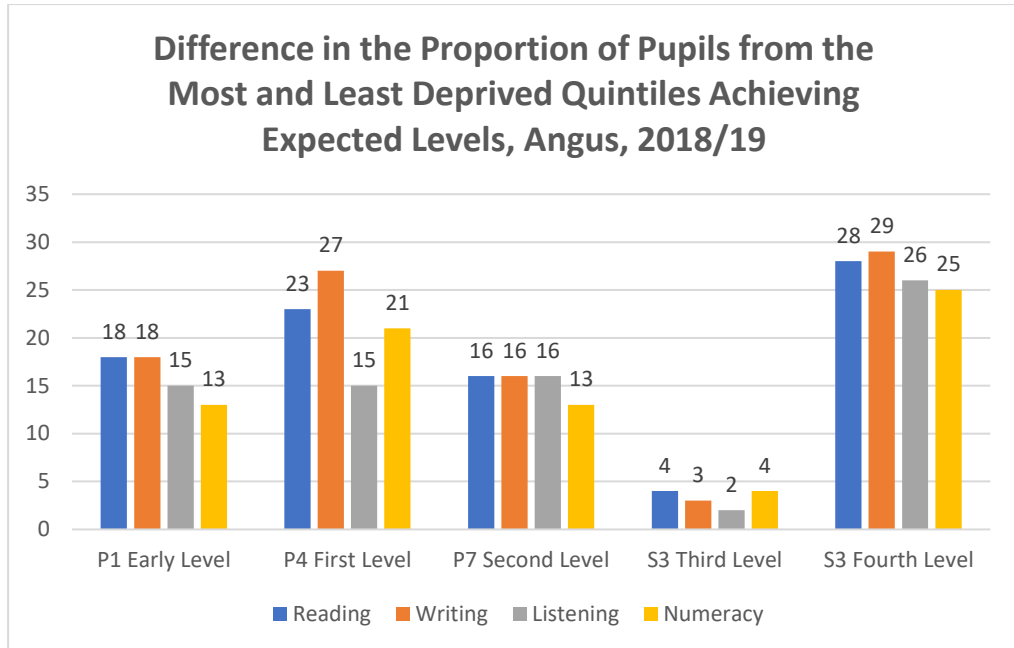


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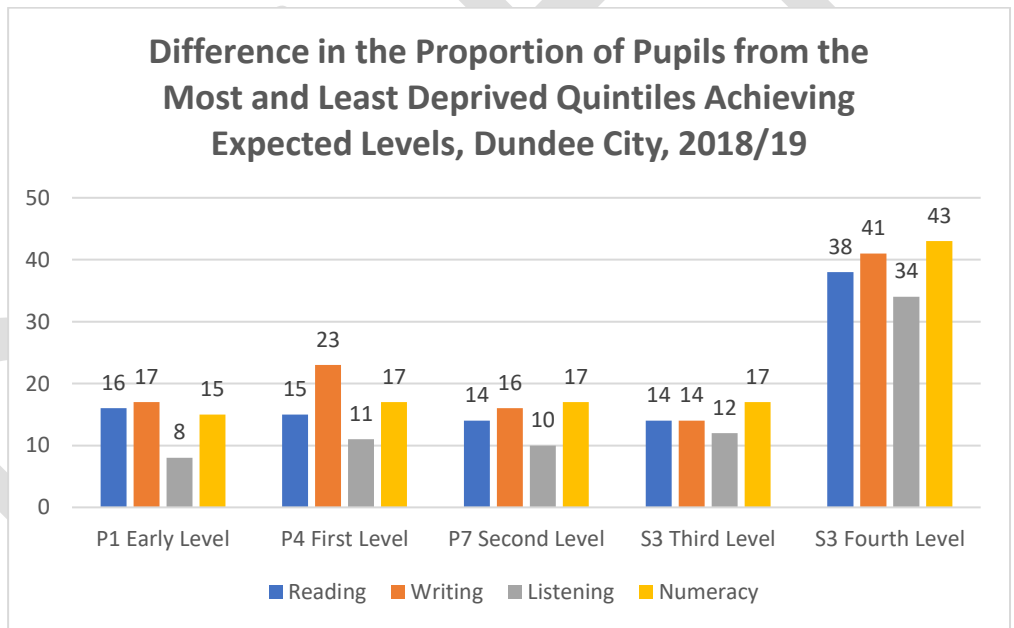


Source: Scottish Government, Achievement of Curriculum for Excellence Datasets 2018/19, Table 11.1

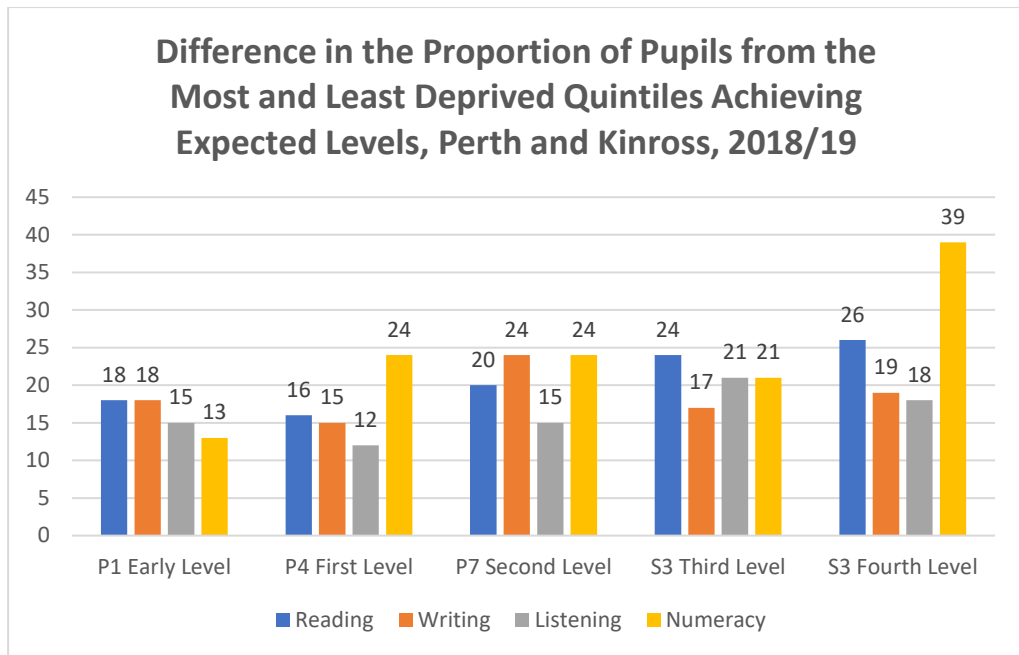
The gap between most and least deprived seems to widen as children progress. For example, the percentage of P1 children achieving early level reading is, on average, 70.6% for those in the most deprived quintile compared to 91.5% for those in the least deprived quintile – a difference of almost 21; for P7 pupils (Second Level) the difference between most and least deprived is 19.3 and for S3 pupils (Fourth Level) the difference is 35.25.



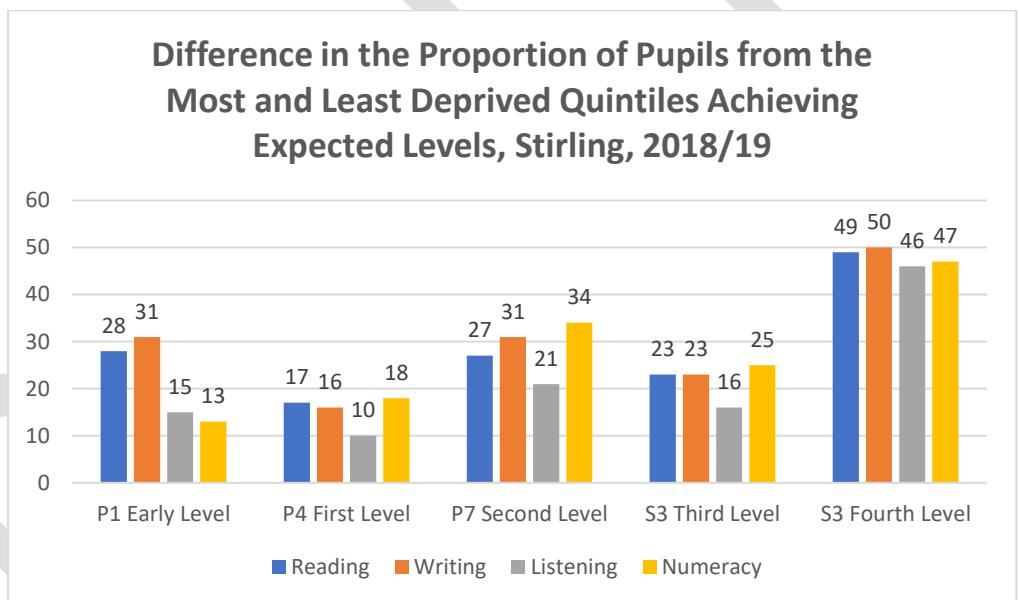
Source: Scottish Government, Achievement of Curriculum for Excellence Datasets 2018/19, Table 11.1



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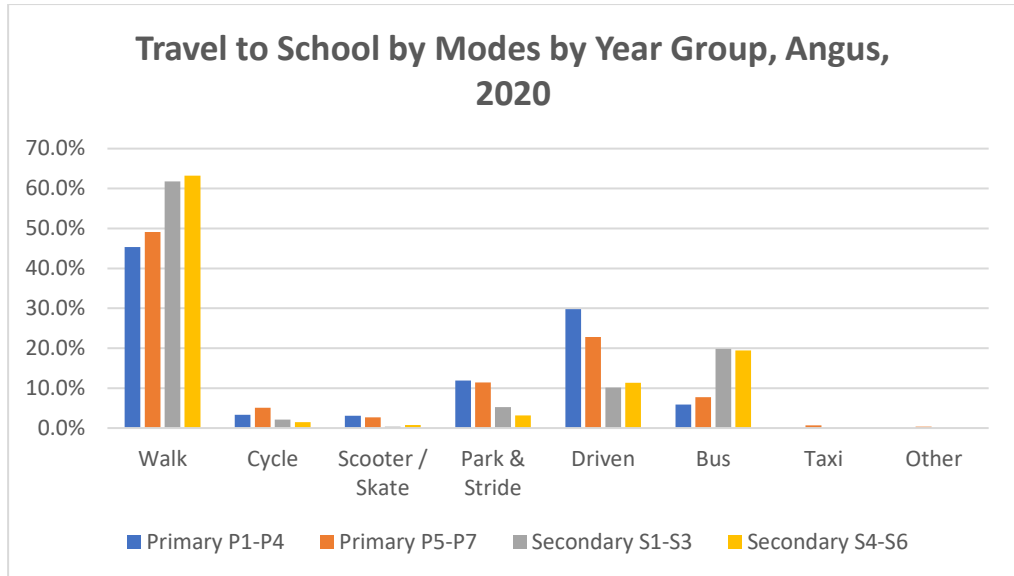


Source: Scottish Government, Achievement of Curriculum for Excellence Datasets 2018/19, Table 11.1

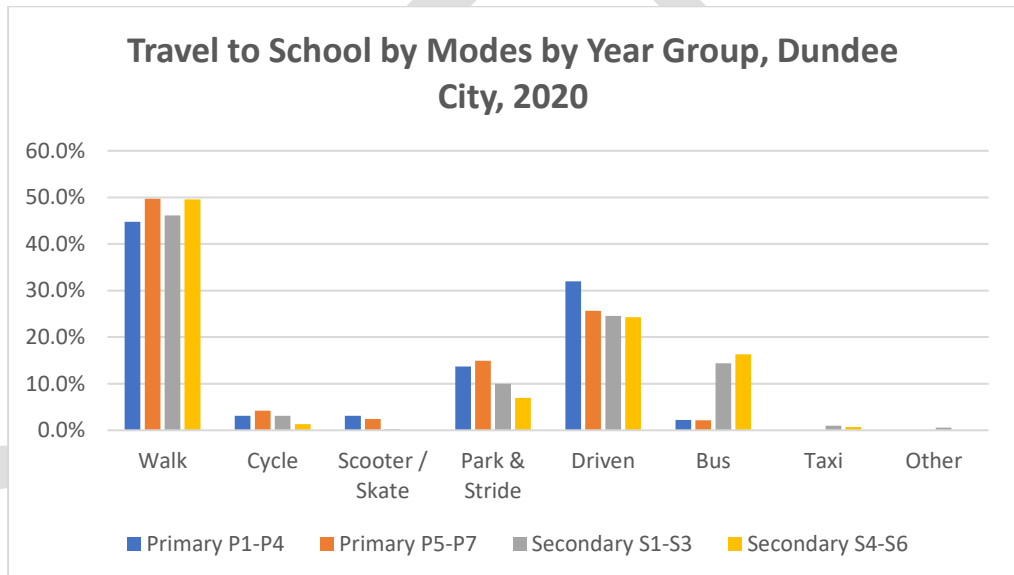


Source: Scottish Government, Achievement of Curriculum for Excellence Datasets 2018/19, Table 11.1

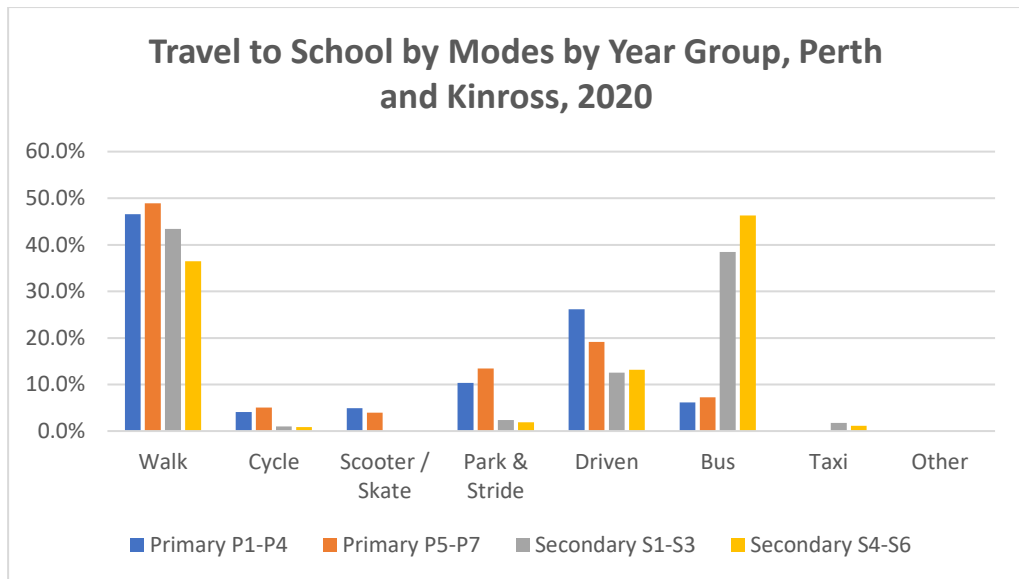
Apart from the socio-economic background the accessibility and safety of public transport available to children and young people are significantly impacting on their transport choices, and, subsequently, on their ability to access (further) education, services and economic opportunities. This is particularly true for children and young people from low-income and deprived socio-economic backgrounds.



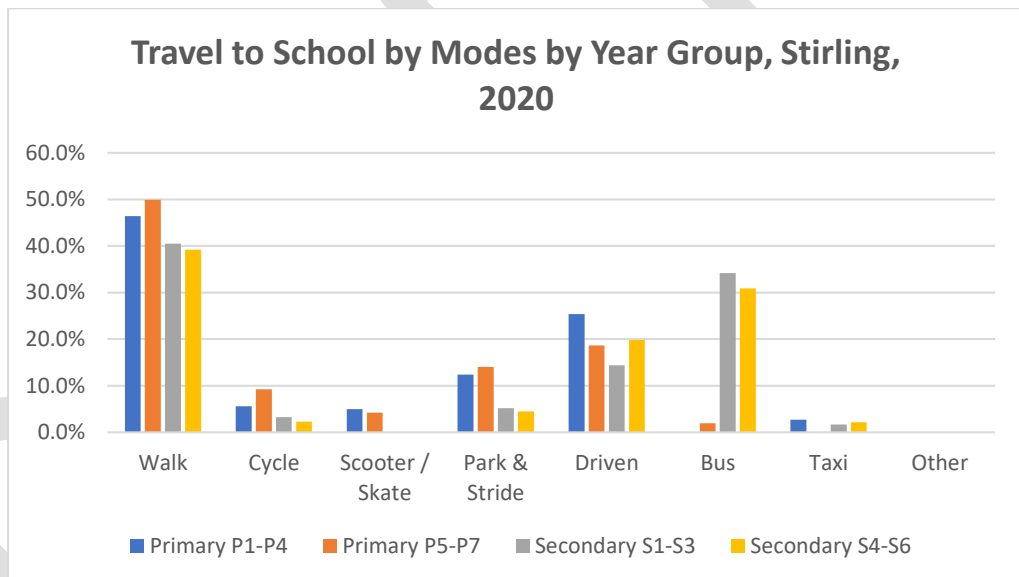
Source: Sustrans, Hands Up Scotland Survey 2020 Table 3.4



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Source: Sustrans, Hands Up Scotland Survey 2020 Table 3.4

When looking at the main method of travel to school by age group, walking is the most common mode of transport for primary school children, followed by being driven. Secondary school children are more likely to take the bus rather than being driven.

The urban rural classification, and, therefore, the geographic location, also impacts significantly on the main method of travel to school. 54% of pupils in 'Large Urban Areas' are shown to walk to school, compared to 27% in 'Remote Rural Areas'<sup>19</sup>. Conversely, children in 'Remote Rural Areas' are much more likely to travel by school bus<sup>20</sup> (also cp. Tables XX et seqq. above).

When looking at the main method of travel to school by SIMD quintiles, those in the lower two quintiles (that is, the 40% most deprived) are more likely to walk to school or travel by bus while those in the upper two quintiles (that is,

<sup>19</sup> IBID

<sup>20</sup> IBID



the 40% least deprived) are more likely to travel by car or by school bus<sup>21</sup> (cp. TRANSPORT SCOTLAND (2020): Transport and Travel in Scotland, Table 15).

Poor public transport services mean that children and young people living in rural areas do not have adequate access to training or (further) education, particularly if they rely on the bus networks for travelling around. AUDIT SCOTLAND (2015) stated that students living in remote areas are likely to have journeys of well over one hour, at a median cost of £10 return<sup>22</sup>.

In rural areas, the main issues experienced by residents are often related to the lack of accessible public transport services to access essential services, including childcare provision. Owning a car is therefore seen as a solution; however, particularly for low-income families, car ownership may be pushing them into poverty due to maintenance costs and higher fuel prices<sup>23</sup>.

The Centre for Research in Social Policy calculates estimates of child poverty<sup>24</sup> each year for the End Child Poverty Coalition<sup>25</sup>.

Local Authority	Number		Percentage		Percentage Point Change (2015-20)
	2014/15	2019/20	2014/15	2019/20	
Angus	4138	4598	21.1	24.0	+ 3.0
Dundee City	5650	6425	23.8	26.8	+ 3.0
Perth and Kinross	4869	5515	19.9	22.6	+ 2.7
Stirling	3046	3293	19.6	21.3	+ 1.7

Source: End Child Poverty (2020): Child Poverty in Your Area 2014/15 – 2019/20

Being able to access education, employment and training are critical for low income households as a means of escaping poverty, as well as for their general wellbeing and improved access to transport is a key enabler to this. (POVERTY ALLIANCE (2021): Transport and Child Poverty)

Accessible travel choices that encourage active living and regular physical activity is an important factor in combating obesity as well as having beneficial impacts on mental health and wellbeing.

In 2018/19, height and weight measurements were recorded for 831 P1 children in Angus<sup>26</sup>. Of these, 82.4% were classified as 'healthy weight' (compared to 83.1% in Dundee City, 81.1% in Perth and Kinross and 82.5% in Stirling). 23.8% of P1 children in Aberdeen City were classified as being at risk of overweight and obesity (compared to 24.8% in Dundee City, 19.6% in Perth and Kinross and 25.1% in Stirling). While there have been fluctuations, the underlying trend in all four constituent Council areas is of increasing proportions of P1 children at risk of overweight or obesity<sup>27</sup>.

<sup>21</sup> TRANSPORT SCOTLAND (2020): Transport and Travel in Scotland 2019, Table 15

<sup>22</sup> AUDIT SCOTLAND (2015): Scotland's Colleges 2015

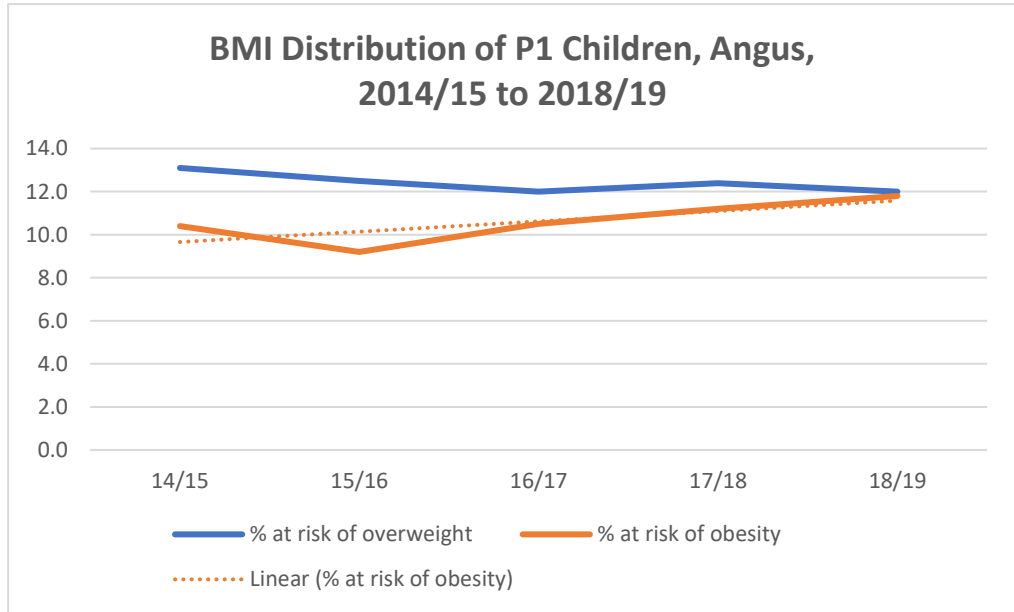
<sup>23</sup> SCOTLAND'S RURAL UNIVERSITY COLLEGE (2014): Research Briefing - Rural Scotland in Focus

<sup>24</sup> Children are considered as living in poverty if they live in households with less than 60% of median household income. This is the key measure used by UK, Scottish Government and by the EU.

