

A publication from the Bennett Institute for Public Policy

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# Foreword by Michael Kenny

The declining economic fortunes of many towns, and the chasm that divides the experiences and outlooks of many of their inhabitants from the metropolitan centres where wealth and power have become concentrated, are issues of growing interest in political life and public policy.

In the UK, the preponderance of support for Brexit among town-dwellers, and the countervailing values of many young urbanites, has sparked a deep debate about how and why towns are locked out of the circuits of growth in the modern economy, and how the inequalities associated with economic geography can be more effectively tackled.

The *Townscapes* project launched at the Bennett Institute brings together a variety of different data sources to offer a deeper analysis of how towns are faring across the regions and nations of Britain. It aims to step away from the generalisations and dogmas that infuse much of the contemporary policy debate and offer instead a more finely grained picture of how different towns relate to their wider regions and nations, as well as to their nearest cities. It showcases the merits of a more granular and regionally rooted perspective for our understanding of geographical inequalities and the kinds of policy needed to address them.

Analysts at the Bennett Institute have pulled together a variety of different data sources - from the ONS, Ordnance Survey and National Records of Scotland - and created new indicators to measure the relative economic performance of towns, and compile a picture of changes in levels of public service provision. Specifically we have compiled an **Improvement Index** for all towns which measures relative changes across a basket of economic and demographic indicators and separate **Public Services Indices** which supply a picture of changes to service provision in areas like health, education, transport and infrastructure.<sup>1</sup>

On the basis of these findings, we argue that policy makers need to consider multiple town categorisations, to get beneath the broad groupings that have become so dominant in this debate such as 'university', 'coastal', or 'post-industrial' towns. Instead we adopt a more useful data-driven typology developed by the ONS (2019) to contrast the fortunes of 'working', 'partially residential' and 'residential' towns in different parts of the country, and explore the crucial importance for many towns of their geographical distance from large urban centres.

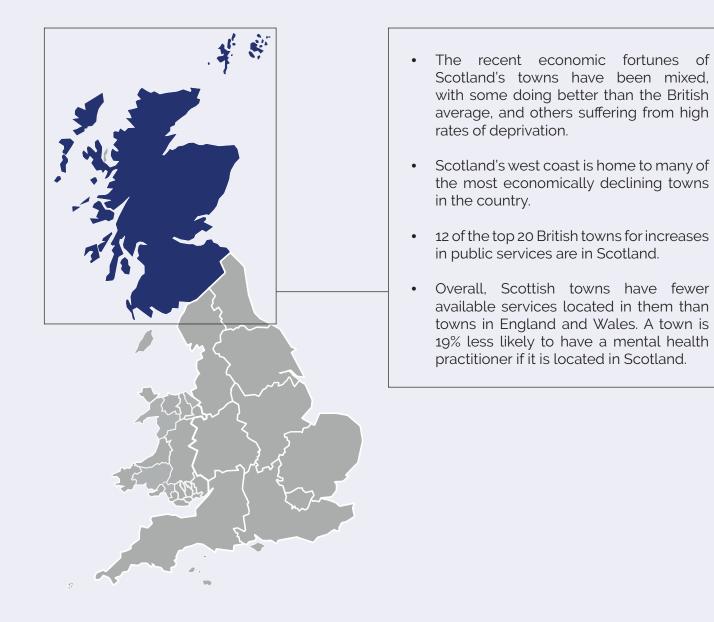
These reports bust some of the prevalent myths about towns and their fortunes since the recession of 2007-08, and lead us towards a better appreciation of the very different circumstances and factors which affect the lives and opportunities of those who live in them. In addition to the insight and evidence which each supplies, we point policy-makers to ideas and proposals that are tailored to the regional and national circumstances which are pertinent to the townscapes of modern Britain.

### Professor Michael Kenny

Director of the Bennett Institute, Cambridge University

<sup>1.</sup> These measures are developed drawing on the work of Pike et al (2016) and Jennings and Stoker (2019).

# Scotland - Key Findings



# Introduction



Scotland has 59 towns and just three cities within its borders. This means that there are more town-dwellers than city-dwellers in the whole country. However, Scottish towns face many of the same challenges as those in other parts of Britain: high streets are struggling; cities continue to accumulate much of the nation's high-skilled labour; and councils are having to react to public funding shortfalls (Atterton, 2011; Bynner, 2016; McGuinness, Greenhalgh & Pugalis, 2015; BBC, 2018). In some respects, Scotland is more vulnerable to decline than other places in Britain. A recent report from the Centre for Towns (Warren, 2017) highlights that Scotland has one of the lowest rates of population growth of any urban conurbation in Britain.

This briefing points to the mixed fortunes of Scotland's towns overall. On some measures, the region does poorly. Three quarters of Scottish towns have more household deprivation than the average British town. Meanwhile, towns in Scotland also appear to have lower numbers of some key public services. There are significantly fewer nursery schools, mental health practitioners and health services in Scottish towns compared to the British average. The sparsity of these services is indicative of lacklustre town centres and struggling local economies.

But the overall picture is mixed. In other respects, Scotland's towns appear to be doing relatively well. In terms of changes to public service numbers between 2011 and 2018, its towns outperform those in England and Wales. 52 out of the 59 towns there have had above-average increases - or below average decreases - in the number of public services within them. And, of the top 20 British towns with the most increases in public service provision, 12 of them are Scottish.

The wide geographic spread of towns in Scotland means that there is a variety of different kinds of town. Understanding the different needs of these – for instance those that are struggling on the west coast, compared to its more prosperous 'working towns' in the North East and the belt of residential, commuter towns surrounding the large cities -- is a prerequisite for more effective policy responses.

**Image, above:** Greenock, Helensburgh and the Firth of Clyde, 2010

The abiding interest in understanding the causes of the Brexit vote means that the debate about *the left-behind* has often focused on the plight of English and Welsh towns to the neglect of Scotland. This focus also reflects the more substantial set of powers which have been devolved to the Scottish government. The question of which government is more responsible for the economic factors and decisions affecting these places is a contentious one in political terms.

There have been attempts within Scotland to address some of these challenges. In its Town Centre Action Plan, published in 2013, the Scottish Government's agenda for declining towns was set out. It committed to a 'Town Centre First Principle' - promoting town centre living, public service accessibility and a local economy made up of businesses located on the high street. Since then, several measures have been introduced to support town economies, including expanding Fresh Start, a business tax relief for businesses opening in long-term vacant properties (Scottish Government, 2016), The SNP Government has also set up a cross-party group under the Scottish Town Partnership (2019) – including MSPs from all major parties - which works to promote regeneration policies. Finally, in 2017, it commissioned the Understanding Scottish Places (2019) platform which has developed a typology based on how 'dependent' towns are on nearby places, using the most recent census data.

The Scottish Government has developed a regeneration strategy which emphasises the importance of supporting places' assets rather than tackling their 'deficits' or 'problems' (Scottish Government, 2011). Its strategy also commits to 'preventative spending,' meaning that spending is allocated in order to have a long-term and sustainable impact, reducing the likelihood of future stresses to budgets for services such as health and social care. The mechanisms for achieving these goals are very similar to those used south of the border.

