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Building a Suite of Subnational Socioeconomic Indicators for the United Kingdom: Opportunities, Challenges and Recommendations

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Abstract

The UK government's levelling up agenda has triggered renewed interest in regional disparities. However, for several years, there has been a growing consensus across the UK that better subnational statistics are required to support policymaking and analysis. This paper assesses the challenges and opportunities associated with building a suite of subnational socioeconomic indicators. Such a suite would facilitate the creation of profiles of local areas across the UK's four nations. By reviewing current international practise, the UK policy and geographical landscape and the vast array of indicators which could be included in a suite, we provide six sets of recommendations. Specifically, we address: which indicators should be included; the timeliness and geographical granularity required; the extent to which indicators should be comparable across the four nations; how measurement, comparability issues and data gaps can be minimised; and how such data should be disseminated.

Keywords: data collection, survey methods, levelling up, rebalancing, industrial policy

JEL classification: C82, C83, H7, R12, R58

Sharada Nia Davidson, University of Strathclyde
Sharada.n.davidson@strath.ac.uk

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2 Dean Trench St
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United Kingdom
www.escoe.ac.uk

UNIVERSITY of STRATHCLYDE
FRASER OF ALLANDER INSTITUTE

University of Strathclyde Business School

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Sharada Nia Davidson[1], Kevin Connolly, Ciara Crummey, Niccolò Brazzelli and Mairi Spowage

Fraser of Allander Institute, University of Strathclyde

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[1] Corresponding Author: Department of Economics and Fraser of Allander Institute, University of Strathclyde, E-mail: sharada.n.davidson@strath.ac.uk

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Executive Summary

Although the UK government's 'levelling up' agenda (termed 'rebalancing' by the previous government) has triggered renewed interest in regional disparities, the need for better subnational statistics predates any recent shifts in the policy landscape. For several years, there has been a growing consensus that better subnational statistics are required to support policymaking and analysis (see, for example, Allsopp, 2004 and Bean 2016).

This need for subnational statistics means that the Office for National Statistics (ONS) and devolved administrations now collect and produce more subnational data than ever before. However, a number of challenges remain. Different subnational statistics tend to be developed and published as part of different releases reflecting their categorisation (for example, health, housing etc.), making it difficult to quickly gain a holistic overview of the complex dynamics in a given region. There are also challenges which occur when attempting to measure regional indicators across the four nations or compare regions in different parts of the UK. Without taking stock of the vast array of subnational data available, it can also be difficult to identify important data gaps.

This report seeks to address these issues, discussing the opportunities, challenges and trade-offs when building a suite of subnational socioeconomic indicators for the UK. Such a suite would facilitate the development of local area profiles across the four nations. This report also complements and builds on the Subnational Data Strategy published by the Government Statistical Service and the Levelling Up White Paper's Technical Annex on Missions and Metrics published by the Department for Levelling Up, Housing and Communities.

We begin by reviewing current international practice, focusing on Canada where the provinces and territories regularly release publications using data on subnational economic indicators. We then discuss the UK policy landscape with a focus on levelling up. We then turn to data issues, discussing different UK geographies used in the production of statistics and the differing goals of different producers of subnational data. We next consider key challenges in terms of collecting regional data, considering the interdepartmental business register, different surveys and issues which can arise when comparing data from across the four nations. Subsequent sections consider a wide range of socioeconomic indicators which could be included or developed for inclusion in a subnational suite.

In our report, we outline a number of key recommendations. First, we recommend that a small number of key economic indicators are included in the suite together with other socioeconomic indicators capturing subnational labour markets; skills, education and social mobility; income and poverty; housing; health; and demography and rurality.

Second, given the suite's focus on socioeconomic outcomes, we recommend that the baseline frequency of suite should be annual with a subset of indicators on the cost of living and labour market at a higher frequency.

Third, we recommend that the baseline geographical granularity of the suite is at the local authority level for Great Britain and at the local government district (LGD) level for Northern Ireland. Nonetheless, we stress that this level of granularity may mask considerable variation in large local authorities so we also recommend that data on all indicators are included at lower level geographies. These should be meaningful in a devolved context. It may be the case that a "building block" approach may provide a way forward.

Fourth, we recommend that a subset of indicators should be comparable across the four nations with other indicators equivalent (i.e. capturing the same characteristic but not necessarily comparable). Where an indicator is included for England, an equivalent indicator should be included for the devolved nations. Omission of indicators for the devolved nations should only occur in exceptional circumstances. Some caution should also be used when referring to comparable indicators as "headline" and noncomparable indicators as "supporting" since, in this case, "headline" indicators may not be the "best" or most representative of a specific characteristic.

Fifth, we have a number of recommendations relating to measurement and comparability issues and data gaps. Specifically, we recommend that issues around apportionment and disaggregation are carefully considered with a focus on how Great Britain Reporting Units report on regional activity. We also recommend that the ONS and devolved administrations collaboratively identify areas in which surveys can be boosted or harmonised. With all four nations deploying health surveys, there may be an opportunity to develop comparable health indicators across the four nations. Importantly, though, survey boosts and harmonisation will require the ONS and devolved administrations to collectively discuss and consider resource implications across producers. Additionally, where different definitions of concepts are used

across the four nations, indicators should seek to capture constituent parts. For example, rather than developing indicators on rurality, data on population density and transport connectivity could be obtained.

We also identify a number of key regional data gaps. Currently, statistics are not produced on regional consumer prices. Nor is there data available on working-age adults or pensioners in poverty for small geographical areas. Data on labour markets would benefit from complementary indicators on skills shortages and mismatch and business demography by industry – data on these indicators already exists but requires standardisation. While there is an opportunity to develop a set of indicators on education across the devolved nations using individual school data, this will require significant collaboration between the ONS and devolved administrations. Data on transport connectivity across the devolved nations also warrants further investigation. We also recommend that data sources used by the four nations to capture different dimensions of indices of multiple deprivation should also be explored since they are selected on the basis that they can capture outcomes in small areas. Again, while there is a need to address these data gaps, on a practical level prioritisation and resourcing will need to carefully considered by all producers.

Last, we provide some reflections on how a suite of subnational indicators could be disseminated. Nomis[2], in particular, illustrates the usefulness of local area profiles and these services could be extended to consider the LGDs of Northern Ireland and devolved constituencies. Ultimately, Nomis (or a different service) could provide area profiles on a wide range of indicators. Such a service should also carefully consider how to guide users so that comparisons across areas are only made where appropriate.

[2] NINIS for Northern Ireland

Contents

List of Abbreviations

APS	Annual Population Survey
ASHE	Annual Survey of Hours and Earnings
BEIS	Department for Business, Energy and Industrial Strategy
BRES	Business Register and Employment Survey
CHAPS	Clearing House Automated Payment System
CJRS	Coronavirus Job Retention Scheme
CPI	Consumer Price Index
CRF	Community Renewal Fund
DfE	Department for Education
DFM	Dynamic Factor Model
DfT	Department for Transport
DLUHC	Department for Levelling Up, Housing and Communities
DWP	Department of Work and Pensions
ESA	Employment and Support Allowance
ESS	European Statistical System
EU	European Union
EU-SILC	European Union Statistics on Income and Living Conditions
FAI	Fraser of Allander Institute
FRS	Family Resource Survey
FSM	Free School Meal
FYE	Financial Year Ending
GB	Great Britain
GCSE	General Certificate of Secondary Education

GDP	Gross Domestic Product
GOR	Government Office Region
GSS	Government Statistical Service
GVA	Gross Value Added
HMRC	Her Majesty's Revenue and Customs
IDBR	Inter-Departmental Business Register
IFS	Institute for Fiscal Studies
IMD	Index of Multiple Deprivation
IPPR	Institute for Public Policy Research
ITL	International Territorial Level
JRF	Joseph Rowntree Foundation
KS	Key Stage
LAs	Local Authorities
LAU	Local Administrative Unit
LCF	Living Cost and Food Survey
LEC	Local Enterprise Company
LFS	Labour Force Survey
LGD	Local Government District (NI only)
LU	Local Unit
LUF	Levelling Up Fund
MP	Member of Parliament
MSOA	Middle Layer Super Output Areas
NI	Northern Ireland
NIMDM	Northern Ireland Index of Multiple Deprivation

NINIS	Northern Ireland Neighbourhood Information Service
NISRA	Northern Ireland Statistics and Research Agency
NRS	National Records of Scotland
NUTS	Nomenclature of Territorial Units for Statistics
NVQ	National Vocational Qualification
MYE	Mid Year Estimates
Ofsted	Office for Standards in Education, Children's Services and Skills
PAYE	Pay As You Earn
PAYE RTI	Pay As You Earn Real Time Indicators
PEDW	Patient Episode Database for Wales
RU	Reporting Unit
SIC	Standard Industrial Classification
SMC	Social Mobility Commission
SIMD	Scottish Index of Multiple Deprivation
SOA	Super Output Area
SOC	Standard Occupational Classification
TTWA	Travel To Work Area
ONS	Office for National Statistics
UC	Universal Credit
UK	United Kingdom
UKSPF	UK Shared Prosperity Fund
VAR	Variable and Classifications
VOA	Valuation Office Agency
WIMD	Welsh Index of Multiple Deprivation

1. Introduction

1.1. The Need for and Purpose of a Suite of Subnational Socioeconomic Indicators

Economic policies implemented by the UK government affect the UK's different regions[3] in different ways. Such policies can also result in a narrowing or widening of existing regional inequalities. Similarly, policies implemented by the devolved governments in Scotland, Wales and Northern Ireland can have differential impacts within their respective nations.

Although the UK government's 'levelling up' agenda (termed 'rebalancing' by the previous government) has triggered renewed interest in regional disparities, the need for better subnational statistics predates any recent shifts in the policy landscape. For several years, there has been a growing consensus among policymakers, analysts and academics across the UK that better subnational statistics are required to support policymaking and analysis. In fact, independent reviews of economic statistics undertaken by Allsopp (2004) and Bean (2016) both have sections dedicated specifically to regional statistics.

The need for subnational statistics means that the Office for National Statistics (ONS) and devolved administrations now collect and produce more subnational data than ever before. However, different subnational statistics tend to be developed and published as part of different releases reflecting their categorisation (for example, health, labour market etc.). This makes it difficult to quickly gain a holistic overview of the complex dynamics in a given region or to compare how two regions differ from one another. Without assessing how the wide range of subnational statistics already available fit together, it can also be difficult to identify data gaps where users' needs are not fully met. Additionally, statistics produced for and by different UK nations are not always comparable since the definitions adopted are incompatible, the data is collected in different ways or different geographies are used.

Consequently, there is a strong need to develop a suite of subnational indicators which facilitates the creation of *profiles of local areas across the UK's four nations*. The suite should be fit for purpose, allowing analysts to:

1. Identify the overarching characteristics and dynamics of a given region.

[3]Unless otherwise stated, we will use the terms 'regional' and 'subnational' interchangeably throughout this report to refer to different spatial areas including, for example, the four UK nations, the 12 ITL1 regions as well as smaller areas such as local authorities, constituencies and super output areas.

2. Identify inequalities within and between different regions of the UK.
3. Assess the relative needs of different regions, something which is crucial when allocating funding.
4. Identify the appropriate policy levers and reforms required to reduce inequalities.
5. Evaluate the efficacy of policies implemented and their impact on socioeconomic outcomes.

1.2. Report Objectives and Scope

This report is intended for producers of subnational statistics across the UK including the ONS and devolved administrations as well as users of subnational statistics in academia, the public and private sector. Rather than focussing on specific categories of indicators, we will contribute to the existing policy literature by outlining the challenges, opportunities and trade-offs associated with building a suite of subnational socioeconomic statistics.

Given that there are hundreds of indicators which could be considered for inclusion in a suite of socioeconomic indicators, the objective of this report is not to pin down exactly which indicators to include. Instead by taking a more holistic view, we will be able to make a series of recommendations regarding:

- which categories of indicators to include
- how timely the indicators should be
- the required level of geographical granularity
- whether comparability across the four nations is necessary
- how to minimise measurement and comparability issues and data gaps
- options for dissemination

Importantly, we will also adopt a four nation perspective, highlighting where the needs of UK and devolved users and producers may differ and where there are challenges in constructing UK wide indicators.

While the ONS and devolved administrations have a strong interest in developing new, non-survey based approaches to measurement, an objective which is of considerable value, this report will focus on how we can better utilise data and surveys which are already available. Consequently, together with the ONS and devolved administrations, we will place emphasis

on taking stock of the subnational statistics already available and important data gaps which can be identified when we take a local area approach.

1.3. Relation to Key Policy Documents

This report complements two key policy documents. The first is the Government Statistical Services' (GSS) Subnational Data Strategy published in December 2021. This document discusses the workplan being developed by the GSS to address different data gaps and meet different users' needs. It is also a useful starting point to consider the different options for producing more granular subnational estimates and methods for dissemination. Our report relates most closely to Ambitions 1 and 3 of this strategy: "to produce more timely, granular and harmonised subnational statistics" and "to improve the dissemination of subnational statistics" respectively. In particular, with the purpose of a suite of subnational economic indicators clearly in mind, we will be able to better discuss trade-offs which may occur between timeliness, granularity and harmonisation. We will also consider dissemination options with a focus on local area profiles.

The second policy document which closely relates to our report is the Levelling Up White Paper published in February 2022 (DLUHC, 2022). While many analysts have been focussed on the main body of the report, our discussion builds on the Technical Annex on Missions and Metrics. For some categories of indicators, the metrics which will be used to analyse the devolved administrations have not yet been defined and our report addresses how some of these data gaps and challenges can be addressed.

1.4. Report Structure

Our report is structured as follows. In Section 2, we provide an overview of current practices in the Canadian provinces and territories, each of which regularly published provincial and, to a lesser extent, subprovincial economic statistics. In Section 3, we provide an overview of the unique UK policy and data landscape, reflecting on current trends in UK policy and the challenges posed by different UK geographies. In Section 4, we also give an overview of some of the issues associated with collecting subnational business data and the key household surveys used to collect information on individuals. In Section 5, we provide an overview of existing statistics which could be included in the suite, with a focus not only on economic but

also on socioeconomic statistics. In Section 6, we discuss which statistics could be improved or developed for inclusion in the suite. Section 7 outlines our recommendations. Section 8 concludes.

2. A Review of Current International Practise: The Canadian Case

First, we will review current international practices in collecting regional indicators. We will focus on Canada, where economic indicators on the ten provinces and three territories are frequently published. This review focuses on the data each province/territory compiles and releases, rather than publications by Statistics Canada. Unlike in the UK, it is relatively common in Canada for a province/territory to publish a suite of indicators covering different categories (e.g., labour market, population, businesses etc.). Importantly, though, most provincial/territorial data is collected and produced by Statistics Canada rather than individual provinces/territories.

Our choice to focus on Canada is determined by a number of factors. First, in related work on interregional trade (Davidson and Spowage, 2021) and regional supply and use and input output tables (Davidson, Black, Connolly and Spowage, 2022), Canada has acted as an important point of reference. For example, Canada is one of a handful of countries which regularly produces interregional trade estimates based, in part, on survey data. Second, while Eurostat collects and publishes a large range of subnational data on EU member states, the data must be measured and collected in a way which facilitates comparisons across countries. In Canada, this is not the focus. Similarly, in the UK we are more concerned with the extent to which data on different subnational areas should be comparable within the UK. Third, we were also keen to examine the publications produced by the Canadian provinces and territories since these are typically intended to assist local rather than national decisionmakers and are thus driven by regional needs. Again, in the UK case, subnational data must meet the needs of both local and national policymakers and analysts. Fourth, while there are undoubtedly other countries we could consider, for example Spain where data is collected by regional statistical agencies of its autonomous regions, from a practical perspective, significant documentation is available on the Canadian case in English.

2.1. An Overview of Canadian Provincial Indicators

The type of publication released varies within and across provinces/territories but includes:

- Bulletins
- Newsletters
- Reports
- Dashboards
- Webpages
- Excel Data Files

Importantly, each suite of indicators is not standardised across provinces/territories and as far as we are aware Statistics Canada does not host a "central" suite that allows data on a range of indicators to be compared across all provinces and territories.[4] Common categories of indicators each province and territory publish statistics on includes:

- Population
- Labour Force
- Consumer Price Index (CPI)
- Gross Domestic Product (GDP)
- Business
- Trade
- Housing
- Farming

We will now consider each of these categories, in turn, pointing out instances in which subprovincial or subterritorial data is also published.

Population: All provinces and territories (excluding Quebec) publish population statistics with their economic indicators. Most publish quarterly data on the population level, births and deaths and interprovincial and international migration trends. At a minimum, population size is included (British Columbia, Nova Scotia, Prince Edward Island). Ontario also publishes population size by urban areas within the province.

Labour Force: Labour force indicators are published monthly by all provinces and territories. At a provincial level, all report employment and unemployment levels and rates and the participation rate (excluding Yukon). Many provinces also report average earnings, job vacancies and employment insurance beneficiaries. Some provinces go into further detail and

[4] Like the ONS, Statistics Canada tends to publish provincial/territorial statistics according to the categories they belong to.

include gender and age, industry and employment type breakdowns and employment data based on immigrant and indigenous/Inuit status. Saskatchewan reports very detailed labour force statistics including age and gender, immigrant status, educational attainment and establishment size. In addition to the provincial level, Manitoba reports the subprovincial participation rate.

CPI: All provinces and territories report monthly Consumer Price Index (CPI) levels. Most provinces also break down CPI data by items, commonly food, energy and shelter. Nunavut and Yukon do not publish CPI at the territory level but do publish the CPI for their capital cities Iqaluit and Whitehorse. Northwest Territories publish territory level CPI and CPI for their capital Yellowhorse, broken down by basket items. British Columbia, Manitoba, Saskatchewan also publish their CPI data for their cities and metropolitan areas.

GDP: Most provinces and territories (excluding Alberta, British Columbia, Nova Scotia, Saskatchewan and Nunavut) report annual nominal and/or real Gross Domestic Product (GDP) data at a provincial level. Ontario and Quebec publish GDP data quarterly and monthly, respectively. Northwest Territories and Yukon also publish GDP at basic prices broken down by industry.

Business: Most provinces and territories report business indicators at the provincial level. All provinces (excluding Manitoba and Nova Scotia) publish the value of manufacturing sales/shipments monthly. Prince Edward Island and Saskatchewan break this down by product type. All provinces (excluding British Columbia, Nova Scotia and Quebec) publish new motor vehicle sales monthly. Saskatchewan publishes this yearly. British Columbia, Manitoba, New Foundland and Saskatchewan all publish monthly food services and drinking places sales. New Brunswick publishes this yearly. All provinces and territories (excluding Nova Scotia and Nunavut) publish monthly retail and/or wholesale trade values. Saskatchewan breaks down these sales by industry group.

Trade: All provinces (excluding British Columbia, Newfoundland and Labrador, and Nova Scotia) publish monthly provincial trade indicators. These include domestic and international imports and exports. Ontario also publishes the top five international exports and export markets and imports and import suppliers.

Housing: All provinces (excluding Nova Scotia) publish monthly and quarterly housing data. The most commonly published indicators are housing starts, building permits (often broken down in building type) and investment in building construction. Alberta, New Brunswick and Ontario also publish housing sales data. Saskatchewan publishes much more detailed housing data including house price indexes, housing dwelling statistics and building permit data. This data is also published at the sub-provincial level for Saskatchewan. Yukon is the only territory to produce housing data. Their data are focused on real estate values and transactions in their capital city Whitehorse.