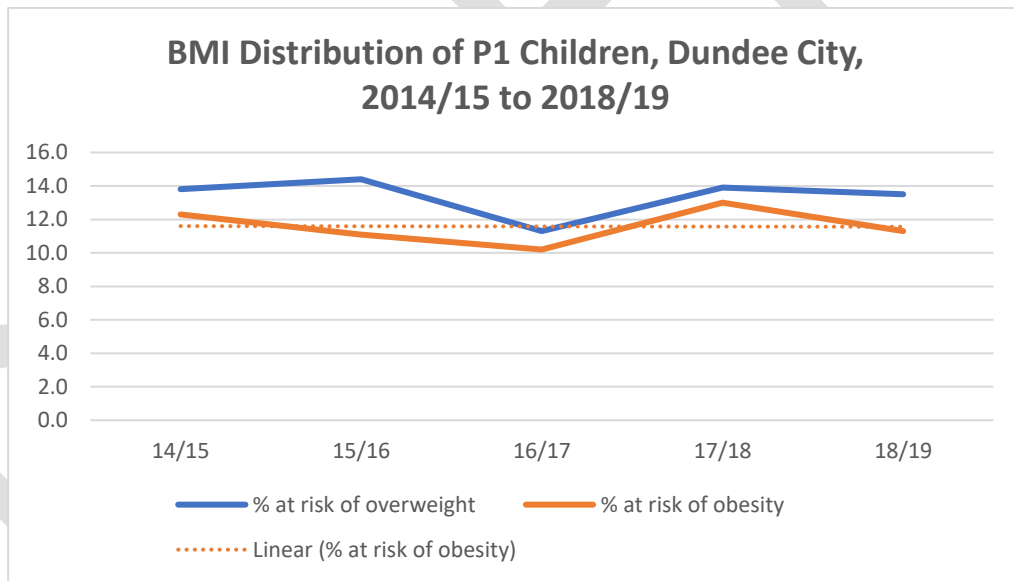
<sup>25</sup> Cp. [www.endchildpoverty.org.uk](http://www.endchildpoverty.org.uk)

<sup>26</sup> In Dundee City, Perth and Kinross and Stirling for 817, 1079 and 833 P1 pupils, respectively, were recorded.

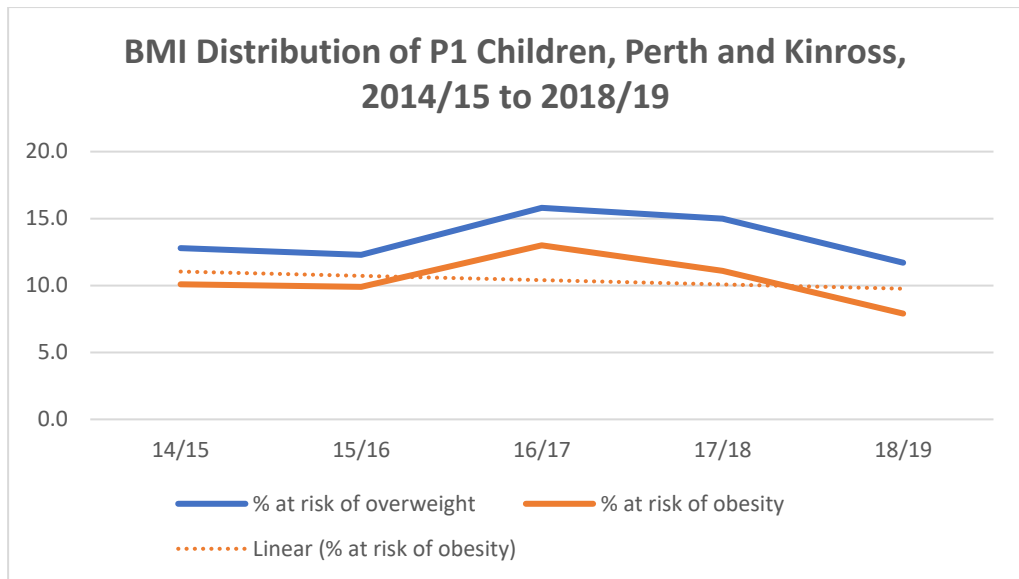
<sup>27</sup> PUBLIC HEALTH SCOTLAND (2020): Primary 1 Body Mass Index Statistics 2018/19



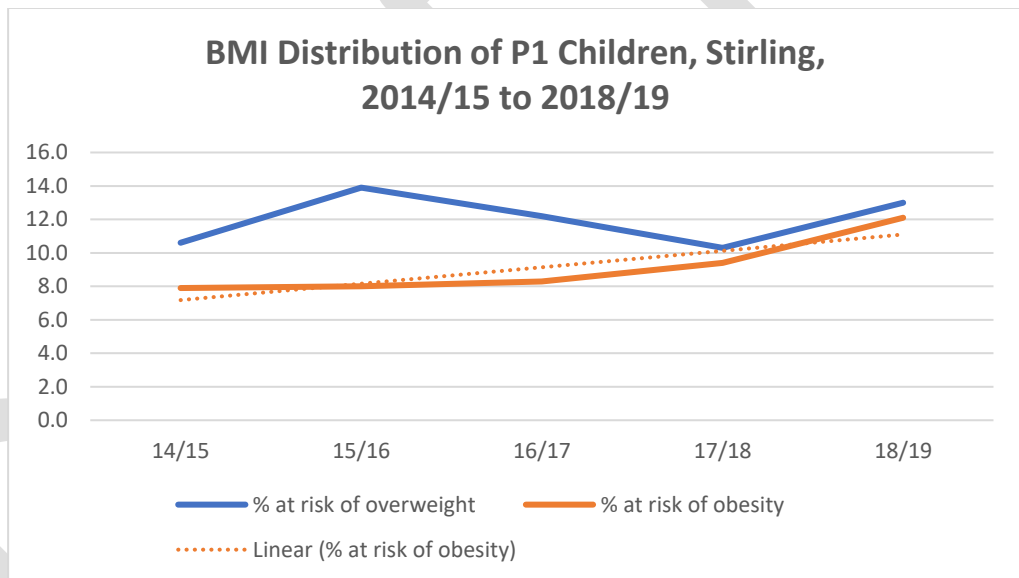
Source: Public Health Scotland (2020): Primary 1 Body Mass Index Statistics, Table 5CA/6CA



Source: Public Health Scotland (2020): Primary 1 Body Mass Index Statistics, Table 5CA/6CA



Source: Public Health Scotland (2020): Primary 1 Body Mass Index Statistics, Table 5CA/6CA



Source: Public Health Scotland (2020): , Primary 1 Body Mass Index Statistics, Tables 5CA/6CA

In 2017, a total of 289 (296) Child and Adolescent Mental Health (CAMHS) patients were seen in Tayside (Forth Valley). Of these, 41.5% (54.7%) were seen within the target 18-week period, compared to 71.5% in Scotland. This is the second (third) lowest rate in Scotland<sup>28</sup>.

Traffic-related noise of can disproportionately affect children. Evidence suggests that such noise is correlated more broadly with lower health-related quality of life in children (cp. HJORTEBJERG ET AL. (2015)). Children and young people are also more vulnerable to the effects of poor air quality compared to the overall population.

In 2018, the Scottish Schools Adolescent Lifestyle and Substance Use Survey (SALSUS) identified a mean wellbeing score according to the Warwick-

<sup>28</sup> NHS SCOTLAND (2018): Child and Adolescent Mental Health Services - Waiting Times in NHS Scotland, Table 2

Edinburgh Mental Well-being Scale (WEMWBS) for pupils in Scotland. Pupils were asked to indicate how often they had thoughts and feelings relating to 14 positively worded statements concerning their mental wellbeing and to indicate how often they had thoughts and feelings relating to 14 positively worded statements concerning their mental wellbeing. Each statement has a five item scale ranging from '1 ranging from '1 -- None of the time' to '5 - All of the time'. The lowest possible score is therefore 14 and the highest is 70.

In Angus, the average wellbeing score among 13-year-olds was 47.37 points which was 0.69 points worse than the Scottish average and 0.88 points worse than 2013 WEMWBS score. Among 15-year-olds, the average wellbeing score was 45.23. This was 0.50 points worse than the Scottish average and 2.01 points worse than 2013 WEMWBS score<sup>29</sup>.

In Dundee City, the average wellbeing score among 13-year-olds was 48.09 points which was 0.02 points better than the Scottish average but 1.49 points worse than 2013 WEMWBS score. Among 15-year-olds, the average wellbeing score was 44.98. This was 0.75 points worse than the Scottish average and 2.65 points worse than 2013 WEMWBS score<sup>30</sup>.

In Perth and Kinross, the average wellbeing score among 13-year-olds was 47.85 points which was 0.22 points worse than the Scottish average and 3.27 points worse than 2013 WEMWBS score. Among 15-year-olds, the average wellbeing score was 45.86. This was 0.13 points better than the Scottish average but 2.80 points worse than 2013 WEMWBS score<sup>31</sup>.

In Stirling, the average wellbeing score among 13-year-olds was 49.08 points which was 1.01 points better than the Scottish average but 3.43 points worse than 2013 WEMWBS score. Among 15-year-olds, the average wellbeing score was 45.88. This was 0.15 points better than the Scottish average but 1.41 points worse than 2013 WEMWBS score<sup>32</sup>.

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<sup>29</sup> Scottish Schools Adolescent Lifestyle and Substance Use Survey (SALSUS) 2018 - Summary findings for Angus Council <https://www.gov.scot/binaries/content/documents/govscot/publications/statistics/2019/11/scottish-schools-adolescent-lifestyle-substance-use-survey-salsus-national-overview-2018/documents/summary-findings-angus-council/summary-findings-angus-council/govscot%3Adocument/summary-findings-angus-council.pdf>

<sup>30</sup> Scottish Schools Adolescent Lifestyle and Substance Use Survey (SALSUS) 2018 - Summary findings for Dundee City Council <https://www.gov.scot/binaries/content/documents/govscot/publications/statistics/2019/11/scottish-schools-adolescent-lifestyle-substance-use-survey-salsus-national-overview-2018/documents/summary-findings-dundee-city-council/summary-findings-dundee-city-council/govscot%3Adocument/summary-findings-dundee-city-council.pdf>

<sup>31</sup> Scottish Schools Adolescent Lifestyle and Substance Use Survey (SALSUS) 2018 - Summary findings for Perth & Kinross Council <https://www.gov.scot/binaries/content/documents/govscot/publications/statistics/2019/11/scottish-schools-adolescent-lifestyle-substance-use-survey-salsus-national-overview-2018/documents/summary-findings-perth-kinross-council/summary-findings-perth-kinross-council/govscot%3Adocument/summary-findings-perth-kinross-council.pdf>

<sup>32</sup> Scottish Schools Adolescent Lifestyle and Substance Use Survey (SALSUS) 2018 - Summary findings for Stirling Council <https://www.gov.scot/binaries/content/documents/govscot/publications/statistics/2019/11/scottish-schools-adolescent-lifestyle-substance-use-survey-salsus-national-overview-2018/documents/summary-findings-stirling-council/summary-findings-stirling-council/govscot%3Adocument/summary-findings-stirling-council.pdf>

The WEMWBS scores on mental wellbeing for pupils in Angus, Dundee City, Perth and Kinross and Stirling aged 13 and 15 years old have, subsequently, been declining considerably between 2013 and 2018.

Children's Wellbeing Indicators				
Indicator	Positive	Neutral	Negative	Unknown
Safe	Yes			
Healthy	Yes			
Achieving	Yes			
Nurtured		Yes		
Active	Yes			
Respected	Yes			
Responsible		Yes		
Included	Yes			

Children's Rights Indicators	
Indicator	Relevant UNCRC Article(s)
UNCRC Indicators upheld by the activity, proposal, or policy	<p>The below UNCRC articles have been identified as being relevant to the emerging new Regional Transport Strategy:</p> <p>Article 3: The best interests of the child must be a top priority in all decisions and actions that affect children</p> <p>Article 12: Every child has the right to express their views, feelings and wishes in all matters affecting them, and to have their views considered and taken seriously. This right applies at all times, for example during immigration proceedings, housing decisions or the child's day-to-day home life.</p> <p>Article 23: A child with a disability has the right to live a full and decent life with dignity and, as far as possible, independence and to play an active part in the community. Governments must do all they can to support disabled children and their families.</p> <p>Article 24: Every child has the right to the best possible health. Governments must provide good quality health care, clean water, nutritious food, and a clean environment and education on health and well-being so that children can stay healthy. Richer countries must help poorer countries achieve this.</p> <p>Article 28: Every child has the right to an education. Primary education must be free and different forms of secondary education must be available to every child. Discipline in schools must respect children's dignity and their rights. Richer countries must help poorer countries achieve this.</p> <p>Article 31: Every child has the right to relax, play and take part in a wide range of cultural and artistic activities.</p>

[adolescent-lifestyle-substance-use-survey-salsus-national-overview-2018/documents/summary-findings-stirling-council/summary-findings-stirling-council/govscot%3Adocument/summary-findings-stirling-council.pdf](https://www.gov.scot/Document/summary-findings-stirling-council/summary-findings-stirling-council/govscot%3Adocument/summary-findings-stirling-council.pdf)

## Positive Impacts

Identified challenges faced by children and young people within the region would be addressed by the Draft RTS as it establishes a sound framework which will allow transport interventions to be developed to meet the needs of children and young people.

The transport offer is key to enable access to and young people's ability to benefit from education, amenities, public services, employment, and economic opportunities.

The RTS will implement interventions to support children and young people in Angus, Dundee City, Perth and Kinross, and Stirling to travel more actively more often. The RTS will, subsequently, also implement interventions to support children and young people to be healthy. An increase in physical activity has been proven to be associated with benefits to mental health. Physical activity can reduce the risk of depression. Physical activity can enhance psychological wellbeing by improving self-perception and self-esteem including a sense of purpose and value, mood, and sleep quality, and by reducing levels of anxiety and fatigue<sup>33</sup>.

Physical activity is important for children's and young people's overall physical, psychosocial, and cognitive development<sup>34</sup>. Research in recent decades has shown that engaging in physical activity improves cognitive performance and academic achievement in children and adolescents<sup>35 36</sup>. Cognitive ability and academic achievement are closely linked.

For children and young people, their social lives depend heavily on getting to places where they can meet and interact with their friends and family members. The RTS will implement interventions to improve the ability of children and young people to reach destinations within the region where they meet with other people. Active and public transport networks need to link children and young people with where they want to go at a local level, not just along arterial routes to urban centres or long-distance leisure routes. Additionally, while journeys to school are a key focus, children also need to be able to travel independently in their wider local community.

The RTS will implement interventions that will be informed by further engagement at a local level to develop and deliver respective actions. Targeted work to involve work with groups to include children and young people as well as their parents and guardians.

<sup>33</sup> DEPARTMENT OF HEALTH, 2011: Start Active, Stay Active. A report on physical activity for health from the four home countries - Chief Medical Officers

<sup>34</sup> JANSSEN I., LEBLANC A.G., 2010: Systematic review of the health benefits of physical activity and fitness in school-aged children and youth. *Int. J. Behav. Nutr. Phys. Act.* 2010;7:40. doi: 10.1186/1479-5868-7-40

<sup>35</sup> SIBLEY B.A., ETNIER J.L.: The relationship between physical activity and cognition in children: A meta-analysis. *Pediatr. Exerc. Sci.* 2003;15:243–256. doi: 10.1123/pes.15.3.243

<sup>36</sup> FEDEWA A.L., AHN S., 2011: The effects of physical activity and physical fitness on children's achievement and cognitive outcomes: A meta-analysis. *Res. Q. Exerc. Sport.* 2011;82:521–535. doi: 10.1080/02701367.2011.10599785

Negative Impacts and Mitigation	
Impact Area	Details and Mitigation
The Regional Transport Strategy is not in itself expected to have any negative impact on any area of rights or any group of children and young people.	n/a

Information Gaps
<p>While comprehensive consultation has informed the identification of main issues, setting of objectives and development of interventions in preparation of the RTS, there has been limited direct engagement with children and young people with lived experiences both in urban and rural communities.</p> <p>Children and young people have not widely been involved in the development of the Draft RTS.</p>

Proposed Measures to Close Information Gaps
Tactran attempted to engage with groups representing young people in Scotland and has engaged with Members of the Scottish Youth Parliament.

Accounting for the Views of Children and Young People
<p>As above.</p> <p>Tactran will continue to be building in those contacts established during the consultation process so far and will be specifically seeking out the views of children and young people on the Draft RTS.</p>

Promoting the Wellbeing of Children and Young People
<p>The transport offer is key to enable access to and communities' ability to benefit from education, amenities, public services, employment, and economic opportunities. Improving the transport offer within the region is at the very core of the RTS.</p> <p>It will, subsequently, also implement interventions to improve and promote the mental health and wellbeing of both urban and rural communities in Angus, Dundee City, Perth and Kinross, and Stirling. With children and young people being integral to communities, it is anticipated that interventions developed and implemented under the RTS will have a positive impact on this group. This will be picked up further as the Local Transport Plans develop for each local authority.</p>

Upholding the Rights of Children and Young People
<p>The Regional Transport Strategy will implement interventions to increase the opportunity for children and young people to be more active by engaging in leisure, play and recreational activities that will have a positive impact on mental health and physical health and wellbeing.</p> <p>Engagement with children and young people about their needs and the right actions to take forward will be integral in developing the interventions at a local level so that their views are respected and that they are included in</p>

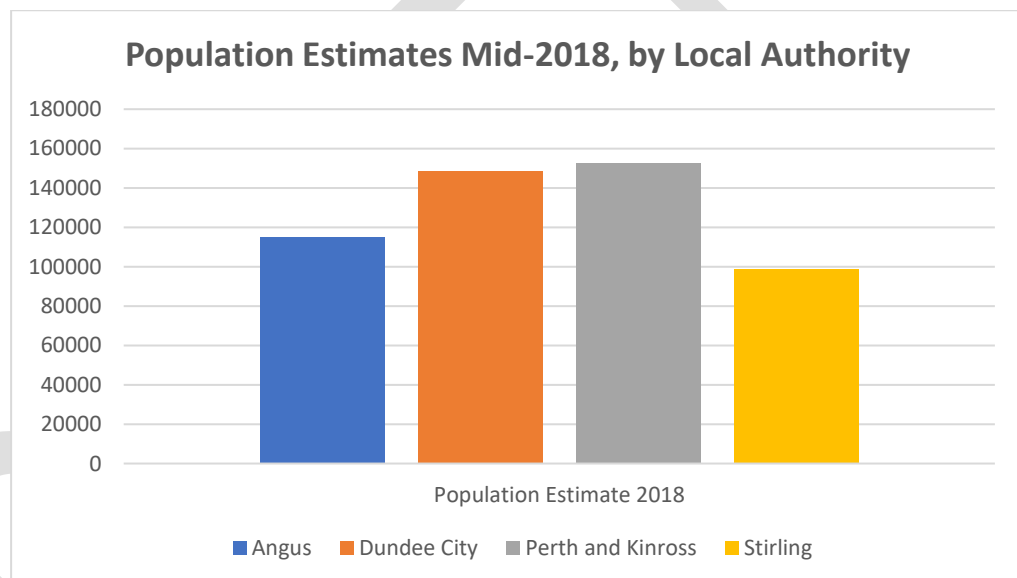
plans and development of the RTS and the subsequent Local Transport Strategies.

Overall Outcome

Positive. No negative impacts have been identified.

ii. **Equality and Fairer Scotland Duty Impact Assessment**

On 30th June 2018 the population of the Tactran region was estimated to be 515,103<sup>37</sup>. This equates to 9.5% of Scotland's total population. The population varies considerably by constituent Council, ranging from a low of 98,836 in Stirling to a high of 152,779 in Perth and Kinross<sup>38</sup>.



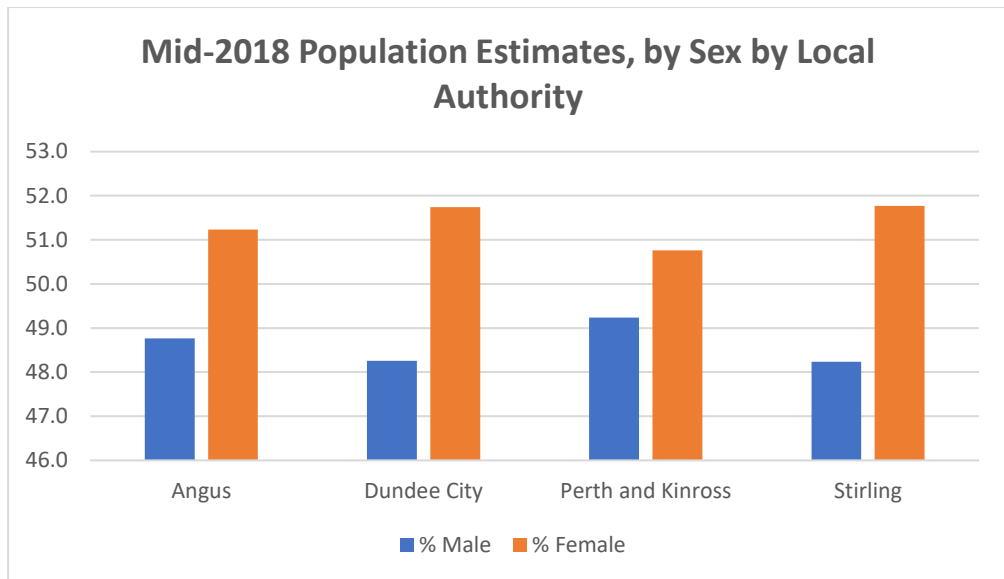
Source: NATIONAL RECORDS OF SCOTLAND (2020): Mid-2018 Population Estimates

There were more females (51.3%) than males (48.7%) living in the region.