In addition, City-region and Regional Growth Deals funded jointly by the UK and Scottish Governments are intended to bring several Local Authorities together to provide a mezzanine tier for strategic and spatial policymaking. These structures differ from Combined Authorities in England in that they have no devolved legislative powers and no electoral mandate. But they are important because of their significant spending powers - for instance the £1.13 billion invested in Glasgow's city region over the next 20 years (Glasgow City Region, 2019). For towns, these deals provide an important opportunity to tackle pressing concerns, for instance industrial decline, the reduction in the numbers of young people in some areas and poor service provision.



The Scottish Government has been repeatedly criticised for neglecting its towns and weakening local government since the SNP has been in power. A report in 2014 suggested that Scotland was one of the most heavily centralised countries in Europe, with local authorities possessing few powers to raise their own taxes (The Commission on Strengthening Local Democracy, 2014). Critics have also objected to the merging of regional police and fire services, cited lengthy periods when council tax rates have been frozen, and criticised an overly centralised health system and the location of approximately four-fifths of all public service jobs in either Glasgow or Edinburgh (Deerin, 2018; Tomkins, 2015; McDermott, 2015; McPherson, 2018). There are signs that the government is starting to respond to these challenges. Its latest budget includes proposals to: give councils the flexibility to increase their council tax rates by up to three per cent; devolve parts of the health budget to local government; and introduce a new £50m Town Centre Fund (Scottish Government, 2018).

Scotland's towns are among the most politically diverse in Britain. While the metropolitan seats in Edinburgh and Glasgow provide a bedrock of Labour support, it is hard to generalise about the political character of most Scottish towns. A large number are in seats held by the SNP at Westminster. But the swing towards the Conservatives across much of Scotland in the 2017 general election was effected in part by voting patterns in towns like Perth and Ayr. However, in other areas this was not the case. Labour made small gains in Motherwell, Kirkcaldy and Livingston. In the 2014 Scottish Independence Referendum, there was notable support for independence in the central belt, but less so in many more geographically peripheral places.

On our *Improvement Index*, towns in Scotland are broadly on a par with the rest of Britain. Figure 1 shows, however, that two towns in Scotland stand out in relation to their counterparts elsewhere.

Its most geographically isolated town, Inverness, scores well in our *Improvement Index*, and **Dunfermline is the third most improving town in Britain**. Meanwhile, **no Scottish town features in Britain's 20 most declining towns**.

### The Improvement Index

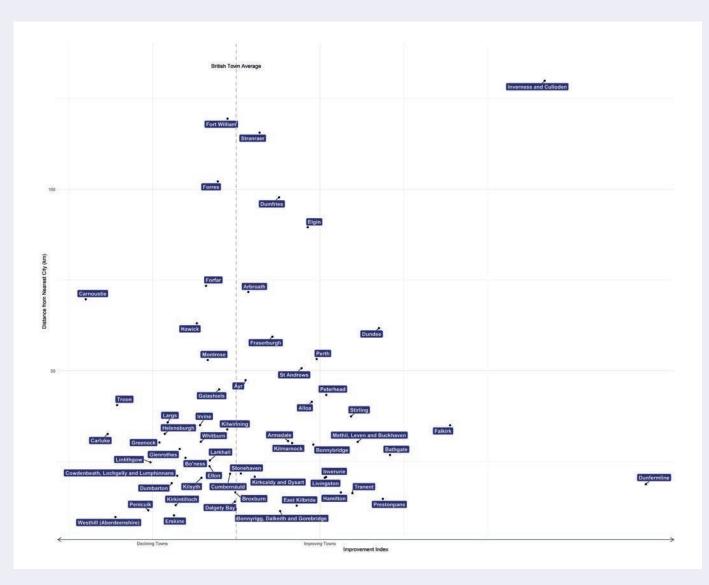
- The Improvement Index is a measure of town improvement or decline, relative to the average for British towns.
- The index reports changes in five indicators: population levels, youth population (15-19 year old %), education (NVQ Level 3+ %), business counts and employment levels (%).
- Changes are measured between the censuses of 2001 and 2011, although business counts changes are measured between 2010 and 2016.
- Changes for each of the five indicators are standardised and combined to create the index.
- This is a revised version of an index developed by Pike et al. (2016) and Jennings & Stoker (2019) but is applied here at the Settlement geographic scale.



# **Economic Performance of Scotland's Towns**

# Figure 1:

Improvement or Decline in Scottish Towns and Distance from City



### Figure 1.

Notes: Towns are any Settlement area with an estimated 2016 population of 10,000-175,000.

**Source:** Census 2011; Office for National Statistics – UK Business: Activity, Size and Location; Built-up Areas Boundaries, V2; Scotland's Census 2011; National Records of Scotland – Settlements 2016 boundaries.



Dunfermline experienced the largest population growth of any town in Britain between 2001 and 2011, and is in some ways a model of success. Its traditional industries have continued to employ many people. The Rosyth Dockyard, despite recent job cuts, have continued to operate, and manufacturing in renewable energy and glass products is also a strength. It has also managed to attract new, knowledgeintensive industries. Companies in finance, technology and communications offer the bulk of local employment opportunities. This combination of industrial heritage, an adaptive economy and the town's role as a commuter dormitory for professionals working in Edinburgh, has undergirded a large increase in the town's population.

However, a town's prosperity is not assured simply because it develops a financial sector or has a rising population. Dunfermline has also seen protests at the working conditions of its Amazon warehouse, and an increase in demand for its stretched public services (Clark, 2019; Robertson, 2016). At the other end of the spectrum, Carnoustie has performed very poorly in the *Improvement index*. A decline in the numbers of young people means that it is the fastest declining town in Scotland. Another poorly performing town – Troon – scores negatively across the board. A town of 14,700 people, it has experienced low growth in employment, businesses, population and education. Its shipbuilding yard is no longer in operation and the town has been hit by a decline in tourism as a result of significant coastal decline.

Scotland has the three most isolated towns in Britain according to their distance from their nearest city.<sup>1</sup> Inverness, Fort William and Stranraer are all over 100km from their nearest metropolitan neighbour. Consequently these Scottish towns have had to develop their own resilient and independent local economies.

