Publication Number: LNFD/EEP/13/RES/02a

Llywodraeth Cymru
Welsh Government

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Development of a Coastal Community Typology for Wales

Prepared for: **Strategic Evidence & Assessment Branch, Natural Resources, Llywodraeth Cymru Welsh Government**
Prepared by: **Oxford Consultants for Social Inclusion (OCSI) Ltd**

Views expressed in this report are those of the researcher and not necessarily those of the Welsh Government.

For further information, please contact:
Strategic Evidence & Assessment Branch
Natural Resources
Welsh Government
Rhodfa Padarn
Aberystwyth
Ceredigion
SY23 3UR

environmentalevidence@wales.gsi.gov.uk

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Final Report

Oxford Consultants for Social Inclusion (OCSI) Ltd

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Section 1 Introduction

1.1 Introduction

1.1.1 This report has been commissioned by the Welsh Government to help consider how activities in the marine environment can support the socio economic development of Welsh coastal communities. The outline brief for the project from the Welsh Government requested us to:

- Highlight the socio-economic context of coastal communities, including comparison against Wales as a whole and trends over time;
- Develop a typology of Welsh coastal areas based on their socio-economic characteristics, to aid marine planners and other users understand which particular planning developments and policy initiatives may be appropriate in particular areas.

1.2 The high level context

1.2.1 The UK Marine Policy Statement (MPS) agreed by all four UK administrations makes clear that positive impacts on coastal communities is one of its high level objectives. Marine planning should contribute 'to securing sustainable economic growth both in regeneration areas and areas that already benefit from strong local economies. Through well-placed and well-designed development, Marine Plans should promote economic growth and sustain local jobs.'

1.2.2 The MPS goes on to discuss the need for interaction, consistency and complementarity between marine and terrestrial planning processes and the opportunities for liaison and sharing of evidence bases and data.

1.3 Welsh Coastal Communities Typology

1.3.1 To gain a more detailed understanding of local coastal areas, we have developed a typology of Welsh coastal communities, to differentiate between different types (or categories) of coastal area on the basis of their socio-economic characteristics. Although every coastal community has a unique combination of characteristics, the typology helps group together those areas with similar characteristics on key indicators, for which particular planning developments and policy initiatives may be appropriate.

1.3.2 We then use these categories as a basis to analyse how different types of coastal area are performing, and how categories differ from each other. In addition, the typology provides a set of benchmark "types" (ie, the average for the group of areas in each typology category) against which to monitor future trends and performance.

1.3.3 This report sets out our analysis of the typology, comparing between coastal areas and Wales as a whole, and also between the different typology categories. The report also sets out our methodology for developing the typology.

1.3.4 A separate report commissioned as part of this project, and carried out by Peter Brett and Associates, examines how Wales might get the best out of the marine planning process, given previous experience elsewhere.

1.4 Important caveats: how the coastal typology is intended to be used

1.4.1 It is important to be clear about how the typology set out in this report can – and cannot – be used. The typology is intended to be used in the following ways.

- The typology provides a way of grouping areas with similar characteristics, and is intended as a tool for marine planners and other users. The typology is provided as a strategic overview for users to understand local socio-economic conditions and inform further discussions with local land-based planners, economic development staff and other stakeholders.
- We have developed the typology for use by Welsh Government teams. The Welsh Government is not expecting Local Authorities or other stakeholders to use the typology: although of course, they are free to use the work if it is seen as helpful locally.

1.4.2 The typology should not be used for the following purposes.

- Planning decisions will not be based on the typology on its own. The typology exists to aid marine planners and other users. No planning decisions will rest wholly or mostly on this information. Planning decisions will be based on a far wider range of information.
- Licensing or investment decisions will not be based on the typology on its own. No licensing or investment decisions will rest wholly or mostly on this information. Again, licensing decisions will be based on a far wider range of information.

1.4.3 Any typologies approach has a number of clear limitations:

- The typology category names are provided as an aid to using the typology as a technical tool, helping users get a sense of how these areas differ from the average.
- Many people living in a particular area will not fit the profile of the typology category or the name.
- The typology categories reflect how areas fare, at a point in time, on a range of social and economic indicators available on a consistent basis all around the Welsh coast. They do not reflect future plans that Local Authorities or local communities may have for such areas, or reflect issues for which data is not available on a consistent basis around the coastline, such as local wellbeing, needs or aspirations.