Farming: Manitoba, New Brunswick, Prince Edward Island and Saskatchewan publish quarterly farm cash receipts. Saskatchewan also publishes a farm product price index and average price of agricultural commodities (monthly) and farmers' marketing of field crops at primary elevators (weekly).

Alberta Activity Index: Alberta also publishes the Alberta Activity Index which tracks economic activity as a weighted average of nine monthly indicators: employment, average weekly earnings, retail trade, wholesale trade, manufacturing shipments, new truck sales, housing starts, rigs drilling, and oil production.

2.2. Case Study: Provincial Indicators Published by Alberta

A summary of the indicators and data published by Alberta are given in Table 1 while summaries for the other regions (listed from the largest to the smallest according to population size) are provided in Appendix A. While Saskatchewan has one of the most detailed publications, issuing a monthly statistical bulletin, Alberta is included here as a more typical example. Alberta is the 4th largest province with a population of approximately 4 million people, making it larger than Wales but smaller than Scotland. As discussed, Alberta is also the only province/territory which produces its own index of economic activity.

Table 1: Regional Data Published by the Canadian Province Alberta

Publication Name and Type	Categories of Indicators Available at the Provincial/Territorial Level or Lower Levels	Frequency	Data Source
Alberta economy Indicators at a glance **Weekly Economic Update Bulletin**	**Population** • Population (level, y/y % change) • Net Interprovincial Migration Net International Migration	Quarterly	Statistics Canada
	Labour Market • Employment (level, m/m change, y/y % change) • Unemployment Rate • Participation Rate Average Weekly Earnings (level, y/y % change)	Monthly	Statistics Canada
	Household Sector • Retail Sales (level, y/y % change) • New Vehicle Sales (level, y/y % change) • Consumer Price Index ○ Excluding Food & Energy • Housing Starts (level, y/y % change) • New Housing Price Index • Resale Home Sales (level, y/y % change) • Sales to New Listing Ratio • MLS Average Resale Prices (level, y/y % change) Consumer Bankruptcies (level, y/y % change)	Monthly	• Statistics Canada • Canadian Real Estate Association (MLS Average Resale Prices)

	Business Sector
	• Goods Exports (level, y/y % change)
	  ○ Energy Products (level, y/y % change)
	  ○ Agricultural Products (level, y/y % change)
	• Rigs Drilling (level, y/y % change)
	• Manufacturing Shipments (level, y/y % change)
	• Wholesale Trade (level, y/y % change)
	• Building Permits (level, y/y % change)
	• Residential Permits (level, y/y % change)
	• Non-Residential Permits (level, y/y % change)
	Non-Res. Building Cons. Price Index (y/y % change)
		Monthly	• Statistics Canada
			• Canadian Association of Energy Contractors (Rigs Drilling)
			• Office of the Superintendent of Bankruptcy Canada (Bankruptcies)

Alberta labour market indicators
 	
Table on Labour Market Notes Webpage
	Labour Market:
	• Employment
	  ○ Month-over-month change
	  ○ Year-over-year % change
	• Alberta unemployment rate (UR)
	  ○ Edmonton UR (3-month moving average)
	  ○ Calgary UR (3-month moving average)
	• Participation rate
	• Average Weekly Earnings (level and Year-over-year % change)
	• Average hourly wage (level and Year-over-year % change)
	Job Vacancy Rate
		Monthly	All data is from the October 2021 Labour Force Survey, except AWE which is from the August 2021 Survey of Employment, Payrolls and Hours, and the Job Vacancy Rate which is from the August 2021 Job Vacancy and Wage Survey

Labour Market Notes **Monthly bulletin**	Regional labour market indicators • Population • Labour Force • Employment • Unemployment Rate Given 2021 YTD measure for regions in Alberta There is labour market data on 8 regions in Alberta	Monthly	• Statistics Canada • Haver Analytics
Alberta Activity Index **Webpage and Excel file**	Developed by Alberta Treasury Board and Finance, the Alberta Activity Index (AAX) is a weighted average of 9 monthly indicators: • Employment • Average weekly earnings • Retail trade • Wholesale trade • Manufacturing shipments • New truck sales • Housing starts • Rigs drilling Oil production	Monthly	Not given

Quarterly Alberta Components of Growth: 1972 – 2021
 	
Excel File
	Population
	• Interprovincial Migration: in, out and net
	  ○ In
	  ○ Out
	  ○ Net
	• International Migration
	  ○ Immigrants
	  ○ Net NPR
	  ○ Emigrants
	  ○ Net Temporary Emigrants
	  ○ Returning Emigrants
	  ○ Net Int'l Migration
	• Total Net Migration
	• Vital Events
	  ○ Births
	  ○ Deaths
	Total Sum of Components
		Quarterly	Statistics Canada

2.3. Towards a UK Suite of Subnational Socioeconomic Indicators

The Canadian provincial statistics illustrate how a general suite of economic indicators can be compiled for a region. Several of the categories of indicators discussed here are likely to be key not only across the Canadian provinces but across the UK regions. They also demonstrate the importance of having publications that can shed insight on different types of economic activity within a region, the main focus in the Canadian provinces/territories. However, in the UK case, comparability is also an important issue if producing a suite of subnational statistics for the whole of the UK. This trade-off between specificity and comparability is something

we will return to in the next section. The Canadian approach[5] also differs from the UK's need for regional socioeconomic indicators. These are required to underpin policy decisions, for example relating to 'levelling up', where there is interest in both economic and social outcomes. In the Canadian case, most indicators are only reported at a provincial level, with some exceptions that have been highlighted in the analysis above. In order to get a deeper understanding of regional disparities and differences across the UK indicators would need to be collected at a lower level, something we consider in more detail in the next section.

3. UK Policy and Geographical Landscape

In this section, we will begin by providing an overview of the UK policy landscape, with a focus on the levelling up agenda. We will draw on a recent report undertaken by Spowage et al. (2021). We then consider the UK geographies preferred by different stakeholders and how this relates to the granularity of the suite.

3.1. UK Policy Landscape

Turning to recent developments in the UK's policy landscape, three interdependent trends have put a spotlight on the already well-established need for better subnational socioeconomic statistics. First, the UK government has stated that reducing regional disparities and 'levelling up' the regions is a key priority. The £4.8 billion Levelling Up Fund (LUF) was announced alongside the UK Budget in March 2021. An additional £220 million has also been introduced through the Community Renewal Fund (CRF) in preparation for the UK Shared Prosperity Fund (UKSPF), which will be launched in 2022. Second, there is growing evidence that Britain's departure from the EU, subsequent trade deals and the coronavirus pandemic will affect each part of the UK differently (see, for example, Billing et al., 2020 and Davenport and Zaranko, 2020). Third, increased devolution of powers to the devolved governments has also cemented the need for better subnational statistics.

Focusing on 'levelling up', it is important to note that these funds are accessed by local authorities across the UK, with devolved governments not involved in their distribution. The LUF is designed to fund capital spending over the next 4 years. The stated aims of this fund

[5] The emphasis on economic as oppose to socioeconomic indicators is not limited to Canada. See, for example, Artola et al. (2018) for a discussion of regional monitoring in Spain.

were to invest in local infrastructure that "has a visible impact on people and their communities". The first round of the fund is designed to focus on smaller transport projects, town centre and high street regeneration, and investment in cultural assets. Importantly, however, that the UK Government are taking a different approach in Northern Ireland, "taking account of the different local government landscape compared to England Scotland and Wales".

Alongside the budget, a spreadsheet was published which put every local authority in Great Britain into different priority areas of either levels 1, 2 or 3, with 1 being the area most in need. When this was first published, there was no detail of the methodology used to classify authorities, but this was rectified roughly a week after the initial publication. Despite the categorisation of areas into these different levels, the priority level of the area is just one of the factors taken into account when projects are being assessed. Other factors include but are not limited to:

- Whether projects can start in the current financial year (2021-22). Indeed, those who are unable to demonstrate this are likely to be knocked out in the first stage of assessment
- Whether all funding can be spent by 31st March 2024 (with some exceptions)
- MP endorsement. Local MPs have the opportunity to formally signal, through the provision of a signed letter, that they are supportive of a particular project
- The strategic fit with local priorities as well as priorities of the fund
- The usual Green Book-style assessment of value for money

The fund is a challenge fund, with each individual authority's proposals assessed on its merits. This means, in theory, parts of the country could see no funding from the LUF. However, there are some constraints including that at least £800 million will be allocated over the 4 years across Scotland, Wales and Northern Ireland. In addition, for the first round of funding, at least 9% of total UK allocations will be set aside for Scotland, 5% for Wales, and 3% for Northern Ireland, broadly in line with population shares.

The CRF has been introduced as a set of pilot programmes to prepare for the introduction of the UK UKSPF, which will be launched in 2022. As EU structural Funds are phased out (although these will continue until the end of 2023), the UK Government has introduced this additional £220 million fund in 2021-22 to prepare for the introduction of the UKSPF.

Alongside the large amounts of capital funding proposed through the LUF above, this sets a precedent for how the UKSPF may work in the future. For example, in the prospectus, it is set out that the CRF "offers us an opportunity to establish a new way of working between the UK Government and places", "forming a new, direct way of working with the UK Government".

The stated priorities of the fund are:

- Investment in skills
- Investment for local business
- Investment in communities and place
- Supporting people into employment

The stated aims are to support "innovative responses to local challenges and local need across the UK, spanning urban, rural and coastal areas". 90% of the funding through this fund is for revenue spending.

In order to prioritise funding, 100 priority areas have been identified, using a similar (but different) methodology from the LUF. Projects that target investment in these top 100 areas will be prioritised. Other criteria will be used, such as alignment to local and national policy, and deliverability by 31 March 2022.

3.2. UK Geographies and Users' Needs

In the UK, statistics are available at different levels of geographical granularity. There is also a distinction between statistical geography, which is concerned with the hierarchy of areas relating to national and local statistics, and administrative geography, which is concerned with the hierarchy of areas relating to national and local government in the UK.

Following the UK's withdrawal from the EU, as of January 2021, the UK-managed classification is now referred to as UK International Territorial Levels (ITLs). These mirror their EU predecessor, the Nomenclature of Territorial Units for Statistics (NUTS) codes. The ITLs are stable and only amended periodically. They are shown in Table 2 below. At an even lower level of granularity are local administrative units (LAUs) which are amended more regularly. These are shown in Table 3 below.

Table 2: International Territorial Levels (ITLs) Areas

ITL	1	2	3
England	Government office regions (GORs)*	Counties/groups of counties	Counties/groups of unitary authorities
Scotland	Scotland	Combination of council areas, local enterprise companies (LECs) and parts thereof	Combination of council areas, LECs and parts thereof
Wales	Wales	Groups of unitary authorities	Groups of unitary authorities
Northern Ireland	Northern Ireland	Northern Ireland	Groups of district council areas
UK Total	12	41	179

* GORs were closed at the end of March 2011. From 1 April 2011 the areas previously covered by GORs should be referred to as 'regions' for statistical purposes.

Source: Reproduced and updated from ONS

Table 3: Local Administrative Units (LAUs)

LAU, Level	1	2
England	Local authority districts/unitary authorities	Electoral wards/divisions
Scotland	Combination of council areas, LECs and parts thereof	Electoral wards, or, rarely, parts thereof
Wales	Unitary authorities	Electoral wards
Northern Ireland	District council areas	Electoral wards
UK Total	388	c. 10,000

Arguably, recent developments in the UK's policy landscape have shed a spotlight on rather than driven the already substantive need for better subnational statistics. However, the emergence of these trends underscore some important issues. First, recent developments have illustrated the different needs of different users. Understandably, the focus of the devolved administrations is on supporting policymaking in their respective nation (Scotland, Wales or Northern Ireland). This means that subnational indicators are designed to reflect the specificity of their nation and support devolved policymaking. While an understanding of how their nation compares to other parts of the UK would be useful, their priority is building a detailed understanding of their own local areas. When considering smaller geographies, Scotland and Wales typically consider local authorities (LAs) with Northern Ireland considering the 11 local government districts (LGDs). They also analyse much smaller areas based on super output areas (SOAs) derived from the 2011 census as summarised in Table 4.

Output areas also form the basis for geographies used when producing the Scottish, Welsh and Northern Irish indices of multiple deprivation.

In contrast, the focus of UK government departments including the ONS is on supporting policymaking across the UK. This means that greater emphasis is placed on the comparability of data across the four nations and being able to assess the relative needs of different areas of the UK. The latter is crucial when allocating funding across the UK via initiatives such as the LUF and CRF. However, this approach means that some specificity is lost. A useful example of a small area geography regularly used by the ONS are travel to work areas (TTWAs) as shown in Table 4. TTWAs approximate labour market areas, helping to aid our understanding of regional labour markets.

Table 4: Small Area Geographies Across the 4 Nations

	2011 Travel to Work Areas	Local Authorities	Constituencies	Small Area Geographies Based on 2011 Census
Scotland	45	32	59 (Westminster) 73 (Scot. Parliament)	Data zones: 6976 zones Intermediate zones: 1279
Wales	18	22	40	Lower SOAs: 1909 Middle SOAs: 410
Northern Ireland	10	11*	18	SOAs: 890 Small areas: 4,537
England	149	333	533	Lower SOAs: 32,844 Middle SOAs: 6,791
Cross-border	6	NA	NA	NA
Total	228	398	650 or 664	NA

*In NI there are 11 local government districts.

Reconciling the needs of the ONS and devolved producers of statistics, as well of those of other key stakeholders (including analysts; academics; relevant bodies in the private, public and third sector; and the general public) will be key when producing a suite of regional indicators.

The policy trends outlined and the levelling up agenda in particular, have also augmented the relative importance of different types of indicators. In general, 'levelling up' broadly corresponds to two types of indicators. The first group of indicators are economic and relate to disparities in economic performance across the regions. Important indicators are likely to

include GVA and productivity (captured by GVA per hour and GVA per job). Other categories of indicators which fall into this first group are headline labour market statistics such as unemployment. Again, these are available at a lower level of geography. The Canadian case also illustrates other important categories of economic indicators including regional inflation and trade. We will consider these indicators in more detail in Section 6.

The second group of indicators, which we again consider in more detail in Section 6, are socioeconomic indicators. These include subnational data on education, skills, poverty, housing, health, transport connectivity and rurality. Some of these indicators can be available at a lower level of geography but there are greater issues around comparability across the four nations.

While a suite could be partly comprised of economic data at ITL 1-3 level following the Canadian model, when considering socioeconomic statistics, data on smaller areas is likely to be more meaningful. The 'levelling up' agenda suggests that the local authority level should be the main target, however, it is important that any suite not only supports current policy but also future policy. While local authorities may provide a useful starting point, there can still be considerable variation in outcomes within local authorities, particularly when considering differences in socioeconomic outcomes, for example, poverty and health. There is often data readily available at the constituency level, however, focussing on Westminster constituencies may not meet the needs of the devolved administrations. In Northern Ireland, the 11 local government districts (LGDs) established in 2015 are considered more critical. This presents a challenge if considering long-run trends since between 1972 to 2015, the nation was split into 26 LGDs. In Scotland, Scottish parliamentary constituencies are the focus. Output areas have proven useful in other contexts, however, producing a suite of socioeconomic statistics corresponding to output areas while maintaining comparability is likely to be highly challenging. We will discuss our recommendations on the geographical granularity of the suite in Section 7.

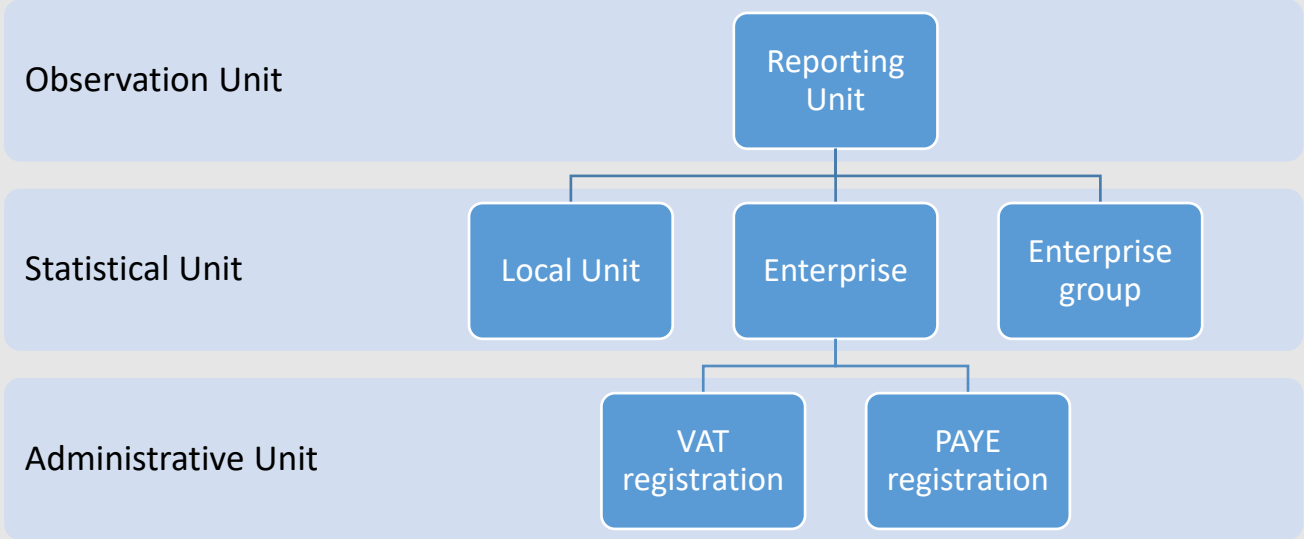
4. UK Data Landscape: Key Challenges

Having discussed issues relating to the granularity of the suite, we next discuss key challenges associated with producing regional statistics using current business and household surveys.

4.1. Collecting Regional Data Through Business Surveys

We start by discussing the Inter-Departmental Business Register (IDBR). The IDBR, a comprehensive list of UK businesses introduced in 1994, is used as the sampling frame[6] for surveys collecting business data. An important source of challenges when collecting regional business data are the sampling units[7] on the IDBR. The IDBR sampling units are called reporting units (RUs) and provide data on associated local units (LUs) as shown in Figure 1. For instance, the RU for a large chain of retailers will provide data incorporating all its LUs (such as factory, stores, offices).

Figure 1: Sampling Units on the Interdepartmental Business Register



Adapted from: ONS

Key business data is collected at the RU level but there are only two geographical classifications for RUs: Great Britain (GB) and Northern Ireland (NI). A GB RU can therefore have LUs in all three of Scotland, England and Wales. This poses a challenge if we wish to apportion activity out to LUs to obtain, say "Scottish" exports. In general, employment shares are used to apportion activity out to LUs to produce a publication like Scottish Annual Business Statistics. While this seems like a reasonable approach for turnover, it gets a bit more difficult when we start thinking about other regional aggregates. However, in the absence of any other information, this is what is generally used. A further issue with the IDBR is that the LUs

[6] The list of businesses forming a population from which a sample is taken.
[7] A sampling unit or reporting unit is a single unit which provides data for a given survey. Put differently, it is the unit to which questionnaires are sent.

associated with an RU may have a different industrial classification to the RU. This is dealt with by classifying the RU based on the dominant industry by employment.