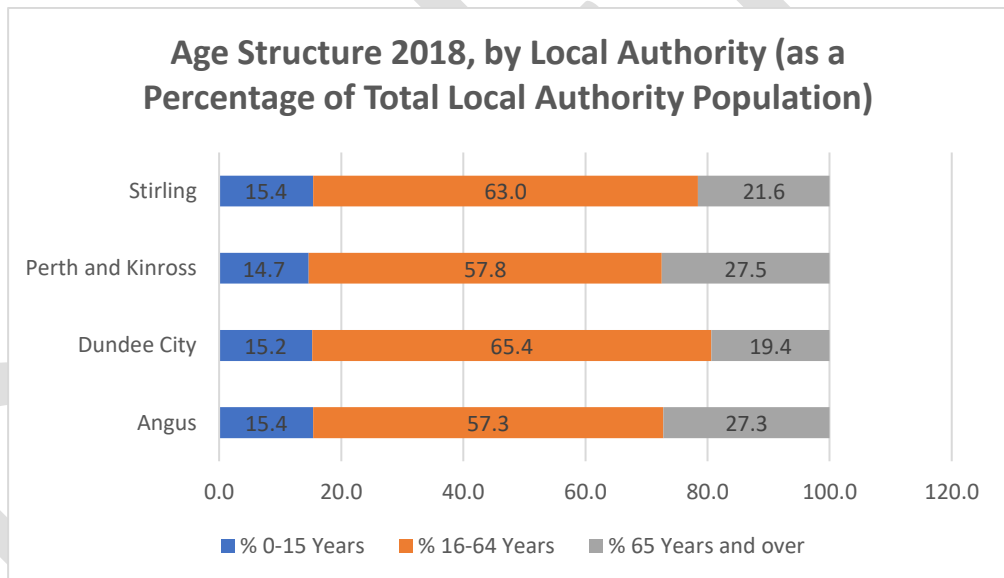
<sup>37</sup> NATIONAL RECORD OF SCOTLAND (2020): Small Area Population Estimates 2020

<sup>38</sup> IBID





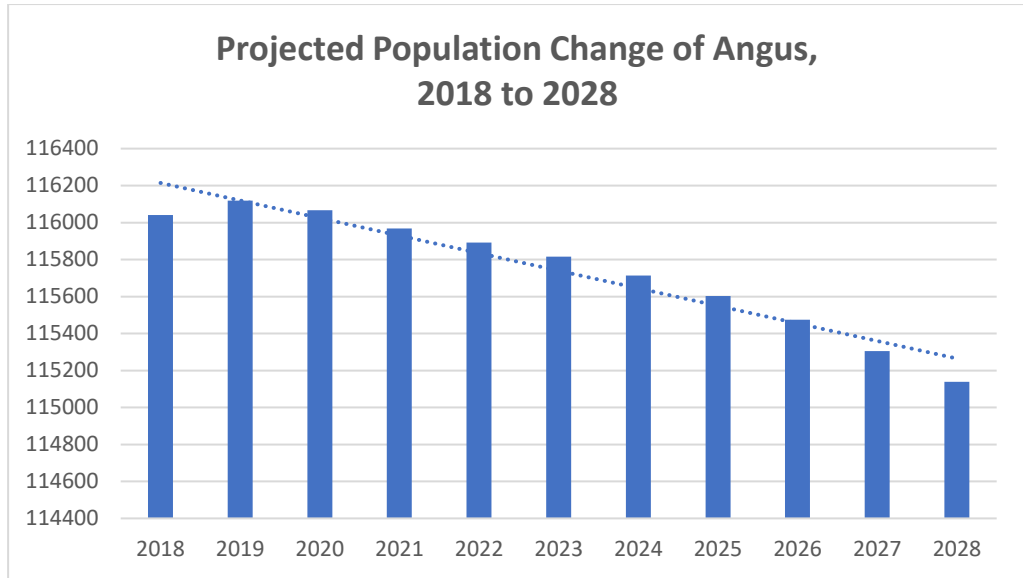
Source: NATIONAL RECORDS OF SCOTLAND (2020): Mid-2018 Population Estimates



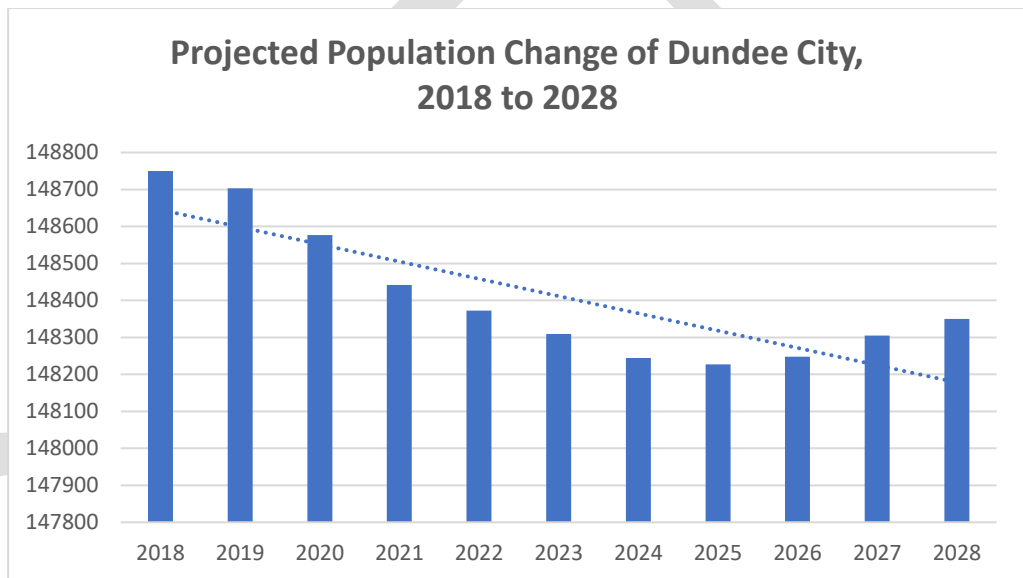
Source: IBID

By 2028 the population in the Tactran region is projected to increase by 1.0% from 510,410 in 2018 to 515,103 in 2028. The population change varies considerably by constituent Council, with both Angus (-0.8%) and Dundee City's (-0.3%) population expected to fall slightly by 2028. In Perth and Kinross the population is projected to increase by 1.0% between 2018 and 2028, and the population of Stirling will increase by 4.8% by 2028<sup>39</sup>.

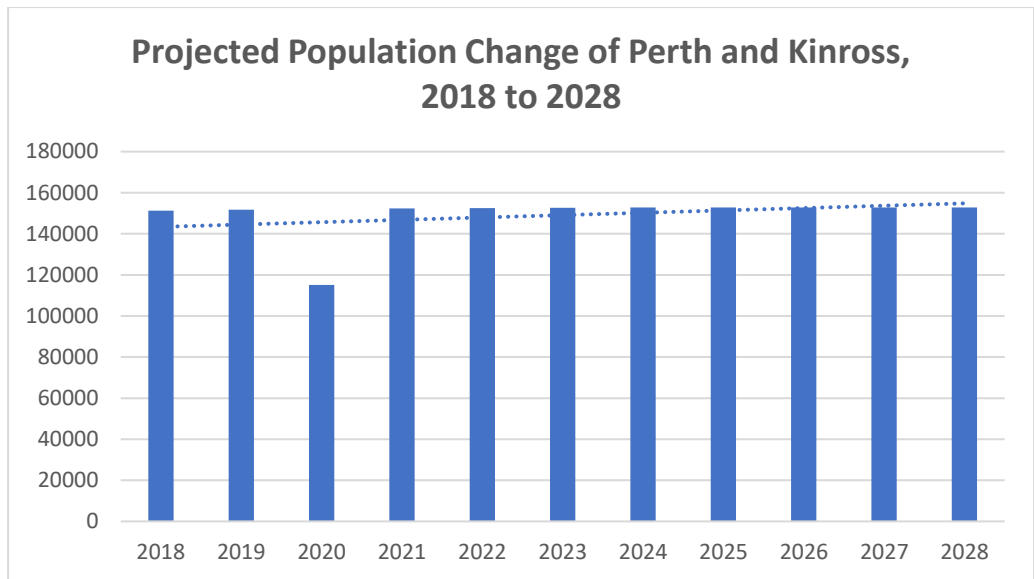
<sup>39</sup> NATIONAL RECORDS OF SCOTLAND (2020): Population Estimates Time Series Data



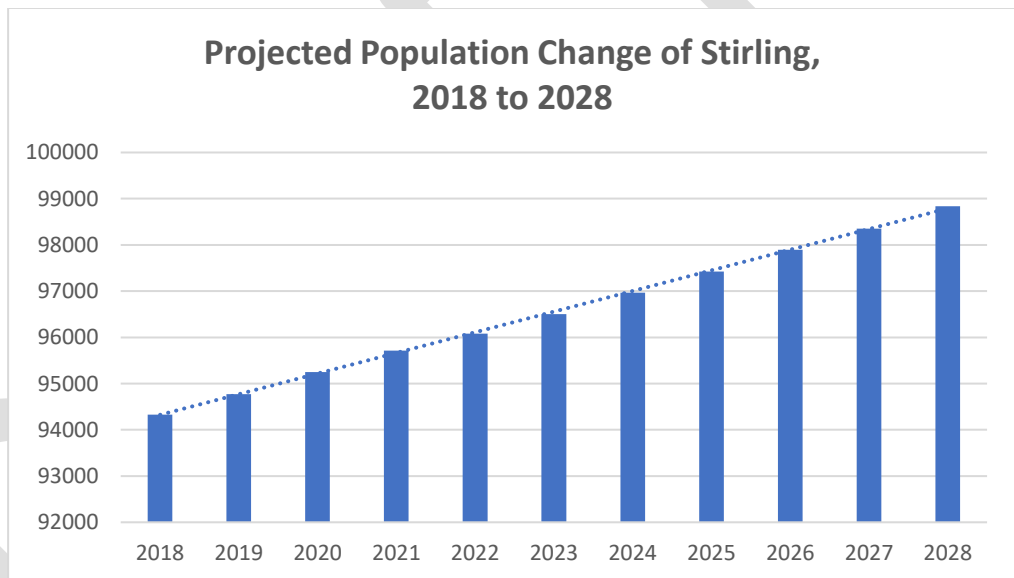
Source: NATIONAL RECORDS OF SCOTLAND (2020): Population Estimates Time Series Data



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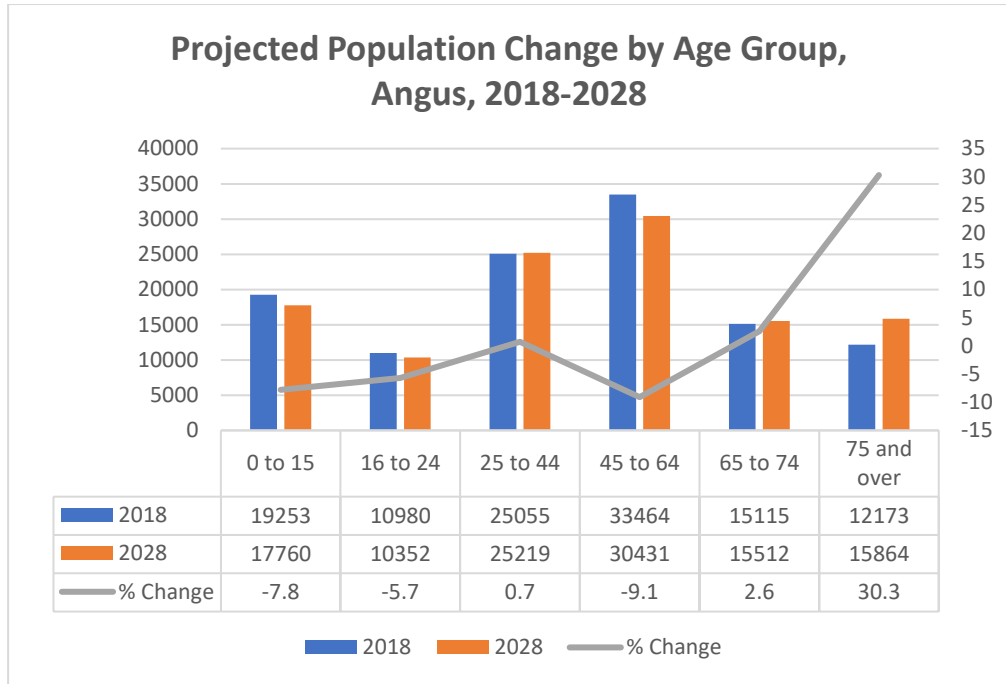


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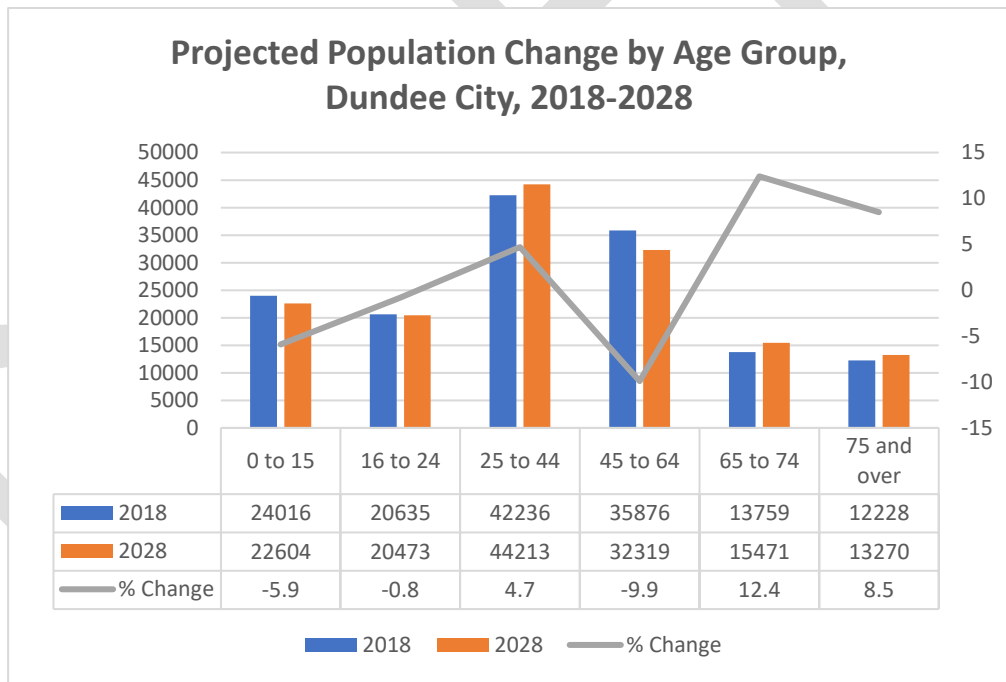
The projected change is not consistent across all age groups. Continuing the current trend of an increasingly ageing population, between 2018 and 2028, the 65 to 74 age group (+8.8%) the 75 and over age group (+23.8%) is projected to see the largest percentage increase<sup>40</sup>.

The change in age structure varies considerably by constituent Council.

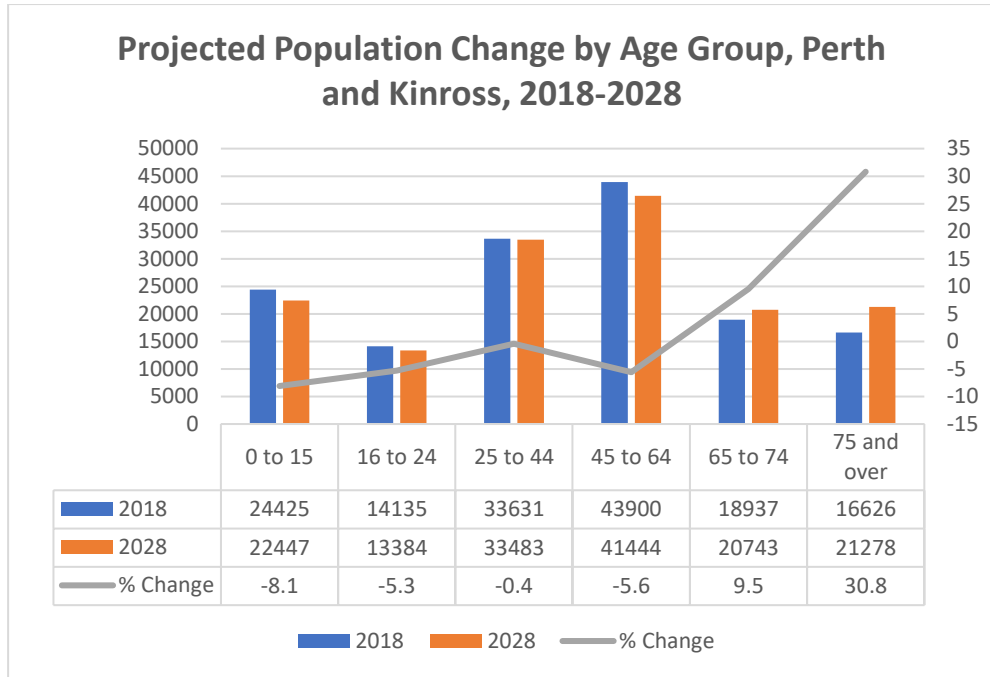
<sup>40</sup> NATIONAL RECORDS OF SCOTLAND (2020): Population projections for Scottish Areas (2018-based)



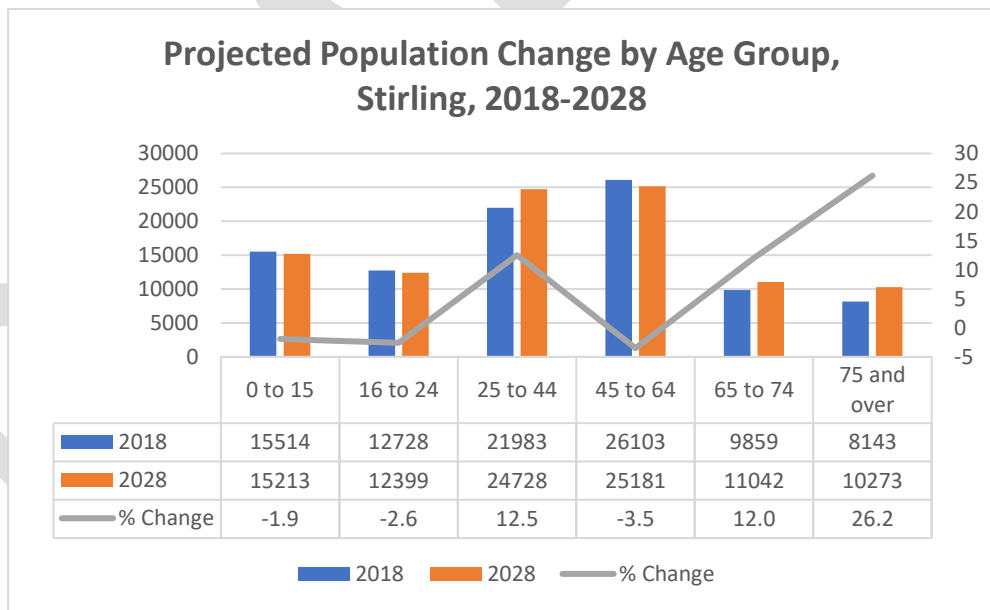
Source: NATIONAL RECORDS OF SCOTLAND (2020): Population projections for Scottish Areas (2018-based)



Source: IBID



Source: IBID



Source: IBID

## Age<sup>41</sup>

Older age groups make up a larger proportion of the rural than urban population and rely more heavily on the public transport system than younger age groups. The inadequacies of rural transport choices often provide the context in which older people's experiences of everyday travel within the region are set.

There is a widespread perception that public bus services do not provide a reliable and accessible mode of transport in rural areas (also cp. AHERN and

<sup>41</sup> This section considers older people (65+ plus years old). Children and younger people (aged 16-24 years old) are considered within the Children Rights and Wellbeing Impact Assessment above.

HINE, 2012; DE KONING et al., 2015; KING and FARMER, 2009; MANTHORPE et al., 2004; SHERGOLD and PARKHURST, 2012; SHERGOLD et al., 2012; WARD et al., 2013; WINDLE, 2004). During the consultation on the main issues, respondents spoke about the absence and inadequacies of public bus services, including difficulties getting to bus stops and boarding buses. According to WARD et al. (2013) and SHERGOLD et al. (2012), such negative perceptions may not be based on direct personal experience; together with the perceived barriers to rural bus travel limited knowledge of, and interest in, bus travel, are perceptual barriers that further contribute to car dependence. In consequence, and despite free travel being available for older people at off-peak times, public bus services were typically not considered a viable option for everyday travel.

As with travelling by bus, mobility limitations could make alternative travel modes difficult to use. DRT schemes (for example, minibuses and shared taxis) may lack wheelchair access and space to carry folded wheelchairs and mobility scooters (cp. WARD ET AL., 2013). Lack of use was again associated with low levels of awareness of and confusion about DRT, including eligibility and how to access it (IBID).

Attending healthcare appointments is particularly difficult for those in rural communities within the Tactran region without access to a car. Over 25% of the population over the age of 65 without access to a private car are over 60 mins away 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.

However, alternative travel modes – for example, hospital transport services and taxis – were often experienced as problematic. During the consultation on the main issues, responses highlighted that the Scottish Ambulance Service (SAS) is currently filling the gap caused by poor public transport options, especially in rural areas within the region, and the SAS does not have the capacity to meet this demand.