Section 2 Defining 'coastal communities'

2.1 What is 'coastal'?

2.1.1 There is no standard definition of 'coastal' for either policymakers or practitioners[1]. However, we need a definition of coastal for the purposes of creating a coastal typology, and considering the potential for benefits from marine activities for coastal communities. This is important as we want the typologies to reflect truly coastal characteristics. It is important that the specifically 'coastal' characteristics are not masked – which could be the case if the coastal definition were drawn too widely inland.

2.1.2 In consultation with the Welsh government team, we have used the same definition of 'coastal' as the typology of English coastal communities: extending 10km inland from the low water mark including around each defined estuary and river limit to include all transitional waters [2]

2.1.3 We have used Lower-layer Super Output Areas (LSOAs) as the base geographical unit for the definition of coastal in this study. LSOAs are a geography created by the ONS for the purposes of analysis. There are 1,896 LSOAs covering Wales, each with an average population of 1,500. We have used the 2001 version of LSOAs, rather than the 2011 version, in order to be able to reuse data from the Welsh Index of Multiple Deprivation and other datasets available only for the older version[3].

2.1.4 Our definition of "coastal" is based on those LSOAs that lie within the 10km boundary. In addition, any LSOA with less than 15% of their geographic area lying inside the 10km buffer was excluded, to ensure that large LSOAs lying mainly outside the coastal area were not counted as coastal (these areas can be seen in the map on the following page, as those areas lying within the coastal 10km boundary that are *not* shaded yellow). Finally, areas identified as 'non coastal' by the Welsh government team were excluded.

2.1.5 Figure 2.1 on the following page shows the extent of the Welsh coastal area as defined by the criteria above. The red line shows the 10 km buffer zone. Of the 1,896 LSOAs in Wales, just over 1,300 are in coastal areas (69% of all Welsh areas) (these are shaded yellow).

2.2 What is a 'community'

2.2.1 The project brief asked us to analyse the socio-economic context of coastal communities, to aid marine planning in generating positive outcomes for coastal communities. The phrase "coastal communities" is also used extensively throughout the Marine Policy Statement.

2.2.2 We define 'coastal communities' as including everyone who lives within the coastal area defined above. This definition includes both rural and urban areas, and we have not limited our analysis to settlements of a particular size. We also use

[1] House of Commons Communities and Local Government Committee (2006) *Coastal Towns Second Report of Session 2006–07* (6) House of Commons HC 351, The Stationery Office, London

[2] See RTP and OCSI for MMO (2011) for discussion of the different ways that "coastal" can be defined.

[3] For this study, we have converted data from 2011 census to the older 2001 LSOA geography using a custom lookup table based on the finer-grained Output Areas.

“communities” as shorthand to refer to the people who live on the coast, irrespective of the size of the settlement they inhabit.

Figure 2.1. The extent of the “coastal” area defined for the purposes of the study

Red line shows the 10km coastal boundary from low water or defined estuary.

Yellow areas are those LSOAs with at least 15% of their geographical area lying within the 10km coastal boundary

Section 3A typology of Welsh coastal communities

3.1 Introduction

3.1.1 The coastal typology developed here provides a swift overview of the types of coastal communities and their characteristics including current position and recent trends. The typology developed categorises each of the 1,308 LSOAs in the Welsh coastal area into one of nine categories, based on a set of 43 underlying characteristics (or indicators).

3.1.2 In this section we outline:

- Details of the categories
- Where are different types of coastal community located?
- How do different types of coastal community fare on key socioeconomic indicators?

Building on the typology of English coastal communities

3.1.3 The Marine Management Organisation (MMO) previously commissioned a study in England to consider how marine planning activities can contribute to sustainable development by supporting the socio-economic development of coastal communities[4]. The work forms part of the evidence base used in marine planning for all marine areas in England. As Wales has two significant joint coastal areas around the rivers Dee and Severn, the Welsh Government appreciated the benefit of adopting the same methodology in order to undertake a similar study for Wales. The basis for this study is to ensure there is synergy and continuity in the interpretation of the cross boundary work between England and Wales. By adopting the MMO methodology the project ensures read-across between both pieces of work, allowing us to build on and develop further best practice in this area.

3.1.4 For further details on how we have developed the typology, see Appendix A for the methodology, Appendix B for detail of each of the typology categories, Appendix C for data tables by each category, and Appendix D for profiles of the areas under each typology category.

3.1.5 Detailed datasets at small area level are provided in an accompanying Excel.

3.2 Details of the coastal typology categories

3.2.1 Figure 3.1 shows the nine coastal typology categories, which are grouped under four super-categories: coastal retreats, coastal challenges, cosmopolitan coast and coastal fringe. Table 3.1 outlines each of the categories, summarising the main differences between each of the categories and the average position across coastal areas.