In Scotland, Scottish RUs are created by the Scottish Government for the purposes of building the Scottish SUT. A Scottish RU is simply the part of a GB RU which consists of Scottish LUs. For the Global Connections Survey, Scotland's trade survey, the industry of the Scottish RU is then defined by the dominant Scottish LU. In all other cases, the industry of the Scottish RU is defined by the dominant activity across Scottish LUs which is calculated using the "top-down method" described in SIC 2007 documentation (see ONS, 2009, paragraph 40 and Scottish Government, 2012, pp.5-6). Sampling then takes place at RU level as is the norm with RUs providing information on the combined Scottish activity of all their LUs (see Scottish Government, 2012, pp. 5-6 for an overview of issues with using LU rather than RU data). In Wales, a similar approach is taken, for instance in the Trade Survey for Wales, with GB RUs providing information on the activity of their Welsh LUs. Instead of Welsh RUs being created, each RU's industry reflects the dominant activity across GB LUs rather than Welsh LUs. Both the Welsh and Scottish approaches imply that some RUs with contact addresses outside Wales and Scotland (mainly in England) will be sampled since they have LUs in Wales and Scotland.

These issues related to apportionment will therefore affect any regional statistics developed using business data including but not limited to: regional economic activity (i.e. GVA) and therefore productivity, international and interregional exports and imports and business demography.

4.2. Collecting Regional Data Through Household Surveys

A range of household surveys in the UK exist which measure a wide range of household information, for example, income, expenditure, employment. Tables 5 and 6 summarise many of the key surveys with further detail provided below.

The national Living Cost and Food Survey (LCF) collects information on household spending patterns and budgets. The survey consists of around 60,000 households - this provides detailed expenditure information from each of the households randomly selected across the ITL1 regions. Initially, there is a survey interview carried out for each of the selected households, with data collection then occurring over a two-week period. During this two-

week period, each individual over the age of 16 is given a diary and asked to record all their purchases. The diary consists of 10 sections with the first six related to everyday purchases (ranging from food and drink to lottery tickets) and the other four covering the entire two-week period (holiday expenditure, special occasion purchase).

Information collected from the LCF is then used to estimate consumer and retail price indices. While this survey is very detailed and useful at the national level, problems exist when using it for subnational analysis due to the small sample size – Connolly and Spowage (2021) note the difficultly of producing regional price estimates because of this.

A second national survey is the family resource survey (FRS), used as the primary input into the Household Below Average Income database and microsimulation policy simulation models (such as the IPPR tax-Benefit model). The yearly survey of around 19,000 households consists of a range of questions related to family circumstances and the income of each member of the household. All income is surveyed including: wages, income and state support, disability and pensions. Again, similar to the LCFS, the use of the FRS becomes problematic at the subnational level due to the small sample size. To reduce variation at the Scotland level (where there is only around 2,800 data points) the IPPR model pools three years of data.

The third household survey we outline is the quarterly Labour Force Survey (LFS) which provides information on the labour market in the UK. Managed by ONS and NISRA the survey is used to develop, manage and report on labour market policies in the UK. Started in 1973 the survey was originally conducted every two years and has evolved overtime into the quarterly format it is today. Currently, there are 60,000 households surveyed and a panel design is used whereby each quarter a fifth of the sample is replaced and individuals remain part of the sample for five consecutive quarters. With a larger sample size than the other national surveys, the data from the LFS is much more suited for including in the subnational suite and has several useful indicators which could be include in a subnational suite (see Table 9).

Table 5: Key UK Household Surveys

Survey	Topic	Conducted by	Frequency	Sampling
Family Resources Survey (FRS)	Living standards	ONS, National Centre for Social Research, NISRA for NI	Annually since 1992 for GB and since 2002/03 for the UK	Approx. 20,000 households GB: stratified clustered probability sample design NI: systematic random sample The area of Scotland north of the Caledonian Canal was included for the first time in 2001/02. In 2002/03, FRS extended to include 100% boost of Scottish sample.
Living Costs and Food Survey (LCF)	Cost of living and spending patterns	ONS for GB and NISRA for NI	Annually since 1957 with a number of surveys combined in 2001	Approx. 60, 000 households GB: multi-stage stratified random sample NI: systematic random sample
Labour Force Survey (LFS)/ Annual Population Survey (APS)	Labour market	ONS for GB and NISRA for NI	Quarterly since 1992	Approx. 75,000 individuals in a quarterly LFS and 265,000 in the APS Since March 2000, there was an enhancement to the sample size of the LFS for England. This boost was expanded to Wales in 2001/02 and Scotland in 2003/04. In 2004, the Annual Population Survey (APS), was introduced, including a further sample boost in more urban areas of England aimed at achieving a minimum number of economically active respondents, in the sample, in each Local Authority District in England.

Table 6: Household Surveys Undertaken by the Devolved Administrations

Survey	Topic	Frequency	Sampling
Scottish Household Survey	Demographics; housing; neighbourhoods; economic activity; finance; internet; physical activity; local services; environment; volunteering; culture; childcare.	Annually since 1999. From 2012 to include elements of the Scottish House Condition Survey.	From 2012, approx. 10,000 households randomly selected, sample disproportionately stratified by local authority with minimum local authority sample of 250
Scottish Health Survey	Health	1995, 1998, 2003 and annually since 2008.	Approx. 5,112 adults with minimum local authority sample of 125. In 2019, there was also a child sample and Fife health board boost
Scottish Surveys Core Questions	Equality characteristics, housing, employment and perceptions of health and crime	Annually from January 2012	Datasets from three source surveys are combined, allowing analysis below local authority level
National Survey for Wales	Local services and facilities; wellbeing and finances; housing; democracy and government; health; internet and media; culture and Welsh language; sports and recreation; education.	Up until 2015, the Welsh Government conducted five large scale social surveys. These were merged to form the annual National Survey for Wales.	Approx. 12,000 individuals randomly selected with the sample size for each local authority area approx. proportional to its population.
Northern Ireland Continuous Household Survey	Internet access; environment; tourism; libraries; health; sport; education.	Annually since 1983	Approx. 9,000 households systematic random sample
Health Survey Northern Ireland	Health	Annually since 2010	Approx. 6,240 systematic random sample

The fourth and final national household survey we discuss is the Annual Population Survey (APS). Introduced in 2004 and with a sample size of around 320,000, the APS is the largest of the household surveys in the UK. The APS is closely linked to the Labour Force Survey with a purpose to provide information on important social and socioeconomic variables at a local level. Variables available from the survey include: economic activity by a range of demographics; economic inactivity; employment by indicator (e.g. industry); education and health. With a high level of monitoring the APS is commonly used to monitor the success of policy packages between census years.

Data for the APS is collected along with the LFS with additional sample boosts for more urban areas of the UK. Chosen households participate in the survey for five quarters with the initially interview being face to face followed by telephone interviews for each of the proceeding four quarters. There are five 'waves' of households at any one time allowing for an 80% sample overlap between quarters. Each interview consists of a list of 'core' question included in every quarter of the survey combined with some 'non-core' questions for information needed less frequently thus not asked every interview.

In addition to the national surveys, each of the devolved administrations collects information through their own household surveys as shown in Table 6. The Scottish version of the survey, for example, has around 10,000 randomly sampled annual returns with three-year minimums set for each local authority. The topics in the survey included:

- Demographics
- Health
- Housing
- Neighbourhoods
- Economic Activity
- Finance
- Internet
- Physical Activity
- Local Services
- Environment
- Volunteering
- Culture
- Childcare

With the wide range of topics and increased local sample size relative to the UK national surveys, the information available from surveys undertaken by the devolved administrations

could be useful when producing a subnational suite of indicators. However, with the exception of Scottish core questions, which combines data from three source surveys, information from these surveys will not allow statistics to be immediately produced below the local authority level although it may be possible to undertake additional regionalisation, for example, using administrative data.

4.3. Collecting Comparable Data Across the Four Nations

So far, we have focussed on the challenges associated with measuring regional activity and outcomes. However, there are a separate set of challenges when we wish to compare data across the four nations. Challenges in comparability can arise from three different factors.

First, related to the discussion above, the devolved administrations and ONS can sometimes adopt different data collection strategies. In their current form, surveys undertaken by the devolved administrations are unlikely to produce information which is comparable with England and other nations of the UK. For instance, all the devolved administrations conduct health surveys so are likely to produce slightly different indicators.

Second, devolution of specific policy areas, for example education and health, can lead to different systems. For example, the Scottish education system is most dissimilar to the remaining three nations. Relatedly, differences in policy focus can also reduce the comparability of indicators. For instance, one nation may focus on educational attainment while another nation considers educational attainment among the disadvantaged.

Third, different nations can adopt different definitions of the same concept. For example, in Scotland, Wales and Northern Ireland a households is considered to be in fuel poverty if they spend more than 10% of their income on fuel costs and an adequate standard of living cannot be achieved using the remaining household income. In contrast, in England a household is in fuel poverty if their energy costs are higher than what is typical for their household type and their income falls beneath the poverty line taking into account energy costs.

5. Indicators Which Could Be Included in a Subnational Suite

We begin this section by summarising which indicators have been used to allocate 'levelling up' funding. We then focus on seven general categories of indicators which will be key when producing a subnational suite of socioeconomic indicators. This is not an exhaustive list.

Bearing in mind our previous discussion of geographical granularity, we consider whether data on Westminster constituencies is available. Where this is unavailable, we report the lowest level of geography for which data is available.

5.1. Indicators commonly used to allocate Levelling Up Funding

Before considering the categories of indicators that could be included in our suite, it is useful to begin by summarising which indicators have been used to allocate the LUF and CRF. These are shown in Table 7. To provide a comparison, we also include information on composite indicators produced by the Fraser of Allander Institute (FAI) and the Institute for Fiscal Studies (IFS), specifically Davenport and Zarenko (2020).

We can see from Table 7 below that (i) labour market indicators, (ii) skills and formal education, and (iii) productivity are three categories that are key. If taking a wider view of 'levelling up', household income also features in the CRF, FAI and IFS indices. The FAI index also considers other important indicators such as industrial change, life expectancy and housing deprivation while the IFS index also considers incapacity benefits.

Importantly, as we can see from the IFS index considering the short-term economic impact of COVID-19, the statistics required to capture the effects of key economic events may differ considerably from those considered in a typical suite. Relatedly, there is an issue of timeliness. To capture the short-term effects of economic events, high-frequency indicators are required.

5.2. Capturing Headline Regional Economic Indicators

The first category of indicators shown in Table 8 consider headline regional economic indicators. The ONS has made considerable progress producing small area GVA estimates, using lower SOA data as a building block to derive bigger geographical areas. Nonetheless, GVA estimates should not be compared across SOAs or countries. Additionally, while GVA per head may appear to be a useful measure to compare regions of different sizes, GVA is a workplace-based measure unlike the number of residents in a region which means that it is in fact better to use a productivity measure to make comparisons. The more granular GVA data has already been used to publish productivity data (GVA per job filled) for towns and travel-to-work areas. Data on regional consumer price inflation is an area of ongoing development in the ONS but the LCF samples pose a major challenge. Trade, while important

from an economic perspective (see Davidson and Spowage, 2021) is less critical in a socioeconomic suite and not required at the same level of geographical granularity.

5.3. Capturing Regional Labour Markets

The second category of indicators shown in Table 9 relates to labour market data and related indicators including productivity, business demography and skills mismatch. Together, this group of indicators provides evidence on how well the labour market is functioning in a given area, whether labour supply matches labour demand, an indication of business survival and growth and whether there are skills mismatches, shortages or gaps. Given the prominence of private consumption in UK GDP and the current focus on raising productivity, such indicators together with income are particularly important from a policy perspective. Areas in which there are key data gaps include vacancies and skills mismatch – while the ONS (2020) have documented the former issue, we will discuss the latter in the next section. Another area in which there is a data gap relates to business demography - this will again be discussed in the following section. For now, we note that if this data were available by region and SIC code, we could consider which industries are quickly growing and receding in different areas, providing valuable information on regional labour markets. This table also clearly illustrates the trade-off between granularity and timeliness with data below ITL1 only being available on an annual basis. However, due to the large sample sizes used in the APS/LFS and BRES, it is typically not difficult to obtain labour market indicators at the constituency level. Similarly, the IDBR is a rich source of data although it is likely to suffer from shortcomings related to apportionment discussed in Section 4.

5.4. Capturing Skills, Education and Social Mobility Across the Regions

The second category of indicators, shown in Tables 10-13, includes standard indicators relating to skills as well as several other indications relating to education and, in particular, social mobility. While the labour market indicators and indicators on skills relate to the adult population, the indicators relating to education and attainment relate to children and young adults aged 19 or younger. Obtaining education indicators that are comparable or even similar across the four nations is highly challenging due to each nation having its own devolved and thus distinct education policy and system. To aid the reader, the differences in education systems are shown in Appendix B.

An important decision that needs to be taken in relation to the education dimension of the suite is whether to consider the entire population or whether to focus on children and youth from disadvantaged backgrounds. When considering social policy, analysts are likely to be most concerned with those from disadvantaged backgrounds. However, comparability issues across countries heighten when extending the focus to those who are disadvantaged.

Measures of disadvantage differ across countries, so education data for pupils from disadvantaged backgrounds is comparable within countries, but less so between countries. The most common measure used to determine which pupils are disadvantaged is Free School Meal (FSM) eligibility. However, FSM eligibility criteria differs between countries. Furthermore, all English pupils in reception-year 2 and Scottish pupils in primary 1-5 are eligible for FSM regardless of background, which limits the use of FSM eligibility as an indicator for disadvantage.

As a starting point, we consider indicators used by the Social Mobility Commission (SMC) to construct a social mobility index for English constituencies, Scottish local authorities and Welsh local authorities in their 2017 report. Importantly, they do not consider Northern Ireland and note that "a similar approach is taken in Wales, although we have had to use some different data so the index there is not comparable with that in England. The same is true of Scotland, where there is still less data available, and it is especially limited in measuring the prospects of those from disadvantaged backgrounds". Like the SMC report, the Technical Annex of the Levelling up White paper use England as their starting point. However, they do not currently outline which metrics will be used to analyse Scotland, Wales and Northern Ireland.

Both the SMC and the Technical Annex of the Levelling Up White Paper emphasise the importance of including indicators which capture different stages of education. Again, this makes the task of sourcing comparable or similar indicators more challenging with the Technical Annex not yet outlining the full range of indicators required to consider different age ranges. In this report, we consider indicators that distinguish between different age groupings throughout education: early years, end of primary, pre- and post-secondary school exams and school leavers.

Table 10 outlines indicators for England used by the SMC. Tables 11-13 identifies indicators which are as similar as possible, for Scotland, Wales and Northern Ireland. We also consider alternative indicators which are nation specific and have identified any differences between the English measures and the indicators proposed. It is also useful to note that while the focus of the SMC report is on disadvantaged children and youth, the same indicators can be used to consider the entire population if FSM eligibility (or some other indicator proxying disadvantage) is not taken into account.

Notably, if we consider indicators used to make comparison across the four nations, the skills indicators, capturing those aged 16-65 with NVQ4+ and no qualifications, are the only indicators that are measured across all four countries. However, a comparability issue with the NVQ4+ measure remains, as qualifications differ across countries and NVQ4+ does not relate to a standardised level of qualification across the four nations (Appendix B).

5.5. Capturing Regional Housing Markets

The category of indicators linked to housing are shown in Table 14, which includes sales, prices (both property and rental) and homelessness information. In this report, we place more emphasis on the affordability and cost of housing rather than home ownership. A high volume of information exists relating to housing in the UK at both a national and regional level. At a national level the housing price index has a range of indicators with the most related to 'levelling-up' being house prices as well as the income and housing advances (e.g. mortgages). These however are only available at ITL1 level and other data is needed for analysis at a lower geographical level.

When considering housing indicators, it is important to differentiate between the social and private housing markets. Many of the issues linked to the 'levelling-up' agenda are more likely to affect people in the social housing sector than private. For England, Scotland and Wales social and private housing indicators are available at a lower geographical level, but NI only publish ITL1 statistics.

Homelessness is another indicator linked to housing which is important for inclusion in the suite and is available at a LA level for Great Britain. However, similar to some other indicators there is a definition issue with differences in how homelessness is registered in regions. For

example, Scotland register applications where as England the measure is households with a statutory homelessness duty.

5.6. Capturing Income and Poverty Across the Regions

Turning to Table 15, a category of indicators key to 'levelling up' and social policy are indicators that reflect earnings, income, benefits and poverty. There is considerable information from ASHE (ONS, 2021a) which leads to comprehensive earnings data being available at a constituency level. The HMRC's pay as you earn real time indicators (PAYE RTI) allow us to also consider pay at a monthly frequency and local authority level although if we wish to consider pay across different sectors, this is only available at the ITL1 level. However, producing income-based measures of poverty for lower geographical levels remains problematic due to the FRS sample sizes. The recently published review of income-based poverty statistics (Office for Statistics Regulation, 2021) clearly documents several data gaps relating to poverty data and this is an area that is important but difficult to capture below the ITL1 level. Currently, child poverty is the only indicator regularly captured at a lower level of geographical granularity across the four nations. Data on household income has therefore been used more often in a levelling up context. Data on the claimant count and spending on debit and credit cards could be used to capture important short-term trends during times of crisis. While the claimant count data is available at a low level of granularity, other faster indicators are typically only available at the ITL1 or UK level.

5.7. Capturing Health Across the Regions

The category of indicators captured by Tables 16-19 relates to health outcomes across the four nations. Every indicator considered is captured at the lowest local government level available, which is generally the local authority or LGD. Importantly, this is a devolved policy area with, for example, Scotland putting in place distinct policies to tackle drug deaths and Scotland and Wales introducing minimum unit pricing of alcohol in 2012 and 2018 respectively. This is also reflected in the fact that all three devolved nations have their own health surveys. However, unlike in the case of education it is less challenging to find comparable or, at least, similar indicators across the four nations. For instance, indicators relating to "life expectancy", "infant mortality" and "well-being" are comparable since the ONS produces data for smaller areas across the UK. With regards to "behaviours" and "mental

health" categories, even though single indicators might have different frequencies and come from different sources, they are similar and close collaboration with the devolved administrations may narrow differences further.

Again, in terms of the health dimension of the suite, it is possible to either consider the entire population or those from disadvantaged backgrounds. The devolved administrations often break down national figures according to degree of deprivation. Since the possibility of obtaining granular data is more difficult when considering health rather than education, we have placed more emphasis on standard indicators which cover the entire population.

5.8. Capturing Changing Demographics and Rurality Across the Regions

Finally, indicators relating to population demographic change and rurality are growing increasingly important. Analysts have recognised that urban areas may differ considerably from rural areas and tackling regional inequalities in these two types of areas may require different approaches. As noted in Spowage et al. (2021), particularly contentious in the LUF methodology are the approaches on "need for regeneration" and "improved transport connectivity". In particular, the vacancy rate of residential properties may not fully capture the "need for regeneration" in more rural areas. Turning to transport connectivity, failing to consider Scotland and Wales is contentious, given that this is more likely to be an issue in Scotland and a measure of population sparsity, reflecting rurality, was used in determining priority areas for the CRF. Depopulation and population ageing are also likely to have important policy implications. While migration is not a devolved issue, internal and international migration may play an important role in mitigating the effects of depopulation and population ageing in more remote areas of the UK.