## **Disability**

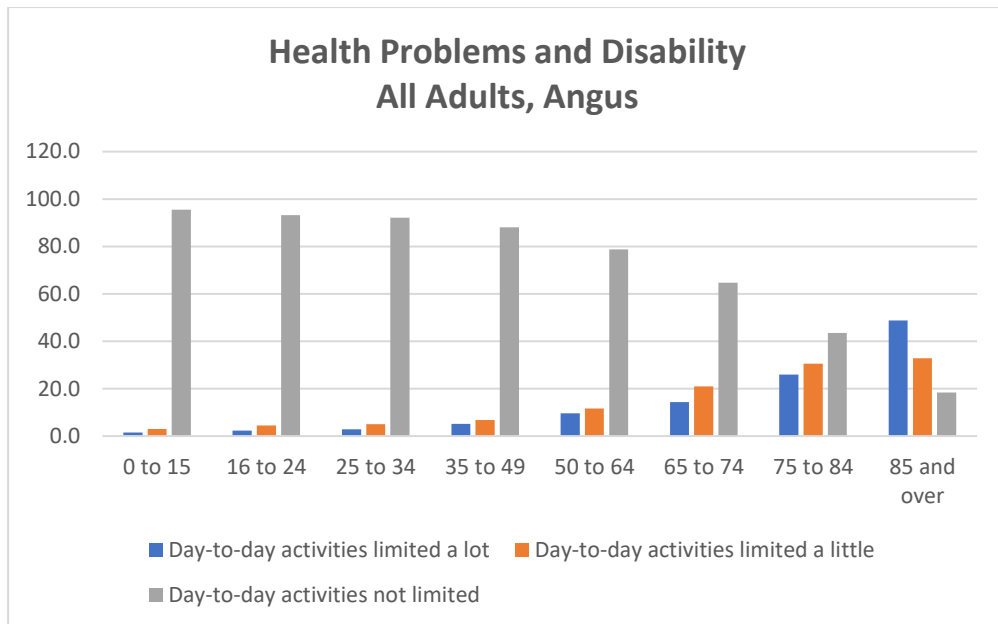
The 2011 Census collected information on the presence of a long-term health problem or disability. People were asked if their day-to-day activities were limited because of a health problem or disability which has lasted, or is expected to last, at least 12 months.

In Angus, 8.4% of people reported a health problem or disability which limited activities 'a lot' and 10.5% reported a health problem or disability which limited activities 'a little'<sup>42</sup>. The proportion of people whose activities were limited was highest in the 65+ year group, with 22.6% saying their activities were limited 'a lot' and 25.7% saying their activities were limited 'a little'<sup>43</sup>.

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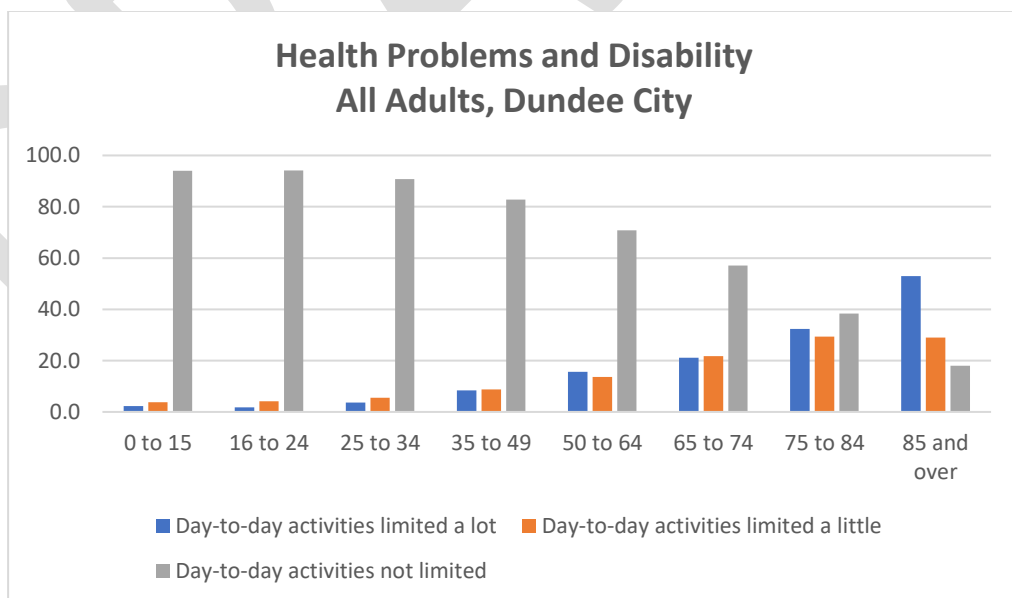
<sup>42</sup> NATIONAL RECORDS OF SCOTLAND (2012): Scotland's Census (2011)

<sup>43</sup> IBID



Source: Scotland's Census, 2011

In Dundee City, 10.5% of people reported a health problem or disability which limited activities 'a lot' and 10.4% reported a health problem or disability which limited activities 'a little'<sup>44</sup>. With 29.4% of the over 65s saying their activities were limited 'a lot' and 25.5% saying their activities were limited 'a little'<sup>45</sup>, the proportion of people whose activities were limited because of a health problem or disability was highest in this age group.



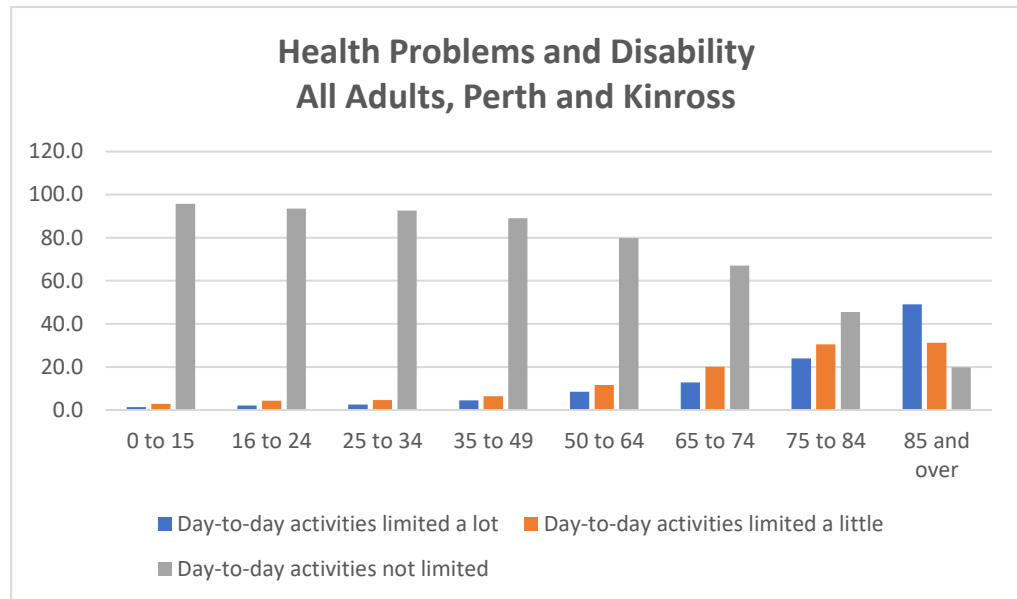
Source: Scotland's Census, 2011

In Perth and Kinross, 7.8% of people reported a health problem or disability which limited activities 'a lot' and 10.3% reported a health problem or disability

<sup>44</sup> NATIONAL RECORDS OF SCOTLAND (2012): Scotland's Census 2011

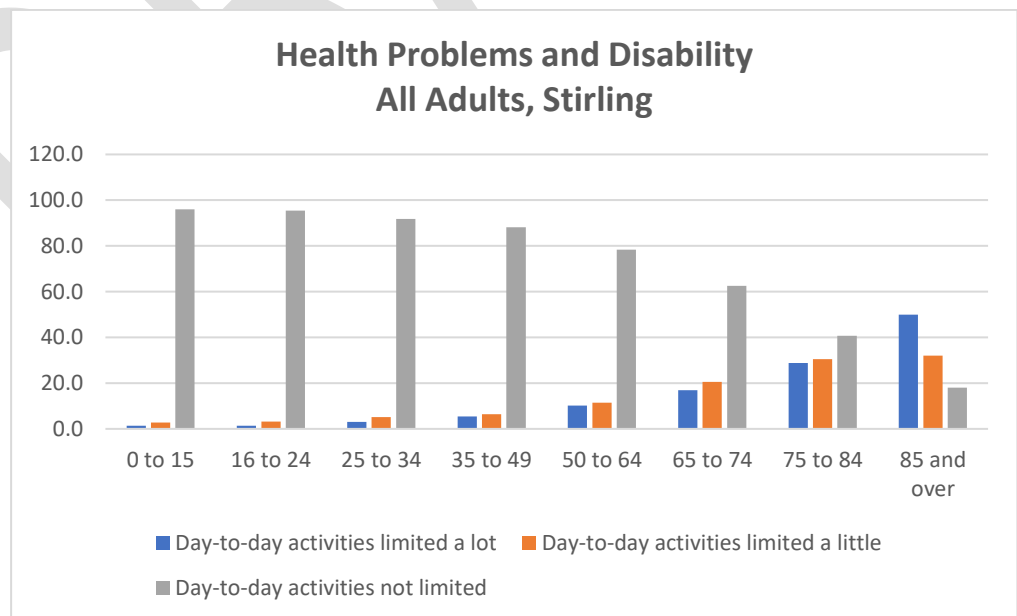
<sup>45</sup> IBID

which limited activities 'a little'<sup>46</sup>. 21.3% of the over 65s saying their activities were limited 'a lot' and 25.3% saying their activities were limited 'a little'<sup>47</sup>.



Source: Scotland's Census, 2011

In Stirling, 8.1% of people reported a health problem or disability which limited activities 'a lot' and 9.4% reported a health problem or disability which limited activities 'a little'<sup>48</sup>. The proportion of people whose activities were limited was highest in the 65+ year group, with 24.8% saying their activities were limited 'a lot' and 25.2% saying their activities were limited 'a little'<sup>49</sup>.



Source: Scotland's Census, 2011

<sup>46</sup> IBID

<sup>47</sup> IBID

<sup>48</sup> NATIONAL RECORDS OF SCOTLAND (2012): Scotland's Census 2011

<sup>49</sup> IBID



Disability increases with age. Due to the longer life expectancies of women, a higher proportion of disabled people are women<sup>50</sup>.

Disabled people of working-age within the region are less likely to be employed, and those that are, are more likely to be working part-time than non-disabled people. Subsequently, they are considerably less likely to commute than non-disabled residents due to lower rates of employment. This is partly due to the older age profile of disabled people within the region<sup>51</sup>.

Disabled people within the region travel less frequently than non-disabled.

The barriers to increased public transport use faced by disabled people depend somewhat on their impairment. Disabled people or those with a long-term health condition, however, may face a number of barriers to travelling. Many of these involve the physical accessibility<sup>52</sup> of public transport, though they can also include less tangible barriers such as reduced confidence in travelling independently.

Prompted concerns over anti-social behaviour as well as fear of crime affect a greater proportion of disabled people.

The SCOTTISH HOUSEHOLD SURVEY asks people who have recently used trains and buses about different aspects of their experiences. Disabled people were generally slightly less positive about their experiences than people who were not disabled, although differences were small for most aspects. The area where the difference was highest was whether individuals felt 'safe and secure on the [bus or train] at night'. 58% of disabled people agreed they felt safe and secure on the bus at night compared to 73% of non-disabled people<sup>53</sup>.

The attitudes and behaviour of staff and fellow passengers can significantly affect the journey experience for disabled people. Helpful and supportive staff contribute positively to the journey experience though it is acknowledged that impairments can be hidden and not immediately obviously to staff and other passengers.

Also important in improving the travel experience of disabled passengers is accessibility of information. For both pre-journey planning and journey completion, it seems information sources are under-used. According to the OFFICE FOR NATIONAL STATISTICS (2011), access to the internet is lower amongst disabled people than non-disabled people, with 36% of disabled people in the UK have never used the internet. This figure falls to 11% for non-disabled people. Much of this can possibly be explained by the older age profile of disabled communities since access to the internet declines with age.

## Race

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<sup>50</sup> NATIONAL RECORDS OF SCOTLAND (2012): Scotland's Census 2011

<sup>51</sup> **NEED TO CHECK SOURCE HERE**

<sup>52</sup> Issues of physical accessibility are often exacerbated at peak times when passenger numbers are higher.

<sup>53</sup> TRANSPORT SCOTLAND (2020): Transport and Travel in Scotland 2019

Tactran region is not characterised by a diverse population. Recent figures (year ending June 2021) from National Records of Scotland estimate that in Angus, 5.17% of the population was born outside the UK (compared to 9.8% for Scotland). Of those, it is estimated that 66.67% are from EU countries and 33.33% from non-EU countries<sup>54</sup>.

In Dundee City, 8.97% of the population was born outside the UK. Of those, it is estimated that 69.23% are from EU countries and 30.77% from non-EU countries<sup>55</sup>.

In Perth and Kinross, 6.71% of the population was born outside the UK. Of those, it is estimated that 90.00% are from EU countries and 10.00% from non-EU countries<sup>56</sup>.

In Stirling, 1.08% of the population was born outside the UK. Of those, it is estimated that 1.000 residents are from EU countries. Figures for residents from non-EU countries were not available<sup>57</sup>.

The 2001 Census records the total Black and Minority Ethnic (BME) population in Scotland as being 101,677 people or 2.01% of the total population<sup>58</sup>. Settlement of BME population across Scotland is highest in urban areas, including Dundee City and Stirling, where employment opportunities are a significant pull factor.

Local Authority	Total Population	BME Population	Percentage BME Population
Angus	108,400	856	0.79
Dundee City	145,663	5,331	3.66
Perth and Kinross	134,949	1,309	0.97
Stirling	86,212	1,285	1.49

Source: NATIONAL RECORDS OF SCOTLAND (2012): Scotland's Census 2011

According to the 2011 Census, certain ethnic minority households were likely not to have to a car or van. According to the Scottish Household Survey<sup>59</sup>, some ethnic minority groups are more likely to travel to work by walking or public transport and are also highest amongst those that never cycle for either work or leisure purposes.

The COVID-19 pandemic has highlighted existing inequalities affecting BME communities and exacerbated inequalities in several areas, including transportation. People from those communities are more likely to rely on public transport to access employment than other groups. As such they would have relied on the continued operation of bus services during past lockdown periods.

## Religion or Belief

<sup>54</sup> OFFICE FOR NATIONAL STATISTICS (2021): Population by Country of Birth and Nationality, Scotland

<sup>55</sup> IBID

<sup>56</sup> IBID

<sup>57</sup> IBID

<sup>58</sup> NATIONAL RECORDS OF SCOTLAND (2012): Scotland's Census 2011

<sup>59</sup> TRANSPORT SCOTLAND (2020): Transport and Travel in Scotland 2019

Over a third (36.6%) of the Scottish population do not have a stated religion and this is the largest category within the 2011 Census. 32.4% of people identified the Church of Scotland as their main belief and 15.9% identified the Roman Catholic Church. There are several other religious minorities in Scotland, with Muslim being the largest of these at 1.5%<sup>60</sup>.

	Angus	Dundee City	Perth and Kinross	Stirling
No Religion	39.9	40.8	37.2	37.8
Church of Scotland	40.8	25.3	38.5	35.0
Roman Catholic	6.7	18.3	8.9	12.3
Muslim	0.3	2.6	0.5	0.6

Source: NATIONAL RECORDS OF SCOTLAND (2012): Scotland's Census 2011

After walking, the most commonly used type of transport by BEM communities in Scotland is the bus<sup>61</sup>. According to the SCOTTISH GOVERNMENT (2020), Muslim adults in Scotland are more likely to be living in relative poverty (49%) than adults overall (18%)<sup>62</sup>.

In 2016/17, the median hourly earnings of White British people were £11.53<sup>63</sup>. Muslims had significantly lower median earnings (£9.19) than those of no religion or Christians (both £11.39). The pay gap between Muslim adults and those of no religion was as high as 19.3%<sup>64</sup>. This group might, subsequently, be more vulnerable to the costs of transport and as such face barriers in accessing employment, education, healthcare, and other services as a result.

## Sex

There were more females (51.3%) than males (48.7%) living in the region. This figure increases with age due to the longer life expectancies of women (cp. XX). The key demographic differences between men and women are employment status and the presence or absence of children in the household.

Women often have the primary responsibility in the household for childcare. They have different employment characteristics to men and fewer financial resources. 28% of women are not working at present, with a further 41.24% employed part-time (compared to 22% and 12% of men respectively)<sup>65</sup>.

Those factors result in women and men travelling by different means, at different times, to different locations over different distances.

<sup>60</sup> NATIONAL RECORDS OF SCOTLAND (2012): Scotland's Census 2011

<sup>61</sup> IBID

<sup>62</sup> SCOTTISH GOVERNMENT (2020): Poverty and Income Inequality in Scotland 2016-19

<sup>63</sup> EQUALITY AND HUMAN RIGHTS COMMISSION SCOTLAND (2018): Is Scotland Fairer? The State of Equality and Human Rights 2018

<sup>64</sup> IBID

<sup>65</sup> SCOTTISH GOVERNMENT (2020): Annual Population Survey 2019

Lone parents experience particular difficulties; for example, there is a clear relationship between lone motherhood and poverty. According to the SCOTTISH EXECUTIVE (2020), just 11% of women living alone with children had a household income of more than £20,000, compared with over 55% of those living with a male partner.

In Scotland, only 28% of lone parents hold a driving licence. Women living alone with children were found to be more than five times as likely as those living with a partner (of either gender) to use a taxi, and around 1.5 times as likely to use a bus<sup>66</sup>.

Lone parents were also three times more likely to feel restricted by lack of facilities, and more than twice as likely to be restricted by cost of fares, than any other group.

ROSENBLOOM and BURNS (1994) have indicated that single mothers have remarkably different travel patterns to either married women or men with children<sup>67</sup>. The authors found that lone mothers made significantly more trips than married mothers, presumably because of the lack of a partner to share the workload.

Women make a greater number of journeys per weekday compared to men. The presence of school-aged children increases the average number of journeys made by women by approximately one-quarter.

Women tend to complete more trips per weekday than men, though these trips are often shorter and have consecutive purposes (known as trip-chaining). The trips made by women tend to be completed using different transport modes compared to men. In 2019, 77% of men held a full driving licence compared to 66% of women<sup>68</sup>. Subsequently, 35% of women drive at least once a week compared to 45% of men and are, therefore, more likely to be a car passenger (52% compared to 40% of men)<sup>69</sup>.

Women are also more likely to use the bus. 64% of women do so at least once a week compared to 57% of men<sup>70</sup>. 54% of journeys completed wholly on foot are made by women<sup>71</sup>. Reflecting employment patterns, women are less likely to travel for the purposes of work compared to men. Instead, a higher proportion of journeys are made for personal business, shopping and accompanying children.

When travelling, women are more likely than men to be travelling with buggies and/or shopping. This can affect mode choice.

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<sup>66</sup> REID-HOWIE ASSOCIATES (2000): Women and Transport: Moving Forward. Report for the Scottish Executive

<sup>67</sup> ROSENBLOOM and BURNS (1994): Why Working Women Drive Alone: The Implications for Travel Reduction Programs. Paper prepared for the 1994 Annual Meeting of the Transportation Research Board.

<sup>68</sup> TRANSPORT SCOTLAND (2020): Transport and Travel in Scotland 2019

<sup>69</sup> IBID

<sup>70</sup> IBID

<sup>71</sup> IBID

Personal safety after dark is a concern for women (more so than for men) but during the day, these concerns are comparable with those of men.

### **Pregnancy / Maternity**

The number of births registered in 2020 for each of the constituent Council areas and the respective births rates are as follows:

	Angus	Dundee City	Perth and Kinross	Stirling	Scotland
Births (Number)	860	1.287	1.186	696	46.809
Births (Rate)	7.4	8.6	7.8	7.4	8.6

Source: NATIONAL RECORDS OF SCOTLAND (2021): Vital Events Reference Tables 2020

REID-HOWIE ASSOCIATES (2000) identified a range of constraints to transport use, and the report concludes that the transport which is provided in Scotland imposes a number of restrictions on women. Specific groups were found to experience constraints in terms of their use of transport in different ways, including pregnant women who are mobility restricted – particularly during later stages of pregnancy<sup>72</sup>.

Exposure to air pollution has been identified as a particular issue in relation to the health of unborn children<sup>73</sup>. The research indicates that air pollution linked to transportation is linked to poor pregnancy outcomes leading to children being more susceptible to disease later in life.

In addition, research shows that a lack of physical activity such as walking, or cycling can be an essential factor in the occurrence of depressive disorders of women in the post-natal period<sup>74</sup>.

### **Sexual Orientation / Gender Reassignment**

Data on gender reassignment figures is not available at a Local Authority level. However, 1.6% of Scottish residents aged 16 or over identified themselves as lesbian, gay or bisexual in 2015<sup>75</sup>. In Angus, this equates to 1.856 residents. In Dundee City, this equates to 2.320 residents. In Perth and Kinross, this equates to 2.384 residents, and in Stirling this equates to 1.472 residents.

Between 2014/15 and 2019/20 there was a 100% increase in transgender hate crime in Scotland, increasing from 48 to 96<sup>76</sup>, and there was a 30% rise in

<sup>72</sup> REID-HOWIE ASSOCIATES (2000): Women and Transport: Moving Forward. Report for the Scottish Executive

<sup>73</sup> SMITH et al. in British Medical Journal (2017): Impact of London's Road Traffic Air and Noise Pollution on Birthweight

<sup>74</sup> KOŁOMAŃSKA-BOGUĆKA and MAZUR-BIALY (2019): Physical Activity and the Occurrence of Postnatal Depression

<sup>75</sup> SCOTTISH GOVERNMENT (2017): Sexual Orientation in Scotland 2017: Summary of Evidence Base

<sup>76</sup> SCOTTISH GOVERNMENT (2021): Characteristics of Police Recorded Hate Crime in Scotland

crimes where sexual orientation was the aggravating factor – with 1,314 incidents recorded last year compared to 1,010 in 2014-15<sup>77</sup>.

A survey undertaken by the GOVERNMENT EQUALITIES OFFICE confirmed that respondents within that category most feared for their safety on the streets and using public transport<sup>78</sup>. Research by STONEWALL SCOTLAND (2017) confirmed this, with almost half of transgender persons in Scotland having experienced a transphobic hate crime or incident in the year previous to 2017<sup>79</sup>, and three in ten LGBT people (26%) confirmed that they avoid certain streets because they do not feel safe as an LGBT person there<sup>80</sup>.

### **Marriage and Civil Partnership**

No information has been found on specific relationships between transport impacts and marriage and civil partnership.

Resources are not available to commission research in this area. However, Tactran will continue to scan the available literature for forthcoming publications in this area.

### **Assessment of Impacts**

The below tables provide an assessment of the potential equality impacts of the RTS3 recommendations. The assessments draw on the above evidence presented for the protected characteristics.

The individual recommendations have been grouped into nine delivery themes for presentational purposes, comprising:

- i. Improving safety;
- ii. Influencing travel choices and behaviour;
- iii. Improving access to public transport;
- iv. Improving sustainable travel opportunities;
- v. Decarbonising transport and a just transition;
- vi. Improving the accessibility and security of our transport networks;
- vii. Reducing the need to travel by car through the location of development and services
- viii. Improving strategic connectivity; and
- ix. Improving network resilience.