A note on typology names

3.2.2 Where appropriate, we have reused the names for the typology categories from the English typology (see Appendix A.8 for information on the differences between the

[4] RTP and OCSI for MMO (2011). Maximising the socio-economic impacts of marine planning for English coastal communities: Tools and methods report.

names). The names help users get a sense of how these areas differ from the average, so aid in using the typology as a technical tool.

Figure 3.1. The nine Coastal typology categories

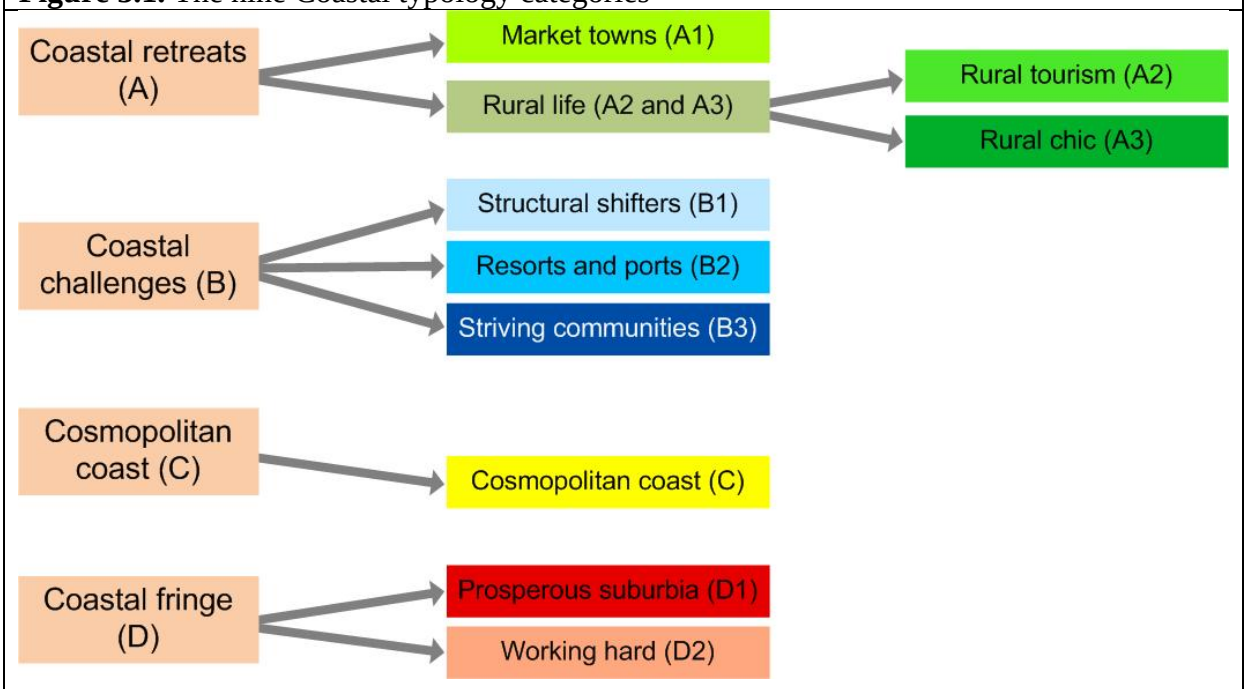


Table 3.1. Differences between each of the typology categories and the coastal average			
Typology category	Overview -	Above the coastal average	Below the coastal average
A1 Coastal retreats: Market towns	Retirement areas primarily located in smaller market towns, less developed resorts	• People of pensionable age • Lone pensioner households • Home working • Self-employment • People employed in tourism • People travelling long distances to work	• Child poverty • Settlement size • Recorded crime
A2 Coastal retreats: Rural tourism	Predominantly rural areas, sparsely populated or in smaller settlements , with people employed in tourism sectors	• Travel time to key amenities • Second homes • People of pensionable age • Lone pensioner households • People employed in tourism • People employed in hotels and catering • Part time employment • People working from home • Detached housing • Caravans • Households lacking central heating • Home working • Travelling long distances to work	• Population density • Jobs growth • People living in flats • People receiving Incapacity Benefit/Employment Support Allowances • Household income • Housing Benefit • People working in knowledge industries • Settlement size
A3 Coastal retreats: Rural chic	Predominantly rural areas, sparsely populated or in smaller settlements, with a well-qualified population	• Travel time to key amenities • Detached housing • People qualified to degree level • Dwellings with 8 or more rooms • Dwellings in Council Tax band E - I • Jobs growth • Self-employment • Households with 3+ cars or vans • Home working • People travelling long distances to work	• Population density • People living in flats • Households with no car or van • Child and pensioner poverty • Housing Benefit • Settlement size • People aged 18-19 not in higher education • People receiving DWP benefits
B1 Coastal challenges: Structural shifters	Towns and cities which have lost their primary markets, and are facing the challenge to find new ones. This group includes a range of single industry coastal towns, including mining areas, industrial heartlands and former agricultural centres	• People working in manufacturing • Jobseekers Allowance claimants • Incapacity Benefit/Employment Support Allowance claimants • Disability Living Allowance claimants • People with a limiting long-term illness • Terraced housing • Proximity to waste and industrial sites	• People living in detached housing • People qualified to degree level • Overall employment rate • Jobs Growth • People living in flats • Pupil attainment