In this review, we therefore summarise statistics that may allow users to consider population demography and rurality in Table 20. The ONS mid-year population estimates are a valuable source of annual information on population density, ageing and migration trends. While the current focus is on producing data for local authorities, it is likely possible to obtain more granular statistics from this data source. It would also be useful to categorise areas according to their degree of rurality in the suite. As shown in the table, however, the four nations have different approaches to defining rurality. If population density were already included in the suite, then it may be beneficial to simply include an additional indicator related to

accessibility/transport connectivity in the suite rather than an aggregate rural-urban classification for each area. While there is comprehensive information on transport connectivity for small areas in England, it may be beneficial to investigate whether data used for the access domain of the Scottish, Welsh and Northern Irish indices of multiple deprivation can also be used to capture transport connectivity at the local authority or lower levels.

Table 7: Indices of Prioritisation and other Composite Indicators

Indices	Characteristic	Indicators and Weights	Data Source
Levelling Up Fund (LUF) GB Index	Need for economic recovery and growth: productivity, unemployment, skills	Natural log of GVA per hour worked (33.3%), estimates of unemployment rate in the 16+ population (33.3%), proportion of 16-64 without formal qualifications (33.3%)	ONS, ONS model-based estimates, ONS
LUF England, Scotland, Wales Index	As above Need for improved transport connectivity: journey time to employment by car, public transport and cycle (omitted from Scottish and Welsh Indices) Need for regeneration: commercial vacancy rate (omitted from Scottish Index), dwellings vacancy rate	As above Average journey time to the nearest employment centre of at least 5,000 jobs when traveling by car (75.2%), public transport (21.2%) and cycle (3.5%) respectively Proportion of retail, industrial, office and leisure units that are vacant (75%), proportion of dwellings chargeable for council tax that are classed as long-term empty (25%)	As above DfT Whythawk and Sqwyre.com and DLUHC
Community Renewal Fund (CRF) Index	Productivity, household income, skills, unemployment rate, population density	Natural log of Nominal smoothed GVA per hour worked (30%), natural log of GDHI per head of population at 2017 prices (10%), proportion of the 16-64 population with no qualifications (20%), model-based estimates of unemployment rate for local authorities (20%), natural log of those aged 16-64 per squared km of land area (20%)	ONS, ONS, ONS, ONS model-based estimates, ONS and Land area: estimates from Geoportal Statistics
FAI GB Economic Performance Index	Population, population density, labour productivity, industrial change, unemployment, skills, income, life expectancy, housing deprivation	% change in population 1991-2020, inhabitants per sq km, GVA per hour, ppt change in GVA share from primary industries 1998-2019, unemployment rate, % with no qualifications (NVQ) aged 16-64, Gross disposable household income per capita (£), Healthy life expectancy at birth, % of socially rented dwellings (weights not yet publicly available)	All data is for ONS with the exception of housing deprivation, which is from DLUHC, NRS Scotland and Stat Wales
IFS GB "Left Behind" Index	Formal education, incapacity benefits, employment, pay	% with NVQ4+ qualification, % of working-age population (16–64) receiving ESA or equivalent in UC, Employment rate (%) for 16–64 population, Median gross weekly pay, all employees	ONS, DWP, ONS, ONS
IFS GB Short term economic impact of COVID-19 Index	Shut-down sectors, furloughed workers, job vacancy changes	% of workers in LA working in shutdown sectors, % of eligible employees ever using CJRS, % change in vacancies posted on Find A Job website, year on year, April–June 2019 to 2020	ONS, HMRC CJRS, DWP find a job website

Table 8: Headline Economic Indicators

Characteristic	Indicator	Frequency	Lowest level of geography	Data source	Indicator available from
Economic Activity	Gross Value Added (GVA)	Annual	Lower SOAs	Regional GVA, VAR, IDBR, BRES, census data	ONS
Productivity	GVA per hour worked	Annual	Local authority (NI is GVA per job filled only)	ONS	ONS
	GVA per filled job		Local authority, towns, TTWAs		
Inflation	Regional consumer price index	NA	NA	NA	NA
Trade	Interregional Exports and Imports	Annual	Scotland, Wales and Northern Ireland	Global Connections Survey Trade Survey for Wales NI Annual Business Inquiry	Scottish Government Welsh Government NISRA
	Exports and Imports				

Table 9: Labour Market, Business Demography and Skills Mismatch

Characteristic	Indicator	Frequency	Lowest level of geography	Data source	Indicator available from
GB Labour Supply	Employment by sex	Annual	Constituency	ONS APS	NOMIS
	Unemployment by sex				
	Economic inactivity				
	Employment by occupation SOC 2010 Major Groups 1-9				
NI Labour Supply	Employment	Annual	District councils	NI LFS	NISRA
	Economic activity rate				
UK Labour Supply	Payrolled employees	Monthly	Local authority	PAYE RTI	ONS
	Payrolled employees by sector	Monthly	ITL1		
Labour Demand	Employee jobs by industry up to 5 digit SIC subclasses	Annual	Constituency	ONS BRES	NOMIS (GB) NISRA (NI)
	Job vacancies by Adzuna category	Weekly	ITL1	Job adverts by Adzuna	ONS
Business Demography	Births of new enterprises	Annual	District, counties and unitary authorities	IDBR	ONS
	Deaths of enterprises				
	Active enterprises				
	Survival of newly born enterprises				
	High growth enterprises				
	Business counts	Annual	Constituency (GB only)	IDBR	NOMIS (GB)
	ppt change in GVA share from primary industries	Annual	Local authority	BRES	NOMIS
Skills Mismatch, Shortage or Gaps	Incidence of overqualification	Irregular	Unknown	APS/LFS	ONS
	Proportion of graduates employed in jobs that do not require a degree qualification	Irregular	Unknown	LFS	ONS
	Skill-shortage vacancies, skills gaps by occupation	Annual	ROA Region (Scotland), ITL1 (England), 4 regions (Wales), district councils (NI)	ESS/ Scottish ESS	ONS Scottish govt.

Table 10: Skills, Education and Social Mobility (England)

Characteristic	Indicator (Annual and available for individual schools unless otherwise stated)	Data Source	Available from:
Skills	(1) NVQ4+ (Constituency)	ONS APS	NOMIS
	(2) No qualifications* (Constituency)		
Early Years	(3) Nursery quality: % of non-domestic childcare providers rated 'outstanding' or 'good' by Ofsted	Ofsted	Childcare providers and inspections publication
	(4) Early years attainment: proportion of children eligible for Free School Meals achieving a 'good level of development' at the end of Early Years Foundation Stage	DfE	Freedom of information request
School	(5) Primary school quality: proportion of children eligible for FSM attending a primary school rated 'outstanding' or 'good' by Ofsted	DfE and Ofsted	DfE's schools, pupils and their characteristics: school census, Ofsted's state-funded school statistics: maintained schools and academies inspections and outcomes
	(6) Primary school attainment: proportion of children eligible for FSM achieving at least the expected level in reading, writing and maths at the end of KS2	DfE	compare-school-performance.service.gov.uk
	(7) Secondary school quality: proportion of children eligible for FSM attending a secondary school rated 'outstanding' or 'good' by Ofsted	DfE and Ofsted	DfE's Schools, pupils and their characteristics: school Census, Ofsted's State-funded school statistics: maintained schools and academies inspections and outcomes
	(8) Secondary school attainment: average attainment 8 score per pupil for children eligible for FSM	DfE	compare-school-performance.service.gov.uk
Youth	(9) Positive destination after KS4: proportion of young eligible for FSM that are in education, employment, or training (positive sustained destination) after completing KS4	DfE	DfE's Destinations of KS4 and KS5 pupils: 2016 publication
	(10) Average A-level or equivalent points score: average points score per entry for young people eligible for FSM at age 15, taking A-level or equivalent qualifications	DfE	compare-school-performance.service.gov.uk
	(11) A-levels or equivalent by age 19: the proportion of young eligible for FSM at age 15, achieving two or more A levels or equivalent qualifications by the age of 19	DfE	Freedom of information request

*Sample sizes are too small for reliable estimates in some parliamentary constituencies

Table 11: Skills, Education and Social Mobility (Scotland)

Characteristic	Scottish Indicator used by SMC	Alternative Indicator	Lowest Geography	Data Source	Available from	Additional Notes on Comparability
Skills	**(1)** NVQ4+ **(2)** No qualifications*		Westminster and Scottish constituencies	ONS APS	NOMIS	Identical to English table.
Early Years	**(3)** Nursery quality: none	Rating based on school inspections	Individual school	To be verified		Schools are inspected by Education Scotland and rated on a number of factors with a grading system unique to Scotland. Ratings are available individually for all primary and secondary schools and aggregate statistics would need to be manually computed.
	(4) Early years attainment: % of pupils achieving expected levels in reading, writing and numeracy at P1 Early Level	Same as SMC using % of P1 pupils eligible for FSM	Individual school	SMC: School Information Dashboard Alternative: School Level Summary Statistics	Education Scotland Scottish Government	P1 data since no nursery attainment data available. Scottish attainment is based on teacher assessment while other countries use standardised assessment. Scottish attainment not fully comparable across schools/local authorities/countries. Attainment data for each pupil eligible for FSM is not available but attainment data and the percentage of pupils eligible for FSM is available separately at school level.
School	**(5)** Primary school quality: none	Rating based on school inspections	Individual school			See comments on nursery quality.
	(6) Primary school attainment: % of pupils achieving expected levels in reading, writing and numeracy at P7	Same as SMC using % of pupils eligible for FSM	Individual school	SMC: School Information Dashboard	Education Scotland Scottish Government	See comments on early years attainment.

				Alternative: School Level Summary Statistics		
	(7) Secondary school quality: none	Rating based on school inspections	Individual school	To be verified		See comment on nursery quality.
	(8) Secondary school attainment: % of pupils achieving expected levels in reading, writing and numeracy at S3	Same as SMC using % of pupils eligible for FSM	Individual School	School Information Dashboard Alternative: School Level Summary Statistics	Education Scotland Scottish Government	See comments on early years attainment.
		Percentage of pupils achieving grade (A, A-B, A-C, A-D) at National 5	Local Authority	Attainment Statistics by Education Authority National Qualifications	SQA Statistics Archive	Data is only available at a Local Authority level. Individual school level data may be obtainable with a freedom of information request. This indicator could also be augmented with FSM data.
Youth	**(9)** Positive destination aged 16-19: Percentage of young adults (16-19 year olds) participating in education, training or employment	Proportion of school leavers that are in education, employment, or training (positive sustained destination) after completing school by SIMD quintile	SIMD quintile within each Local Authority SIMD quintile	Annual Participation Measure Alternative: Summary Statistics for Attainment and Initial Leaver Destinations	Skills Development Scotland Scottish Government	School leaver data since no data after KS4 (S4 in Scotland) available. Leaver destination data is not available by FSM eligibility but is available by SIMD quintile for each Local Authority or for Scotland as a whole. Leaver destination data at an individual school level should be obtainable with a freedom of information request.
	(10) Average A-level or equivalent points score: none					
	(11) School leaver qualifications: the		SIMD quintile	Summary Statistics for Attainment and	Scottish Government	Data is available for school leavers, so covers leavers aged 16-18. Leaver attainment data is not available by FSM eligibility but is available by SIMD quintile for

	% of school leavers by highest SCQF Level achieved, by SIMD quintile		Initial Leaver Destinations	Scotland as a whole. Leaver attainment data at an individual school level should be obtainable with a freedom of information request.

Table 12: Skills, Education and Social Mobility (Wales)

Characteristic	Welsh Indicator used by SMC	Alternative Indicator	Lowest Geography	Data Source	Available from	Additional Notes on Comparability
Skills	**(1)** NVQ4+ (Constituency)		Westminster constituencies	ONS APS	NOMIS	Identical to the English table.
	(2) No qualifications* (Constituency)					
Early Years	**(3)** Number of non-maintained nursery providers rated 'excellent' or 'good' by Estyn		Local Authority	Unknown	Social Mobility Commission	This indicator is used in the SMC report but the source is not given.
	(4) Early years attainment: proportion of children eligible for Free School Meals achieving the expected outcome at the end of Foundation Stage		Country	Results by Free School Meal entitlement and gender	Stats Wales	Early years attainment data is only available for the entire foundation stage which covers ages 3-7. Data is publicly available at a country level. The SMC obtains data at a Local Authority level through a statistics request. Data at an individual school level should be obtainable with a freedom of information request.
School	**(5)** Primary school quality: none	Rating based on school inspections	Individual school	To be verified		Schools are inspected by Estyn and rated on a number of factors with a grading system unique to Wales. Ratings are available individually for all primary and secondary schools and aggregate statistics would need to be manually computed.
	(6) Primary school attainment: proportion of children eligible for FSM achieving at least the expected level in English,		Country	Results by Free School Meal entitlement and gender	Stats Wales	See comment on early years attainment

	Welsh, maths and science at the end of KS2					
	(7) Secondary school quality: none	Rating based on school inspections	Individual school	To be verified		See comment on primary school quality.
	(8) Secondary school attainment: Percentage of pupils eligible for free school meals achieving the equivalent of GCSE grades A* to C in English or Welsh (first language), mathematics and science	Proportion of children eligible for FSM achieving at least the expected level in English, Welsh, maths and science at the end of KS3 Proportion of children eligible for FSM achieving grade (A*-A, A*-C, A*-G) at GCSE	Local Authority	Unknown Alternative 1: Results by Free School Meal entitlement and gender Alternative 2: GCSE entries and results pupils in Year 11 by FSM	Social Mobility Commission Stats Wales Stats Wales	This indicator is used in the SMC report but the source no longer exists. The SMC obtains data at a Local Authority level through a statistics request. Data at an individual school level should be obtainable with a freedom of information request. Alternatives: see comment on primary school attainment.
Youth	**(9)** Positive destination after KS4: Percentage of Year 11 school leavers who are in education, employment, or training (positive sustained destination)		Country	Pupil destinations from schools in Wales 2020	Careers Wales	Leaver destination data is only available at a country level. Data at an individual school level should be obtainable with a freedom of information request. Leaver destination data is only available for all pupils and not by FSM eligibility.
	(10) Average A-level or equivalent points score: none					

	(11) A-levels or equivalent by age 21: none	The proportion of young achieving two or more A levels or equivalent qualifications by the age of 16-21	Country	Educational attainment of young people by age and year	Stats Wales	This data has not been published since 2008/09. Leaver attainment data is only available at a country level. Data at an individual school level should be obtainable with a freedom of information request. Leaver attainment data is only available for all pupils and not by FSM eligibility.

Table 13: Skills, Education and Social Mobility (Northern Ireland)

Characteristic	Possible Northern Irish Indicator	Lowest Geography	Data Source	Available from	Additional Notes on Comparability
Skills	**(1)** NVQ4+	LGD	District Council Area Data	Department for the Economy	Data unavailable through NOMIS at lower than country level.
	(2) No qualifications*				
Early Years	**(3)** Nursery quality: ratings based in school inspections	Individual school	To be verified		Schools are inspected by The Education and Training Inspectorate and rated on a number of factors with a grading system unique to Northern Ireland. Ratings are available individually for all primary and secondary schools and aggregate statistics would need to be manually computed.
	(4) Early years attainment: % of pupils entitled to FSM	LGD	Nursery Classes (administrative geographies)	Northern Ireland Neighbourhood Information	Individual school level data may be obtainable with a freedom of information request.
	% of Nursery students whose parents are in receipt of Job Seekers Allowance	Individual school	Nursery School Data	Open Data NI	Indicator only available for Northern Ireland.
School	**(5)** Primary school quality: percentage of schools found to be good or better	District Electoral Area	Percentage of schools found to be good or better (administrative geographies)	Northern Ireland Neighbourhood Information	This data has not been published since 2016. It is not indicated what types of schools are included in this data. See comment on nursey quality
	(6) Primary school attainment: Pupils achieving level 4 or above in Communication in English, Pupils achieving level 4 or above in Using Maths	Individual School	Key Stage 2 Assessment Results (administrative geographies)	Northern Ireland Neighbourhood Information	Attainment data for each pupil eligible for FSM is not available but attainment data on the percentage of pupils eligible for FSM is available separately at school level.
	% of pupils eligible for FSM	Individual school	School census data - primary school	Open Data NI	

	(7) Secondary school quality: percentage of schools found to be good or better	District Electoral Area	Percentage of schools found to be good or better (administrative geographies)	Northern Ireland Neighbourhood Information	See comment on primary school quality.
	(8) Secondary school attainment: Year 12 pupil performance by Gender and Free School Meal Entitlement status	Country	Year 12 and Year 14 Examination Performance at Post-Primary Schools in Northern Ireland	Department for Education	Individual school level data may be obtainable with a freedom of information request.
Youth	**(9)** Positive destination after leaving school: Destination	LGD	School Leavers (administrative geographies)	Northern Ireland Neighbourhood Information Department for Education	Leaver destination data is publicly available at the LGD level. Data at an individual school level should be obtainable with a freedom of information request.
	(10) Average A-level or equivalent points score: none				
	(11) School leaver qualifications: Achieved 2+ A-levels	LGD	School Leavers (administrative geographies)	Northern Ireland Neighbourhood Information Department for Education Open Data NI	Leaver destination data is publicly available at the LGD level. Data at an individual school level should be obtainable with a freedom of information request.
	FSME School Leavers: Achieved At Least 5 GCSEs grades A*-C		School Leavers Free School Meal Entitlement (administrative geographies)		
	% of pupils eligible for FSM	Individual school	School census data – post primary school		

Table 14: Housing

Indicator	Characteristic (Latest Data)	Frequency	Lowest level of geography	Survey/database	Indicator available from
Average house price by new/other dwelling (UK)	Housing price index	Annual	ITL1	HM Land Registry for England and Wales. Registers of Scotland HMRC Stamp Duty Land Tax	ONS
Average house price by type of dwelling (UK)					
Housing advances and income of borrowers (UK					
Volume of property Sales	House Price Statistics for Small Areas (Wales & England)	Yearly	Local Authority	HM Land Registry	ONS
	Register of Scotland	Monthly		Registers of Scotland	ROS
	Northern Ireland housing Statistics	Quarterly	ITL	HMRC Stamp Duty Land Tax	Northern Ireland Executive
Average property price	House Price Statistics for Small Areas (Wales & England)	Yearly	Local Authority	HM Land Registry	ONS
	Register of Scotland	Monthly		Registers of Scotland	ROS
	Northern Ireland housing Statistics	Quarterly	ITL	National House Building Council	Northern Ireland Executive
Private rent prices	Private rental Market in England	Annual	Local Authority	VOA lettings information database	ONS
	Housing Statistics Scotland			Rent Service Scotland Market Evidence Database	Scottish Government
	Housing Statistics Wales			Rent Officer Wales database	Wales Government

	Northern Ireland housing Statistics		ITL	FRS	Northern Ireland Executive
Social housing rent	Dwelling Stock (England)	Annual	Local Authority	Local Authority Housing Statistics (LAHS)	ONS Table 702
	Housing Statistics Scotland			Scottish Household Survey Family Resources Survey	Scottish Government
	Housing Statistics Wales			Annual returns from Welsh social landlords	Welsh Government
	Northern Ireland housing Statistics		ITL	Department for Communities survey	Northern Ireland Executive
Number of dwellings by tenure (private/social)	Dwelling Stock (England)	Annual	Local Authority	Local Authority Housing Statistics (LAHS)	ONS Table 600
	Housing Statistics Scotland			Scotland stock 1 returns survey	Scottish Government
	Housing Statistics Wales			APS/Census	Welsh Government
	Northern Ireland housing Statistics		ITL	APS/FRS	Northern Ireland Executive
Homelessness	Homelessness statistics England	Annual	Local Authority	Reports from Local Authorities	ONS
	Homelessness statistics Scotland				Scottish Government
	Homeless Statistics Wales				Welsh Government
	Northern Ireland homeless Bulletin				Northern Ireland Executive