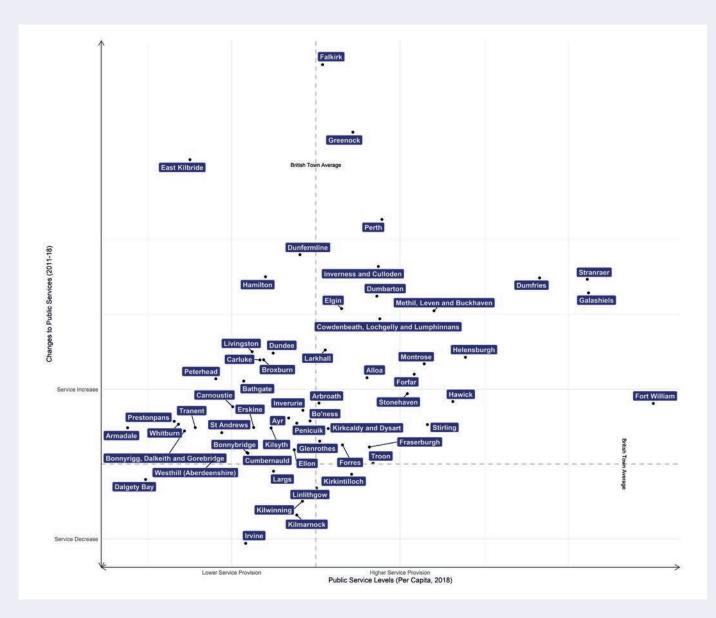
Image, above: Fort William, 2012

<sup>2. &#</sup>x27;Distance from Nearest City' measures the straight-line distance between geographic centres of a town and its nearest city.

# **Economic Performance of Scotland's Towns**

### Figure 2:

Public Services in Scottish Towns: Changes and Per Capita Provision



### Figure 2.

**Source:** Census 2011, Office for National Statistics – Mid-Year Population Estimates; Built-up Areas Boundaries, V2; UK Business: Activity, Size and Location, Ordnance Survey – Points of Interest (© Crown copyright and database rights 2019 Ordnance Survey (100025252)); Scotland's Census 2011. National Records of Scotland – Mid-Year Population estimates; Settlements 2016 boundaries.



Scotland has mixed results on the new Public Services Indices which we have developed. Figure 2 shows that the vast majority of towns in Scotland have seen changes in the number of public services they include between 2011 and 2018 that are better than most English and Welsh towns. 12 of the top 20 British towns for changes in public services are in Scotland. In terms of services such as the number of police stations, which are generally declining, Scottish towns tend to have lost fewer than counterparts elsewhere. Meanwhile in services that are growing, for instance the number of bus stops, those in Scotland have higher increases. Falkirk does best of all on our aggregated measure of changes to public services. The town has 44 more health services than it did in 2011. Greenock's increase in bus stops and East Kilbride's 7 extra GPs are also indicative of Scotland's generally high increases of public service provision. However, Scottish towns are far more like their English and Welsh counterparts in terms of their overall services per head of population.<sup>3</sup>

### **Public Service Indices**

- The public service indices are measures intending to capture the relative density of, and changes to, public service provision in British towns.
  - There are two separate measures: 'Public Service Levels' reports the per capita number of: GPs, schools, nursery schools, bus stops, community halls, post boxes and health services.
  - 2. 'Changes to Public Services' counts changes in the numbers of GPs, schools, nursery schools, bus stops, community halls, police stations and health services between 2011 and 2018.
- For both measures, each indicator is standardised and combined to create an index score.
- These measures cannot indicate the quality of public service provision, nor their accessibility to citizens so we cannot be sure that a high score is necessarily better than a low score.

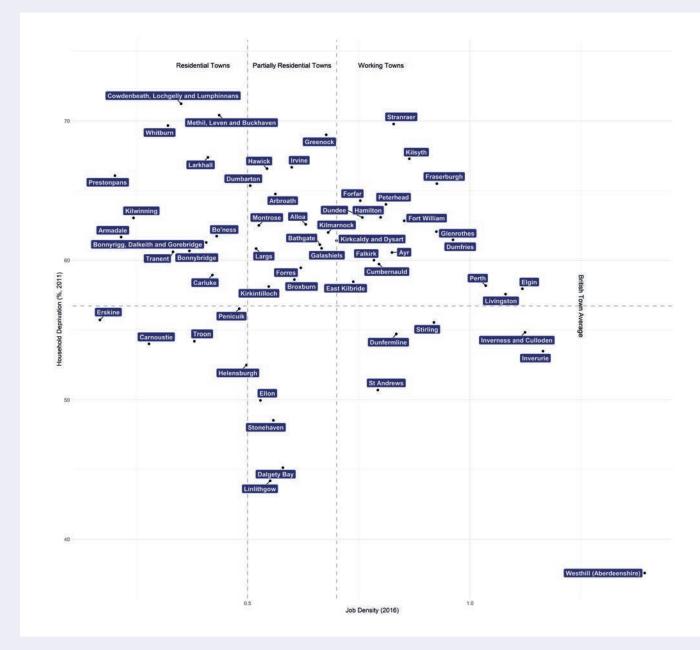
Image, above: North Berwick, 2019

<sup>3.</sup> It may be the case that the number of services in a town does not represent the amount of provision as we have no means for measuring the size, funding or demand of these services..

# **Economic Performance of Scotland's Towns**

# Figure 3:

Job Density and Deprivation Rate



### Figure 3.

**Source:** Census 2011, Office for National Statistics – Business Register and Employment Survey; Mid-Year Population Estimates; Scotland's Census, 2011; National Records of Scotland – Mid-Year Population Estimates.

Figure 3 builds on research undertaken by the ONS (2019) which reveals that many towns in England and Wales are largely 'residential' in nature, with different features and functions to 'working' towns.<sup>4</sup> On our analysis, Scotland has roughly equal numbers of 'residential', 'partially residential' and 'working' towns. The Y-axis in figure 3 shows that most towns there are poorer than average: three quarters of Scottish towns have more deprivation than the average British town. Westhill stands out for being the town with the highest job density as well as the lowest deprivation rate. Westhill sits just outside Aberdeen and, although it has a very small population, it homes many workers in the oil and gas industry.

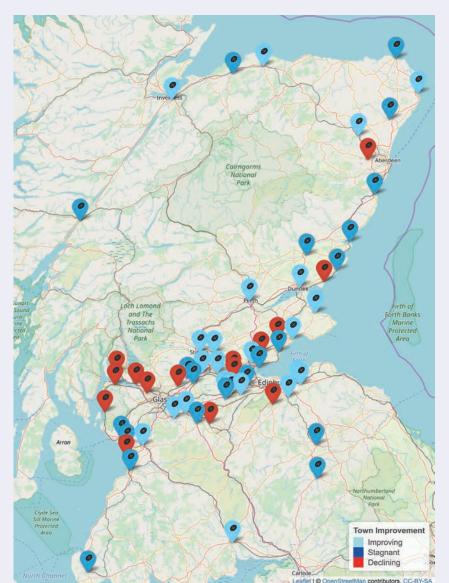
<sup>4.</sup> Distinction between working, partially residential and residential towns is made based on the 'job density' in a town. Job density is total employment in a town divided by its estimated population. This typology was created by the ONS (2019) to express the different functions of towns.

<sup>5.</sup> Deprivation rate data is taken from the Census and is counted as any household that contains at least one of the following: an unemployed/ long-term sick member; no member with at least level 2 qualifications; a member with 'bad or very bad' health; no central heating or is overcrowded/shared.