Table 3.1. Differences between each of the typology categories and the coastal average			
Typology category	Overview -	Above the coastal average	Below the coastal average
B2 Coastal challenges: Resorts and ports	Challenges relating to poor skills and high levels of worklessness often in older poor quality housing. This group includes a range of single industry coastal towns, including seaside resorts and ports. Some evidence of jobs growth in recent years	• Recorded crime • People employed in ports • Jobs growth • Child and pensioner poverty • Jobseekers Allowance claimants • Incapacity Benefit/Employment Support Allowance claimants • Disability Living Allowance claimants • People with a limiting long-term illness • People living in flats • Private rented accommodation • Households lacking central heating • People employed in hotel and catering • People in social rented accommodation	• People qualified to degree level • People in professional occupations • Owner occupiers • Settlement size • Pupil attainment
B3 Coastal challenges: Striving communities	High levels of deprivation across all indicators, and a very high proportion of people living in social rented accommodation	• Social housing • Housing Benefit claimants • Jobseekers Allowance claimants • Incapacity Benefit/Employment Support Allowance claimants • Disability Living Allowance claimants • Child and pensioner poverty • People providing intensive unpaid care • People working in retail • Recorded crime • Terraced housing • People living in flats • Settlement size • Households with no car • Population density	• People qualified to degree level • Overall employment rate • Jobs Growth • People living in detached housing • Owner occupiers • Pupil attainment

Table 3.1. Differences between each of the typology categories and the coastal average			
Typology category	Overview -	Above the coastal average	Below the coastal average
C Cosmopolitan coast	City and market town service centres with highly skilled populations and dynamic economies, but relatively high levels of deprivation among older people and children	• People qualified to degree level • Full-time students aged 16-74 • People who moved address in the last year • Recorded crime • People travelling more than 40km to work • Terraced housing • Private rented housing • People living in flats • Pensioner poverty • Child poverty • Housing Benefit • One person households • Overcrowded housing • Professional occupations • Settlement size	• People of pensionable age • Part time employees • People living in houses • People with a limiting long-term illness • People proving unpaid care • Car ownership • Travel time to services • People with no qualifications
D1 Coastal fringe: Prosperous suburbia	Affluent areas predominantly on the edge of towns and in satellite towns around larger coastal cities	• People qualified to degree level • Overall employment rate • Owner-occupied households • Average point score at GCSE • Dwelling with 8 rooms or more	• Jobseekers Allowance claimants • People receiving workless benefits due to poor health • Child and pensioner poverty • Households with no car or van
D2 Coastal fringe: Working hard	Towns characterised by high levels of employment typically in industrial sectors, and a stable population	• Overall employment rate • Full-time employment • People working in manufacturing • Owner-occupied households • People with apprenticeship qualifications	• People who moved address in the last year • Jobseekers Allowance claimants • People receiving workless benefits due to poor health • Self-employed people • Social rented housing • Home working

3.3 Where are different types of coastal community located?

3.3.1 The map below (figure 3.2) highlights the coastal typology around the coast of Wales. Table 3.2 on the following page sets out example locations for each of the typology categories.