Table 15: Earnings, Income, Benefits, Poverty

Characteristic	Indicator	Frequency	Lowest level of geography	Data Source	Indicator available from
Income	Gross Disposable Household Income	Annual	Local authority	See Regional Accounts Methodology	ONS
	Annual Household Income	FYE 2018 released in 2020	MSOA (England and Wales)	FRS regionalised using 2011 Census and administrative data	ONS
Earnings and Pay	Earnings by place of residence and sex	Annual	Constituency	ONS ASHE	NOMIS (GB) NISRA (NI)
	Earnings by place of work and sex	Annual	Constituency	ONS ASHE	NOMIS (GB) NISRA (NI)
	Average weekly earnings	Monthly	ITL1		ONS
	Mean, median and aggregate pay	Monthly	Local Authority	PAYE RTI	ONS
	Mean, median and aggregate pay by sector	Monthly	ITL1		
Out-of-work benefits	Claimant count by sex and age	Monthly	Constituency	ONS Claimant Count by Age and Sex	NOMIS (GB) NISRA (NI)
Poverty	Absolute and relative child poverty before and after housing costs	Annual	Constituency	DWP	ONS
	Fuel poverty	Annual	Constituency (England only)	BEIS	ONS
	Food security	Annual	ITL1	FRS (Question introduced in 19/20)	ONS
	Absolute and relative poverty of working-age adults and pensioners before and after housing costs	Annual	ITL1 (Three-year average used to smooth volatility)	FRS	ONS
	Percentage of households in poverty before and after housing costs	FYE 2014 released in 2017	MSOA (England and Wales)	FRS regionalised using 2011 Census and administrative data	ONS
	Persistent poverty	FYE 2017 released in 2019	UK	EU-SILC	ONS
Spending	Spending on debit and credit cards	Weekly	UK	Clearing House Automated Payment System (CHAPS) payments	ONS

Table 16: Health Indicators (England)

Characteristics	Indicator	Frequency	Geography	Data Source	Available from
Life expectancy	Life expectancy and healthy life expectancy at birth and age 65 by sex	3 year period	Local authority	ONS, Annual Population Survey, Census 2011	ONS
Under 75 mortality	Under 75 mortality rate from all causes	Annual	Local authority	ONS	Public Health England
	Under 75 mortality rate from cancer				
	Under 75 mortality rate from heart disease				
Infant mortality	Infant mortality rate (per 1,000 live births)	Annual	Local authority	ONS	ONS
	Neonatal mortality rate (per 1,000 live births)				
	Perinatal mortality rate (per 1,000 births and still births)				
Behaviours	Overweight and obesity prevalence	Annual	Local authority	Health Survey for England	ONS
	Admissions episodes for alcohol-specific conditions (Persons)	Annual	Local authority	ONS	Public Health England
	Smoking prevalence	Annual	Local authority	Annual Population Survey	ONS
	Age-standardised mortality rate for deaths related to drug misuse	3 year period	Local authority	ONS	ONS
Wellbeing and Mental health	Life satisfaction	2 year period	Local authority	Annual Population Survey	ONS
	Worthwhile				
	Happiness				
	Anxiety				
	Age-standardised suicide rates per 100,000 population	3 year period	Local authority	ONS	ONS

Table 17: Health Indicators (Scotland)

Characteristics	Indicator	Frequency	Geography	Data Source	Available from
Life expectancy	Life expectancy and healthy life expectancy at birth and age 65 by sex	3 year period	Local Authority	ONS, Annual Population Survey, Census 2011	ONS
Under 75 mortality	Under 75 age-standardised death rates for all causes	Annual	Local Authority	National Records of Scotland	National Records of Scotland
	Early deaths from cancer, aged <75 years	Annual	Intermediate zone	National Records of Scotland	ScotPHO
	Early deaths from heart disease (CHD), aged <75 years	Annual	Local Authority		
Infant mortality	Infant mortality rate (per 1,000 live births)	Annual	Local Authority	ONS	ONS
	Neonatal mortality rate (per 1,000 live births)				
	Perinatal mortality rate (per 1,000 births and still births)				
Behaviours	Overweight and obesity prevalence	3 year period	Local Authority	Scottish Health Survey	Scottish government
	Alcohol related hospital admissions	Annual	Intermediate zone	National Records of Scotland	ScotPHO
	Smoking prevalence	Annual	Local authority	Annual Population Survey	ONS
	Drug-related age-standardised death rates	5 year period	Local Authority	National Records of Scotland	ScotPHO
Wellbeing and Mental health	Life satisfaction	2 year period	Local Authority	Annual Population Survey	ONS
	Worthwhile				
	Happiness				
	Anxiety				
	Suicide crude rates per 100,000 population	5 year period	Local Authority	National Records of Scotland	ScotPHO

Table 18: Health Indicators (Wales)

Characteristics	Indicator	Frequency	Geography	Data Source	Available from
Life expectancy	Life expectancy and healthy life expectancy at birth and age 65 by sex	3 year range	Local authority	ONS, Annual Population Survey, Census 2011	ONS
Under 75 mortality	Under 75 mortality	Annual	Local authority	ONS	Public Health Wales Observatory
	Cardiovascular mortality <75 years	Annual	Local authority	PEDW (NWIS), MYE (ONS)	Public Health Wales Observatory
Infant mortality	Infant mortality rate (per 1,000 live births)	Annual	Local authority	ONS, Code of Practice for Statistics	ONS
	Neonatal mortality rate (per 1,000 live births)				
	Perinatal mortality rate (per 1,000 births and still births)				
Behaviours	Overweight and obesity prevalence	Annual	Local authority	National Survey for Wales	Welsh Government
	Alcohol-specific age-standardised admissions per 100,000 persons	Annual	Local authority	Patient Episode Database for Wales (PEDW), ONS	Public Health Wales
	Smoking prevalence	Annual	Local authority	Annual Population Survey	ONS
	Age-standardised mortality rate for deaths related to drug misuse	3 year range	Local authority	ONS	ONS
Wellbeing and mental health	Life satisfaction	2 year range	Local authority	Annual Population Survey	ONS
	Worthwhile				
	Happiness				
	Anxiety				
	Age-standardised suicide rates per 100,000 population	3 year range	Local authority	ONS	ONS

Table 19: Health Indicators (Northern Ireland)

Characteristics	Indicator	Frequency	Geography	Data Source	Available from
Life expectancy	Life expectancy and healthy life expectancy at birth and age 65 by sex	3 year range	LGD	ONS, Annual Population Survey (APS), Census 2011	ONS
Under 75 mortality	Standardised Death Rate – All Causes	5 year range	LGD	Demography and Methodology Branch	Northern Ireland Neighbourhood Information
	Standardised Death Rate - Cancer Under 75				
	Standardised Death Rate - Circulatory Under 75				
Infant mortality	Infant mortality rate (per 1,000 live births)	Annual	LGD	ONS	ONS
	Neonatal mortality rate (per 1,000 live births)				
	Perinatal mortality rate (per 1,000 births and still births)				
Behaviours	Overweight and obesity prevalence	Annual	LGD	NI Health Survey	NISRA
	Standardised Admission Rate for Alcohol Related Admissions	2 year range	LGD	Hospital Information Branch	Northern Ireland Neighbourhood Information
	Standardised Death Rate - Smoking Related Causes	5 year range	LGD	Demography and Methodology Branch	Northern Ireland Neighbourhood Information
	Drug-related Mortality Rates (per 100,000)	Annual	LGD	NISRA	NISRA
Wellbeing and Mental Health	Life satisfaction	2 year range	LGD	Annual Population Survey	ONS
	Worthwhile				
	Happiness				
	Anxiety				
	Age Standardised Suicide Rate	Annual	Country		NISRA
	Number of Deaths from Suicides Registered	Annual	LGD		

Table 20: Demography and Rurality

Characteristic	Indicator	Frequency	Geography	Data Source	Available from:
Resident Population (2019)	Population aged 16-64	Annual	Constituency	ONS mid-year population estimate	NOMIS
Population density (2020)	Inhabitants per sq km	Annual	Local authority	ONS mid-year population estimate	ONS
Population ageing (2020)	Median age of population	Annual	Local authority	ONS mid-year population estimate	ONS
Long-term international migration (2019)	Inflow and outflow	Annual	Local authority	ONS mid-year population estimate	ONS
Internal migration (2019)	Inflow and outflow	Annual	Local authority	ONS mid-year population estimate	ONS
Future population size (England only)	Population projection	Unknown	Local authority	Constrained to 2018 national population projections	ONS
Rurality	UK rural-urban classification based on 2011 "built-up" areas and population	Unknown	Output areas	ONS	ONS
	Scottish Government Urban Rural Classification based upon two criteria: (i) population and (ii) accessibility, based on drive time analysis.	Unknown	Scottish Govt. Data Zone	NRS, Ordnance Survey, OS MasterMap, Scottish Govt., OS BoundaryLine	Scottish Government
	NI urban-rural classification based on population but drive time data also published	Unknown	Settlements	Census office NISRA	NISRA
GB Transport connectivity	Average time taken to travel to work and usual method of travel	Annual	ITL1	DfT	ONS
	Percentage of workers usually travelling by car to work	Annual	ITL1	DfT	ONS
England Transport connectivity	Journey time to work by: (i) car, (ii) public transport and (iii) cycle	Annual	Output areas	DfT	ONS
Scotland Transport connectivity	Data used for the access domain of the SIMDs can be used to capture transport connectivity.	SIMD 2020	Scottish Govt. Data Zones	Scottish Government	Not publicly available
Wales Transport connectivity		WIMD 2019	Lower layer super output areas	Welsh Government	Welsh Government
NI Transport connectivity		NIMDM 2017	Super output areas	NISRA	Not publicly available

6. Developing Indicators for Inclusion in the Suite

In Section 4, a range of surveys was detailed which contain information on the UK social and economic indicators which may be included in a suite of subnational indicators. We also discussed issues associated with producing subnational statistics related to the sample sizes used in these surveys. This section looks at some potential 'new' indicators which could be included in the suite. Some of these 'new' indicators may be developed using the surveys previously outlined, while others would rely on the data/analysis of other sources or a combination of both.

Importantly, if sample sizes do not permit going below the local authority or even ITL, other options would be to regionalise the data using administrative data or to consider breakdowns according to important characteristics, for example cities vs towns or urban vs rural areas.

6.1. Labour Market Indicators

Many of the labour market indicators produced from surveys are available at a local level and as we note in Section 5, these could be included directly into the new suite of subnational indicators. There are, however, some indicator options that could be developed further to be included in the new subnational suite.

Skills Mismatch: The first of these is related to an area's skill match with local labour demand. A high skill match relative to local labour demand reduces the need for workers, typically young, to migrate to other regions that match with their skills set. Some indicators are currently available related to this topic but would need to be adapted to be included in any new subnational suite. Data available from the LFS allows the estimation of the skills match of graduate students. In the latest release (ONS, 2021b) has a focus on the impact of the COVID-19 pandemic on graduate employment across the UK, finding, a skill mismatch for graduates of 25.5% a reduction of 5 percentage points from the previous study.

The same methodology could be applied to our subnational suite, but we would need to consider smaller local areas. To consider skills mismatch, it might be appropriate to consider travel to work areas. For the suite, it would also be advantageous if the skill match was separated by SIC, most likely at the section level.

In addition to the LFS, using their own surveys, each of the nations in the UK publishes data on the job vacancies and skill shortages. As no standardised method is used, the area of collection and surveyed information differ slightly for the nations (for example, Scotland uses ROA's while England uses ITL1). To be included in any level-up suite we would first need to standardise the survey with the relevant policymakers in the nations. Like the graduate skill match, job vacancies for the subnational suite could be considered using travel to work areas.

Business Demography by Region and SIC: The second labour market statistic to be potentially developed would be indicators related to business demography by region and SIC. Currently business demography based on the IDBR, are published at either a regional or SIC 2007 level, but not both. In Northern Ireland, however, breakdowns are available by region and broad industry (but not SIC).[8] From the IDBR, information on active enterprises, births and deaths of enterprises and survival rate among enterprises can be obtained. For a better idea of how a region is performing it would be advantageous for the demographic data to be published at both regional and SIC code in the new subnational suite of indicators. Building on this approach at a UK level, would provide us with valuable information, for example, on the dominant industries in different regions and differences between rural and urban areas. More granular business demography data can also shed light on which subnational areas experience seasonality in their income.[9] This would be achieved through access to the primary IDBR database.

6.2. Education Indicators

The existence of English annual school-level data is promising given the suite's focus on socioeconomic indicators at a low level of geographical granularity. In England, considerable information is available from the DfE and Ofsted, although the SMC also obtained additional data via a freedom of information request. However, much of the data for the devolved is not currently published at individual school level and indicators would need to be developed.

Education Quality and Attainment: Even where data is not publicly available our understanding is that considerable data is collected at the school level by the respective

[8] In Northern Ireland, the IDBR team produce a detailed analysis of business demography. Data is available by broad industry and LGD, parliamentary constituency and urban and rural split.
[9] For example, agriculture and tourism contribute significantly to the economy of Norfolk.

administrations. This data requires aggregation and there is the possibility of constructing some comparable indicators on school leavers qualifications in Wales and Northern Ireland where they also attempt GCSEs and A levels.

Education Attainment Among the Disadvantaged: In Section 5, we argued that by augmenting education data with indicators which capture disadvantage we can also consider issues surrounding social mobility. To date, this has been explored using data on FSM eligibility. However, using data generated from the four nations' indices of deprivation may also provide a way forward. For example, in Scotland, the Scottish Index of Multiple Deprivation (SIMD) ranking of pupils' home postcode is used as an indicator for disadvantage. The SIMD is used to rank Scotland's 6,976 datazones, with 1 being most deprived and 6,976 being least deprived. SIMD rank is determined by the weighted sum of seven deprivation indicator scores including education. Indicators used in the education domain are school pupil attendance, attainment of school leavers, working age people with no qualifications, 17-21 year olds enrolling into higher education and people aged 16-19 not participating in education, employment or training. Similar deprivation indexes are constructed across the other three countries. Therefore, combining pupils' deprivation index score with their education outcomes and considering attainment for those from the top quintile of deprived datazones may provide more comparable education indicators for pupils from disadvantaged backgrounds.

6.3. Poverty Indicators

Currently minimal data exists on regional level poverty, unlike the labour market statistics, with much of the data only available at an ILT 1 level or higher. The most developed indicator is child poverty, with measurements available at parliamentary constituency level through school level administrative data. While child poverty is a crucial indicator for the subnational suite, other types of poverty indicators would ideally be included in the suite:

In-Work Poverty: In work poverty in the UK is defined as an individual who identifies as being in work and whose equivalised household income is below 60% of the median equivalised household income across the UK. According to JRF (2021), in 2017/2018 there were 4 million workers in poverty with 1.9 million full-time employees, 1.4 million part-time and 0.7 million self-employees. Low pay and zero-hour contracts are endemic in the UK with it difficult for

workers to move to higher-paying jobs once in low paid employment. In-work poverty is clearly linked to the jobs and skills in an area and some estimates could be made for the subnational suite using the primary FRS data.

Fuel Poverty: With the recent surge in fuel prices, the measurement of fuel poverty is becoming increasingly important for the levelling-up agenda, but the measurement is difficult. The first issue with fuel poverty is that there is no one clear definition, in fact, even the nations of the UK use different definitions. For example, fuel poverty in England is defined as a household living in poverty with a fuel poverty energy efficiency rating of band D or below and when they spend the required amount on heating their home, they are left with a residual income below the official poverty line. Whereas, in Scotland, a household is said to be in fuel poverty if more than 10% of the home's income is spent on fuel costs and if the remaining household income is insufficient to maintain an adequate standard of living. For the subnational suite, the first objective for fuel poverty would be to develop a standardised definition.

The second issue is the data needed for the calculation of lower-level fuel poverty indicators. For England, national fuel poverty statistics are estimated using household income, household energy requirement, and fuel prices which would be needed at a lower regional level. Recently there has been some work in producing parliamentary constituency fuel poverty estimates for England (BEIS, 2021). For the subnational suite, a possibility could be to extend the English method for the rest of the UK and investigate other sources of information such as the postcode level electricity and gas consumption estimates produced by BEIS.

Food insecurity: Between 2014 and 2019 (before the COVID pandemic) the number of foodbank parcels distributed in the UK by the Trussell Trust rose by more than 70%, from 1,110,000 to 1,905,000. [10] Even without the ongoing pandemic, the use of food banks was growing at an alarming rate, with this expected to continue over the next few years. Food insecurity is a key measure to determine households struggles and as such should be included in any subnational suite of indicators

Estimating food insecurity is not a trivial task and could involve collecting data from food banks across the UK. The Trussell trust does publish information at an ITL 1 level, and this may

[10] https://www.trusselltrust.org/news-and-blog/latest-stats/end-year-stats/

be an avenue to explore if access to more granular data was possible. Data on free school meals could perhaps also be used to consider food insecurity. Although a definition problem will be encountered as the qualifying criteria for free school meals differs across local authorities.

While the FRS has recently introduced a question on food security, another option is to measure food insecurity using the LCF. The survey contains information on the income and household spending by item, and if a definition similar to fuel poverty, i.e., X amount spent on essential food, was determined, then an indicator based on the LCFS could be possible. One problem is at 6,000 households (an average of 9 per constituency) and without extension, the LCFS is not feasible to evaluate food insecurity at the proposed level of other indicators. Other data sources, such as credit card data, could be explored, but a food-insecurity indicator would be difficult to produce without accompanying income data.

Household type in poverty: The best method to fight poverty is with target policies that help the most vulnerable. There are many drivers to poverty with a key link to the type of household, for example, a single-parent household is much more likely to be in poverty than a two-parent household. For any subnational suite on indicators, the type of households in poverty at lower levels needs to be identified as this would allow for focus area policies, such as childcare provisions. Similar to in-work poverty the FRS would be a clear avenue to explore to estimate poverty by household types.

Notably, model-based small area estimation methods have been used with some success to improve coverage of poverty statistics for small areas. Adaptations of current model-based approaches to measuring child and fuel poverty may allow us to consider a wider range of poverty categories.

6.4. Early Warning Indicators

In recent years, the UK has gone through major structural changes with Brexit and the ongoing COVID-19 pandemic, which have had a detrimental impact on the UK economy. Over the period, some regions have seen larger effects than other, impacting the levelling-up agenda. For the suite of subnational indicators, it would be advantageous to include early warning indicators linked to a region's preparedness for future events.

Climate Change risk: Climate change is the foremost issue that will negatively impact the UK economy over the next generation. An increase in average global temperature will make 'extreme' weather events, such as flooding and heatwaves, more common throughout the UK, with varying impacts depending on the area. The measurement of a climate change risk indicator needs to note the differences in regions readiness for such consequences. A climate change indicator would account for geography, topography, available emergency services, transports, and other factors. Such an indicator is likely to be at the local authority level. Developing the data sources, like sea level and average rainfall, is as much a scientific task as economic.