# **Economic Performance of Scotland's Towns**

### Figure 4:

Index of Town Improvement



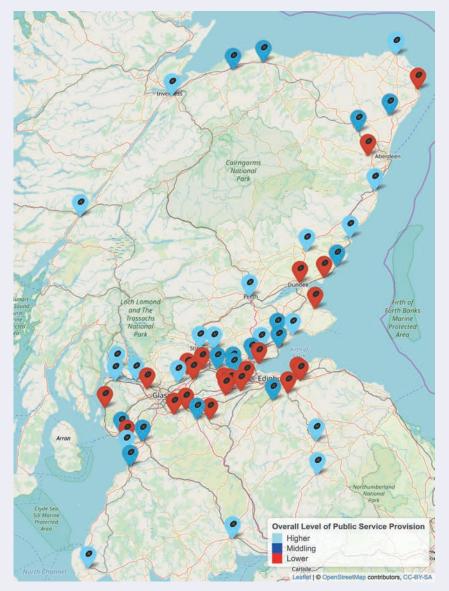
### Figure 4.

Notes: These relative indices are aggregates of standardised measures. Light Blue markers have an Improvement Index score > 1, red markers have a total of <1.

Source: Census 2011; Scotland's Census, 2011; Office for National Statistics – UK Business: Activity, Size and Location; Built-up Areas Boundaries, V2; National Records of Scotland – Settlements 2016 boundaries.

Figure 4 indicates that **most towns on the west coast of Scotland are declining faster than the average British town.** Ayrshire and areas along the river Clyde appear to be a hotspot for town decline. This is not necessarily a reflection of their coastal location given that towns on the East coast are in a very different position -- Peterhead's success on the basis of its fishing, oil and gas industries for example.

Figure 5: Public Service Levels



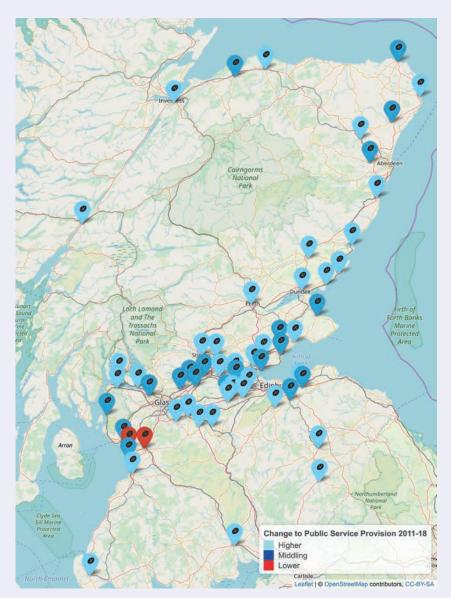
### Figure 5.

Notes: These relative indices are aggregates of standardised measures. Light blue markers have a total score > 1, red markers have a total of <1. Source: Office for National Statistics – Mid Year Population Estimates; Built-up Areas Boundaries, V2; Ordnance Survey – Points of Interest (© Crown copyright and database rights 2019 Ordnance Survey (100025252)); National Records of Scotland – Mid-Year Population Estimates; Settlements 2016 boundaries.

# **Economic Performance of Scotland's Towns**

## Figure 6:

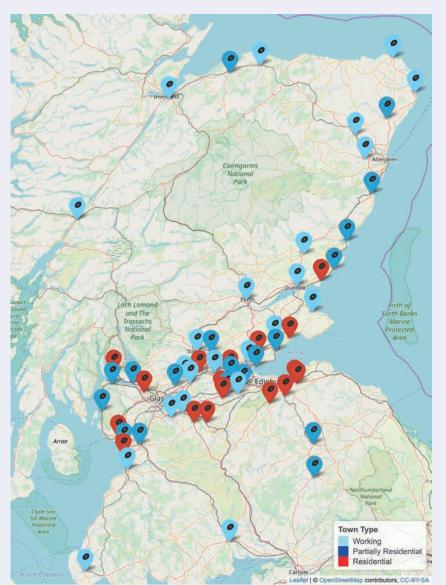
Changes to Public Service Levels



### Figure 6.

Notes: These relative indices are aggregates of standardised measures. Light blue markers have a total score > 1, red markers have a total of <1. Source: Office for National Statistics – Mid Year Population Estimates; Built-up Areas Boundaries, V2; Ordnance Survey -Points of Interest (© Crown copyright and database rights 2019 Ordnance Survey (100025252)); National Records of Scotland – Mid-Year Population Estimates; Settlements 2016 boundaries.

**Figure 7:** Residential - Working Town Typology



### Figure 7.

Notes: 'Residential towns' are all towns with fewer than 0.5 jobs per resident, 'working towns' have greater than 0.7 jobs per resident. Source: Census 2011; Scotland's Census, 2011; National Records of Scotland, Mid-Year Population Estimates; Office for National Statistics – Business Register and Employment Survey; Mid-Year Population Estimates.

Figure 7 shows that many of the towns that are furthest away from a city have more selfsufficient economies. Only one town in the North of the region, Methil, is a 'residential town'. This gives some indication of how the concentration of labour and services in cities tends to determine the prospects of nearby towns.

# **Public Service Provision in Scotland**



Scotland's towns have a wide range of public services within them. Kilwinning is the only town not to have a police station in it, whilst only 6 towns in the country do not have their own fire station. Dundee stands out for the number of services it provides, with 9 police stations, 5 fire stations, 13 libraries, 5 train stations and 7 hospitals. There are 13 public libraries with free membership in Dundee – a number matched only by Doncaster and Cambridge in the whole of Britain. The map below visualises this abundance of services.

Scotland has a large number of towns with very varied geographical features, and a distinctive history. Greenock's settlement stretches across a few kilometres of coastline on the West coast. As a key centre of manufacturing, shipbuilding and mining since the nineteenth century, Greenock has 11 train stations. This serves as a useful reminder that levels of service provision are sometimes the result of longer historical patterns, not just current policy choices. But overall Scotland's towns have experienced a reduction in the number of their services in key areas such as education, culture and emergency services, quite often because these have been consolidated in larger urban areas. In some cases, councils have merged schools into one site, or 'supercampus', in the hopes of reducing costs. Aberdeenshire Council reports 9 recent consultations on reforming school provision through mergers, moving campuses and changing catchment areas (Aberdeenshire Council, 2019).

Largs, a small town of 11,000 people, is declining markedly according to our Improvement Index. In 2018 it lost two school sites. A new campus now houses four separate institutions including early years, primary and secondary schools on the same site (Largs Academy, 2019). This decision allowed the old buildings to be used for council housing - a popular choice for old school sites in North Ayrshire such as Towerlands Primary (North Ayrshire Community Planning Partnership, 2019a). North Ayrshire Council has also started consulting on a similar campus in Ardrossan (Dunn & Fullarton, 2016; North Ayrshire Community Planning Partnership, 2019b). The merging of town-based schools into large academies suggests one of the ways in which authorities are dealing with the harsher financial context of the last few years.