Figure 3.2 Map of the coastal typology

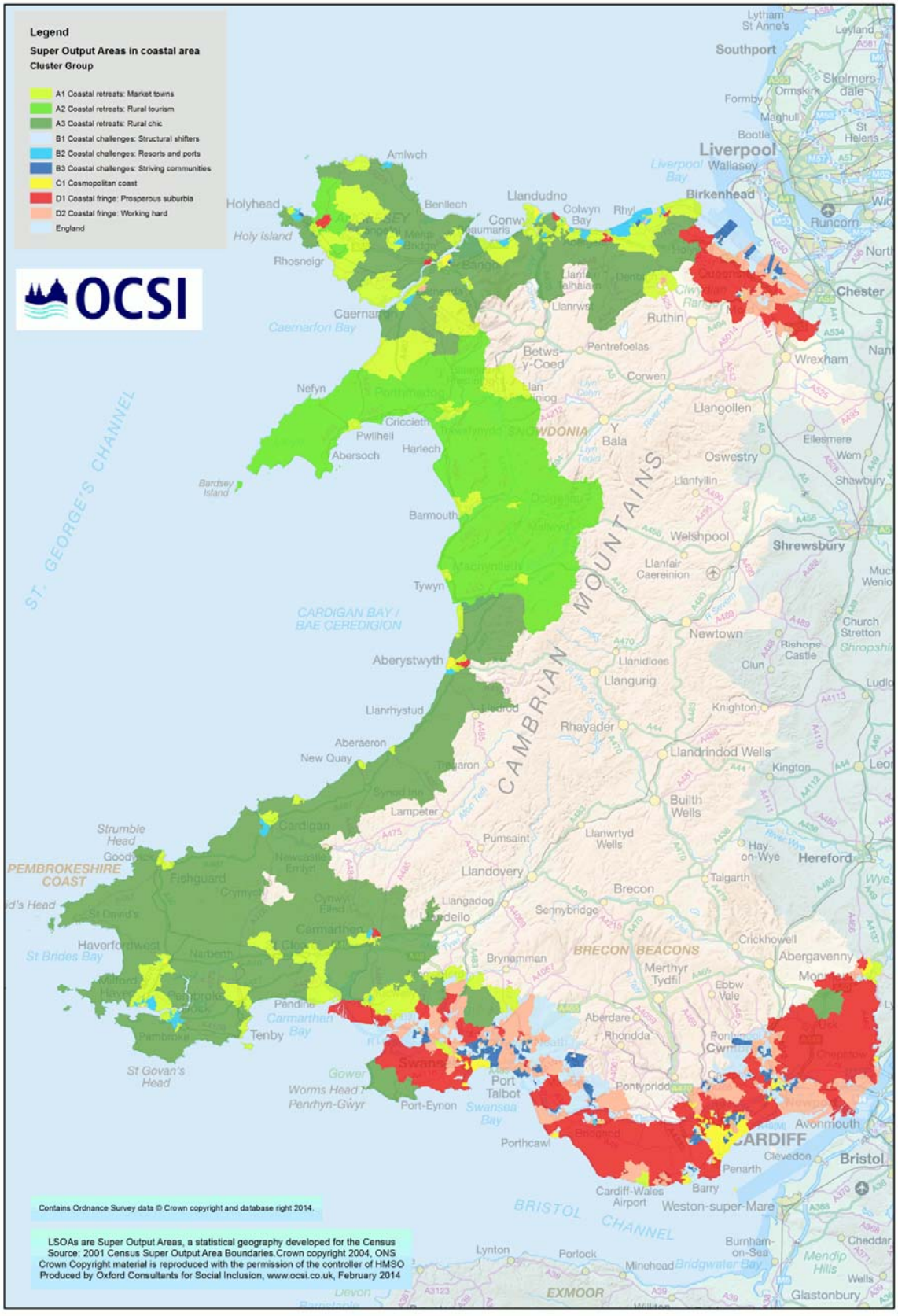


Table 3.2 Typical locations for each typology	
Typology category	Example locations
A1 Coastal retreats: Market towns	Areas in and around: Conwy, Pwllheli, St Asaph, Fishguard, Barmouth
A2 Coastal retreats: Rural tourism	Large concentrations in North West Wales (Gwynedd) including Harlech, Criccieth, Tal-y-bont, Nefyn, Abersoch. Approximately half are located in smaller settlements with populations less than 300 people.
A3 Coastal retreats: Rural chic	Predominantly rural areas with some concentrations in historical small towns including St Davids and some in small seaside villages Benllech, Trearddur. More than 90% located in smaller settlements with populations less than 1,500.
B1 Coastal challenges: Structural shifters	Areas in and around: Maesteg, Burry Port, Llanelli parts of Newport, Bridgend, Swansea, Flint, Barry
B2 Coastal challenges: Resorts and ports	Areas in and around: Holyhead, Milford Haven, Pembroke Dock, Rhyl, Caernarfon, Amlwch
B3 Coastal challenges: Striving communities	Social housing estates in larger towns and cities including Swansea, Cardiff, Newport and some presence in smaller towns including Neath, Port Talbot, Flint, Llanelli, Barry and Cwmavon
C Cosmopolitan coast	Areas in and around: Central Cardiff, parts of university towns: Bangor and Aberystwyth. Also present in parts of smaller seaside resorts Tenby, Llandudno, Porthcrawl
D1 Coastal fringe: Prosperous suburbia	Predominantly commuter towns close to larger towns for example Cowbridge, Pentyrch and Penarth (Cardiff), Murton (Swansea), Gresford (Wrexham)
D2 Coastal fringe: Working hard	Areas in and around: Broughton, Penyffordd, Rhoose, Pencoed parts of Buckley.