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<sup>77</sup> IBID

<sup>78</sup> Government Equalities Office (Updated 2019): National LGBT Survey  
[www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/85499/transgender-survey.pdf](http://www.gov.uk/government/uploads/system/uploads/attachment_data/file/85499/transgender-survey.pdf)

<sup>79</sup> STONEWALL SCOTLAND (2017): LGBT in Scotland – Hate Crime and Discrimination

<sup>80</sup> IBID

## Improving Safety

Recommendations include:

### I. Reduce Speeds

#### i. Reducing speeds in Settlements

- Expansion of 20mph limits and zones
- Review speed limits in residential and neighbourhood environments focusing on areas with road safety concerns
- Other localised safety schemes such as traffic calming measures and road / junction realignments and redesigns

#### ii. Addressing network blackspots

- Review speed limits
- Road / junction realignments and redesigns

#### iii. Road safety enforcement, including enforcement of speed restrictions via camera technology

### II. Provide Road Safety Education

Education measures, which include training and publicity, aiming to provide road users with the knowledge and skills needed to use the roads safely. Focused on:

- i. Road safety education pre-school, primary and secondary schools
- ii. Road safety education for adults, such as drivers
- iii. Road safety education for 17-25yr olds

### III. Improve Rest and Welfare Facilities for Hauliers

Increase the range of rest facilities within the region available to drivers

Freight is still predominantly road-based with most HGV drivers regularly traveling long distances. Without sufficient rest, drivers can experience fatigue which can be dangerous for themselves and other road users.

Protected Groups				
Indicator	Positive	Neutral	Negative	Unknown
Age (Young)	Yes			
Age (Old)	Yes			
Disability	Yes			
Race	Yes			
Religion Belief		Yes		
Sex	Yes			
Pregnancy Maternity	Yes			
Sexual Orientation		Yes		

Gender Reassignment		Yes		
Marriage Civil Partnership		Yes		

Socio-Economic Groups				
Indicator	Positive	Neutral	Negative	Unknown
Low Income	Yes			
Low wealth	Yes			
Material Deprivation	Yes			
Area Deprivation	Yes			
Socio-Economic Background	Yes			

Positive Impacts
<p>The RTS will implement recommendations seeking to create safer streets and roads for both motorised and non-motorised road users within the region.</p> <p>With children and young people being considered vulnerable road users, the RTS will implement measures with a particular focus on educational activities such as Bikeability training, and road safety interventions where schools are located, with school safety zones, and safe routes to schools.</p> <p>Younger drivers, particularly young men, are more likely to be involved in a collision. The RTS will continue to deliver targeted campaigns and will provide a framework to deliver road safety engineering schemes, particularly on the rural road network. This will positively affect the health of this vulnerable road user group through a reduction in the number of collisions and, the collision severity.</p> <p>With an ageing population in the region, older drivers are a vulnerable road user group that will need more interventions. The RTS will deliver interventions to provide targeted support.</p> <p>CLARK ET AL. (2009) found that driving at excessive speed, driver intoxication, driver and/or passenger failure to wear seatbelts, and unlicensed/uninsured driving are most prevalent in fatal collisions in the most deprived SIMD quintiles<sup>81</sup>. ABDALLA ET AL. (1997) analysed a database created by merging road casualty information and census data in Scotland and noted that '... in general it was found that the casualty rates amongst residents from areas classified as relatively deprived were significantly higher than those from relatively affluent areas'<sup>82</sup>. The RTS will implement interventions to provide targeted support.</p>

<sup>81</sup> David D. Clarke, Pat Ward, Wendy Truman and Craig Bartle (2009): A poor way to die: social deprivation and road traffic fatalities, Nottingham University  
[https://psychology.nottingham.ac.uk/staff/ddc/c8cxpa/further/CR\\_material/poorwaytodie.pdf](https://psychology.nottingham.ac.uk/staff/ddc/c8cxpa/further/CR_material/poorwaytodie.pdf)

<sup>82</sup> ABDALLA, I. M., RAESIDE R., BARKER D. AND MCGUIGAN D. R. (1997): An investigation into the relationships between area social characteristics and road accident casualties. Accident Analysis and Prevention, 29(5), 583–593.



While young drivers under the age of 24 years form high proportions of fatal casualties across all SIMD quintiles, older drivers and passenger fatalities are more concentrated in the least deprived SIMD quintiles<sup>83</sup>.

Children from the most deprived backgrounds are five times more likely to be injured on the roads compared with children from the most affluent backgrounds<sup>84</sup>. Other research making the same comparison, but using a different measure of social background, found that the pedestrian fatality rate per population was 20 times higher amongst children from the most deprived backgrounds than children from the least<sup>85</sup>. In part, this is due to more walking or cycling, the public realm and the social environment characterised in the more deprived areas. Despite lower car ownership, deprived areas often have roads which carry large volumes of through traffic which can lead to an increased risk of injury from road traffic collisions.

An increase of 1,000 vehicles a day on a road is associated with a 6% increase in pedestrian injuries, a 5% increase in cyclist injuries, and a 7% increase in vehicle occupant injuries<sup>86</sup>.

Research has found that in the United Kingdom children from ethnic minorities are up to twice as likely as average to be involved in road accidents while walking or playing. Subsequently, road safety measures could particularly benefit this equality group.

Pregnant women and those with young children are less mobile and more vulnerable, a perception of road danger can, subsequently, negatively impact their mobility and injury severity in case of a collision. By reducing road danger both real and perceived, the RTS will positively impact this group.

Unsafe infrastructure layouts affect the ability of people to create and maintain social contact. People who live on streets with higher volumes of motorised traffic adapted to the level of traffic by going out less, and so had fewer friends and acquaintances on the street than those who live on streets with lower traffic volumes. Social contact and isolation can be a greater issue particularly amongst the elderly. People with no social contact are between two to four and a half times more times likely to die prematurely than those who have the most social contacts. Social support networks are also important for good health. A recent review identified that wide social support networks reduce depression and problem behaviours and can encourage positive health behaviours such as more physical activity<sup>87</sup>.

The RTS will implement interventions to provide targeted support.

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<sup>83</sup> David D. Clarke, Pat Ward, Wendy Truman and Craig Bartle (2009): A poor way to die: social deprivation and road traffic fatalities, Nottingham University

<sup>84</sup> Cp. EDWARDS ET AL.(2006): Deaths from injury in children and employment status in family: analysis of trends in class specific death rates. In: BMJ, 2006

<sup>85</sup> Cp. EDWARDS ET AL.(2006): Deaths from injury in children and employment status in family: analysis of trends in class specific death rates. In: BMJ, 2006

<sup>86</sup> Cp. MORENCY (2012): Neighborhood social inequalities in road traffic injuries: the influence of traffic volume and road design. In: Am J Public Health, 2012;102:1112–1119

<sup>87</sup> MCPHERSON ET AL (2013).: The role and impact of social capital on the health and wellbeing of children and adolescents: a systematic review.

The lack of safe infrastructure for pedestrians and cyclists has a disproportionately greater impact by restricting accessibility and movement for people with mobility impairments and individuals who have impaired vision or hearing. The RTS looks to improve road safety for all potential users, making it easier and safer to get around, encouraging more people to travel more actively more often.

It is also worth noting that there are social impacts of road-based haulage of hazardous materials, particularly for residents of poor and disadvantaged communities. Those individuals are more at risk of exposure to hazardous materials spills due to their greater likelihood of residing near a trunk road; and/or near industrial land uses, including the cargo's origin and / or destination.

Negative Impacts and Mitigation	
Impact Area	Details and Mitigation
<p>The key policy to improve safety been tested for their impacts on equality. The results demonstrate that none of these recommendations have a negative impact on equality, and in a number of instances have a positive impact towards promoting equality.</p> <p>It should be noted that the recommended interventions will probably have an overall negligible impact on any of the protected characteristics at regional level but will result in considerable positive impacts at a local level.</p>	n/a

Information Gaps
n/a

Proposed Measures to Close Information Gaps
n/a

Accounting for the Views of Protected Groups
Tactran commissioned a representative sample of the population of the Tactran region. The engagement work has been commissioned to identify the needs and barriers of hard-to-reach communities to ensure the portfolio of RTS interventions delivers change in a fair and equitable way. The selection of the sample has been informed by the IIA process to ensure that all equality groups are included.

Advancing Equality of Opportunity

The work delivered to improve road safety by Tactran is likely to result in considerable positive impacts for equality groups such as: Improvements to road safety and personal safety will realise positive impacts for equality groups as they tend to be over-represented in terms of accidents and their fear of crime.

If potentially negative issues are to be identified in further consultation, it is considered that these can be well mitigated, taking on board suggestions during implementation. Tactran will give due consideration to the specific needs identified and to how to incorporate mitigating measures and opportunities to maximise equality.

#### Fostering Relations

By implementing interventions to improve road safety within the region, Tactran is increasing people's access to employment opportunities and services, and facilities people need to access on a daily basis.

#### Overall Outcome

Positive. No negative impacts have been identified.

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## Influencing Travel Choices and Behaviour

Recommendations include:

- I. Promoting Smarter Choices
  - i. Campaigns to promote active and sustainable travel in Travel to Work Areas
  - ii. Develop and deliver Travel Plans and School Travel Plans
  - iii. Promoting LiftShare / Ride Sharing schemes
- II. Parking Controls, Road Space Re-Allocation and Traffic Management

The attractiveness of car use compared to public transport and active travel modes can be influenced by:

- i. Workplace Parking Levy / Congestion Zone Charging
  - ii. Public parking charges
  - iii. Reallocation / Reduction of the numbers of both on-street and off-street parking spaces within town centres
  - iv. Reallocation of carriageway, giving more space to active and sustainable modes
  - v. Re-routing motorised traffic on longer and/or less direct routes for the benefit of the wider network
- III. Road User Charging

Road users could be charged either for the length of trip made or for entering a specific area, such as a city centre, to encourage the use of sustainable modes to make the trip

Protected Groups				
Indicator	Positive	Neutral	Negative	Unknown
Age (Young)	Yes			
Age (Old)			Yes	
Disability			Yes	
Race			Yes	
Religion Belief		Yes		
Sex	Yes			
Pregnancy Maternity	Yes			
Sexual Orientation		Yes		
Gender Reassignment		Yes		
Marriage Civil Partnership		Yes		

Socio-Economic Groups				
Indicator	Positive	Neutral	Negative	Unknown
Low Income			Yes	
Low wealth			Yes	
Material Deprivation			Yes	

Area Deprivation			Yes	
Socio-Economic Background			Yes	

#### Positive Impacts

Young people, and in particularly children, make more walking and cycling trips than any other age groups. Young people, subsequently, benefit in particular from investment in active travel. School Travel Plans and the ongoing promotion of walking and cycling most notably enhances their ability to access a wide range of opportunities. These active modes will also help to tackle the problem of childhood obesity.

According to the DfT's Personal Security Issues in Pedestrian Journeys, women tend to express more personal safety concerns than men; this is particularly so at night, where fear of crime can be a significant travel deterrent. Work to increase the numbers of people walking and cycling and, thus, providing natural surveillance to address such concerns and perception of danger will enable women to derive maximum benefits from the transport network in the Tactran offers.

#### Negative Impacts and Mitigation

Impact Area	Details and Mitigation
<p>Recent transport statistics clearly show that the higher a household's net income, the more likely it is that employed adults within that household will drive to work<sup>88</sup>. While 74% of adults from households with an income over £50,000 per annum drive to work, 43% of those adults from households with an income up to £10,000 per annum drive to work<sup>89</sup>.</p> <p>In addition, data further shows that the possession of a full driving licence is also strongly related to net household income. While 91% of households with an income over £50,000 per annum hold a driving licence only 50% of those with an</p>	<p>Although the use of revenues to improve the mobility<sup>93</sup> of at-risk groups, could go some way to ameliorating these problems it can prove very difficult to target the help effectively.</p> <p>It is possible to adjust any road user charging scheme to reduce the impacts on at-risk groups, such as by adjusting the scheme boundary, by redefining the basis for the charge, by allowing different methods of paying the charge or, by providing exemptions for certain groups<sup>94</sup> or, by relocating services and facilities people need to access on a daily basis.</p>

<sup>88</sup> <https://www.transport.gov.scot/publication/scottish-transport-statistics-no-37-2018-edition/sct01193326941-14/#tb1117>

<sup>89</sup> <https://www.transport.gov.scot/media/49874/scottish-transport-statistics-2020-may-2021.pdf>

<sup>93</sup> The London scheme included considerable investment in improved public transport services – particularly through an expansion in capacity and operating hours.

<sup>94</sup> The TfL scheme, for example, includes exemptions or discounts, including vehicles used by disabled people that are exempt from vehicle tax and have a 'disabled' taxation class (for a comprehensive list see TfL, 2023). A number of other groups, including low-paid workers who travel at unsocial hours (such as cleaners, market porters, theatre staff etc.) and emergency service staff who live outside the charge area, argued that they should also be exempt from the charge. It was decided, however, that these workers would not be exempt – it being argued that their employers ought to be prepared to pay the charge.

income up to £10,000 per annum hold a driving licence<sup>90</sup>.

The data shows that most people in employment living in households with a net income of less than £15,000 do not drive to work, with many not even having the option of doing so. While some people living in low-income households<sup>91</sup> will pay any Workplace Parking Levy, it is, subsequently, likely that the majority of people who drive to work and park in dedicated workplace car parks will be from households from middle to high incomes.

Not all car owners, however, are affluent. Recent evidence (TRANSPORT FOR SCOTLAND 2022) indicates that 40% of households in the lowest income group have access to a car (an increase from 26% in 1985/86). JONES (1998) notes that there is a particular problem for people on low incomes who need to use a car to access their work<sup>92</sup>.

Some of those for whom the Workplace Parking Levy would be an imposition will reduce their car use due to the charge and others will have to make economies elsewhere. Either could have serious consequences for some people and could make it difficult for them to continue to participate in society.

RAJE ET AL. (2004) identify several groups who are at risk from the introduction of road user charges, including those on low income. However, other circumstances will significantly exacerbate the problem, such as a difficulty or inability to use public transport would make individuals for whom the car is essential to their current pattern of participation in society particularly vulnerable to the introduction of road charges. Subsequently, the below

Potential changes will have to be assessed to determine whether they will make a real difference to the identified at-risk groups, whether the impacts on the overall effectiveness of the scheme are justified and whether the proposed measures represent an efficient use of limited public resources.

<sup>90</sup> <https://www.transport.gov.scot/media/49874/scottish-transport-statistics-2020-may-2021.pdf>

<sup>91</sup> Households with an average income below 60% of median income – £15,800 in 2017/18.

<sup>92</sup> JONES, P. (1998) Urban Road pricing: public acceptability and barriers to implementation. In: BUTTON, K., VERHOEF, E. (Eds), Road pricing, Traffic Congestion and the Environment, Edward Elgar, Cheltenham.

groups are particularly at-risk: those suffering from disabilities (access problems), elderly people (access problems and security fears), females (potential security fears), ethnic minority groups (potential security fears and inability to understand how to use public transport) and, of course, those whose trip is not served by public transport.

#### Information Gaps

Further data analysis is required to understand which form of road user charging would reduce the unwanted impacts on at-risk groups could be minimised without compromising the overall objectives of any road user charging scheme.

#### Proposed Measures to Close Information Gaps

Further analysis is required to understand the people affected by any charge, where they live, whether they could afford the charge, the purpose of their journey... etc.

Baseline data will be compiled from a wide range of sources including the Census 2021, including the Journey to Work Census 2021, Scottish Household Survey, SIMD2020, and recent surveys and research commissioned by Tactran and its four constituent local authorities to generate and investigate of a synthetic population of the region.

This analysis will provide an understanding of the distribution of people with protected characteristics and socio-economically deprived communities across the Tactran region and, will provide an indication of people who might be particularly at-risk from the introduction of road user charging schemes.

Information at this level of detail will help local authorities to introduce measures to reduce the unwanted impacts of road user charging schemes on vulnerable at-risk groups without compromising the overall objectives of any road user charging scheme and will assist Transport Scotland/Scottish Government in considering national Road User Charging.

#### Accounting for the Views of Protected Groups

Tactran commissioned a representative sample of the population of the Tactran region. The engagement work has been commissioned to identify the needs and barriers of hard-to-reach communities to ensure the portfolio of RTS interventions delivers change in a fair and equitable way. The selection of the sample has been informed by the IIA process to ensure that all equality groups are included.

#### Advancing Equality of Opportunity

The work delivered to promote smarter choices by Tactran is likely to result in considerable positive impacts for equality groups such as:

Investment in walking and cycling infrastructure is likely to realise advantages as many equality groups (women; children and younger people; older people; and disabled people) make proportionally more pedestrian trips than the wider population. Cycling is also a popular mode of transport amongst children and younger people; children aged 11 and 15 make more cycling trips than any other age bracket. These active travel modes will also be beneficial in terms of helping to reduce health inequalities experienced by some of these groups.

Potentially negative impacts with regards to the implementation of any road user charging scheme are to be identified in further analysis. It is considered that these can be well mitigated, identifying at-risk groups prior to implementing such schemes to adjust the scheme to reduce the impact.

Tactran will give due consideration to the specific needs identified and to how to incorporate mitigating measures and opportunities to maximise equality.

#### Fostering Relations

Engagement and discussions held during the development of the RTS meant initial relations were built up meaning any future discussion in relation to the implementation of any of the identified interventions to influencing travel choices and behaviour can build on those.

#### Overall Outcome

Identified negative impacts can be mitigated.

It is be possible to adjust any road user charging scheme to reduce the impacts on at-risk groups, such as by adjusting the scheme boundary, by redefining the basis for the charge, by allowing different methods of paying the charge or, by providing exemptions for certain groups, by using the revenues to improve the provision of viable alternative modes of travel, to reduce the impact on at-risk groups or, by relocating services and facilities people need to access on a daily basis.

Any adjustments should seriously be considered right from the outset to ensure that the impact on at-risk groups is minimised without compromising the overall objectives of the road user charging scheme.



## Improving Access to Public Transport

Recommendations include:

- I. Improved Public Transport Interchange
  - i. Strategic multi-modal interchange hub sites to transfer to coach or rail those long-distance car trips heading to Scotland's cities outwith the region.
  - ii. Local Park and Choose sites to provide interchange facilities at railway stations, bus stations and on public transport corridors serving towns to enable transfer to train, bus or bike into our larger towns and cities.
  - iii. Mobility Hubs link a number of transport services within a community to improve access via different modes to enable your onward journey. This usually means improving the ability to access bus services by, e.g. car and bicycle parking; bike hire; walking and cycling links; demand responsive bus services. But they could also help accessing car club & car sharing facilities.
  - iv. Passenger facilities along strategic bus corridors: ensuring accessible waiting facilities with information along strategic bus corridors. Campaigns to promote active and sustainable travel in Travel to Work Areas.
  
- II. New and Improved Rail and Bus Stations
  - i. New and improved bus stations
  - ii. New and improved rail stations on existing lines
  
- III. Easier Planning and Booking of Journeys
  - i. Journey planning tools to help people be aware of all the choices they have to make a journey
  - ii. Smart and integrated ticketing whereby tickets are stored electronically, usually on a smart card or other forms of smart media, enabling a person to use a single 'ticket' on different modes of transportation, such as bus and rail, or across different operators.
  - iii. MaaS products can provide both improved journey planning and provide smart, integrated ticketing

Protected Groups				
Indicator	Positive	Neutral	Negative	Unknown
Age (Young)	Yes			
Age (Old)	Yes			
Disability	Yes			
Race	Yes			
Religion Belief				Yes
Sex	Yes			
Pregnancy Maternity	Yes			

Sexual Orientation			Yes	
Gender Reassignment			Yes	
Marriage Civil Partnership		Yes		

Socio-Economic Groups				
Indicator	Positive	Neutral	Negative	Unknown
Low Income	Yes			
Low wealth	Yes			
Material Deprivation	Yes			
Area Deprivation	Yes			
Socio-Economic Background	Yes			

Positive Impacts
<p>Young People have an above average reliance on public transport to access essential services, employment opportunities and higher education/training. By improving access to public services, the RTS will enhance such access opportunities and will positively impact this group.</p> <p>Older People have an above average reliance on public transport to access services and facilities. They often place high importance on the availability of routes close to home. By improving access to public transport, the RTS is therefore likely to have positive differential impacts on elderly members of local communities.</p> <p>Members of communities with disabilities are much more likely to be dependent upon public transport than the car. The National Travel Survey (NTS, 2019) identifies that people with a disability or illness expected to last more than 12 months make more trips by bus than those without a disability. This dependency means that any changes to local public transport network and services will have a direct positive impact on their lifestyle and wellbeing.</p> <p>Improvements to bus stops and stations, including low floor buses, raised curbs is critical for anyone with a physical impairment.</p> <p>The bus is the most commonly used form of public transport among disabled people and is vital in improving access to employment opportunities and services and facilities they need to access on a daily basis. The impacts of improved public transport services on disabled people, however, depend somewhat on their particular impairment.</p> <p>Evidence suggests, however, that some disabled people are more vulnerable to stress and anxiety in crowded places, as dense crowds can reduce accessibility and make vulnerable passengers feel unsafe<sup>95</sup>. Disabled people are also particularly vulnerable to changes in journey times</p>

<sup>95</sup> TRANSPORT FOR LONDON (2012): Understanding the travel needs of London's diverse communities - Disabled People. London <https://content.tfl.gov.uk/disabled-people.pdf>

and accessibility resulting from transport network changes and/or diversions caused by new transport corridors (JONES, MIDELL, AND ANCIAES 2015)<sup>96</sup>. This has the potential to re-enforce or exacerbate societal divisions (IBID) and heightens the need for specific information. The RTS will implement journey planning tools to support planning ahead of unfamiliar journeys to minimise confusion and the onset of anxiety. This will include information on the likelihood of crowding during time of travel and possible alternative less crowded routes that could be taken. It is also anticipated that the respective tools will be able to provide relevant information during the journey such as information on delays.

The RTS will, subsequently, have a positive differential impact on this group.

Women are more likely to be subject to hate crimes and harassment and therefore feel unsafe within stations and on public transport<sup>97</sup>. By improving public transport interchanges and stops and stations, the RTS will positively impact this group.