Image, left: Largs Academy Campus, 2018

**Figure 8:** Public Services in Dundee

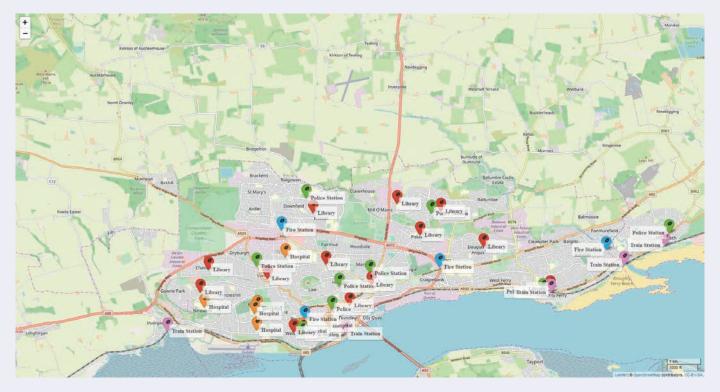


Figure 8. Source: Ordnance Survey – Points of Interest (© Crown copyright and database rights 2019 Ordnance Survey (100025252)).

# Comparing public services in Scotland's Towns to the Rest of Britain

This section compares estimated average public service provision for towns in Scotland and the rest of Britain. For some **services**, **such as nursery provision and health services, towns in Scotland have lower levels of public service provision than other areas of Britain**.

Having a good number of nursery schools and health-related services is an important indicator of a town's quality of life. There are more of these kinds of service in towns with thriving centres and affluent populations. Figure 9 shows that many Scottish towns have lower levels of service provision, a situation which matches its relatively higher rates of deprivation than other regions.

A town is 19% less likely to have a mental health centre or practitioner if it is located in Scotland. Figure 10 indicates that mental health services are much more likely to be found in towns with the lowest levels of deprivation.

### Figure 9:

Services in Scottish Towns compared to the rest of Britain

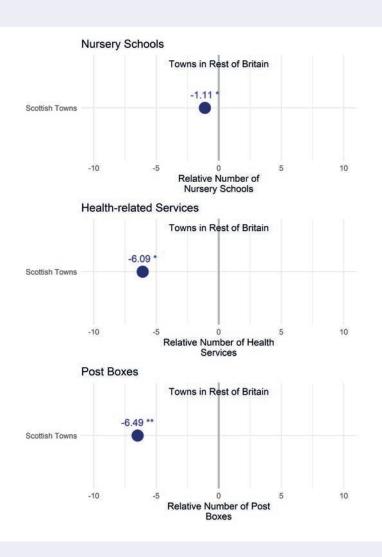
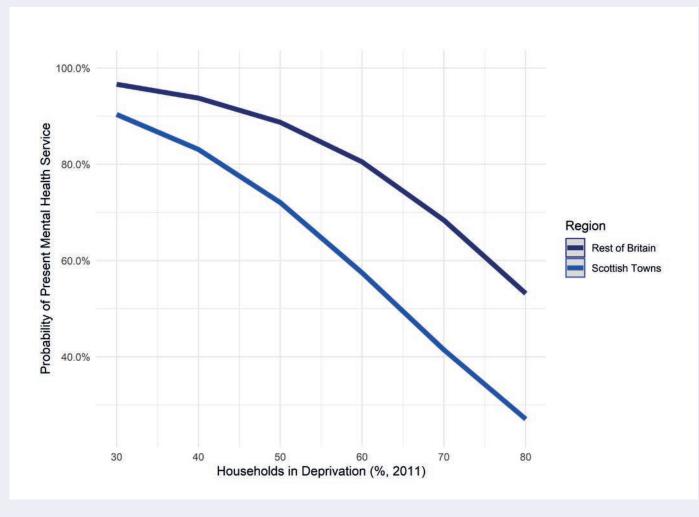


Figure 9.

Notes: OLS regression controlling for: area, population, deprivation rate, the improvement index, job density and distance from nearest city. \*p<0.1, \*\*p<0.05, \*\*\*p<0.001. **Source:** Census 2011, Office for National Statistics – Business **Register and Employment** Survey; UK Business: Activity, Size and Location; Built-up Areas Boundaries, V2; Mid-Year Population Estimates; Scotland's Census, 2011; National Records of Scotland – Mid-Year Population Estimates; Ordnance survey - Points of Interest (© Crown copyright and database rights 2019 Ordnance Survey (100025252)).

### Figure 10:

Predicted Probability of a Town-based Mental Health Practitioner



### Figure 10.

**Notes**: Logistic regression controlling for: area, population size, distance from nearest city, job density and Improvement Index. **Source**: Census 2011, Office for National Statistics – Business Register and Employment Survey; UK Business: Activity, Size and Location; Built-up Areas Boundaries, V2; Mid-Year Population Estimates; Scotland's Census, 2011; National Records of Scotland – Mid-Year Population Estimates; Settlements 2016 boundaries; Ordnance survey – Points of Interest (© Crown copyright and database rights 2019 Ordnance Survey (100025252)).

# **Overview and Implications**

Scottish towns are distinctive, compared to others in Britain, in terms of the overall increase in the quantity of public services they include, as well as their relatively high rates of deprivation and the very diverse geographical contexts in which they sit. Addressing this historically high rate of deprivation is a major policy challenge for government in Scotland, and so too is the need to ensure that the poorest towns in the country do not fall below an acceptable threshold in terms of providing key services in areas such as mental health.

The relatively isolated position of many Scottish towns means that the health of local economies is more important to many town dwellers than elsewhere. The Scottish Government's funding of the *Understanding Scottish Places* platform is one sign that it is engaging with these issues. Scotland's towns match many of those in England and Wales in terms of economic and demographic decline. And successive Scottish Governments have not managed to change this pattern significantly. As the current administration moves to commit more funds to towns, and makes addressing their needs a greater political priority, it will be important to see if this situation alters.

This briefing has also highlighted some notable features of the Scottish townscape. Although there has been improvement in the provision of services in many towns in Scotland in recent years, there are still fewer health-related services, nurseries and mental health providers compared to towns across Britain. The close relationship between deprivation and mental health services represents a particularly acute challenge in this context.

### Key Findings from our Scotland Townscapes Survey:

- The recent economic fortunes of Scotland's towns have been mixed, with some doing better than the British average, and others suffering from high rates of deprivation.
- Scotland's west coast is home to many of the most economically declining towns in the country.
- 12 of the top 20 British towns for increases in public services are in Scotland.
- Overall, Scottish towns have fewer available services located in them than towns in England and Wales. A town is 19% less likely to have a mental health practitioner if it is located in Scotland.