3.4 How do different types of coastal community fare on key socioeconomic indicators?

3.4.1 In this section, we set out how each of the different types of coastal community fare on average, against a broad set of indicators. We have framed our analysis under three themes:

- Economy and labour market: Understanding the local economy can help identify where there are opportunities and challenges for local growth. Our analysis here explores factors underpinning economic strength, resilience and vulnerability, including economic activity levels, skills, and occupation and job types.
- Vulnerable groups: Services and programmes aiming to support vulnerable groups and tackle deprivation need information on those groups most at risk of exclusion. Our analysis highlights particular groups, for example those in poverty, out of work, in poor health, or carers.
- How are areas changing over time? For clarity, the final theme pulls out trends, showing how the areas in the coastal typology categories are changing over time.

3.4.2 Table 3.3 identifies how each of the typology categories is faring, for key indicators. Alongside average values for the typology categories, we show average values for all coastal areas, non-coastal areas and Wales as a whole. In the paragraphs following, we summarise the main points from this data table.

3.4.3 Appendix C sets out how the different typology categories vary by a wider range of areas. Appendix D shows how each of the actual areas (LSOAs) in the typology categories fares on selected indicators.

Table 3.3 Key indicators across coastal typology groups

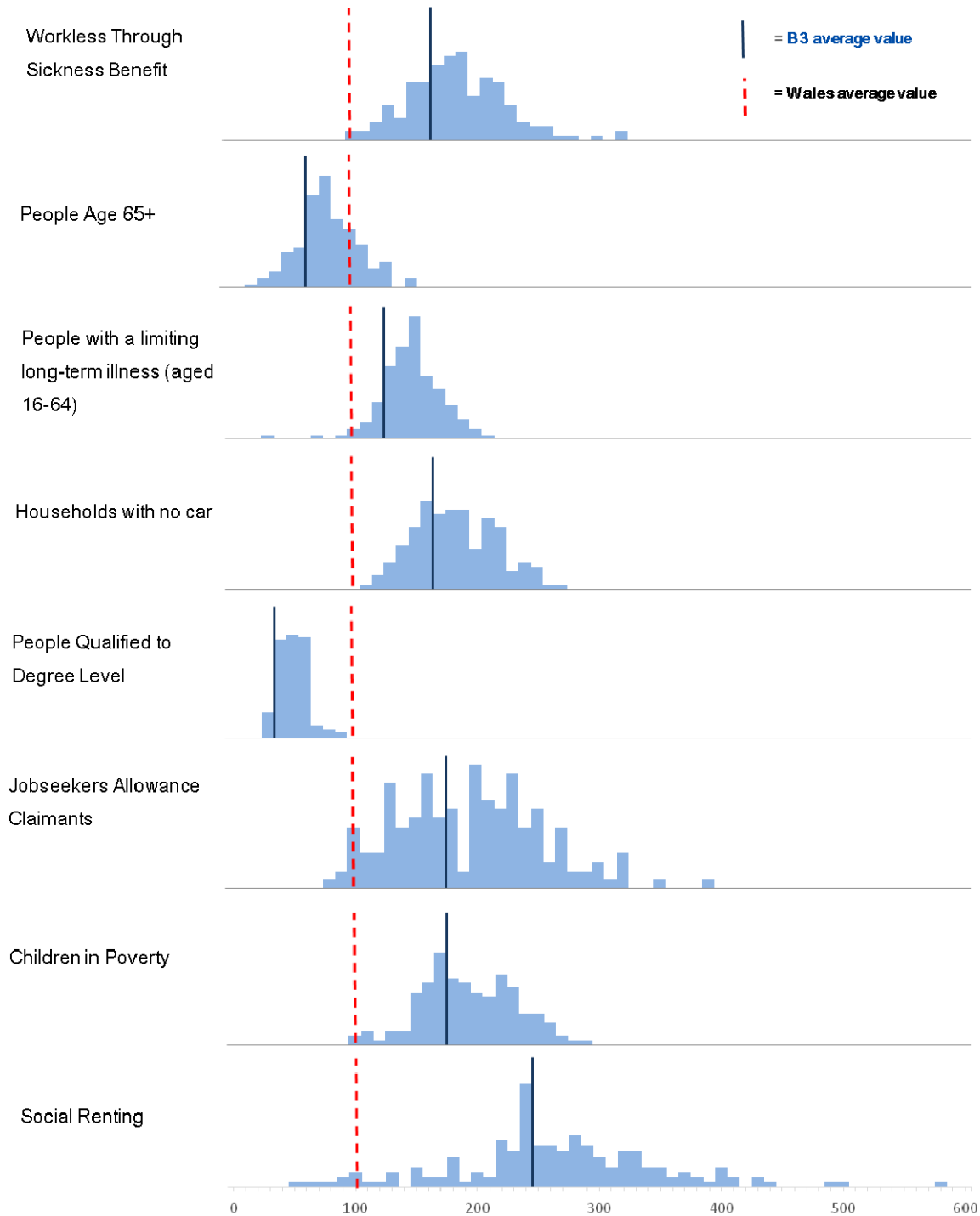
	A1	A2	A3	B1	B2	B3	C	D1	D2	Coastal average	Non-coastal average	Wales average