Future Epidemic risk: While we hope that the pandemic was a one time-event, the possibility of future pandemics and epidemics is still real and as such the subnational suite should have some sort of indicator to a region preparedness. As we have seen from COVID-19, several frontline jobs (such as grocery assistants) are also among the lowest paying, with many on minimum wage. These are not jobs that can be undertaken remotely thus there is likely a larger impact with areas with significant types of these jobs. Also, low paid workers relied on the furlough scheme during 2020-21, severely limiting household income during this time. A future epidemic risk indicator would account for the different types of jobs within a region and would rely heavily on the LFS.

Resilience: A final set of early warning indicators that may be considered are related to an area's resilience to future changes. Over the past 30 years there has been significant changes in the UK economy with a move away from manufacturing to a more service based economy. This has had a positive impact on several regions, but an adverse effect on others. Many of the indicators we have already discussed, for example, related to business demography and average earnings and income could be used to capture dimensions of resilience. The next big, expected change to the economy is automation and the suite's resilience indicators should also be able to account for this, for example, via labour market indicators and indicators on skills.

6.5. Composite Indicators

In addition to including individual indicators, the subnational suite of indicators could be used produce composite indicators. These could include indices of economic activity (as seen in

the Canadian province Alberta) or performance (as produced by the FAI). Individual indicators could also form the basis for indices used to determine prioritisation for different policies related to 'levelling up'. In turn, indices of economic performance can also be used to create a similarity index as undertaken by the FAI.

Composite indicators: In the academic literature, composite indices of economic activity are regularly produced at the monthly and weekly frequency using dynamic factor models (DFMs). DFMs are able to summarise information from several variables into one index. An important advantage of DFMs is that the weights associated with each variable are estimated in a data-based fashion. For the US states, for example, indices of economic activity are produced at the monthly (see Crone and Clayton-Matthews, 2005 who build on Stock and Watson, 1989) and weekly (see Lewis et al., 2020) frequency. Cutting edge mixed-frequency DFMs are now able to combine data available at different frequencies to produce indices for the US states at the weekly frequency (see Baumeister, Leiva-Leon and Sims, 2021). Given the focus of the proposed suite on low-frequency structural indicators, DFMs could also be used to produce annual indices of economic activity, performance and prioritisation for small areas across the UK.

Similarity index: A key component of any subnational suite of indicators would be to include a comparison index between areas. Previous work by the FAI constructed a similarity index to compared and contrast the 357 council areas within the UK. The similarity index was based on a series of indicators and weights outlines in Table 7.

To construct the index, each variable is normalised between 0 and 100 depending on how a given council area ranks in comparison to the others. A value of 100 indicates a council area performing better than all others in the respective measure, whereas a value of 0 means that indicates the worst-performing council area. Equation (X) is used to calculate the comparisons of council areas in the UK.

$$Aggregate\ index_i = \sum_{k=0}^{n} Normalised\ index\ component_k \times Weight_k$$

Where i is the local authority and k is the specific economic indicator (e.g., unemployment rate, population density, labour productivity).

For the subnational suite the methodology could be extended to include some of the other indicators outlines in this report (such as fuel poverty, skills match and food insecurity). Key to the development of the levelling-up similarity index would be the allocation of weights to each of the indicators, which would likely involve conversations with stakeholders along with analysis of indicators.

Index of multiple deprivation: Each of the four nations in the UK produces indices of multiple deprivation which are used to identify deprivation across small areas in the UK. These indices are estimated by weighting a range of statistics, such as income; employment; health and crime. Similar to fuel poverty the method for calculation differs slightly across each of the nations, makings them incomparable with one another. Feedback from the devolved administrations indicated that a UK index of multiple deprivation has been discussed over several years but is yet to be pursued. In addition, producing a UK index would take away from the specificity each of the four nations currently achieves. While unlikely to be taken forward, for completeness, we note that with each nation already producing indices and information on income-based poverty for small areas experiencing many significant data gaps, a UK index of multiple deprivation would significantly enhance our knowledge of how living standards and deprivation compare across small areas within the UK.

7. Recommendations

Subnational statistics constructed and disseminated by the Scottish Government, Welsh Government and NISRA are driven by the needs of devolved policymakers and analysts. In contrast, the ONS seeks to support UK-wide policymaking. Our role is to reconcile these different approaches and needs, outlining our recommendations for the production of a suite of subnational socioeconomic indicators for the UK.

7.1. Which Indicators Should be Included in the Suite?

Our Canadian case study illustrated which indicators could be considered for inclusion in an economic suite of indicators. In this report, however, we have strongly emphasised socioeconomic indicators which are broader in scope. Importantly, the indicators we focus on relate to socioeconomic outcomes rather than inputs (for instance, the number of teachers, number of GPs etc.). While there is a relationship between inputs and outcomes, it

is highly complex and we recommend that the latter is prioritised over the former when developing a suite of indicators.

We therefore recommend that a small range of purely "economic" indicators are included in the suite. As discussed, the ONS has already made considerable progress producing estimates of gross value added and productivity for small areas both of which should be included in the suite. Priority has and should continue to be given to producing subnational estimates of consumer prices which are required when assessing differences in the cost of living across the UK. In previous work, we have presented recommendations surrounding the construction of indicators which capture interregional trade (see Davidson and Spowage, 2021). While this is of high priority in the context of the UK's departure from the EU, it would not be a vital indicator in a suite of socioeconomic indicators and is not required at the same level of granularity.

We next recommend that a broad range of "socioeconomic" indicators are included in the suite, capturing a number of key areas. First, standard indicators including the unemployment rate which capture labour markets will be required. Data on businesses from the IDBR (births, deaths and high growth enterprises by industry) should be included in this category to facilitate a deeper understanding of fluctuations in labour demand which, in turn, will have implications for education policy and training. Similarly, indicators which capture skills shortages and mismatch will enhance our understanding of the labour market and closely relates to education policies and training.

Second, indicators which capture skills, education and social mobility are required. This needs to move beyond the proportion of 16-64 year olds without qualifications. Instead, school quality and attainment needs to be captured for the early years, primary school and secondary school. This degree of specificity is required to effectively inform education policy. While indicators on school leavers qualifications could also be included in the suite, data on positive destinations are likely to better capture a wider range of positive educational outcomes. To examine social mobility, the indicators discussed should be augmented to consider the outcomes of children and youth from disadvantaged backgrounds, for instance, using data on FSM eligibility.

Third, indicators which capture the cost of living, income, earnings and poverty are required. As previously mentioned, consumer prices will be vital in understanding this. Indicators relating to the affordability of housing will also be needed. While subnational data on house prices is available, private rental prices and social housing rental prices should also be considered.

Fourth, health indicators should be included in the suite. Comparable data is already available on life expectancy, infant mortality and a range of indicators capturing wellbeing and life satisfaction. Data on trends in obesity, smoking, alcohol admissions and drug deaths also need to be captured.

Finally, indicators which capture demography and rurality will be needed in the suite. Indicators relating to population density, ageing, international migration and internal migration can be readily incorporated into the suite. Rather than attempting to align different definitions of rurality across the four nations, we instead recommend that a set of indicators related to transport connectivity are constructed.

7.2. How Timely Should the Indicators Be?

The recent academic and, to a lesser extent, policy literature has placed emphasis on the production of timely high-frequency regional economic statistics. In part, this has been driven by the UK's withdrawal from the European Union and the coronavirus pandemic which have increased demand for timely monitoring of the economy.

While high-frequency indicators are undoubtedly important, in our case, the timeliness of the indicators should be aligned with the purpose of the suite. Feedback from stakeholders strongly indicated that when examining socioeconomic outcomes which are structural in nature, low frequency data is fit for purpose. Moreover, there are often trade-offs between timeliness and granularity, given the sample sizes required to produce subnational estimates. For instance, faster indicators produced by the ONS are typically not published below ITL1. Given the purpose of a subnational suite, however, granularity should be prioritised.

Consequently, we would recommend that the baseline frequency of the suite is annual with a subset of indicators available at quarterly or monthly frequency. Currently, annual data is available on GVA and productivity for small areas and is of a suitable frequency to monitor

changes in skills, education, social mobility, health, income and poverty, demography and rurality.

Indicators which relate to the cost of living and the labour market, however, are required, at the very least, at a quarterly frequency and ideally at a monthly frequency. Regional CPI data is an area of ongoing development by the ONS but experimental estimates are not yet regularly produced. Data on housing varies across the four nations, however, annual house price growth is available monthly at the ITL1 level – extending this to smaller areas would provide a headline indicator on the cost of living. While quarterly labour market data is available at the national level via the LFS, to obtain subnational estimates the LFS needs to be collected on a local sample boost which means that currently only annual estimates are produced. However, data on employees and pay from the HMRC's PAYE RTIs is available monthly and together with data on the claimant count provide the suite with a number of high frequency indicators which become crucial for monitoring during times of crisis. This could be further complemented, for instance, by data on consumer spending obtained from credit and debit card data at the local authority level.

7.3. Which Levels of Geographical Granularity Are Required?

There are important trade-offs in terms of the needs of devolved policymakers and analysts and those seeking to support UK-wide policymaking when determining the level of geographical granularity appropriate to a suite of socioeconomic indicators. We recommend that the baseline granularity for the suite of indicators is at the local authority level for Scotland, Wales and England and at the LGD level for Northern Ireland. In the case of English two tier councils, data should also be available at the district council level. In the Northern Irish case, we also recommend that issues around the construction of historical time series are investigated since in 2015 the LGDs were reduced from 26 to 11.

While the local authority level and LGD level offers a useful baseline, there can be considerable variations in outcomes, particularly within large local authorities and it is often more meaningful to consider data on some socioeconomic indicators, for example poverty, at a lower level of geography. We therefore recommend that all indicators should be made available at a lower level of geography which is still relevant within a devolved context. The ONS is currently deploying a "building block" to produce small area estimates of GVA which

can be aggregated upwards – where appropriate, other subnational indicators could be developed using a similar approach.

7.4. Do the Indicators Need to be Comparable Across the Four Nations?

A crucial issue is the extent to which indicators are comparable across the four nations. Where data is collected via the ONS through UK wide surveys (or GB wide surveys and NI surveys administered by NISRA on the ONS' behalf), data is comparable. This is true of data on GVA, productivity, labour markets, income and earnings, poverty, demography and some health indicators.

In contrast, policies and thus some key surveys on health, housing and education are devolved so constructing indicators which are comparable across nations is highly challenging. While there are some comparable indicators available for health (for example, healthy life expectancy) and housing (for example, annual house price growth) at the subnational level, obtaining a more detailed picture of smaller areas requires additional indicators which may prove more difficult to standardise across the four nations. Moreover, in the case of education, constructing indicators which are comparable across the four nations is likely to be infeasible given the different education systems.

In light of the factors above, we would recommend that the suite include a subset of indicators which are comparable across countries in addition to a set of indicators which are equivalent (i.e. attempt to capture the same characteristics, for instance, early years attainment) but not necessarily comparable. Importantly, where an indicator is included for England, the same indicator should only be omitted for the devolved nations under exceptional circumstances.

We also recommend that some caution is used in terms of terminology – it may be tempting to label indicators which are comparable as "headline" indicators and noncomparable indicators as "supporting" indicators. However, in this setting, "headline" indicators may not be the "best" or most representative of a specific characteristic.

7.5. How Can Measurement Issues, Comparability Issues and Data Gaps be Minimised?

Turning to issues around data, these fall into three categories. First, there are issues related to the measurement of regional quantities. One of most pressing in terms of subnational data, are the methods used to disaggregate or apportion data to different subregions. We recommend that these issues are examined in further detail. In particular, it may be advantageous in some cases to ask GB RUs to report on the activity of their regional LUs. Scottish, Welsh and Northern Irish RUs can also be created by classifying the RU according to the dominant activity across regional LUs. For a more detailed discussion of these issues with reference to interregional trade and regional supply use tables the reader is referred to Davidson and Spowage (2021) and Davidson, Black, Connolly and Spowage (2022).

The inability to produce subnational estimates due to sample sizes can be minimised if the ONS and devolved administrations collaboratively identify areas in which a sample boost would be mutually beneficial. An example of where this has already taken place is in attempting to produce CPI estimates for Northern Ireland.

Second, there are issues relating to comparability. We recommend that when surveys are deployed by the ONS and devolved administrations, they should identify cases when these can be harmonised. In the spirit of Scottish Surveys Core Questions where 20 core questions are asked across three different surveys, it may be appropriate to harmonise a subset of questions across the four nations to achieve the sample sizes required to produce comparable local area estimates. In particular, all four nations currently deploy health surveys and there may be an opportunity to collaborate to develop a wider set of health indicators which are comparable across the four nations.

Comparability issues can also be minimised by identifying where definitions or the policy focus differs across the four nations. Characteristics can then be broken down and indicators should be used to instead measure constituent parts. For example, rather than using a proxy for rurality collect, indicators could be presented on (i) population density and (ii) transport connectivity.

The third challenge associated with regional data are the presence of significant data gaps. First, regional consumer prices are one of the most critical dimensions for which no data is currently available. At present, sample sizes pose a considerable challenge.

Second, as noted in our report, with the exception of child poverty, data on poverty is not available at as sufficient level of granularity. We recommend that in-work poverty and pensioners in poverty are next considered.

Third, to complement existing labour market statistics, develop a deeper understanding of fluctuations in labour demand, and to inform education policy, a number of indicators could be developed. While some statistics are produced by the four nations on skills shortages and mismatch, these require standardisation with Scotland obtaining the data using a separate survey. Producing data at a greater level of granularity should also be investigated. Data from the IDBR can also be leveraged. Data on business demography is currently available by region, however, a breakdown by region and industry would provide valuable information on which industries are in decline and growing.

Fourth, while there is likely to be data collected on educational quality, attainment and positive destinations at the individual school level considerable collaboration is required between the ONS and devolved administrations to produce a range of similar indicators.

Fifth, while data on transport connectivity was used to allocate the LUF in England, there is uneven data coverage across the rest of the UK. Given the growing distinction between rural and urban areas, this requires further investigation.

We also recommend that data sources used by the four nations to captures different dimensions of indices of multiple deprivation should also be explored since they are selected on the basis that they can capture outcomes in small areas.

Last, we note that where sample sizes are prohibitive, model-based small area estimation methods can be used to fill data gaps in some cases. For instance, such methods are currently used to produce estimates of child poverty (across the UK) and fuel poverty (England and Wales only) for middle SOAs.

Importantly, to address the recommendations outlined in this subsection, the ONS and devolved administrations will need to collectively discuss and consider resource implications across producers.

7.6. How Should the Data be Disseminated?

A major hurdle facing some users of subnational data, is the way in which subnational data is published. Subnational data is typically published according to the category of indicator (e.g. housing, health, labour market) and it is relatively uncommon for indicators to be grouped according to geographical area. The ONS neighbourhood statistics facility was closed in 2017 but remaining exceptions include:

- Nomis provided by the ONS which provides area profiles of labour markets
- Northern Ireland Neighbourhood Information Service (NINIS)
- National Records of Scotland Council Area Profiles
- Profiling Places Wales (Built Up Areas with a population of 2,000 or more)

Both Nomis and NINIS, were used in this report to assess the availability of different indicators, however, Nomis is the only service identified which provides data across more than one nation. For GB, local authority profiles and Westminster constituencies are provided. We recommend that this service is publicised more widely and that extensions to the service are considered. For instance, creating similar profiles for the 11 NI LGDs would facilitate representation of the whole of the UK. Considering Scottish constituencies would also be of greater interest to Scottish analysts. While Nomis focusses on labour market profiles, ultimately it (or an alternative service) could provide area profiles on a wide range of indicators.

We also recommend that any service providing UK wide area profiles, carefully considers how to guide users so that they only make comparisons across areas where appropriate. Users should also be made aware of issues relating to measurement, apportionment and disaggregation.

8. Conclusion

The UK Government has committed to 'levelling up' the regions, renewing interest in regional disparities and differences between regions. With this renewed interest comes the need for better subnational statistics. This is not a new need with policymakers, analysts and academics having long argued that better subnational statistics are required to support policymaking.

In recent years, this need has led to the ONS and devolved administrations collecting and producing a large volume of subnational data. However, these statistics are usually produced as part of wider releases that consider specific categories (such as productivity, labour market, health etc). This makes it difficult to gain an insight into the dynamics of a region and how the regions differ from one another. Also, due to the different administrations involved, subnational statistics are not always comparable.

Due to these potential problems, this report undertook a scoping study for the development of a suite of subnational statistics with a focus on levelling-up. We first reviewed current international practice with a focus on Canada. We then discussed the current UK policy and data landscape. A review of issues relating to the collection of regional data via business and household surveys was also provided. We then detailed indicators which would be included in a UK suite and identified data gaps and comparability issues. This included indicators relating to labour markets; skills, education and social mobility; housing; income and poverty; health. We also described several 'new' indicators that have the potential to be included with a focus on levelling-up including: skills mismatch; business demography by region and SIC; in-work poverty; fuel poverty; food insecurity; household type in poverty; climate change risk; future epidemic risk; and other composite indicators such as a similarity index.

We have also made a series of recommendations relating to: which indicators should be included in a suite of subnational statistics; the timeliness of these statistics; the level of geographical granularity required; the degree of comparability across the four nations required; how to minimise data gaps, measurement issues and issues of comparability; and options for disseminating subnational data.

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Appendix A: Summary of Provincial Statistics Publications in Canada

Ontario

Publication Name and Type	Categories of Indicators Available at the Provincial/Territorial Level or Lower Levels	Frequency	Data Source
Ontario Economic Update Webpage	**Economy:** • Real Gross Domestic Product and Percent change • Current Dollar Gross Domestic Product and Percent change	Quarterly	• Statistics Canada • Ontario Ministry of Finance • Canada Mortgage and Housing Corporation • Canadian Real Estate Association

	Employment:
	• Employment
	  ○ Net New Jobs
	  ○ Percent change
	• Unemployment Rate
	• Average Weekly Wage Rate and percent change
	• Employment Insurance Beneficiaries and percent change
		Monthly and Quarterly	

	Consumers: • Retail Sales and percent change • New Motor Vehicle Sales and percent change • Consumer Price Index (CPI) and percent change	Monthly and Quarterly	
	Housing: • Housing Starts and percent change • MLS Home Resales and percent change	Monthly and Quarterly	
	Business: • Manufacturing Sales and percent change • International Merchandise Exports and percent change • International Merchandise Imports and percent change • Wholesale Trade and percent change • Non-residential Building Permits and percent change • Private and Public Investment and percent change	Monthly and Quarterly Except private and public investment – only annual data	
Ontario Economic Accounts Excel datasets	Dataset For Each of the Following: • Gross Domestic Product, Income-Based • Gross Domestic Product, Expenditure-Based • Real Gross Domestic Product, Expenditure-Based • Sources And Disposition of Ontario Household Income • Trade • Trade – Chained 2012 • Implicit Price Indexes, Gross Domestic Product	All Quarterly and Annually	• Office of Economic Policy • Ontario Ministry of Finance • Statistic Canada
Ontario Fact Sheet	**Population** • Population number (April 2021) ○ % of Canada	Not given	• Statistics Canada

Webpage	○ 10-Year average annual growth (%) Population by 6 Urban Areas (2020)		• Ontario Ministry of Finance
	Labour Market (2020) • Labour force • Employment • Job change • Unemployment rate • Participation rate	Not given	
	Economy (2020) • GDP ($ Millions, Nominal), % of Canada • Primary household income ($ Millions), % of Canada • Primary household income per capita ($) **Distribution of GDP, 2020 (%)** • Goods (Of which: Manufacturing) • Services	Not given	
	Trade: **Total Trade, 2020 ($ Millions):** • Exports • Imports • Trade balance • International + Interprovincial • Top Five International Export Markets, 2020 (% Share) • Top Five International Exports, 2020 (% Share) • Top Five International Import Suppliers, 2020 (% Share) • Top Five International Imports, 2020 (% Share)	Not given	

Quebec

Publication Name and Type	Categories of Indicators Available at the Provincial/Territorial Level or Lower Levels	Frequency	Data Source

Monthly Indicators, Quebec and Canada
 	
Webpage table
	• Real GDP at basic prices
	• Real international merchandise exports
	• Real international merchandise imports
	• Housing starts
	• Residential building permits
	• Non-residential building permits
	• Sales of manufactured goods
	• Wholesale sales
	• Retail sales
	• Average weekly earnings, including overtime
	• Labour force
	• Employment
	  ○ Full-time
	  ○ Part-time
	• Unemployment rate
	• Participation rate
	• Employment rate
	• Consumer price index, non-seasonally adjusted
	• U.S. exchange rate in cents, non-seasonally adjusted
		Monthly	• Institut de la statistique du Québec
			• Statistics Canada
			• Mortgage and Housing Corporation (housing starts)
			• Bank of Canada (exchange rates).