Evidence suggests (pregnant) women and mothers with young children are more likely to use public transport to access community and healthcare facilities, which plays an important role in supporting social inclusion for this group<sup>98 99</sup>. Vehicle and bus stop accessibility, including low floor buses, raised curbs and space to transport pushchairs, is critical for mothers and pregnant women. It will also affect the ability of parents with young children to navigate public transport freely, especially if using pushchairs (IBID). By improving public transport interchanges and stops and stations, the RTS will positively impact this group.

Lone parent families are more prone to suffer from transport poverty; children and parents in lone-parent families are the least likely of any household type to have private transport, and the price of public transport excludes many young people, and mothers and children, from its use<sup>100</sup>. In addition, households with low incomes, ethnic minority community members, and those that have children or household members with mobility problems are also at risk of transport poverty<sup>101</sup>. Rural and semi-rural communities are also more at risk because they lack access to alternatives to the private car. These groups without transport would be particularly vulnerable to both social and spatial isolation (IBID).

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<sup>96</sup> JONES, MIDELL AND ANCIAES (2015): Community Severance: Where is it found and at what cost? Transport Reviews.

<sup>97</sup> Cp. O'CONNOL (2010): Legal Study on Homophobia and Discrimination on Grounds of Sexual Orientation and Gender Identify. European Union Agency for Fundamental Rights.

[https://fra.europa.eu/sites/default/files/fra\\_uploads/1357-lgbt-2010\\_thematic-study\\_ie.pdf](https://fra.europa.eu/sites/default/files/fra_uploads/1357-lgbt-2010_thematic-study_ie.pdf)

<sup>98</sup> LODOVICI AND TORCHIO (2015): Social Inclusion in EU Public Transport. Brussels: European Parliament Directorate General for Internal Policies

<sup>99</sup> Further research suggests that lone parents, as a lower income group, experience higher levels of ill-health. This means that they are more constrained in their ability to travel actively (cp. LUCAS, STOKES, BASTIAANSEN AND BURKINSHAW 2019).

<sup>100</sup> Cp. TITHERBRIDGE (2008): Social Exclusion, accessibility and lone parents. UCLE Centre for Transport Studies.

[https://www.researchgate.net/publication/37183790\\_Social\\_exclusion\\_accessibility\\_and\\_lone\\_parents](https://www.researchgate.net/publication/37183790_Social_exclusion_accessibility_and_lone_parents)

<sup>101</sup> Cp. SIMCOCK ET AL. (2020): Vulnerability to fuel and transport poverty. CREDS Policy Brief 010

By improving fares (RTS delivery theme 'Improving Sustainable Travel Options' refers) and ticketing options, the RTS will implement a better value for money is passengers, including those in transport poverty.

Negative Impacts and Mitigation	
Impact Area	Details and Mitigation
<p>Due to the predominantly bus-based public transport network operating within the Tactran region, there are some negative differential equality impacts to consider.</p> <p>Members of the LGBTQ community in Scotland are more likely to be subject to hate crimes and harassment on public transport and subsequently feel unsafe within stations and on public transport<sup>102 103</sup>.</p> <p>Further research reveals how the fear of anti-LGBTQ discrimination and violence have profound impacts on LGBTQ identity and visibility, and safety perceptions affect their transport opportunities and choices<sup>104</sup>. The research identifies that members of the LGBTQ community are not necessarily physically excluded from public transport opportunities, rather, they pay hidden costs to travel safely.</p> <p>Members of the LGBTQ community perceive the bus as the least safe option, largely because bus drivers would reportedly often not intervene in cases of LGBTQ harassment or violence<sup>105</sup>.</p> <p>LGBTQ people, subsequently, tend to use more expensive travel alternatives, such as taxis, or take less direct routes to overcome their</p>	<p>Members of the LGBTQ community perceive the bus as the least safe option. Tactran will work closely with transport operators through the Bus Service Improvement Partnership to raise awareness – among operators and members of the public – about the challenges of members of the LGBTQ community around inequalities and exclusions.</p> <p>This will equip transport operators and staff with greater knowledge and skills to address verbal and physical abuse against LGBTQ people on their services<sup>106</sup>.</p>

<sup>102</sup> STONEWALL SCOTLAND (2017): LGBT in Scotland – Hate Crime and Discrimination

[https://www.stonewallscotland.org.uk/system/files/lgbt\\_in\\_scotland\\_hate\\_crime\\_-\\_web\\_use.pdf](https://www.stonewallscotland.org.uk/system/files/lgbt_in_scotland_hate_crime_-_web_use.pdf)

<sup>103</sup> Cp. Cp. O'CONNOL (2010): Legal Study on Homophobia and Discrimination on Grounds of Sexual Orientation and Gender Identify. European Union Agency for Fundamental Rights.

[https://fra.europa.eu/sites/default/files/fra\\_uploads/1357-lgbt-2010\\_thematic-study\\_ie.pdf](https://fra.europa.eu/sites/default/files/fra_uploads/1357-lgbt-2010_thematic-study_ie.pdf)

<sup>104</sup> WEINTROB ET AL. (2021): Queer Mobilities: Critical LGBTW perspectives of public transport spaces. Mobilities

<https://www.tandfonline.com/doi/abs/10.1080/17450101.2021.1958249>

<sup>105</sup> TRANSPORT FOR LONDON (2012): Understanding the Travel Needs of London's Diverse Communities - The Lesbian, Gay and Bisexual (LGB) Community. London <https://content.tfl.gov.uk/LGB-community.pdf>

<sup>106</sup> Cp. LOUGH DENNELL ET AL. (2018): Life in Scotland for LGBT Young People. Edinburgh: LGBT Youth Scotland. <https://www.lgbtyouth.org.uk/media/1354/life-in-scotland-for-lgbt-young-people.pdf>

experience of unsafe inaccessible public transport alternatives.	
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#### Information Gaps

While there is a limited source of national data available about the issues and potential impacts on the LGBTQ community, there is a lack at a regional and local level. However, with hate crimes against members of the LGBTQ being under-reported, resulting in the underestimation, misrepresentation, or sheer absence of this phenomenon, both in public perception and policy<sup>107 108</sup>, it seems reasonable to draw on available national data to assess where potential impacts could result in differential equality effects on this protected characteristic group.

Perceptions of safety can differ between different cultures and faiths, particularly those with concerns related to hate crime. For religious people who have a marked religious identity through clothing there is an increased risk of harassment or discrimination. Research in the Republic of Ireland found that members of minority religions report somewhat higher discrimination rates on public transport<sup>109</sup>. Research interviews with Muslim men and women in Dublin outlined the discriminatory practices they felt they experienced from transport staff as a result of religious and racial profiling, which took the form of poor or no service provision<sup>110</sup>.

There is no evidence available – neither at national nor at regional and local level – about the issue in Scotland or, indeed, in Angus, Dundee City, Perth and Kinross and Stirling.

#### Proposed Measures to Close Information Gaps

Tactran will seek specific information on the above issue to close the information gap to understand the potential differential impact on this protected characteristic.

#### Accounting for the Views of Protected Groups

Tactran commissioned a representative sample of the population of the Tactran region. The engagement work has been commissioned to identify the needs and barriers of hard-to-reach communities to ensure the portfolio of RTS interventions delivers change in a fair and equitable way. The selection of the sample has been informed by the IIA process to ensure that all equality groups are included.

#### Advancing Equality of Opportunity

<sup>107</sup> GEKOSKI ET AL. (2015): 'What Works in Reducing Sexual Harassment and Sexual Offences on Public Transport Nationally and Internationally: A Rapid Evidence Assessment. Project Report. London: Middlesex University London, British Transport Police, Department for Transport. <https://eprints.mdx.ac.uk/15219/>

<sup>108</sup> WOODS J.B. AND HERMANN J.L. (2018): Anti-Transgender Hate Crime. In: The Routledge International Handbook on Hate Crime pp. 278–288, London.

<sup>109</sup> IMMIGRANT COUNCIL OF IRELAND (2014): Towards an Inclusive Public Transport Service in Ireland: Delivery of Diversity and Anti-racism Training and the Development of Diversity Strategies by Public Transport Providers in Dublin. Dublin.

<sup>110</sup> IMMIGRANT COUNCIL OF IRELAND INDEPENDENT LAW CENTRE (2016): Islamophobia in Dublin: Experiences and how to respond. Dublin. <https://www.immigrantcouncil.ie/sites/default/files/2017-10/AR%20INT%202016%20Islamophobia%20in%20Dublin%20-%20Experiences%20%26%20How%20to%20Respond.pdf>

With many aspects of modern life - cultural, social, economic, educational and medical - located in widely dispersed geographical locations across the region, the work delivered to improve access to public transport services by Tactran is likely to result in considerable positive impacts in relation to advancing equality of opportunity, such as in narrowing the gaps in educational attainment by those from deprived backgrounds.

#### Fostering Relations

Engagement and discussions held during the development of the RTS meant initial relations were built up meaning any future discussion in relation to the implementation of any of the identified interventions to improve access to public transport can build on those.

By improving access to public transport services, the RTS will support community cohesion across the region by increasing opportunities for communities and neighbourhoods to meet and interact on a daily basis<sup>111</sup>.

#### Overall Outcome

Identified negative impacts can be mitigated.

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<sup>111</sup> Cp. HART J. (2008): Driven to Excess: Impacts of Motor Vehicle Traffic on Residential Quality of Life in Bristol [www.livingstreets.org.uk/cms/downloads/0-driven\\_to\\_excess\\_summary.pdf](http://www.livingstreets.org.uk/cms/downloads/0-driven_to_excess_summary.pdf)

## Improving Sustainable Travel Opportunities

Recommendations include:

- I. Improved Active Travel Opportunities
  - i. Connected neighbourhoods, enabling people to access local facilities by walking and cycling
  - ii. Active freeways, cycle priority routes into our town and city centres
  - iii. Strategic active travel network, providing village-town active travel connections; connecting towns by active travel; and supporting the long-distance active travel network
  - iv. Ensuring secure cycle parking at homes, workplaces, schools, interchanges and other destinations
  - v. Cycle hire schemes, increasing the number of conventional and electric cycle hire scheme
- II. Promoting Active and Sustainable Travel to School
  - i. Safer routes to schools - improving walking and cycling routes to schools, including reducing traffic speeds around schools
  - ii. School exclusion zones - limiting traffic around schools at peak times to improve safety and air quality for children
  - iii. Cycle parking; cycle training and improving access to bikes
- III. Improved Public Transport
  - i. Strategic Bus Priority Corridors, improving journey time and reliability through bus priority measures, traffic management etc.
  - ii. Increasing Bus Services, improving the frequency and coverage of public transport through fixed routes and feeder services (including DRT and Community Transport)
  - iii. Improved rail services
- IV. Demand Responsive, Community and Shared Transport Services
  - i. Demand Responsive Transport (DRT): on demand (rather than timetabled services) to link to existing traditional fixed route bus services, and to cover areas where fixed route services are not viable
  - ii. Community Transport Services: Support for community and volunteer transport services
  - iii. Car Clubs: to provide access to a car without the need to own one
- V. Promote Fair Fares

Fare structures are typically set in a way to make travel during peak times more expensive, with off-peak travel fares offered at lower rates.

Encourage and support public transport providers to review fares to:

- a) Enhance social inclusion by providing a realistic alternative to a wider range of people, including disadvantaged communities

- b) Help balance demand for public transport throughout the day and reduce pressure on services at peak times

Protected Groups				
Indicator	Positive	Neutral	Negative	Unknown
Age (Young)	Yes			
Age (Old)	Yes			
Disability	Yes			
Race	Yes			
Religion Belief		Yes		
Sex	Yes			
Pregnancy Maternity	Yes			
Sexual Orientation		Yes		
Gender Reassignment		Yes		
Marriage Civil Partnership	Yes			

Socio-Economic Groups				
Indicator	Positive	Neutral	Negative	Unknown
Low Income	Yes			
Low wealth	Yes			
Material Deprivation	Yes			
Area Deprivation	Yes			
Socio-Economic Background	Yes			

Positive Impacts
<p>By seeking to improve accessibility by active and sustainable modes of transport the RTS can demonstrate a positive differential impact on the elderly and the young.</p> <p>It is recognised that elderly members of society are one of the groups most vulnerable to poor mobility and its associated consequences. It is therefore anticipated that the elderly in particular will benefit from the policies and interventions outlined above.</p> <p>Improving opportunities for elderly citizens to travel within their communities will lead to a better quality of life for this group by improving access to healthcare, leisure and cultural facilities, thus enabling elderly residents to take a more active role in their communities and neighbourhoods and tackle social exclusion and isolation. Proposals to improve public transport services will be of particular benefit to older citizens who currently receive free bus travel across Scotland and therefore have an above average reliance on public transport to access essential services.</p> <p>Improvements to community and/or social transport will also be of particular benefit to the elderly.</p>



Young people can also be disadvantaged by limited mobility resulting from the high cost of some transport options and limited opportunities for travelling independently. By seeking to improve active and public modes of transport, the RTS can be demonstrated to have a particular positive differential impact on the young, too. Increased opportunities and an improved environment for walking and cycling should benefit children and young people, who rely on such transport modes. Improvements to public transport will also benefit the young who are more dependent on such services.

A continued commitment to the school travel planning process and safe routes to school will be of benefit to children. Initiatives to promote and facilitate walking, cycling and scooting to school have the potential to positively impact upon children's health and fitness levels and promote independence.

Disabled people will particularly benefit from the following commitments outlined in the RTS:

- Improvements to the accessibility of all transport modes, particularly public transport and car clubs within the region;
- Improvements to and promotion of community and/or social transport which is targeted primarily at the elderly and disabled who suffer difficulty using conventional public transport services;

Improvements to public transport will be of particular benefit to women who are known to use such services in greater numbers than men.

Measures to promote and encourage cycling may also benefit women as they traditionally cycle less than men and so could be encouraged to adopt a healthier mode of transport.

Areas of deprivation have a below average on car ownership and high reliance on bus services to access employment opportunities, services and facilities they need to access on a daily basis. Car clubs in particular have a positive differential impact, allowing the advantage of access to a car when required without the financial implications of actually owning a car.

Increased opportunities for walking and cycling should be of particular benefit to poorer members of society as these are relatively inexpensive transport modes.

Negative Impacts and Mitigation	
Impact Area	Details and Mitigation
n/a	n/a

Information Gaps
Tactran considers the information held to be sufficient. However, further consultation will be undertaken for specific schemes which may highlight additional issues and/or needs. In this case, Tactran will give due consideration to address these and to mitigate against adverse impacts.

Proposed Measures to Close Information Gaps

n/a

#### Accounting for the Views of Protected Groups

Tactran commissioned a representative sample of the population of the Tactran region. The engagement work has been commissioned to identify the needs and barriers of hard-to-reach communities to ensure the portfolio of RTS interventions delivers change in a fair and equitable way. The selection of the sample has been informed by the IIA process to ensure that all equality groups are included.

#### Advancing Equality of Opportunity

The RTS presents a real opportunity to deliver this by addressing the gap between the mobility rich and mobility poor and focussing on the key role for transport to provide barrier free easy, reliable and safe access to goods and services for all residents.

For example, a higher proportion of bus users are women, older people and those who do not have access to a car (such as young people). These groups are more dependent on public transport for access to work, education, leisure and health services. The RTS aims to improve public transport provision through service, infrastructure and ticketing improvements within the region. In this way the RTS will help the region become more attractive within which to live and work and ensure everybody has equal opportunity to access job opportunities and services.

#### Fostering Relations

Engagement and discussions held during the development of the RTS meant initial relations were built up meaning any future discussion in relation to the implementation of any of the identified interventions to improve access to public transport can build on those.

By improving public transport services and active travel, the RTS will support community cohesion across the region by increasing opportunities for communities and neighbourhoods to meet and interact on a daily basis<sup>112</sup>.

#### Overall Outcome

Positive. No negative impacts have been identified.

<sup>112</sup> Cp. HART J. (2008): Driven to Excess: Impacts of Motor Vehicle Traffic on Residential Quality of Life in Bristol [www.livingstreets.org.uk/cms/downloads/0-driven\\_to\\_excess\\_summary.pdf](http://www.livingstreets.org.uk/cms/downloads/0-driven_to_excess_summary.pdf)

## Decarbonising Transport and a Just Transition

Recommendations include:

- I. Promoting and Enabling Electric and Low Emission Vehicles for Individuals, Public Sector, Business and Bus Fleets
  - i. Supporting electric vehicle uptake through adoption of Ultra Low Emission Vehicles (ULEV) in public sector, business and bus fleets; and supporting a just transition through the availability of electric vehicles through car clubs and parking and charging tariffs
  - ii. Developing charging infrastructure through deployment and maintenance of public infrastructure; home charging and fleet charging
  - iii. Promoting electric mobility, communicating the benefits of low emission vehicles
  
- II. Rail Decarbonisation
 

Support the decarbonisation of the rail network by 2035 through

  - i. Electrification of Dunblane to Perth / Dundee / Aberdeen
  - ii. Battery Electric Trains from Edinburgh to Perth / Dundee (short term)
  - iii. Electrification from Edinburgh to Perth / Dundee (long term)
  - iv. Electrification from Perth to Inverness (cp. STPR2)
  - v. Battery Electric Trains on the West Highland Line
  
- III. Behaviour Change and Modal Shift for Freight
 

Freight transfer and consolidation hubs within the region to reduce road freight and also allow freight to be moved by rail and water

  - i. Freight hubs
  - ii. Timber transfer facilities
  - iii. Consolidation centres
  - iv. First and last mile distribution services, such as vans, drones, cargo bikes etc.

Protected Groups				
Indicator	Positive	Neutral	Negative	Unknown
Age (Young)	Yes			
Age (Old)	Yes			
Disability	Yes		Yes	
Race	Yes			
Religion Belief	Yes			
Sex	Yes			
Pregnancy Maternity	Yes		Yes	
Sexual Orientation	Yes			

Gender Reassignment	Yes			
Marriage Civil Partnership	Yes			

Socio-Economic Groups				
Indicator	Positive	Neutral	Negative	Unknown
Low Income	Yes		Yes	
Low wealth	Yes		Yes	
Material Deprivation	Yes		Yes	
Area Deprivation	Yes		Yes	
Socio-Economic Background	Yes		Yes	

Positive Impacts
<p>Population groups particularly vulnerable to adverse effects of traffic-related air pollution include to children, pregnant women and the elderly.</p> <p>Older people are more vulnerable to air pollution partly because they are a group with high levels of long-term conditions occurring at the same time, such as high blood pressure, diabetes, and heart disease. Older people, compared to young people, have an increased risk of hospitalisation when there are high levels of particulate matter in the air. Particulate matter is also associated with a higher risk of stroke in older people. Exposure to air pollution is associated with accelerated cognitive decline in older people.</p> <p>Exposure to air pollution [from traffic] during foetal development and early childhood can have long-term impacts on health in childhood in beyond. Air pollution exposure may also increase risks for maternal health, and has been linked to increased risk of pre-eclampsia, a serious cardiovascular condition of pregnancy<sup>113</sup>.</p> <p>By implementing interventions to expand the public charging network within the region and further supporting the uptake of ULEVs in public sector, business, and bus fleets; and supporting a just transition through the availability of electric vehicles through car clubs and parking and charging tariffs, the RTS will realise positive differential impacts for those protected characteristics.</p> <p>Along rail lines, residents are likely to be exposed to high levels of diesel exhaust particles and other airborne pollutants at potentially even greater levels than those from the trunk road network. Recent research also highlighted concerns about the on-train pollution generated by diesel engines for passengers and staff<sup>114</sup>. Peaks most frequently occur when</p>

<sup>113</sup> MANDAKH Y, RITTNER R, FLANAGAN E, OUDIN A, ISAXON C, FAMILARI M, HANSSON SR, MALMQVIST E. (2020): Maternal Exposure to Ambient Air Pollution and Risk of Preeclampsia: A Population-Based Cohort Study in Scania, Sweden <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7084298/#:~:text=For%20instance%2C%20exposure%20to%20ambient,such%20as%20preeclampsia%20%5B7%5D>.

<sup>114</sup> ANDERSEN ET AL. (2019): Particle and Fibre Toxicology - Health effects of exposure to diesel exhaust in diesel-powered trains <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6558821/>

trains are in tunnels or idling in stations. ANDERSEN ET AL. concluded that exposure to diesel exhausts inside diesel-powered trains for three days was associated with reduced lung function and systemic effects in terms of altered heart rate variability and increased levels of DNA strand breaks in peripheral blood mononuclear cells compared with electric trains<sup>115</sup>.

With the RTS supporting the decarbonisation of rail within the region, it will help to realise positive differential impacts for all protected characteristics travelling by train on a regular basis as well as those living close to a rail line in Angus, Dundee City, Perth and Kinross and, Stirling.

It is worth noting that there are social impacts of road-based transport of hazardous materials, particularly for residents of poor and disadvantaged communities. Those individuals are more at risk of exposure to hazardous materials spills due to their location along trunk roads. A shift from transporting freight on roads to rail movements will minimise this risk and realise positive differential impacts for the respective protected characteristics.

Negative Impacts and Mitigation	
Impact Area	Details and Mitigation
<p>A recent set of figures from the Society of Motor Manufacturers and Traders (SMMT) in the UK shows that registrations for ULEVs in the first 9 months of 2021 were up to 174% compared to 2020<sup>116</sup>.</p> <p>However, this market comprises higher-income consumers, with over half of EV owners still primarily concentrated among the top 20% wealthiest income earners<sup>117</sup>.</p> <p>Most private EV owners are still middle-aged, male, well-educated, affluent, and live in urban areas with households containing two or more cars and the ability to charge at home<sup>118</sup>. Indeed, those in the lowest two income brackets made up just 4% of EV owners from 2015 to 2017<sup>119</sup>.</p> <p>Current business models for EV ownership and the transition to net-zero emissions are not working</p>	<p>Tactran will continue to work with partners to develop bespoke locally driven ULEV transition plans, policies, and programmes, enabling equitable EV ownership within the region.</p>

<sup>115</sup> IBID

<sup>116</sup> Electric car market statistics (<https://www.nextgreencar.com/electric-cars/statistics>).

<sup>117</sup> Electric car market statistics (<https://www.nextgreencar.com/electric-cars/statistics>).

<sup>118</sup> Lyndhurst B. Uptake of Ultra Low Emission Vehicles in the UK, A Rapid Evidence Assessment for the Department for Transport. London: Department For Transport Brook Lyndhurst Ltd; 2015.