Economy and labour market												
No qualifications (2011) (%)	25.0	24.0	21.3	30.3	32.4	39.6	17.6	14.9	21.6	24.3	29.8	25.9
Highest level of qualification: Level 4 (degree) qualifications + (2011) (%)	24.4	27.3	31.3	17.9	15.2	11.3	31.4	40.1	25.6	25.9	21.3	24.5
Jobseekers Allowance claimants (Oct-13) (%)	3.2	2.3	1.7	3.9	7.1	6.8	3.8	1.3	2.0	3.4	3.8	3.5
Incapacity Benefit/Employment Support Allowance (May-13) (%)	7.5	5.1	5.7	10.5	13.2	15.5	6.7	3.4	5.9	8.0	9.9	8.6
Overall employment rate (2011) (%)	61.8	62.6	64.4	60.9	55.6	52.6	58.8	67.0	66.7	61.8	60.8	61.5
Employment in port related activities (2009) (%)	0.9	1.3	0.9	0.8	1.7	1.0	1.2	1.1	0.8	1.0	1.1	1.0
Employment in tourism (2009) (%)	25.4	32.9	24.2	18.5	24.5	18.5	18.9	18.4	18.6	20.4	18.8	19.9
People working mainly from home (2011) (%)	3.4	8.1	8.3	1.6	1.9	1.0	2.4	4.4	2.3	3.1	3.5	3.3
People travelling more than 40km to work (2001) (%)	6.6	8.3	6.3	3.6	5.9	3.2	5.7	5.2	4.5	5.0	4.3	4.8
Self-employed people (2011) (%)	9.6	17.8	17.0	5.9	6.6	4.2	6.4	10.5	7.3	8.4	9.1	8.6
Part time employees (2011) (% of all in employment)	31.7	30.9	30.4	30.3	34.1	34.4	31.9	28.9	28.5	30.7	29.0	30.2
Manufacturing sector (2011) (%)	6.9	6.0	6.1	12.7	7.9	11.3	5.3	8.5	12.5	9.2	13.6	10.5
Retail sector (2011) (%)	16.1	13.6	13.7	17.7	18.9	19.7	15.6	13.0	15.8	15.9	14.9	15.6
Accommodation and food service activities (2011) (%)	8.0	10.8	6.9	5.6	9.2	7.4	10.5	4.5	4.5	6.7	5.2	6.2
Managers, directors and senior officials (2011) (%)	9.9	12.8	11.4	7.4	8.1	5.8	8.7	13.1	9.3	9.5	8.5	9.2
Professional occupations (2011) (%)	15.0	14.1	17.9	11.4	9.1	7.6	20.9	26.2	16.0	16.7	13.8	15.8
Elementary occupations (2011) (%)	11.8	11.0	8.8	13.9	16.3	18.9	13.3	6.3	9.8	11.6	12.7	11.9