Economy Data Data Tables	• Consumer Price Index (CPI), All-items index and annual change • Consumer Price Index (CPI), products and product groups ○ Data for Canada, Quebec and Montreal	Monthly and Annually	• Statistics Canada (Prices Division) • Institut de la statistique du Québec.
	Residential sector: housing started, completed, under construction, by type, in cities with 10,000 inhabitants and more, Quebec • Data for Quebec and Montreal	Quarterly	Canada Mortgage and Housing Corporation (CMHC).
	1. Building permits, by type of structure, Quebec, seasonally adjusted data 2. Value of building permits by type of construction, MRC and administrative regions within Quebec and all of Quebec 3. Value of building permits by type of construction, administrative regions and all of Quebec	1. Monthly 2. Annually 3. Annually	• Statistics Canada (SC) • Building Permits Survey

British Columbia

Publication Name and Type	Categories of Indicators Available at the Provincial/Territorial Level or Lower Levels	Frequency	Data Source
CPI Monthly Highlights Bulletin	**CPI Index:** • Food • Shelter • Household Operations & Furnishings • Clothing & Footwear • Transportation • Health & Personal Care • Recreation, Education & Reading • Alcoholic Beverages & Tobacco Products	Monthly	Statistics Canada
	CPI Index by month for Vancouver and Victoria	Monthly	Statistics Canada
	CPI Monthly Index for metropolitan areas: • Vancouver and Victoria (BC) • 14 other metropolitan areas in Canada	Monthly	Statistics Canada
Selected Economic Statistics Excel file	**Annual Aggregate Indicators** • Population (July 1) • Gross domestic product at market prices (chained) • Primary household income • Capital expenditures • Business incorporations • Business bankruptcies • Consumer bankruptcies **Labour Statistics** • Labour force • Employment • Unemployment rate • Participation rate **Prices and Earnings** • Consumer price index (annual % change) • Average weekly earnings (SEPH) • (Survey of Employment, Payrolls & Hours) • Average weekly wage rate (LFS) • (Labour Force Survey) • Wages and salaries **Other Indicators** • Manufacturing shipments • Retail sales • Housing starts • Residential building permits • Non-residential building permits • BC product exports **Commodity Data** • Lumber production • Market pulp production • Newsprint, other paper & paperboard • Coal production	Annually: 2008-2019 data provided Note – no data for 2020 or 2021	• Statistics Canada • Pulp & Paper Products Council • BC Ministries of Finance, Forests, Energy, Agriculture, Environment • Natural Resources Canada • Industry Canada • CMHC • BC Stats

	• Solid mineral shipments • Log production (timber scale billed) • Electric power generated • Farm cash receipts • Oil & wellhead condensate production • Natural gas production • Landed value of seafood products		

Economic Recovery Indicators dataset
 	
Excel datafile
	• Average Hourly Wage Earnings ($, NSA)
	• Unemployment Rate (%, SA)
	  ○ Males
	  ○ Females
	  ○ Youth (15-24)
	• Participation Rate (%, SA)
	  ○ Males
	  ○ Females
	• Employment (Thousands, SA)
	  ○ Males
	  ○ Females
	  ○ Youth (15-24)
	• Immigrant employment
	• Indigenous employment
	• Employment Insurance Beneficiaries
	  ○ Males
	  ○ Females
	  ○ Youth (15-24)
	• Consumer Price Index (All Items, NSA)
	  ○ CPI Food
	  ○ CPI Shelter
	• Retail Trade ($Thousands, SA)
	• Food Services and Drinking Places ($Thousands, SA)
	• Manufacturing Sales
	
	• Housing starts
	• Non-Residential Building Permits ($Thousands, SA)
	  ○ Industrial
	  ○ Commercial
	  ○ Institutional and governments
		Monthly	Source not given

Manitoba

Publication Name and Type	Categories of Indicators Available at the Provincial/Territorial Level or Lower Levels	Frequency	Data Source
Dashboard	**Economy Wide Statistics** 1. CPI 2. Nominal GDP (MBS estimate) 3. Real GDP (MBS estimate) 4. Real GDP 5. Compensation of employees 6. Real GDP by industry at basic prices 7. Capital investment	1. Monthly 2. Annually 3. Annually 4. Annually 5. Monthly 6. Annually 7. Annually	Statistics Canada
	Employment and Labour Market *1.* Persons employed *2.* Unemployment rate *3.* Employment insurance *4.* Average weekly earnings *5.* Job vacancies	1. Monthly 2. Monthly 3. Monthly 4. Monthly 5. Quarterly	Statistics Canada
	Population and community 1. Population estimate 2. Total net migration 3. Net Interprovincial Migration 4. Net International Migration 5. Natural increase 6. Net non-permanent residents 7. Population by age/sex	1. Quarterly 2. Quarterly 3. Quarterly 4. Quarterly 5. Quarterly 6. Quarterly 7. Annually	Statistics Canada
	Business, Industry and Trade 1. International trade balance 2. New motor vehicle sales 3. Manufacturing sales 4. Wholesale trade 5. Retail trade 6. Active businesses (with employees) 7. Food and drinking places 8. Farm cash receipts	1. Monthly 2. Monthly 3. Monthly 4. Monthly 5. Monthly 6. Monthly 7. Monthly 8. Quarterly	Statistics Canada
	Housing and Construction 1. Building permits 2. Investment in building construction 3. Housing starts in urban areas 4. Housing starts in all areas	1. Monthly 2. Monthly 3. Monthly 4. Quarterly	Statistics Canada

Labour force Bulletin
 	
Bulletin
	• Working-Age (15+) Population
	• Labour force
	• Employment
	  ○ Full-time
	  ○ Part-time
	  ○ Private Employment
	  ○ Private Sector Employees
	  ○ Self-employed
	  ○ Public Sector Employees
	• Unemployment rate (%)
	• Youth Unemployment rate (%)
	• Participation rate (%
	• Employment rate (%)
		Monthly	Statistics Canada

	Regional: • Labour Force • Employment • Unemployment • Unemployment rate (%) • Participation rate (%) Month-over-month and year-over-year Publish regional employment data for 6 regions	Monthly	Statistics Canada
Consumer Price Index (CPI), September 2021 Bulletin	**Consumer Price Indices by Component** • All-items • Food • Shelter • Household operations, furnishings and equipment • Clothing and footwear • Transportation • Health and personal care • Recreation, education and reading • Alcoholic beverages and tobacco products and recreational cannabis Special aggregates • All-items excluding food • All-items excluding food and energy • Energy • Goods • Services Consumer Price Indices by City: All-Items • 16 cities provided	Monthly	Statistics Canada

Saskatchewan

Publication Name and Type	Categories of Indicators Available at the Provincial/Territorial Level or Lower Levels	Frequency	Data Source

Monthly Statistical Review
 	
Monthly Bulletin
	Population
	• Population size
	• Interprovincial Migration
	  ○ In-migration
	  ○ Out-migration
	  ○ Net-migration
	• International Migration
	  ○ Immigration
	  ○ Emigration
	  ○ Returning Canadians
	  ○ Net Non Perm. Res
	  ○ Temporarily Abroad
	  ○ Net-migration
	• Total Net Migration
	• Births
	• Deaths
	• Natural Increase
		Quarterly	Statistic Canada

	Labour force statistics by age and sex
	• Labour Force
	• Employed:
	  ○ Total
	  ○ Full-Time
	  ○ Part-Time
	• Unemployed
	• Unemployment Rate (%)
	• Participation Rate (%)
	By subgroups:
	• Total
	• Male
	• Female
	• 15-24 Years of Age
	• 25+ Years of Age
	
	Labour force statistics by immigrant status (3 month moving average)
	• Labour Force
	• Employed:
	  ○ Total
	  ○ Full-Time
	  ○ Part-Time
	• Unemployed
	• Unemployment Rate (%)
	• Participation Rate (%)
	By subgroups:
	• Total
	• Landed Immigrants
	• Immigrants (< 5 years)
	• Immigrants (5-10 years)
	• Immigrants (> 10 years)
		Monthly	Statistics Canada

	• Born in Canada **Labour force statistics by educational attainment** • Employment • Unemployment Rate (%) • Participation Rate (%) By subgroups: • Total • 0-8 Years • Some High School • High School Graduate • Some Postsecondary • Postsec' Certificate/Diploma • University Degree		

	Employed persons by economic region (3 month moving average)
	Number and year-on-year change
	• Regina - Moose Mountain
	• Swift Current - Moose Jaw
	• Saskatoon - Biggar
	• Yorkton - Melville
	• Prince Albert & Northern
	
	Employed persons by industry
	(Number and year-on-year change)
	• Total
	• Agriculture
	• Forestry, Fishing, Mining and Oil and Gas
	• Utilities
	• Construction
	• Manufacturing
	• Trade
	• Transportation and Warehousing
	• Finance, Insurance, Real Estate and Leasing
	• Professional, Scientific and Technical Services
	• Business, Building and Other Support Activities
	• Educational Services
	• Health Care and Social Assistance
	• Information, Culture and Recreation
	• Accommodation and Food Services
	• Other Services
	• Public Administration
	
	Employed persons by class of worker
	(Total, Male and Female)
	• Total
	• Employees
	  ○ Public Sector
	  ○ Private Sector
	• Self-Employed
		Monthly	Statistics Canada

	Employed persons by establishment size (Total, Male and Female) • Total Employees • < 20 Employees • 20-99 Employees • 100-500 Employees • > 500 Employees **Saskatchewan employment earnings and hours** All Employees • Number of Employees • Avg. Weekly Earnings Salaried Employees • Avg. Standard Work Week • Avg. Hourly Earnings by Industry: • Goods producing industries • Mining and oil and gas extraction • Construction • Manufacturing • Service producing industries • Trade • Transportation & warehousing • Finance and insurance • Real estate, rental & leasing • Administrative, support, waste management & remediation service • Educational services • Health care & social assistance • Accommodation & food services • Public Administration • Industrial Aggregate **Saskatchewan employment insurance statistics** (Total, Male, Female) • Regular • Sickness • Maternity • Parental • Other		
	Saskatchewan farm cash receipts from farming operations (1) • Crops (broken down by lots of crop types) • Livestock and products (broken down by lots of livestock types) • Total direct payments • Total cash receipts **Saskatchewan farm product price index (2007=100) (2)** • Total index • Total crops (broken down by crop type)	1. Quarterly 2. Monthly 3. Monthly 4. Weekly	• **Farm Cash Receipts** - Statistics Canada • **Farm Product Price Index** Statistics Canada • **Livestock Marketings and Average Prices** - Saskatchewan Ministry of Agriculture, Cattle Marketing • **Deliveries at Western Division Primary Elevators** - Canadian

	• Total livestock and animal products (broken down by livestock type) **Saskatchewan average price of agricultural commodities (3)** • Feeder Cattle (broken down by cattle type) • Slaughter Cattle (broken down by cattle type) • Crops (broken down by crop type) • Poultry (broken down by poultry type) • Others (broken down by animal) **Saskatchewan farmers' marketing of field crops at primary elevators (4)** • Wheat • Amber Durum • Oats • Barley • Rye • Flaxseed • Canola • Peas • Lentils • Others • Total		Grain Commission, Grain Statistics Weekly
	Retail sales by industry group (1) • Motor Vehicle and Parts Dealers • Furniture and Home Furnishings Stores • Electronics and appliance stores • Building Material and Garden Equipment Dealers • Food and Beverage Stores • Health and Personal Care Stores • Gasoline Stations • Clothing and Clothing Accessories Stores • Sporting Goods, Hobby, Book and Music Stores • General Merchandise Stores • Miscellaneous Store Retailers • Total All Stores **Wholesale trade by industry group (2)** • Farm Product Wholesalers • Food, Beverage and Tobacco Wholesalers • Personal and Household Goods Wholesalers • Motor Vehicle and Parts Wholesalers • Building Material and Supplies Wholesalers • Machinery, Equipment and Supplies Wholesalers • Miscellaneous Wholesalers **Bankruptcy by industry (3)** • Agriculture, forestry, fishing and hunting • Mining and oil and gas extraction	1. Monthly 2. Monthly 3. Quarterly	• **Retail Sales by Industry Group** - Statistics Canada • **Wholesale Trade by Industry Group** - Statistics Canada • **Bankruptcy by Industry** - Industry Canada, Bankruptcy Statistics

	• Utilities • Construction • Manufacturing • Wholesale trade • Retail trade • Transportation and warehousing • Information and cultural services • Finance and insurance • Real estate and rental • Professional, scientific and technical • Management of companies and enterprises • Administrative and support, waste mgmt • Educational services • Health and social assistance • Arts, entertainment & recreation • Accommodation and food • Other service • Public administration • Total Bankruptcy by Industry • Bankruptcy by Consumer		

	New motor vehicle sales (1) (units and $)
	• Passenger Cars:
	  ○ Manufactured in North America
	  ○ Manufactured in Japan
	  ○ Manufactured in other countries
	• Commercial Vehicles:
	  ○ Manufactured in North America
	  ○ Manufactured Overseas
	• Total
	
	Average retail price of regular gasoline (2)
	At self-service stations – by city not province
	
	Retail Price of Gasoline by 18 Canadian cities
		1. Annually
		2. Monthly
			Statistics Canada

	New house price (1)
	• Saskatchewan
	  ○ Total
	  ○ House only
	  ○ Land only
	• Regina – total
	• Saskatoon – total
	
	Housing statistics (2)
	• Dwelling starts
	• Dwelling completions
	• Dwellings under construction
	Have monthly data also for Regina Metro and Saskatoon Metro
	
	Housing Statistics by 8 regions
	
	Value of building permits issued for construction (3)
	• Residential
		1. Monthly
		2. Quarterly
		3. Annually
			Statistics Canada

	• Industrial • Commercial • Institutional & Government • Total Building Permit Data by 13 Regions		
	Value of shipments of goods manufactured • Food • Textile Mills • Leather and Allied Products • Printing & Related Support Activities • Chemicals • Wood Products • Fabricated Metal Products • Machinery • Other • Total Value **Exports originating in Saskatchewan** **Imports cleared in Saskatchewan** Both: • Farm, Fishing & Intermediate Food Products • Energy Products • Metal Ores & Non-Metallic Minerals • Metal & Non-Metallic Mineral Products • Basic & Industrial Chem', Plastic & Rubber • Forestry Prod's & Bldg & Packaging Material • Industrial Machinery, Equipment & Parts • Electronic & Electrical Equipment & Parts • Motor Vehicles & Parts • Aircraft & Other Equipment & Parts • Consumer Goods • Special Transactions Trade • Total **Restaurant, caterer and tavern receipts** • Full Service Restaurants • Limited Service Eating Places • Special Food Services • Drinking Places (Alcoholic Beverages) • Total	Monthly	Statistics Canada
	Consumer price index Saskatchewan and Canada: • All items • Food • Shelter • Household Operations & Furnishings • Clothing & Footwear • Transportation • Health & Personal Care • Recreation Education and reading • Tobacco Alcohol & Cannabis	Monthly	Statistics Canada

	CPI data for Regina and Saskatoon: • All Items • Shelter		

Nova Scotia

Publication Name and Type	Categories of Indicators Available at the Provincial/Territorial Level or Lower Levels	Frequency	Data Source
Labour Market Trends - September 2021 Webpage	**Labour Force Basic Characteristics:** • Population • Labour force • Employment • Full-time employment • Part-time employment • Unemployment • Not in labour force • Unemployment • Participation rate • Employment rate	Monthly	Statistics Canada
	Unemployment rate and employment rate by Metropolitan Area (across Canada) • Halifax in Nova Scotia	Monthly	Statistics Canada
Analysis Of Nova Scotia's Consumer Price Index For September 2021 Webpage	**CPI - % change (1)** • All items • Excluding food and energy • Food • Energy • Shelter • Excluding energy (Year over year and month to month) **CPI (2)** • all items • all items excluding Food and Energy (Level and year over year % change)	1. Monthly 2. Annually	Statistics Canada

New Brunswick

Publication Name and Type	Categories of Indicators Available at the Provincial/Territorial Level or Lower Levels	Frequency	Data Source
New Brunswick Economic Dashboard Dashboard	**Population** 1. Population 2. Natural increase 3. Net migration	All Quarterly	Statistics Canada
	Labour 1. Labour force, 2. Employment, 3. Unemployment rate, 4. Average weekly earnings 5. Employment insurance 6. Job vacancies	1. Monthly 2. Monthly 3. Monthly 4. Monthly 5. Monthly 6. Quarterly	Statistics Canada
	Consumers 1. Retail trade 2. Food services and drinking places 3. New Motor Vehicles sold 4. New motor vehicle sales 5. Consumer Price Index	1. Monthly 2. Monthly 3. Monthly 4. Monthly 5. Monthly	Statistics Canada
	Economic Accounts 1. Wages and salaries 2. Real GDP (All industries) 3. Labour productivity	1. Monthly 2. Annually 3. Annually	Statistics Canada
	Business 1. Manufacturing sales 2. Domestic exports 3. Wholesale trade 4. Farm cash receipts	1. Monthly 2. Monthly 3. Monthly 4. Quarterly	Statistics Canada
	Construction 1. Non-residential building permits 2. Non-residential investment 3. Residential building permits 4. Residential investment 5. Housing starts	1. Monthly 2. Monthly 3. Monthly 4. Monthly 5. Quarterly	Statistics Canada
Fiscal and Economic Update FIRST QUARTER 2021 – 2022 Report	• Labour force • Employment • Unemployment • Participation Rate • Employment Rate • Unemployment Rate • Average weekly earnings • Retail trade • Consumer Price Index • Housing starts • Investment in residential building construction • Investment in non-residential building construction • Manufacturing sales • International exports	Quarterly	Statistics Canada

Annual Indicators
 	
Bulletin
	Labour:
	• Population 15 Years and Over
	• Labour Force
	• Employment
	  ○ Full-time
	  ○ Part-time
	  ○ Goods-producing Sector
	  ○ Services-producing Sector
	• Unemployment
	• Participation Rate
	• Employment Rate
	• Unemployment Rate
	• Average Weekly Earnings
	• Wages and Salaries
	• Employment Insurance Beneficiaries
		Annually	Statistics Canada and Canadian Real Estate Association.