# Table 1:

Descriptive Statistics

Town	Population	Distance from City (Km)	Land Area (Km²)	Household Deprivation (%)	Job Density
Alloa	20730	41.48	7.54	62.58	0.63
Arbroath	23940	71.75	8.14	64.76	0.56
Armadale	12550	30.69	3.04	61.67	0.30
Ayr	62580	47.45	26.56	60.56	0.82
Bathgate	28470	26.85	10.05	61.12	0.66
Bo'ness	14760	26.08	6.60	61.73	0.43
Bonnybridge	25660	29.71	7.78	60.68	0.37
Bonnyrigg, Dalkeith and Gorebridge	52260	11.39	16.65	61.28	0.41
Broxburn	15440	16.56	5.30	58.62	0.61
Carluke	13930	32.63	5.43	58.94	0.42
Carnoustie	11360	69.73	3.48	54.03	0.28
Cowdenbeath, Lochgelly and Lumphinnans	18960	21.12	6.57	71.24	0.35
Cumbernauld	50920	21.68	21.51	59.73	0.80
Dalgety Bay	10050	14.02	3.44	45.14	0.58
Dumbarton	21120	19.11	7.65	65.36	0.51
Dumfries	34030	97.80	14.54	61.47	0.96
Dundee	158200	61.80	49.89	63.08	0.76
Dunfermline	74380	18.80	27.90	54.71	0.83
East Kilbride	75120	12.90	24.23	58.46	0.74
Elgin	24760	89.58	9.47	57.96	1.12
Ellon	10200	23.76	4.02	49.97	0.53
Erskine	17370	10.22	11.80	55.72	0.17
Falkirk	103030	35.02	43.50	60.01	0.78
Forfar	14230	73.44	4.99	64.28	0.75
Forres	10100	102.18	4.41	59.46	0.62
Fort William	10340	119.47	9.18	62.84	0.85
Fraserburgh	13180	59.42	4.52	65.50	0.93
Galashiels	15040	44.92	5.90	60.86	0.67
Glenrothes	47010	28.50	23.37	62.06	0.92

Greenock	67650	30.29	20.78	69.01	0.68
Hamilton	83730	16.53	27.56	63.09	0.80
Hawick	13740	63.10	5.16	66.58	0.54
Helensburgh	15610	32.68	7.29	52.50	0.50
Inverness and Culloden	63220	129.91	27.96	54.83	1.12
Inverurie	13640	20.78	5.54	53.51	1.16
Irvine	37630	35.05	21.83	66.68	0.60
Kilmarnock	51390	30.13	16.47	62.00	0.68
Kilsyth	10080	20.55	3.30	67.29	0.86
Kilwinning	16460	33.89	5.11	63.04	0.24
Kirkcaldy and Dysart	50010	20.87	18.85	61.41	0.70
Kirkintilloch	29450	13.02	8.72	58.12	0.55
Largs	11260	35.83	3.24	60.84	0.52
Larkhall	16200	25.36	6.10	67.39	0.41
Linlithgow	13260	24.84	4.24	44.20	0.55
Livingston	65810	20.58	30.36	57.57	1.08
Methil, Leven and Buckhaven	30530	30.46	12.30	70.42	0.44
Montrose	13320	52.99	5.01	62.51	0.53
Penicuik	16120	11.62	4.05	56.53	0.48
Perth	47430	53.27	17.49	58.18	1.04
Peterhead	19270	43.40	7.82	64.02	0.81
Prestonpans	10410	14.76	2.06	66.08	0.20
St Andrews	17580	50.73	4.96	50.71	0.79
Stirling	49830	37.47	21.01	55.54	0.92
Stonehaven	11170	21.74	3.72	48.53	0.56
Stranraer	10320	115.62	3.80	69.78	0.83
Tranent	12140	16.34	2.74	60.61	0.33
Troon	14710	40.59	5.97	54.21	0.38
Westhill (Aberdeenshire)	12290	9.76	5.01	37.57	1.39
Whitburn	12160	30.50	3.44	69.68	0.32

### Table 1

**Source:** Census 2011, Office for National Statistics – Business Register and Employment Survey; Built-up Areas Boundaries, V2; Mid-Year Population Estimates; National Records of Scotland – Settlements 2016 boundaries; Mid-Year Population Estimates.

# **Descriptive Statistics and Regression Tables**

# Table 2a:

Public Services

Town	Nurseries	Community Halls	Post boxes	Schools	Health Services	Bus Stops	Further Education Colleges
Alloa	6	10	27	8	25	135	1
Arbroath	6	4	26	9	40	187	0
Armadale	3	2	9	4	9	58	0
Ayr	8	12	74	20	128	409	1
Bathgate	5	6	28	11	35	178	0
Bo'ness	1	3	18	6	18	130	0
Bonnybridge	4	6	28	9	27	143	0
Bonnyrigg, Dalkeith and Gorebridge	9	11	51	17	58	263	2
Broxburn	5	4	13	5	21	65	0
Carluke	2	4	13	7	20	59	0
Carnoustie	4	2	17	4	15	63	0
Cowdenbeath, Lochgelly and Lumphinnans	4	6	22	10	26	125	0
Cumbernauld	10	18	46	20	53	201	0
Dalgety Bay	2	1	11	2	12	58	0
Dumbarton	6	7	20	9	30	116	1
Dumfries	12	19	45	18	72	290	1
Dundee	52	25	146	45	258	1000	3
Dunfermline	16	22	75	25	117	572	2
East Kilbride	15	13	70	26	85	324	1
Elgin	10	3	27	10	59	154	2
Ellon	3	3	5	3	23	83	0
Erskine	4	4	16	7	18	92	1
Falkirk	25	36	122	31	160	686	1
Forfar	4	4	17	4	35	129	0
Forres	2	1	16	4	22	64	0
Fort William	3	5	20	7	18	102	0
Fraserburgh	4	5	14	5	21	101	1
Galashiels	3	9	19	8	36	124	1
Glenrothes	11	8	66	19	61	340	0

Greenock	7	27	83	23	105	551	1
Hamilton	26	27	53	31	130	359	0
Hawick	2	5	24	7	27	128	0
Helensburgh	6	7	32	6	35	91	0
Inverness and Culloden	21	22	62	26	117	447	2
Inverurie	3	6	14	5	24	88	1
Irvine	4	17	27	12	42	232	0
Kilmarnock	18	16	57	16	74	312	1
Kilsyth	1	3	14	4	14	68	0
Kilwinning	5	8	13	8	16	69	1
Kirkcaldy and Dysart	12	12	58	16	84	473	0
Kirkintilloch	10	5	39	13	43	141	1
Largs	2	4	17	2	20	83	0
Larkhall	7	4	10	8	20	78	0
Linlithgow	6	4	16	6	20	52	0
Livingston	24	21	48	26	72	297	0
Methil, Leven and							
Buckhaven	5	15	51	10	40	304	1
Montrose	3	4	18	6	24	108	1
Penicuik	4	5	20	8	20	70	1
Perth	10	16	61	17	96	390	2
Peterhead	3	4	19	7	25	148	0
Prestonpans	1	4	8	4	10	42	0
St Andrews	1	5	23	4	24	134	1
Stirling	14	29	57	16	101	335	3
Stonehaven	3	5	16	4	28	85	0
Stranraer	2	4	16	6	27	100	1
Tranent	3	4	10	4	14	51	0
Troon	2	3	23	6	25	99	0
Westhill (Aberdeenshire)	4	3	8	4	12	80	0
Whitburn	2	3	11	5	14	48	0

 Table 2a.