<sup>119</sup> Electric car market statistics (<https://www.nextgreencar.com/electric-cars/statistics>).

for households in the lowest income brackets.	
<p>There is potential for negative impact resulting from on-street electric vehicle charge points as trailing cables can pose a trip hazard and a barrier to people with a wheelchair.</p> <p>Areas where there are restricted widths and uneven road surfaces can contribute to exacerbating issues experienced by people with a wheelchair and mobility scooter as, even with installation of such features as cable protectors, surfaces will be uneven, potentially resulting in unsafe practices such as manoeuvring around these potential obstacles into traffic flow areas.</p> <p>In addition, it has been identified that there is potential for negative impact regarding safety for people with a pram/pushchair as, even with installation of such features as cable protectors, surfaces will be uneven, potentially resulting in unsafe practices such as manoeuvring around these potential obstacles into traffic flow areas.</p> <p>These issues also relate to those who are pregnant and who may experience less mobility as a result of pregnancy as well as those with prams.</p>	<p>Innovative design such as on-street charge points siting flush within the pavement, with no permanent raised street furniture at the pavement edge will address such issues. New innovative systems will need to be designed with input from Disability Rights UK to improve safety for all street users in providing a charging solution to deliver vital on-street charging to help Angus, Dundee City, Perth and Kinross and Stirling to reach Net Zero, whilst keeping the public realm clear of clutter.</p>

<b>Information Gaps</b>
Tactran considers the information held to be sufficient. However, further consultation will be undertaken for specific schemes which may highlight additional issues and/or needs. In this case, Tactran will give due consideration to address these and to mitigate against adverse impacts.

<b>Proposed Measures to Close Information Gaps</b>
n/a

<b>Accounting for the Views of Protected Groups</b>
Tactran commissioned a representative sample of the population of the Tactran region. The engagement work has been commissioned to identify the needs and barriers of hard-to-reach communities to ensure the portfolio of RTS interventions delivers change in a fair and equitable way. The

selection of the sample has been informed by the IIA process to ensure that all equality groups are included.

#### Advancing Equality of Opportunity

There is strong evidence that people from poor and disadvantaged communities, ethnic minorities, children and disabled people are more exposed to air pollution. There is also strong evidence that greater exposure to air pollution is correlated with a greater risk of long-term conditions. Poor health is linked to time off work and reduced productivity - and can contribute to lower income. Improving air quality will therefore help to level up inequalities within the region.

#### Fostering Relations

Engagement and discussions held during the development of the RTS meant initial relations were built up meaning any future discussion in relation to the implementation of any of the identified interventions to decarbonising and support a just transition can build on those.

By improving ambient air quality, the RTS will support community cohesion across the region by increasing opportunities for intergenerational activities. This will help to increase the well-being of communities and neighbourhoods across the region without worrying about the concentration of air pollutants.

#### Overall Outcome

Identified negative impacts can be mitigated.

## Improving the Accessibility and Security of our Transport Networks

Recommendations include:

### I. Improved Accessibility and Security of the Street Environment

This option seeks to make our settlements places where everyone, especially people with mobility difficulties, can confidently and easily walk, cycle or wheel around

- i. Step free routes and appropriate crossing facilities, informed by accessibility audits around the 20min neighbourhoods
- ii. Seating
- iii. Lighting and reviewing the design of the public realm to improve security
- iv. Signage and wayfinding
- v. Number and location of disabled car parking spaces
- vi. Reducing severance & improving active travel on trunk roads through communities
- vii. Promoting changes to our transport networks to people with learning difficulties

### II. Improved Accessibility and Security for All across Public Transport

Improving access for all public transport users and particularly for those who are mobility impaired, including:

- i. Improvements at interchanges, step free access, improved seating, improved lighting, security improvements
- ii. Improved accessibility of buses and trains
- iii. Improved information provision for people with mobility issues/passes
- iv. Assistance to public transport users

Protected Groups				
Indicator	Positive	Neutral	Negative	Unknown
Age (Young)	Yes			
Age (Old)	Yes			
Disability	Yes			
Race	Yes			
Religion Belief				Yes
Sex	Yes			
Pregnancy Maternity	Yes			
Sexual Orientation	Yes			
Gender Reassignment	Yes			
Marriage		Yes		



Civil Partnership				
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Socio-Economic Groups				
Indicator	Positive	Neutral	Negative	Unknown
Low Income		Yes		
Low wealth		Yes		
Material Deprivation		Yes		
Area Deprivation		Yes		
Socio-Economic Background		Yes		

Positive Impacts
<p>Fear of violence and crime encountered on and around [public] transport, and its associated public spaces, can be an important factor in the travel choices (or lack of choice) of certain social groups. These include women, young, older and disabled people, the LGBTQ population and some ethnic minorities, who have above average recorded that they are feeling more vulnerable on [public] transport than others<sup>120 121</sup>.</p> <p>Under this delivery theme, the RTS will implement measures which will help to enable a good public transport experience within the region. The RTS focusses on a whole journey approach, including attractive links between public transport and active modes, and public realm at interchanges and other stations. Such links will be developed to embed good quality of public realm into the design with areas of wider footways, junction improvements to reduce to reduce traffic turning speeds and increase visibility, paved and landscaped areas that will be developed to provide a high quality of public realm throughout the site.</p> <p>Tactran anticipates that respective improvements will have an impact on those protected groups for whom access, and mobility is an issue, including disabled, older people and parents/carers of young children. The RTS will, subsequently, have a positive differential impact on those characteristics.</p> <p>Efforts to improve the safety and security of public transport in particular will benefit the elderly who may be fearful of using public transport because of perceptions that it is unsafe.</p> <p>Evidence suggests that some disabled people are more vulnerable to stress and anxiety in crowded places, as dense crowds can reduce accessibility and make vulnerable passengers feel unsafe<sup>122</sup>. Disabled people are also particularly vulnerable to changes in journey times and accessibility</p>

<sup>120</sup> GEKOSKI ET AL. (2015): What Works in Reducing Sexual Harassment and Sexual Offences on Public Transport Nationally and Internationally: A Rapid Evidence Assessment. Project Report. London: Middlesex University London <https://eprints.mdx.ac.uk/15219/>

<sup>121</sup> Yavuz and Welch (2010): Addressing Fear of Crime in Public Space: Gender Differences in Reaction to Safety Measures in Train Transit. In: Urban Studies 47 (12): 2491–2515 <https://doi.org/10.1177/0042098009359033>

<sup>122</sup> TRANSPORT FOR LONDON (2012): Understanding the travel needs of London’s diverse communities - Disabled People. London <https://content.tfl.gov.uk/disabled-people.pdf>

resulting from transport network changes and/or diversions caused by new transport corridors (JONES, MIDELL, AND ANCIAES 2015)<sup>123</sup>.

This has the potential to re-enforce or exacerbate social exclusion (IBID) and heightens the need for specific information. The RTS will deliver interventions to improve audio and visual journey information to support planning ahead of unfamiliar journeys to minimise confusion and the onset of anxiety. This will include information on the likelihood of crowding during time of travel and possible alternative less crowded routes that could be taken. It is also anticipated that the respective tools will be able to provide relevant information during the journey such as information on delays.

For residents and visitors who do not have English as their first language, different language media and pictorial information are thought to assist people in planning and completing unfamiliar journeys.

Members of the LGBTQ community perceive the bus as the least safe option. Tactran will work closely with transport operators through the Bus Service Improvement Partnership to raise awareness – among operators and members of the public – about the challenges of members of the LGBTQ community around inequalities and exclusions. This will equip transport operators and staff with greater knowledge and skills to address verbal and physical abuse against LGBTQ people on their services<sup>124</sup>.

The RTS will, subsequently, have a positive differential impact on the respective protected characteristics.

Negative Impacts and Mitigation	
Impact Area	Details and Mitigation
There will be fewer standard on-street car parking spaces within the area of public realm improvements – with a potential negative implication for those with health problems, disabilities or caring responsibilities (including older people) which affect ease of movement, and potentially those living rurally who need to travel to village and town centres by car as well as church users.	This loss of standard bays can be mitigated by providing dedicated Blue Badge parking spaces and, by providing set-down and pick-up locations for door-to-door assisted travel service including locations at stations

Information Gaps
Perceptions of safety can differ between different cultures and faiths, particularly those with concerns related to hate crime. For religious people who have a marked religious identity through clothing there is an increased risk of harassment or discrimination. Research in the Republic of Ireland found that members of minority religions report somewhat higher

<sup>123</sup> JONES, MIDELL AND ANCIAES (2015): Community Severance: Where is it found and at what cost? Transport Reviews.

<sup>124</sup> Cp. LOUGH DENNELL ET AL. (2018): Life in Scotland for LGBT Young People. Edinburgh: LGBT Youth Scotland. <https://www.lgbtyouth.org.uk/media/1354/life-in-scotland-for-lgbt-young-people.pdf>

discrimination rates on public transport<sup>125</sup>. Research interviews with Muslim men and women in Dublin outlined the discriminatory practices they felt they experienced from transport staff as a result of religious and racial profiling, which took the form of poor or no service provision<sup>126</sup>.

There is no evidence available – neither at national nor at regional and local level – about the issue in Scotland or, indeed, in Angus, Dundee City, Perth and Kinross and Stirling.

#### Proposed Measures to Close Information Gaps

Tactran will seek specific information on the above issue to close the information gap to understand the potential differential impact on this protected characteristic.

#### Accounting for the Views of Protected Groups

Tactran commissioned a representative sample of the population of the Tactran region. The engagement work has been commissioned to identify the needs and barriers of hard-to-reach communities to ensure the portfolio of RTS interventions delivers change in a fair and equitable way. The selection of the sample has been informed by the IIA process to ensure that all equality groups are included.

#### Advancing Equality of Opportunity

Improving links between public transport and active modes, and public realm at interchanges and other stations, will provide for a better public transport experience from start to finish. It will, subsequently, support the creation of inclusive communities and age-friendly spaces. Being Age Friendly in the public realm is about small design considerations that greatly improve an area for older people, thereby planning for the needs associated with a changing demographic in Angus, Dundee City, Perth and Kinross and Stirling.

#### Fostering Relations

Engagement and discussions held during the development of the RTS meant initial relations were built up meaning any future discussion in relation to the implementation of any of the identified interventions to decarbonising and support a just transition can build on those.

By improving accessibility and security of the [public] transport network and the public realm, the RTS will support community cohesion across the region. This will help to increase opportunities for intergenerational activities to increase the well-being of communities and neighbourhoods across the region.

#### Overall Outcome

<sup>125</sup> IMMIGRANT COUNCIL OF IRELAND (2014): Towards an Inclusive Public Transport Service in Ireland: Delivery of Diversity and Anti-racism Training and the Development of Diversity Strategies by Public Transport Providers in Dublin. Dublin.

<sup>126</sup> IMMIGRANT COUNCIL OF IRELAND INDEPENDENT LAW CENTRE (2016): Islamophobia in Dublin: Experiences and how to respond. Dublin. <https://www.immigrantcouncil.ie/sites/default/files/2017-10/AR%20INT%202016%20Islamophobia%20in%20Dublin%20-%20Experiences%20%26%20How%20to%20Respond.pdf>

Identified negative impacts can be mitigated.

## Reducing the Need to Travel by Car through the Location of Development and Services

Recommendations include:

I. Reduce car dependency of new developments

Reduce car dependency of new developments by

- i. Development plans promoting land use patterns that reduce the need to travel, and enable travel by sustainable modes
- ii. Development management processes ensuring that new development is realistically accessible by a range of modes

II. Locate new and existing services within communities

Locate new and existing services within communities - all public services to work together to improve the range of local services that can be available at a neighbourhood level to support the 20min / liveable neighbourhood principle

III. Measures in neighbouring authorities that reduce car use

The ease and ability to make many trips will be influenced by the sticks and carrots being applied in neighbouring areas. Where applicable we could work with neighbouring authorities on measures that can reduce the number of vehicular trips.

Protected Groups				
Indicator	Positive	Neutral	Negative	Unknown
Age (Young)	Yes			
Age (Old)	Yes			
Disability	Yes			
Race	Yes			
Religion Belief		Yes		
Sex	Yes			
Pregnancy Maternity	Yes			

Sexual Orientation	Yes			
Gender Reassignment	Yes			
Marriage Civil Partnership		Yes		

Socio-Economic Groups				
Indicator	Positive	Neutral	Negative	Unknown
Low Income	Yes			
Low wealth	Yes			
Material Deprivation	Yes			
Area Deprivation			Yes	
Socio-Economic Background			Yes	

Positive Impacts
<p>The RTS will deliver interventions to shape the type of growth in Angus, Dundee City, Perth and Kinross and Stirling around walking and cycling for local trips and cycling and public transport for longer ones. This will help people to live active and healthy lives and the region to function effectively even as it grows.</p> <p>Applying these transport principles will mean that, as the region grows, a greater proportion of people will live in locations that are well connected to employment and other opportunities by walking, cycling or using public transport.</p> <p>The RTS will subsequently realise positive differential impacts for all protected characteristics. Particularly positive impacts will be realised by addressing social inequalities caused by poverty, health and gender<sup>127</sup>.</p> <p>The RTS will support a move back to more community-based services, helping to correct the trend of the last 30 years to centralise services.</p> <p>The NHS, for example, is increasingly trying to provide healthcare services close to where people live, subsequently reducing the need to travel to hospitals. Hubs, or other local centres that bring together traditional healthcare services and voluntary groups, nurseries and libraries, can be co-located in high streets and other sites that already have good public transport links<sup>128</sup>.</p>

Negative Impacts and Mitigation	
Impact Area	Details and Mitigation
Tactran feels that there is the risk of inequality in where 20 minutes neighbourhoods are located. There	In a rural context the requirement to drive cannot be overlooked.

<sup>127</sup> This strategy is often referenced as a new wave of feminist urban planning initiatives <https://www.ft.com/content/406d5748-564c-48da-ab8e-55578b93def6>

<sup>128</sup> M Wood and S Finlayson: Health on the High Street. NHS Confederation, Dec. 2020. <https://www.nhsconfed.org/resources/2020/12/health-on-the-high-street>

<p>is a need to establish 20-minute neighbourhoods within areas experiencing disadvantage.</p> <p>Similarly, urban areas and rural areas will require different approaches.</p>	<p>However, settlement hierarchies already play an important role in allocating development in well-served settlements.</p> <p>Rural areas will require different approaches. On arrival to the main settlement, for example, encouraging 'park and walk' culture through interventions could have many benefits.</p>
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<p><b>Information Gaps</b></p> <p>Tactran considers the information held to be sufficient. However, further consultation will be undertaken for specific schemes which may highlight additional issues and/or needs. In this case, Tactran will give due consideration to address these and to mitigate against adverse impacts.</p>
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<p><b>Proposed Measures to Close Information Gaps</b></p> <p>n/a</p>
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<p><b>Accounting for the Views of Protected Groups</b></p> <p>Tactran commissioned a representative sample of the population of the Tactran region. The engagement work has been commissioned to identify the needs and barriers of hard-to-reach communities to ensure the portfolio of RTS interventions delivers change in a fair and equitable way. The selection of the sample has been informed by the IIA process to ensure that all equality groups are included.</p>
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<p><b>Advancing Equality of Opportunity</b></p> <p>This delivery theme will improve public transport connectivity of developments as well as their local centres and amenities. Good active travel and public transport links will also ensure disadvantaged groups have improved access to employment opportunities, essential services and facilities they need to access on a daily basis.</p> <p>One example is in North Lanarkshire where the ONE PLACE, ONE PLAN project<sup>129</sup> will create eight major town hubs which will incorporate primary and secondary schools on a wider campus alongside a range of community facilities ranging from healthcare, employment and services for older adults to sport, retail, and transport. With an ambition to replace every school which has not been remodelled since 1996, this plan aims to create places for the whole community within walking or cycling distance from people's homes. These hubs will vary in size according to the local geography from Town hubs to Community and Small community hubs.</p>
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<p><b>Fostering Relations</b></p>
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<sup>129</sup> North Lanarkshire Council (2020): One Place One Plan  
<https://www.northlanarkshire.gov.uk/sites/default/files/2020-10/The%20Plan%20for%20NLC%20v.3%20accessible.pdf>

Engagement and discussions held during the development of the RTS meant initial relations were built up meaning any future discussion in relation to the implementation of any of the identified interventions to decarbonising and support a just transition can build on those.

By reducing the need to travel by car through the location of development and services, the RTS will support community cohesion across the region. This will help to increase opportunities for intergenerational activities to increase the well-being of communities and neighbourhoods across the region.

#### Overall Outcome

Identified negative impacts can be mitigated.

### Improving Strategic Connectivity

Recommendations include:

#### I. Address pinch points on strategic roads

Measures focused on road improvements on the key strategic network within the region, focussed on improving journey time reliability and road safety.

- i. Kingsway Dundee A90/A972
- ii. Broxden and Inveralmond, A9 Perth
- iii. Craigforth, M9 Stirling
- iv. Grade separation of the A9 between Kier and Inverness (Kier, Auchterader)
- v. Dualling of the A9 north of Perth
- vi. A82 Inverannan – Tarbert

#### II. Improve Rail Connectivity

i. Physical and operational improvements to reduce journey times and improve resilience of routes from and through the region to/from Edinburgh; Glasgow; Aberdeen; Inverness; including

- Highland Mainline rail corridor enhancements
- Perth-Dundee-Aberdeen rail corridor enhancements
- Edinburgh/Glasgow – Perth/Dundee rail corridor enhancements

- ii. Improved frequency and capacity of services to Edinburgh and Glasgow, including consideration of intermediate stations
- iii. Improved resilience of West Highland line

#### III. Improve Connectivity to Freight Destinations

i. Improving journey time reliability to major freight destinations

ii. Improving freight capacity on the rail network

IV. Improve Access to Airports

Promoting sustainable access between the region and Scotland's airports

Protected Groups				
Indicator	Positive	Neutral	Negative	Unknown
Age (Young)		Yes		
Age (Old)		Yes		
Disability		Yes		
Race		Yes		
Religion Belief		Yes		
Sex		Yes		
Pregnancy Maternity		Yes		
Sexual Orientation		Yes		
Gender Reassignment		Yes		
Marriage Civil Partnership		Yes		

Socio-Economic Groups				
Indicator	Positive	Neutral	Negative	Unknown
Low Income		Yes		
Low wealth		Yes		
Material Deprivation		Yes		
Area Deprivation	Yes			
Socio-Economic Background	Yes			

Positive Impacts
<p>Areas of significant deprivation are focused along the strategic road network, improving the access to employment, health, and other services/facilities will be of benefit to those communities.</p> <p>However, accessibility and social inclusion benefits are only accrued by those with access to a car if not accompanied by complementary measures (delivery themes 3, 4 and 6 refer).</p> <p>Increased rail frequencies would improve the connectivity of the public transport network within the region.</p>

Negative Impacts and Mitigation	
Impact Area	Details and Mitigation
More reliable and safer trunk road network may encourage more car trips, dependent on the scale of the scheme(s) implemented. This could	Complementary measures to develop transport in Angus, Dundee City, Perth and Kinross and Stirling around walking and cycling for local



subsequently increase car kilometres and respective emissions and due to increased traffic levels may undermine any initial accident benefits of the scheme(s).	trips and cycling and public transport for longer ones. This will help people to live active and healthy lives and the region to function effectively even as it grows.
Potential loss of passengers from existing bus services to rail may mean a reduction in bus services along the road corridors if services lose commercial viability. This would impact on smaller communities who were served by bus but for whom the rail network is still not accessible	As above.

<b>Information Gaps</b>
Tactran considers the information held to be sufficient. However, further consultation will be undertaken for specific schemes which may highlight additional issues and/or needs. In this case, Tactran will give due consideration to address these and to mitigate against adverse impacts.

<b>Proposed Measures to Close Information Gaps</b>
n/a

<b>Accounting for the Views of Protected Groups</b>
Tactran commissioned a representative sample of the population of the Tactran region. The engagement work has been commissioned to identify the needs and barriers of hard-to-reach communities to ensure the portfolio of RTS interventions delivers change in a fair and equitable way. The selection of the sample has been informed by the IIA process to ensure that all equality groups are included.

<b>Advancing Equality of Opportunity</b>
Interventions will result in greater equality of access to the main centres, health and other facilities. This will promote an equal chance for all to access jobs and encourage inward investment in the economy of Angus, Dundee City, Perth and Kinross and Stirling.

<b>Fostering Relations</b>
Engagement and discussions held during the development of the RTS meant initial relations were built up meaning any future discussion in relation to the implementation of any of the identified interventions to decarbonising and support a just transition can build on those.

<b>Overall Outcome</b>
Identified negative impacts can be mitigated.

## Improving Network Resilience

Recommendations include:

I. Improving Network Resilience

To maintain a transport network within the region which is resilient to disruptive events resulting from the increased risk of extreme weather and flooding, maintaining access for people and resources

- i. Winter maintenance
- ii. Diversion routes
- iii. Protection of vulnerable sites to flooding / landslips
- iv. Meet environmental standards in construction and maintenance
- v. Blue-Green Infrastructure
- vi. Strategic road renewal for reliability, resilience and safety

Protected Groups				
Indicator	Positive	Neutral	Negative	Unknown
Age (Young)		Yes		
Age (Old)		Yes		
Disability		Yes		
Race		Yes		
Religion Belief		Yes		
Sex		Yes		
Pregnancy Maternity		Yes		
Sexual Orientation		Yes		
Gender Reassignment		Yes		
Marriage Civil Partnership		Yes		

Socio-Economic Groups				
Indicator	Positive	Neutral	Negative	Unknown
Low Income		Yes		
Low wealth		Yes		
Material Deprivation		Yes		
Area Deprivation		Yes		
Socio-Economic Background		Yes		

Positive Impacts
<p>The RTS will seek to ensure that transport in Angus, Dundee City, Perth and Kinross and Stirling is resilient to the impacts of severe weather and climate change, so that services can respond effectively to extreme weather events while continuing to operate safely, reliably and with a good level of passenger comfort.</p> <p>Limited impacts on protected characteristics although localised accessibility improvements during disruptive events.</p>

Negative Impacts and Mitigation	
Impact Area	Details and Mitigation
n/a	n/a

Information Gaps
More region-specific research and evidence is needed to inform a cost-effective long-term plan and programme of measures to adapt existing, and design and build new, transport infrastructure to make it resilient to severe weather conditions and the effects of climate change.