	Consumers: • Retail Trade • New Motor Vehicle Sales • Food Services and Drinking Places • Consumer Price Index	Annually	Statistics Canada and Canadian Real Estate Association.
	Housing: • Housing Starts • Residential Building Permits • MLS Residential Sales (units) • MLS Residential Sales (average price $)	Annually	Statistics Canada and Canadian Real Estate Association.

	Business:
	• Manufacturing Sales
	• International Exports
	• Non-residential Building Permits
	  ○ Industrial and Commercial
	  ○ Institutional and Governmental
	• Wholesale Trade
	• Farm Cash Receipts
		Annually	Statistics Canada and Canadian Real Estate Association.

	Demographics:
	• Population
	  ○ Natural Increase
	  ○ Net Migration
		Annually	Statistics Canada and Canadian Real Estate Association.

Newfoundland and Labrador

Publication Name and Type	Categories of Indicators Available at the Provincial/Territorial Level or Lower Levels	Frequency	Data Source
Quick Fact Dashboard Dashboard	**Population and Demography** 1. Population 2. Natural Change 3. Net Migration	Quarterly	Statistics Canada
	Labour 1. Labour Force 2. Persons Employed 3. Unemployment Rate 4. Participation Rate 5. Actual Hours Worked 6. Employment Insurance Beneficiaries	Monthly	Statistics Canada
	Consumer Activity 1. Retail Trade Sales 2. New Motor Vehicle Sales 3. Consumer Price Index (monthly) 4. Consumer Price Index (annual) 5. Household Consumption 6. New Housing Price Index 7. Food services and Drinking places sales 8. Consumer Bankruptcies	1. Monthly 2. Monthly 3. Monthly 4. Annually 5. Annually 6. Monthly 7. Monthly 8. Monthly	Statistics Canada
	Construction 1. Investment In New Building Construction 2. Building Permits 3. Housing Starts	1. Monthly 2. Monthly 3. Quarterly	Statistics Canada
	Industry 1. Oil Production 2. Mineral Shipments 3. Manufacturing Shipments 4. Total Fish Landings 5. Newsprint Shipments 6. Refined Petroleum Exports	1. Monthly 2. Annually 3. Monthly 4. Annually 5. Quarterly 6. Monthly	• Canada-Newfoundland Offshore Petroleum Board • Statistics Canada • Department of Fisheries and Oceans • Canada Landing Values • Forest Engineering and Industry Services • Dept. of Fisheries, Forestry and Agriculture • Trade Data Online
	Income 1. Total Household Income 2. Average Weekly Earnings 3. Percentage of People in Low Income 4. Number of People in Low Income 5. Income Support Recipients	1. Annually 2. Monthly 3. Annually 4. Annually 5. Monthly	• Statistics Canada • Centre for Income and Socioeconomic Well-being Statistics • Statistics Canada

			• Government of Newfoundland and Labrador • Department of Advanced Education, Skills and Labour.
	Economic Output 1. Gross Domestic Product (GDP) 2. Gross Domestic Product (chained 2012) 3. Exports for All Industries	1. Annually 2. Annually 3. Monthly	Statistics Canada
LABOUR FORCE FLASH SHEET Flash sheets	Unemployment Rate (actual and seasonally adjusted) ○ Total/ male /female Number of employed and unemployed Unemployment rate by Economic Regions: • Avalon Peninsula • South Coast-Burin Peninsula and Notre Dame Central Bonavista Bay • West Coast - Northern Peninsula & Labrador • St. John's Census Metropolitan Area	Monthly	Statistics Canada Labour Force Survey
CPI Flash sheet Flash sheets	**Population** **Labour** • Employed, Adjusted • Unemployment Rate, • Employment Insurance Beneficiaries Regular Benefits Without Declared Earnings • Average Weekly Earnings, Industrial Aggregate • Income Support Cases **Consumer Price Index** (2002=100) • All-Items • Food • Energy • All-items excluding Food and Energy **Interest rates** • Five Year Mortgage Rate • Prime Business Loans **Sales of goods manufactured**, naics (shipments) **Volume of fish landings**: (January - December, 2020) • Shellfish • Pelagics • Groundfish • Total Volume Unadjusted **Retail trade** (naics) : • Seasonal Variation • Seasonally Adjusted **New motor vehicle sales**	Monthly	Source not given

	Housing • Housing Starts, All Areas • Median House Price - Bungalows, St. John's **Oil production**		

Prince Edward Island

Publication Name and Type	Categories of Indicators Available at the Provincial/Territorial Level or Lower Levels	Frequency	Data Source
Prince Edward Island Economic Indicators Overview Report Bulletin Data updated daily	Population	Quarterly	Statistics Canada
	Labour: • Labour Force • Employed • Unemployed • Unemployment Rate (%) • Participation Rate (%) • Employment Rate (%)	Monthly	Statistics Canada
	SEPH* Employment: • Goods Producing • Service Producing • Industrial Aggregate	Monthly	Statistics Canada
	Consumer Price Index: • All Items • Food • Shelter • Energy	Monthly	Statistics Canada
	Average Weekly Earnings: • Goods Producing ($) • Service Producing ($) • Industrial Aggregate ($)	Monthly	Statistics Canada
	Employment Insurance: • Total Beneficiaries • Total Benefit Payments	Monthly	Statistics Canada
	International Exports: • Total Exports • Food Products • Consumer Goods	Monthly	Statistics Canada
	Manufacturing Shipments: • Non-Durable Goods • Total Shipments	Monthly	Statistics Canada
	Farm Cash Receipts: • Total Receipts • Total Crops • Potatoes • Total Livestock • Cattle • Hogs • Direct Payments	Quarterly	Statistics Canada
	New Motor Vehicle Sales: • Value • Number of Vehicles	Monthly	Statistics Canada
	Retail Sales: • Total Sales	Monthly	Statistics Canada
	Construction: • Housing Starts • Building Permits • Residential • Non - Residential	Housing – quarterly Rest - monthly	Statistics Canada

Gross Domestic Product (GDP) by Income and Expenditure Webpage	**GDP:** • Nominal 2020 GDP level • Chained GDP Growth (%) • Nominal GDP • Nominal GDP Per Capita ($) • Change in Nominal GDP Per Capita (%)	Annually	Statistics Canada Provincial Gross Domestic Product (GDP) by Income and Expenditure data

Northwest Territories

Publication Name and Type	Categories of Indicators Available at the Provincial/Territorial Level or Lower Levels	Frequency	Data Source
Quarterly Population Estimates Webpage	**Population** • % Change from Prev Period • % Change from Prev Year • Births • Deaths • Net Migration	Quarterly	Statistics Canada
Gross Domestic Product Webpage	NWT **Gross Domestic Product** at Basic Prices All industries • Agriculture, forestry, fishing and hunting • Mining, and oil and gas extraction • Utilities • Construction • Manufacturing • Wholesale trade • Retail trade • Transportation and warehousing • Information and cultural industries • Finance and insurance • Real estate and rental and leasing • Professional, scientific and technical services • Management of companies and enterprises • Administrative and support, waste management, etc. • Educational services • Health care and social assistance • Arts, entertainment and recreation • Accommodation and food services • Other services (except public administration) • Public administration	Annually	Statistics Canada
Consumer Price Index Monthly Bulletin	**CPI** including all items Don't have measure for territory NWT but do have following cities • Yellowknife – NWT • Edmonton – Alberta • Whitehorse – Yukon • Iqaluit - Nunavut	Monthly	Statistics Canada
	Yellowknife CPI by item: • All Items • Food • Shelter • Household Operations & Furnishings • Clothing & Footwear • Transportation • Health & Personal Care • Recreation, Education & Reading • Alcoholic Beverages & Tobacco Products • Energy	Monthly	Statistics Canada

	Don't have measure for territory NWT – only for capital Yellowknife		

Labour Force Activity
 	
Monthly Bulletin
	• Population 15 & Older
	• Labour Force
	• Employment
	• Unemployment
	• Not in labour force
	• Participation rate (%)
	• Unemployment rate (%)
	• Employment rate (%)
	• Total Employment
	  ○ Full-time employment
	  ○ Part-time employment
	  ○ Employees
	  ○ Public sector
	  ○ Private sector
	  ○ Self-employment
	  ○ Goods-producing industry
	  ○ Services-producing industry
		Monthly	Statistics Canada

Earnings and Wages Webpage	Average Weekly Earnings • All Industries • Goods Producing • Services Producing	Monthly	Statistics Canada
Excel file – "Avg Weekly Earnings"	Average Weekly Earnings Estimated Employee Earnings, by Industry • Industrial • Goods Producing • Services Producing • Construction • Transport and Warehousing • Trade • Health Care and Social Assistance • Public Admin • Other services (excl. Public Admin)	Monthly	Statistics Canada
Retail Trade Excel File	Estimates Retail Trade	Monthly	Statistics Canada
Wholesale Trade Excel File	Estimated Sales of Wholesale Merchants	Monthly	Statistics Canada

Yukon

Publication Name and Type	Categories of Indicators Available at the Provincial/Territorial Level or Lower Levels	Frequency	Data Source
Population Report Second Quarter, 2021 Bulletin	1. Population size 2. Population by Age Group and Sex 3. Population by Community1 and Age Group, 4. Annual (June 30th) Indigenous1 Population by Community 5. Population by Subdivision in Whitehorse Area Population data by 18 communities	1. Monthly 2. Quarterly 3. Quarterly 4. Annually 5. Quarterly	Source not given
	International Migration to and from Yukon • Immigrants • Emigrants • Returning Emigrants • Net Temporary Emigrants • Net Non-permanent Residents • Net International Migration	Quarterly	Statistics Canada
Gross Domestic Product by Industry (GDP), 2020 Annual Bulletin	Gross domestic product (GDP) at basic prices, by industry • All industries • Goods-producing industries • Service-producing industries • Agriculture, forestry, fishing and hunting • Mining, quarrying, and oil and gas extraction • Utilities • Construction • Manufacturing • Wholesale trade • Retail trade • Transportation and warehousing • Information and cultural industries • Finance and insurance • Real estate and rental and leasing • Professional, scientific and technical services • Management of companies and enterprises • Admin support, WM and remediation services • Educational services • Health care and social assistance • Arts, entertainment and recreation • Accommodation and food services • Other services (except public admin) • Public administration	Annually	Source not given
Labour Force Survey, October 2021 Monthly bulletin	Labour Force • Number Employed • Number Unemployed • Unemployment Rate	Monthly	Statistics Canada

Yukon Real Estate Report Third Quarter, 2021 Monthly bulletin	Value and Type of Real Estate Transactions in Whitehorse • Total Value of Real Estate Transactions • Number of Real Estate Transactions • Average Value of Real Estate Transactions Each by: • Residential: Single Detached Houses Mobile Homes Condos Duplexes • Non-residential properties: Commercial Property Industrial Property Don't have data for territory – only capital Whitehorse	Quarterly	Source not given
Consumer Price Index, September 2021 Monthly bulletin	Consumer Price Index, All-items For Whitehorse Don't have data for territory – only capital Whitehorse	Monthly	Statistics Canada
Retail Trade, August 2021 Monthly Bulletin	Retail sales • Seasonally unadjusted • Seasonally adjusted	Monthly	Statistics Canada

Nunavut

Publication Name and Type	Categories of Indicators Available at the Provincial/Territorial Level or Lower Levels	Frequency	Data Source
Nunavut Quick Facts Table on Bureau of Statistics Homepage	• Nunavut Population (July1, 2021) • Iqaluit CPI Change % (September 2021/September 2020) • Nunavut Labour Force Data (3-month average ending in September 2021) ○ Labour Force ○ Employed ○ Employment Rate % ○ Unemployed ○ Unemployment rate %	Not given	No source given
Labour Force StatsUpdate, September 2021 Stats Update Monthly Bulletin	3 month moving average (July-Sept) - Broken down into Inuit and Non-Inuit groups • Labour Force • Participation Rate • Employment • Employment Rate • Unemployment • Unemployment Rate	Monthly	Statistics Canada
Consumer Price Index StatsUpdate, September 2021 Stats Update Monthly Bulletin	Consumer Price Index For Iqaluit Don't have data for the territory – only territory capital cities • Iqaluit - Nunavut • Yellowknife – NWT • Whitehorse – Yukon	Monthly	Statistics Canada
Nunavut and Canada Population Estimates StatsUpdate, Second Quarter 2021 Stats Update Quarterly Bulletin	Population size estimate	Quarterly	Statistics Canada
Births StatsUpdate, 2020 Stats Update Bulletin	Births	Annually	Statistics Canada
Deaths StatsUpdate, 2019 Stats Update Bulletin	Deaths	Annually	Statistics Canada
Nunavut Annual Migration Estimates 1999 to 2019 Excel file	Annual Migration Estimates • Interprovincial In-Migrants • Interprovincial Out-Migrants • Immigrants • Emigrants • Other Net Migrants	Annually	Statistics Canada

Appendix B: Education Systems Across the Four Nations

Comparison of Education Systems

Age	England			Wales			Scotland			Northern Ireland		
	Education Stage	School Year	Qualifications	Education Stage	School Year	Qualifications	Education Stage	School Year	Qualifications	Education Stage	School Year	Qualifications
<4	Early years	Nursery		Foundation	Nursery		Early Level	Nursery		Foundation	Nursery	
4-5		Reception			Reception			Nursery			P1	
5-6	Key Stage 1	Year 1			Year 1			P1			P2	
6-7		Year 2			Year 2		First Level	P2		Key Stage 1	P3	
7-8	Key Stage 2	Year 3		Key Stage 2	Year 3			P3			P4	
8-9		Year 4			Year 4			P4		Key Stage 2	P5	
9-10		Year 5			Year 5		Second Level	P5			P6	
10-11		Year 6			Year 6			P6			P7	
11-12	Key Stage 3	Year 7		Key Stage 3	Year 7			P7		Key Stage 3	Year 8	
12-13		Year 8			Year 8		Third/Fourth	S1			Year 9	
13-14		Year 9			Year 9		Level	S2			Year 10	
14-15	Key Stage 4	Year 10		Key Stage 4	Year 10			S3		Key Stage 4	Year 11	
15-16		Year 11	GCSE		Year 11	GSCE	Senior Phase	S4	National 5		Year 12	GCSE
16-17	Key Stage 5	Year 12	AS Level		Year 12	AS Level		S5	Higher		Year 13	AS Level
17-18		Year 13	A Level		Year 13	A Level		S6	Advanced Higher		Year 14	A Level

Comparison of Qualifications

Main Stages of education / employment	Qualifications and Credit Framework/National Qualifications Framework for England, Wales and Northern Ireland		Credit and Qualification Framework for Wales		The Scottish Credit and Qualifications Framework		Framework for higher education qualifications in England, Wales and Northern Ireland	
	Level		Level		Level		Level	
Professional or postgraduate education, research or employment **Higher education Postgraduate Certificates Advanced skills training** **Entry to professional graduate employment** **Specialised education and training** **Qualified/Skilled worker Entry to higher education Completion of secondary education**	**8**	Vocational Qualifications Level 8	**8**	Doctoral Degrees	**12**	Professional Development Awards Doctoral Degrees	**8**	Doctoral Degrees
	7	Fellowships NVQ Level 5 Vocational Qualifications Level 7	**7**	Master's Degrees Integrated Master's Degrees Postgraduate Diplomas Postgraduate Certificate in Education (PGCE) Postgraduate Certificates	**11**	SVQ Level 5 Professional Development Awards Postgraduate Diplomas Master's Degrees Integrated Master's Degrees Postgraduate Certificates	**7**	Master's Degrees Integrated Master's Degrees Postgraduate Diplomas Postgraduate Certificate in Education (PGCE) Postgraduate Certificates
	6	Vocational Qualifications Level 6	**6**	Bachelor's Degree with Honours Bachelor's Degrees Professional Graduate Certificate in Education (PGCE) Graduate Diplomas Graduate Certificates	**10**	Bachelor's Degrees with Honours Professional Development Awards Graduate Diploma Graduate Certificates	**6**	Bachelor's Degrees with Honours Bachelor's Degrees Professional Graduate Certificate in Education (PGCE) Graduate Diplomas Graduate Certificates
					9	Bachelor's/Ordinary Degrees Professional Development Awards SVQ Level 4 Graduate Diplomas Graduate Certificates		
	5	NVQ Level 4 Higher National Diplomas (HND) Higher National Certificates (HNC) Vocational Qualifications Level 5	**5**	Foundation Degrees Diplomas of Higher Education (DipHE) Higher National Diplomas (HND	**8**	Higher National Diplomas (HND) SVQ Level 4 Professional Development Awards Diplomas of Higher Education (DipHE)	**5**	Foundation Degrees Diplomas of Higher Education (DipHE) Higher National Diplomas (HND)
	4	Vocational Qualifications Level 4	**4**	Higher National Certificates (HNC) Certificates of Higher Education (CertHE)	**7**	Professional Development Awards Higher National Certificates (HNC) Certificates of Higher Education (CertHE) SVQ Level 3 Advanced Highers	**4**	Higher National Certificates (HNC) Certificates of Higher Education (CertHE)
	3	NVQ Level 3 Vocational Qualifications Level 3 GCSE AS and A Level Advanced Diplomas	**3**	NVQ Level 3 Vocational Qualifications Level 3 GCSE AS and A Leve Welsh Baccalaureate Qualification Advanced	**6**	Highers SVQ Level 3 Professional Development Awards National Progression Awards National Certificates		

Progression to skilled employment Continuation of secondary education	**2**	NVQ Level 2 Vocational Qualifications Level 2 GCSEs at grade A* - C ESOL skills for life Higher Diplomas Functional Skills Level 2 (English, mathematics & ICT)	**2**	NVQ Level 2 Vocational Qualifications Level 2 Welsh Baccalaureate Qualification Intermediate GCSEs grade A* - C	**5**	Intermediate 2 Credit Standard Grade SVQ 2 National Progression Awards National Certificates
Secondary education initial entry into employment or further education	**1**	NVQ Level 1 Vocational Qualifications Level 1 GCSEs at grade D – G ESOL skills for life Foundation Diplomas Functional Skills Level 1 (English, mathematics & ICT)	**1**	NVQ Level 1 Vocational Qualifications Level 1 GCSEs at grade D-G Welsh Baccalaureate Qualification Foundation	**4**	Intermediate 1 General Standard Grade Scottish Vocational Qualifications (SVQ) 1 National Progression Awards National Certificates
	Entry Level	Entry Level Certificates (sub levels 1 – 3) ESOL skills for life Functional Skills Entry Level (English, mathematics & ICT)	**Entry Level**	Entry Level Certificate (sub levels 1 – 3)	**3**	Access 3 Foundation Standard Grades National Progression Awards National Certificates
					2	Access 2 National Progression Awards National Certificates
Qualifications can be taken at any age in order to continue or return to training					**1**	Access 1

Source: https://eal.org.uk/support/document-library/7-uk-qualifications-comparison-table/file