 Source: Ordnance survey – Points of Interest (© Crown copyright and database rights 2019 Ordnance Survey (100025252))

# **Descriptive Statistics and Regression Tables**

# Table 2b:

Public Services

Town	Mental Health	Hospitals	Train Stations	GPs	Job Centres	Fire Stations	Police Stations	Libraries
Alloa	2	0	1	3	2	1	1	2
Arbroath	1	1	1	4	2	1	1	1
Armadale	0	0	1	1	0	0	1	0
Ayr	5	1	4	12	3	1	2	3
Bathgate	0	0	1	4	1	1	2	3
Bo'ness	0	1	0	3	0	1	1	1
Bonnybridge	0	0	0	5	0	1	1	2
Bonnyrigg, Dalkeith and Gorebridge	0	1	2	6	2	1	3	5
Broxburn	0	0	0	3	0	1	1	1
Carluke	0	0	0	2	0	1	1	1
Carnoustie	1	0	2	0	0	1	1	1
Cowdenbeath, Lochgelly and Lumphinnans	0	0	2	4	2	1	1	3
Cumbernauld	2	0	1	9	2	1	1	3
Dalgety Bay	1	0	0	1	0	0	1	1
Dumbarton	2	0	3	6	2	1	1	1
Dumfries	1	3	1	6	3	1	2	3
Dundee	17	7	5	27	3	4	9	13
Dunfermline	6	2	4	10	2	1	2	7
East Kilbride	2	1	1	11	2	1	1	3
Elgin	1	1	1	3	2	1	1	2
Ellon	0	0	0	1	2	1	1	1
Erskine	0	0	0	3	0	0	1	1
Falkirk	5	2	5	18	4	2	6	4
Forfar	0	1	0	3	1	1	1	1
Forres	0	1	1	2	1	1	1	1
Fort William	0	1	3	3	3	1	2	3
Fraserburgh	0	1	0	2	1	1	1	1
Galashiels	2	0	1	5	2	1	1	1
Glenrothes	1	1	2	8	3	1	1	6

Greenock	1	1	11	14	2	3	3	6
Hamilton	4	1	6	13	3	1	2	9
Hawick	1	1	0	2	2	1	1	1
Helensburgh	2	1	3	2	1	1	1	1
Inverness and Culloden	6	2	1	10	2	1	2	4
Inverurie	1	1	1	1	1	1	1	1
Irvine	1	2	1	6	2	1	1	3
Kilmarnock	4	0	1	6	2	1	1	2
Kilsyth	0	1	0	1	0	1	1	1
Kilwinning	0	0	1	2	0	0	0	1
Kirkcaldy and Dysart	6	1	1	6	1	1	1	2
Kirkintilloch	2	0	1	7	2	1	1	2
Largs	0	1	1	1	0	1	1	1
Larkhall	0	0	2	3	1	1	1	1
Linlithgow	0	1	1	1	0	1	1	1
Livingston	5	2	4	7	2	2	2	5
Methil, Leven and Buckhaven	0	2	0	6	2	1	2	4
Montrose	0	1	1	3	1	1	1	1
Penicuik	0	0	0	2	2	1	1	1
Perth	7	2	1	8	2	1	1	1
Peterhead	0	2	0	1	2	1	1	1
Prestonpans	0	0	1	1	0	0	1	1
St Andrews	0	1	0	2	1	1	1	2
Stirling	6	3	2	10	2	2	2	7
Stonehaven	0	1	1	1	0	1	1	1
Stranraer	1	1	1	3	2	1	1	1
Tranent	0	0	0	1	0	1	1	0
Troon	0	0	2	4	0	1	1	1
Westhill	0	0	0	1	0	0	1	1
Whitburn	0	0	0	1	0	1	1	1

 Table 2b.

 Source: Ordnance survey – Points of Interest (© Crown copyright and database rights 2019 Ordnance Survey (100025252))

# Table 3:

Improvement Index statistics

Towns	Employment Rate Change (2001–2011)	Youth Population Rate Change (2001–2011)	Business Count Change (2010–2016)	Population Change (2001–2011)	Further Education Qualification Rate Change (2001–2011)
Alloa	4.22	-0.04	15	4254	10.23
Arbroath	2.31	0.27	35	1117	8.34
Armadale	5.37	-0.48	-20	2773	11.84
Ayr	2.12	-0.04	240	385	7.56
Bathgate	2.62	0.17	95	10633	9.42
Bo'ness	3.15	-1.03	30	907	10.52
Bonnybridge	3.27	-0.30	115	5867	9.82
Bonnyrigg, Dalkeith and Gorebridge	0.80	0.20	250	2466	9.14
Broxburn	1.69	-0.23	70	2404	9.65
Carluke	0.69	-1.09	40	125	7.69
Carnoustie	-0.61	-1.44	30	833	10.06
Cowdenbeath, Lochgelly and Lumphinnans	1.30	-0.44	115	152	7.59
Cumbernauld	0.93	-0.15	110	2606	8.64
Dalgety Bay	-0.42	-0.37	30	-76	21.00
Dumbarton	3.15	-0.67	55	-1097	8.29
Dumfries	4.49	0.12	30	1768	7.71
Dundee	2.78	0.42	460	2770	9.99
Dunfermline	1.68	-0.18	445	29197	8.28
East Kilbride	2.67	0.21	305	599	8.75
Elgin	3.30	0.53	140	2299	6.95
Ellon	1.64	-0.53	95	1514	10.05
Erskine	-1.00	0.16	45	413	8.22
Falkirk	3.72	0.19	515	8081	8.85
Forfar	0.54	0.29	-5	842	8.15
Forres	-1.95	0.93	55	984	7.96
Fort William	3.45	-0.15	-60	551	10.06
Fraserburgh	3.52	0.46	40	646	7.66
Galashiels	-0.50	0.86	20	633	6.85
Glenrothes	-0.19	-0.56	45	2912	9.44

Greenock	2.02	-0.40	140	-3282	8.45
Hamilton	6.07	-1.00	380	4554	9.19
Hawick	0.01	0.50	-25	-279	8.63
Helensburgh	-0.47	0.25	10	-614	7.54
Inverness and Culloden	5.39	-0.01	255	17151	10.00
Inverurie	4.62	0.04	170	1772	10.97
Irvine	0.90	0.09	15	75	9.18
Kilmarnock	3.19	0.13	100	2571	9.25
Kilsyth	1.16	-0.22	145	69	8.44
Kilwinning	2.38	-0.23	60	691	10.11
Kirkcaldy and Dysart	2.36	-0.30	150	2797	8.62
Kirkintilloch	0.35	0.00	115	-1055	7.63
Largs	0.62	-0.21	55	99	7.36
Larkhall	4.29	-0.31	50	-250	6.00
Linlithgow	-2.56	0.19	115	92	7.35
Livingston	-1.99	0.30	545	4955	9.28
Methil, Leven and					
Buckhaven	5.27	0.01	85	6522	7.73
Montrose	2.43	-0.48	70	1101	8.75
Penicuik	-2.56	-0.44	225	1167	8.36
Perth	2.74	0.21	180	3520	9.26
Peterhead	6.53	0.11	105	590	9.48
Prestonpans	7.86	0.09	60	1987	12.69
St Andrews	-9.03	3.64	40	2661	8.04
Stirling	1.14	1.04	235	2936	9.57
Stonehaven	1.82	-0.19	110	1854	9.69
Stranraer	3.88	0.38	120	-258	5.43
Tranent	3.93	0.69	80	2750	10.52
Troon	-0.96	-0.41	5	-14	7.65
Westhill (Aberdeenshire)	-1.23	-1.57	220	1486	10.92
Whitburn	-0.47	0.43	15	1357	7.12

### Table 3.

Source: Census 2011, Census 2001, Office for National Statistics – Business Register and Employment Survey; UK Business: Activity, Size and Location; Built-up Areas Boundaries, V2; Mid-Year Population Estimates; National Records of Scotland – Settlements 2016 boundaries; Mid-Year Population Estimates.