Proposed Measures to Close Information Gaps
Tactran, through its four constituent local authorities will work with transport and other infrastructure providers in Angus, Dundee City, Perth and Kinross and Stirling to undertake a dedicated programme of research to understand and prioritise the risk of severe weather and climate change adversely affecting the operation of the region's transport network and to minimise any such impacts on the most vulnerable user groups.

Accounting for the Views of Protected Groups
Tactran commissioned a representative sample of the population of the Tactran region. The engagement work has been commissioned to identify the needs and barriers of hard-to-reach communities to ensure the portfolio of RTS interventions delivers change in a fair and equitable way. The selection of the sample has been informed by the IIA process to ensure that all equality groups are included.

Advancing Equality of Opportunity
Climate change is already having a detrimental effect on transport in Angus, Dundee City, Perth and Kinross and Stirling. The closure of large sections of the region's rail network in December 2012 due to flooding highlighted the potential disruption that can be caused.
As well as a general warming of the climate, severe weather events such as heatwaves, droughts and heavy rainfall are predicted to increase in frequency and intensity. Improving the resilience of the transport network within the region to the anticipated impacts of climate change, will maintain economic activity and access to key services during disruptive events.
The RTS will ensure equitable access during severe weather events, so that services can respond effectively to extreme weather events while continuing to operate safely, reliably and with a good level of passenger comfort.

Fostering Relations
Engagement and discussions held during the development of the RTS meant initial relations were built up meaning any future discussion in relation to the implementation of any of the identified interventions to decarbonising and support a just transition can build on those.

Overall Outcome
Positive. No negative impacts have been identified.

### iii. Health Inequalities Impact Assessment

Protected Groups		
Indicator	Impacts	Recommendations to enhance or mitigate the Impacts
Age (Young)	<ul style="list-style-type: none"> <li>• High local rates of childhood obesity</li> <li>• Noted that children and young people have a higher accident rate as pedestrians and cyclists and also that a higher rate of road accidents affect children in deprived areas.</li> <li>• Public transport does not meet the needs of young people in terms of accessing secondary and further education.</li> <li>• Young people Not in Education, Employment or Training (NEET) are a local priority.</li> <li>• Concessionary travel does not include rail journeys.</li> <li>• Those holding a driving licence are more likely to drive without any realistic alternatives.</li> </ul>	<ul style="list-style-type: none"> <li>• Improved active travel opportunities between schools and colleges, connecting residential areas and access to employment sites for young people.</li> <li>• Opportunities to travel more actively more often.</li> <li>• Encouraging more active travel by children and young people may put them at risk of higher rates of injury. Road safety education schemes, safe design of routes and access to bike safety equipment are key to preventing this impact.</li> <li>• Positive impact of Safer Routes to School schemes.</li> <li>• Significant investment is required for improving the number and frequency of public transport services within the region.</li> <li>• Increased community transport options. Needs to address the misconception that community transport is only for older people. Younger people could be encouraged to use them.</li> </ul>
Age (Old)	<ul style="list-style-type: none"> <li>• The population within the Tactran region is ageing considerably.</li> <li>• Rural isolation. Social isolation is major issue within the region.</li> </ul>	<ul style="list-style-type: none"> <li>• Improvements to the number and frequency of bus services within the region. Analysis by KPMG indicated that of the 27m reduction in</li> </ul>

	<ul style="list-style-type: none"> <li>• Likely to be more reliant on public transport.</li> <li>• Affordability of public transport has been addressed through free bus passes; however availability remains an issue.</li> <li>• Concessionary travel does not include rail journeys or taxi discounts.</li> <li>• Cheapest fares only accessed by those more tech-savvy.</li> <li>• Overall decline in bus patronage – especially over the past years – resulting in services being withdrawn or at risk, meaning that public transport needs are not met locally.</li> <li>• Local bus services are commercially operated, leaving limited scope to adapt services.</li> <li>• Constraints budgets. Local authorities likely to be cutting bus subsidies further.</li> <li>• Such gaps in the network result in transport-related social exclusion, meaning that people cannot fully participate in society in the way they would like.</li> <li>• Limited access to healthcare services.</li> <li>• Increased safety fears.</li> </ul>	<p>bus passengers between 2011/12 and 2015/16, some 18m was likely to be a result of increasing car ownership and rising bus journey times.</p> <ul style="list-style-type: none"> <li>• Significant investment is required for improving the sustainable transport alternatives.</li> <li>• Promotion of existing initiatives, such as car sharing schemes.</li> <li>• Increased community transport options.</li> <li>• Review payment options for community transport options, such as one regional booking number / system.</li> </ul>
Disability	<ul style="list-style-type: none"> <li>• People with disabilities tend to rely more heavily on public transport options, such as buses, trains and taxis, than non-disabled people, making public transport essential to the lives of thousands of people with disabilities.</li> <li>• Ongoing accessibility issues. The problem has been exacerbated by the pandemic, which has resulted in cuts to services and staff shortages.</li> <li>• Some rail stations not fit for use by disabled people. Poor access.</li> </ul>	<ul style="list-style-type: none"> <li>• Better audio announcements.</li> <li>• Support to people should also be provided in terms of hearing and sight impairments, not just physical disabilities.</li> <li>• Plans and timetables to be made available in large print and Braille.</li> <li>• Increased promotion of the Thistle Assistance Card.</li> <li>• Bus drivers and train conductors to be trained on sensory issues.</li> <li>• Digital solutions to support people.</li> </ul>

	<ul style="list-style-type: none"> <li>• Needs of people with mental impairments also need to be considered.</li> <li>• Increased safety fears, with hate crime and bullying being common on (public) transport.</li> <li>• Affordability of public transport<sup>130</sup>.</li> </ul>	
Race / Ethnicity	<ul style="list-style-type: none"> <li>• Dundee has a large student population, of whom English may not be their first language.</li> <li>• Need to provide relevant travel information in different languages. Is the current provision sufficient?</li> <li>• Migration usually spikes in the summer months correlating to high season in the agricultural / food and drink sector and seasonal labour requirement.</li> <li>• Driving on the left may be an issue for seasonal workers and tourists.</li> <li>• Gypsies / Travellers: sites may not be easily accessible by (public) transport. Lack of understanding of this ethnic group.</li> <li>• With regards to refugees and asylum seekers they are more likely to suffer from trauma and social isolation issues. Some may have experienced human trafficking.</li> </ul>	<ul style="list-style-type: none"> <li>• Translations of policies and information materials, such as timetables and maps showing the surrounding area should be made available.</li> <li>• Gap in understanding of the needs of ethnic groups, in particular Gypsy and Traveller population. Need to engage with the respective Liaison Officers at the four constituent Councils.</li> </ul>
Religion Belief	<ul style="list-style-type: none"> <li>• Overall decline in bus patronage – especially over the past years – resulting in services being withdrawn or at risk, meaning that public transport needs are not met locally. Might impact those who are reliant on public transport for them</li> </ul>	<ul style="list-style-type: none"> <li>• Consultation with respective groups to understand travel needs within different religious community groups.</li> <li>• Increase awareness of staff. Consider training.</li> </ul>

<sup>130</sup> People with disabilities and single parent families have been hardest hit by welfare reform, losing a significant amount of income: Lone parent – one dependent child average financial loss per year £1,950. Lone parent – two or more dependent children average financial loss per year £2,120. Disability Living Allowance Average loss per claimant £ 2,600 per year. Incapacity benefits Average loss per claimant £ 2,000 per year. (Cp. BEATTY AND FORTHERGILL - CENTRE FOR REGIONAL ECONOMIC AND SOCIAL RESEARCH SHEFFIELD HALLAM UNIVERSITY (2014): The Impact of Welfare Reform on Communities and Households

	<p>to attend a place of worship.</p> <ul style="list-style-type: none"> <li>• Need to raise cultural awareness of different religions and beliefs.</li> </ul>	
Sex	<ul style="list-style-type: none"> <li>• There is a gender inequality with perception of safety on public transport, with there being a wider societal issue of safety with any minority group.</li> <li>• Underlying bias in transport planning and transport policy towards male car users, resulting into women proportionally being injured more in accidents, with cars still being designed and engineered around men.</li> <li>• Men die on the roads mainly as car drivers and motorcyclists, while women are killed mainly as pedestrians and car passengers.</li> <li>• Women tend to make more stops when using a car, and they rely on public transport more than men do.</li> <li>• Women are more likely than other gender groups to use multiple modes of transport.</li> <li>• Lack of inequalities awareness and respective training with (public) transport staff.</li> </ul>	<ul style="list-style-type: none"> <li>• Research<sup>131</sup> suggests that if – hypothetically - road users drove like women, road mortality rates across the EU, for example, would be about 20 percent lower than the average. Yet, despite these statistics, policies and interventions fail to factor in gender differences.</li> <li>• Research<sup>132</sup> shows that men are more likely to think that fear-based messaging will influence others, not themselves, yet they see themselves responding to positive, humorous appeals.</li> </ul> <p>The opposing findings are true for women.</p> <p>Gender-differentiated campaigns could be used to target specific groups, like men who speed or people who drink and drive.</p> <ul style="list-style-type: none"> <li>• Gap in understanding of the needs of the LGBT population. Need to engage with the respective groups, such as the Tayside LGBT Forum.</li> </ul>
Pregnancy Maternity	<ul style="list-style-type: none"> <li>• Costs. Little or no concessions for this group. Schemes, such as Scotrail's 'Kids for a Quid' scheme not widely promoted.</li> </ul>	<ul style="list-style-type: none"> <li>• Streamlining of appointments to improve access to appointments.</li> <li>• Patient transport to consider pregnant women?</li> </ul>

<sup>131</sup> BURLACU AND CARVAJAL (2021): Who is safer on the road, men or women?

<https://blogs.worldbank.org/transport/who-safer-road-men-or-women>

<sup>132</sup> QUEENSLAND UNIVERSITY OF TECHNOLOGY (2013): State of the Road – Road Safety Advertising Fact Sheet

<https://www.yumpu.com/en/document/read/40544140/road-safety-advertising-fact-sheet-centre-for-accident-research->

	<ul style="list-style-type: none"> <li>• Lack of confidence in using public transport.</li> <li>• 'Breastfeeding Welcome' scheme not common on buses within the region.</li> <li>• Inadequate changing facilities.</li> <li>• Increased safety fears.</li> </ul>	<ul style="list-style-type: none"> <li>• Adopt the 'Breastfeeding Welcome' scheme more widely.</li> <li>• Increase awareness of staff. Consider training.</li> </ul>
Sexual Orientation	<ul style="list-style-type: none"> <li>• As above under 'Sex'.</li> </ul>	<ul style="list-style-type: none"> <li>• Gap in understanding of the needs of the LGBT population. Need to engage with the respective groups, such as the Tayside LGBT Forum.</li> <li>• Increase awareness of staff. Consider training.</li> </ul>
Gender Reassignment	<ul style="list-style-type: none"> <li>• As above under 'Sex'.</li> </ul>	<ul style="list-style-type: none"> <li>• As above under 'Sexual Orientation'.</li> </ul>
Marriage Civil Partnership	<ul style="list-style-type: none"> <li>• There is a bias towards those who are not married or not part of a family group. Discount schemes, such as Railcards, are usually given to groups rather than singles. Single travellers usually pay the full price.</li> </ul>	<ul style="list-style-type: none"> <li>• Need to address this disproportion in fares.</li> </ul>

Other Groups Facing Health Inequalities		
Indicator	Impacts	Details
Looked after and accommodated children and young people	<ul style="list-style-type: none"> <li>• Affordability of public transport has been addressed through free bus passes. However, availability remains an issue.</li> <li>• There may be a lack of facilities to store bikes in temporary and/or social housing.</li> </ul>	<ul style="list-style-type: none"> <li>• Significant investment is required for improving the number and frequency of public transport services within the region.</li> <li>• Increased community transport options. Needs to address the misconception that community transport is only for older people. Younger people could be encouraged to use them.</li> <li>• More widely promote the Social Housing Partnership Fund<sup>133</sup>. The fund supports social housing providers such as housing associations and looks to improve walking and cycling facilities for the benefit of</li> </ul>

<sup>133</sup> <https://www.cycling.scot/what-we-do/cycling-friendly/social-housing-fund>



		residents and helps to overcome issues around isolation, health inequalities and transport poverty.
At risk families, such as young mothers, people experiencing domestic abuse, children at risk of statutory measures	<ul style="list-style-type: none"> <li>• Costs<sup>134</sup>. Little or no concessions for this group. Schemes, such as Scotrail's 'Kids for a Quid' scheme not widely promoted.</li> <li>• As well as physical harm, controlling behaviour is a common and devastating hallmark of abusive relationships, with abusers seeking to take charge of their partner's everyday lives. This kind of controlling behaviour can make it difficult, and sometimes dangerous, for a victim to seek help.</li> </ul>	<ul style="list-style-type: none"> <li>• Concessionary travel</li> <li>• Increased awareness and training for transport staff</li> <li>• Specialist support for victims of domestic abuse available on their daily journeys to work, college or school<sup>135</sup>.</li> </ul>
Lone Parents	<ul style="list-style-type: none"> <li>• Costs<sup>136</sup>. Little or no concessions for this group. Schemes, such as Scotrail's 'Kids for a Quid' scheme not widely promoted.</li> </ul>	<ul style="list-style-type: none"> <li>• Provide access to free and / or concessionary transport.</li> </ul>
Carers: paid/unpaid, family members	<ul style="list-style-type: none"> <li>• Potential lack of transport links between communities and neighbourhoods. Poor intra-communal transport links can impact the work of carers, especially if they work part-time.</li> </ul>	<ul style="list-style-type: none"> <li>• Provide access to free and / or concessionary transport.</li> </ul>
Homeless people or those who experience homelessness: people on the street; those staying	<ul style="list-style-type: none"> <li>• Distinctive rural areas within the region.</li> <li>• Temporary housing might mean people have not many belongings, never mind a bike.</li> <li>• Some travel discount schemes require an address, thus preventing</li> </ul>	<ul style="list-style-type: none"> <li>• Identify addresses that homeless people could use, such as the DWP</li> <li>• Liaise with DWP to better understand the impact of travel costs and available public transport routes to their clients.</li> </ul>

<sup>134</sup> People with disabilities and single parent families have been hardest hit by welfare reform, losing a significant amount of income: Lone parent – one dependent child average financial loss per year £1,950. Lone parent – two or more dependent children average financial loss per year £2,120. Disability Living Allowance Average loss per claimant £ 2,600 per year. Incapacity benefits Average loss per claimant £ 2,000 per year. (Cp. BEATTY AND FORTHERGILL - CENTRE FOR REGIONAL ECONOMIC AND SOCIAL RESEARCH SHEFFIELD HALLAM UNIVERSITY (2014): The Impact of Welfare Reform on Communities and Households

<sup>135</sup> Cp. TRANSPORT FOR LONDON's pilot to enable abuse victims to seek help on TfL network (2018).

<sup>136</sup> People with disabilities and single parent families have been hardest hit by welfare reform, losing a significant amount of income: Lone parent – one dependent child average financial loss per year £1,950. Lone parent – two or more dependent children average financial loss per year £2,120. Disability Living Allowance Average loss per claimant £ 2,600 per year. Incapacity benefits Average loss per claimant £ 2,000 per year. (Cp. BEATTY AND FORTHERGILL - CENTRE FOR REGIONAL ECONOMIC AND SOCIAL RESEARCH SHEFFIELD HALLAM UNIVERSITY (2014): The Impact of Welfare Reform on Communities and Households

temporarily with friends/family; those staying in hostels and B&Bs.	<ul style="list-style-type: none"> <li>homeless people to access concessionary discounts.</li> <li>Costs. Affordability of (public) transport.</li> </ul>	<ul style="list-style-type: none"> <li>Free refurbished bikes</li> <li>Investigate potential for a loyalty card scheme for bus use where a record of purchased fares gets you a free fare rather than having to purchase multi-journey tickets in advance.</li> <li>Better promote existing support and initiatives.</li> <li>Recommendations to address transport poverty available in the 'Transport and Poverty' report<sup>137</sup>.</li> </ul>
Those involved in the criminal justice system: offenders in prison and on probation, ex-offenders	<ul style="list-style-type: none"> <li>Gap in understanding needs and respective issues. Requires further consultation with relevant groups.</li> </ul>	
People with addictions and substance misuse problems	<ul style="list-style-type: none"> <li>Costs. Affordability of (public) transport and / or purchasing a bike etc.</li> <li>Lack of public transport home might be a driver in the amount of alcohol-related harm local communities face.</li> </ul>	<ul style="list-style-type: none"> <li>Significant investment is required for improving the number and frequency of public transport services within the region.</li> <li>Extension of the Free Bus Travel Scheme (Under 25s) to include people with addiction issues who are in receipt of treatment. Many of those people have chaotic lifestyles. Something that would help them would be the stability of not having to worry about their transport needs.</li> </ul>
People who have low incomes	<ul style="list-style-type: none"> <li>The cost of getting to work, particularly in the first few weeks of employment.</li> <li>Affordability of (public) transport and / or purchasing a bike etc.</li> <li>Lack of awareness of concessionary discount schemes. Lack of concessionary discount schemes.</li> <li>Additional costs to the NHS for providing access to</li> </ul>	<ul style="list-style-type: none"> <li>Focus on active travel which is a low-cost travel option – noted however the cost of obtaining a bike and bike equipment for taking advantage of new opportunities for active travel. This could act as a barrier. Develop a bike reclamation and refurbishment scheme, which could offer low-cost bikes to those on low incomes as well as</li> </ul>

<sup>137</sup> Available at <https://povertyinequality.scot/wp-content/uploads/2019/06/Transport-and-Poverty-in-Scotland-Report-of-the-Poverty-and-Inequality-Commission.pdf>

	<p>healthcare and / or ambulances being used for primary care problems<sup>138</sup>. Ambulance use for non-urgent conditions was more likely to be used by people from more deprived backgrounds.</p>	<p>offer possible training opportunities for NEETS and other unemployed groups.</p> <ul style="list-style-type: none"> <li>• Investigate potential for a loyalty card scheme for bus use where a record of purchased fares gets you a free fare rather than having to purchase multi-journey tickets in advance.</li> <li>• Better promote existing support and initiatives.</li> <li>• Build on Dundee City Council's approach on providing electric charging points in areas of deprivation.</li> <li>• Recommendations to address transport poverty available in the 'Transport and Poverty' report<sup>139</sup>.</li> </ul>
<p>People who have poor literacy / numeracy</p>	<ul style="list-style-type: none"> <li>• As with non-English speakers under 'Race and Ethnicity'.</li> <li>• Dundee has a large student population, of whom English may not be their first language.</li> <li>• Need to provide relevant travel information in different languages. Is the current provision sufficient?</li> <li>• Migration usually spikes in the summer months correlating to high season in the agricultural / food and drink sector and seasonal labour requirement.</li> </ul>	<ul style="list-style-type: none"> <li>• Present information in text in an accessible, easy to understand format. Easy Read versions.</li> <li>• Increase use of pictorial information.</li> <li>• Review existing and new resources for their ease of use with different groups.</li> </ul>
<p>People living in deprived areas</p>	<ul style="list-style-type: none"> <li>• As above under 'People who have low income'.</li> <li>• Costs. Affordability of (public) transport and / or purchasing a bike etc.</li> <li>• Lack of awareness of concessionary discount schemes.</li> <li>• Additional costs to the NHS for providing access to healthcare and / or ambulances being used for</li> </ul>	<ul style="list-style-type: none"> <li>• As above under 'People who have low income'.</li> </ul>

<sup>138</sup> Cp. BOOKER MJ, SHAW ARG, PURDY S (2015): Why do patients with 'primary care sensitive' problems access ambulance services? A systematic mapping review of the literature. In: BMJ Open 2015;5:e007726. doi: 10.1136/bmjopen-2015-007726

<sup>139</sup> Available at <https://povertyinequality.scot/wp-content/uploads/2019/06/Transport-and-Poverty-in-Scotland-Report-of-the-Poverty-and-Inequality-Commission.pdf>

	primary care problems <sup>140</sup> . Ambulance use for non-urgent conditions was more likely to be used by people from more deprived backgrounds.	
People living in remote, rural and island locations	<ul style="list-style-type: none"> <li>• As above.</li> <li>• Overall decline in bus patronage – especially over the past years – resulting in services being withdrawn or at risk, meaning that public transport needs are not met locally.</li> <li>• Such gaps in the network result in transport-related social exclusion, meaning that people cannot fully participate in society in the way they would like.</li> <li>• Limited access to healthcare services.</li> </ul>	<ul style="list-style-type: none"> <li>• Investment is required for sustainable transport alternatives.</li> <li>• Promotion of existing initiatives, such as shared car schemes.</li> <li>• Increased community transport options. Needs to address the misconception that community transport is only for older people. Younger people could be encouraged to use them.</li> <li>• Review payment options for community transport options, such as one regional booking number / system.</li> <li>• Build social capital for those living isolated in communities.</li> </ul>
People in other groups who face health inequalities	No further issues relating to other marginalised groups have been identified.	

#### Information Gaps

Tactran considers the information held to be sufficient. However, further consultation will be undertaken for specific schemes which may highlight additional issues and/or needs. In this case, Tactran will give due consideration to address these and to mitigate against adverse impacts.

#### Proposed Measures to Close Information Gaps

n/a

#### Accounting for the Views of Protected Groups

Tactran commissioned a representative sample of the population of the Tactran region. The engagement work has been commissioned to identify the needs and barriers of hard-to-reach communities to ensure the portfolio of RTS interventions delivers change in a fair and equitable way. The

<sup>140</sup> Cp. BOOKER MJ, SHAW ARG, PURDY S (2015): Why do patients with ‘primary care sensitive’ problems access ambulance services? A systematic mapping review of the literature. In: BMJ Open 2015;5:e007726. doi: 10.1136/bmjopen-2015-007726

selection of the sample has been informed by the IIA process to ensure that all equality groups are included.

#### Overall Outcome

The HIIA considered the potential impacts arising from implementing the Tayside and Central Scotland Transport Partnership's Regional Transport Strategy 2023 - 2033. These potential impacts have been summarised above. As a result of this workshop Tactran concludes that the Regional Transport Strategy needs to mitigate and enhance potential impacts.

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