### Regression Tables Table 4:

	I	Iealth Services			Bus Stops			Nurseries			Schools			GPs			Post Boxes	
Predictors	Estimates	CI	р	Estimates	CI	р	Estimates	CI	р	Estimates	CI	р	Estimates	CI	р	Estimates	CI	р
Intercept	19.54	6.15 - 32.94	0.004	-87.85	-127.4148.30	<0.001	7.62	5.25 - 9.98	< 0.001	-1.44	-3.66 - 0.79	0.206	-3.13	-4.511.75	<0.001	11.90	2.37 - 21.42	0.015
Improvement Index	-0.29	-1.08 - 0.50	0.478	-1.93	-4.26 - 0.40	0.106	0.05	-0.09 - 0.19	0.504	-0.10	-0.23 - 0.04	0.154	-0.08	-0.16 - 0.00	0.063	-0.07	-0.63 - 0.49	0.806
Distance from City	0.29	0.21 - 0.37	< 0.001	0.36	0.12 - 0.61	0.004	0.02	0.00 - 0.03	0.021	-0.02	-0.030.00	0.016	-0.00	-0.01 - 0.01	0.675	0.18	0.12 - 0.24	< 0.001
Population	0.00	0.00 - 0.00	< 0.001	0.00	0.00 - 0.00	< 0.001	0.00	0.00 - 0.00	< 0.001	0.00	0.00 - 0.00	<0.001	0.00	0.00 - 0.00	< 0.001	0.00	0.00 - 0.00	< 0.001
Land Area	-1.19	-1.910.48	0.001	9.69	7.58 - 11.80	<0.001	0.02	-0.11 - 0.14	0.807	0.24	0.12 - 0.36	< 0.001	0.05	-0.02 - 0.13	0.143	0.52	0.01 - 1.03	0.045
Household Deprivation	-0.57	-0.790.35	<0.001	1.21	0.56 - 1.86	<0.001	-0.15	-0.190.12	<0.001	0.04	-0.00 - 0.07	0.054	0.05	0.03 - 0.07	<0.001	-0.20	-0.360.04	0.013
Scotland Dummy	-6.09	-11.560.62	0.029	7.83	-8.32 - 23.97	0.343	-1.11	-2.080.15	0.024	-0.32	-1.22 - 0.59	0.495	0.15	-0.41 - 0.72	0.593	-6.49	-10.382.61	0.001
Job Density	14.78	8.68 - 20.88	<0.001	-0.42	-18.43 - 17.59	0.964	1.15	0.07 - 2.22	0.038	1.07	0.06 - 2.08	0.039	-0.28	-0.91 - 0.34	0.378	0.17	-4.17 - 4.50	0.940
Observations	520			520			520			520			520			520		
R2 / adjusted R2	0.909 / 0.	908		0.909 / 0.	908		0.903 / 0.	902		0.927/0.	926		0.889/0.	887		0.870/0.	868	

### Table 4

**Source:** Census 2011, Office for National Statistics – Business Register and Employment Survey; UK Business: Activity, Size and Location; Built-up Areas Boundaries, V2; Mid-Year Population Estimates; Ordnance survey – Points of Interest (© Crown copyright and database rights 2019 Ordnance Survey (100025252)); Scotland's Census, 2011; National Records of Scotland – Mid-Year Population Estimates;.

### Table 5:

	Mental Health Practitioners		Hospital				Job Centre			Train Station Furt			Further Education College			Police Station		
Predictors	Odds Ratios	CI p	Odds I	Ratios	CI p		dds tios	CI p		dds tios	CI p		dds tios	CI p		odds atios	CI	р
Intercept	5.45	0.88 - 33.75	0.068	0.03	0.00 - 0.22	< 0.001	0.00	0.00 - 0.00	< 0.001	0.23	0.04 - 1.46	0.120	0.00	0.00 - 0.03	<0.001	0.10	0.02 - 0.62	0.01
Improvement Index	0.98	0.87 – 1.10	0.719	0.97	0.85 - 1.10	0.613	0.97	0.85 - 1.11	0.671	1.23	1.08 - 1.39	0.001	0.97	0.86 - 1.09	0.600	1.01	0.89 - 1.13	0.90
Distance from City	1.02	1.01 - 1.03	0.002	1.05	1.04 - 1.07	<0.001	1.01	1.00 - 1.03	0.046	1.01	1.00 - 1.02	0.048	1.02	1.01 - 1.03	0.002	1.00	0.98 - 1.01	0.54
Population	1.00	1.00 - 1.00	0.005	1.00	1.00 - 1.00	< 0.001	1.00	1.00 - 1.00	< 0.001	1.00	1.00 - 1.00	0.001	1.00	1.00 - 1.00	<0.001	1.00	1.00 - 1.00	0.18
Land Area	1.03	0.90 - 1.18	0.690	0.92	0.79 – 1.06	0.228	0.94	0.78 - 1.13	0.518	1.01	0.87 - 1.18	0.892	0.93	0.82 - 1.05	0.239	1.03	0.87 - 1.22	0.70
Household Deprivation	0.94	0.91 – 0.97	<0.001	0.98	0.95 - 1.01	0.143	1.12	1.08 - 1.17	<0.001	0.99	0.96 - 1.02	0.499	1.04	1.00 - 1.07	0.026	1.01	0.98 - 1.04	0.47
Scotland Dummy	0.33	0.15 - 0.70	0.004	1.10	0.49 - 2.47	0.809	2.56	1.12 - 5.83	0.026	1.06	0.51 - 2.22	0.878	1.02	0.48 - 2.19	0.957	44.28	5.86 - 334.83	<0.0
lob Density	2.44	1.05 - 5.68	0.039	19.2 5	7.16 - 51.74	<0.001	17.01	6.29 - 45.99	<0.001	2.79	1.21 - 6.44	0.017	4.46	1.96 - 10.17	<0.001	8.59	3.36 - 21.96	<0.0
Observations	520		520			520			520			520			520			
Γjur's R <sup>2</sup>	0.246		0.395			0.447			0.245			0.332	2		0.21	1		

### Table 5.

**Source:** Census 2011, Office for National Statistics – Business Register and Employment Survey; UK Business: Activity, Size and Location; Built-up Areas Boundaries, V2; Mid-Year Population Estimates; Ordnance survey – Points of Interest (© Crown copyright and database rights 2019 Ordnance Survey (100025252)); Scotland's Census, 2011; National Records of Scotland – Mid-Year Population Estimates;.

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