Table 3.3 Key indicators across coastal typology groups

	A1	A2	A3	B1	B2	B3	C	D1	D2	Coastal average	Non-coastal average	Wales average
Vulnerable groups												
Working-age DWP benefit claimants (May-13) (%)	15.5	10.5	10.9	21.0	28.7	32.3	13.9	7.6	12.3	16.5	19.4	17.4
Attendance Allowance claimants (May-13) (%)	19.4	17.3	15.8	23.1	22.3	24.7	24.2	17.1	19.6	20.1	19.7	19.2
Disability Living Allowance claimants (May-13) (%)	7.3	4.9	5.6	10.0	10.8	12.4	5.7	4.2	6.9	7.5	9.2	8.0
People providing unpaid care for more than 50 hours per week (2011) (%)	3.4	3.3	3.2	4.0	3.9	4.3	2.0	2.6	3.4	3.3	3.6	3.4
All people with a limiting long-term illness aged 16-64 (2011) (%)	15.7	14.5	14.8	19.1	21.1	23.9	10.9	10.3	13.9	15.5	18.4	16.9
Children in poverty (2011) (%)	19.0	11.5	11.7	26.1	35.1	43.7	25.6	6.4	13.3	22.1	23.6	22.6
Pension Credit (May-13) (%)	25.3	19.9	17.2	32.3	40.0	48.3	35.2	11.0	18.9	25.3	27.4	25.9
Housing Benefit claimants (Aug-13) (%)	15.6	8.3	7.9	22.9	33.3	41.0	22.1	4.9	9.9	18.0	18.6	18.2
Overcrowded housing (2011) (%)	4.1	3.4	2.7	4.9	6.3	7.8	15.0	2.1	2.8	5.5	4.3	5.2
Households lacking central heating (2011) (%)	3.8	9.2	4.8	1.5	4.3	1.4	3.2	1.2	1.0	2.4	1.9	2.3
How are areas changing over time?												
Jobs growth 2001-2008 (% change)	11.0	-2.5	11.4	3.5	16.0	3.5	5.6	5.2	4.1	6.2	8.8	7.0
Population change 2001-2012 (% change)	5.1	1.1	4.0	4.0	3.0	3.5	22.3	7.2	4.6	6.7	3.3	8.4
Change in proportion of people receiving unemployment benefit (2004-2013)	43.5	13.9	14.4	75.7	66.5	78.3	45.5	50.1	70.2	62.4	93.6	71.5
Welsh Index of Multiple Deprivation (WIMD) 2005, rank	1,006	1,130	1,202	733	424	203	922	1,702	1,376	1,019	790	949
Welsh Index of Multiple Deprivation (WIMD) 2011, rank	1,000	1,136	1,228	682	360	183	927	1,721	1,371	1,007	823	949

3.4.4 Figure 3.3 shows the actual values for all areas in the 'B3 Coastal challenges: Striving communities' typology category, on selected indicators (indicators have been standardised to lie on the same scale; the Welsh average is set to 100 for each indicator, with a value of 200 representing double the Welsh average, and a value of 50 representing half the Welsh average). This shows how the values for the small areas vary around the average values shown in Table 3.3 above

Figure 3.3. All areas in the 'B3 Coastal challenges: Striving communities' typology category, on selected indicators



3.4.5 Figure 3.3 above shows that people in the 'B3 Coastal challenges: Striving communities' typology category are typically:

- More likely to be receiving unemployment benefit (Jobseekers' Allowance);
- More likely to be receiving incapacity benefits, and more likely to report themselves as having limiting long-term illness (than the Welsh average);
- More likely to live in social rented housing, and less likely to be owner-occupiers;
- Less likely to have higher level (degree) qualifications, and more likely to have no qualifications;
- Children are more likely to live in poverty, and/ or workless households;
- Households are less likely to have access to a car.

3.4.6 See Appendix D for charts showing the distribution on selected indicators for areas in each of the typology categories.

Economy and labour market

People in coastal areas are more likely to be in employment than in non-coastal areas, but employment is slightly more likely to be part-time.

3.4.7 The overall employment rate is slightly higher in coastal areas than across Wales as a whole. Of the different categories, the "Coastal fringe" areas: "Prosperous suburbia" (D1) and "Working hard" (D2) have the highest overall employment rates while employment rates are lower in the "Coastal challenges" (B) and "Cosmopolitan coast" (C) areas.

3.4.8 However, people are more likely to be employed in part time roles in coastal areas than in non-coastal areas. Seven of the nine typology groups have a higher proportion of employed people working part-time compared with the average in non-coastal areas; with the highest part-time employment levels in "Resorts and ports" (B2) and "Striving communities" (B3).

3.4.9 Related to overall employment rates, the proportion of people receiving out of work benefits (Jobseekers Allowance, Employment Support Allowance or Incapacity Benefit) is lower in coastal areas than non-coastal areas. However, the "Coastal challenges" (B) areas have a higher proportion of people receiving these workless benefits than the average across non-coastal areas.

3.4.10 The majority of people who receive out of work benefits are receiving benefits due to sickness or disability (receiving Incapacity Benefit/ Employment Support Allowance). However, workless people in coastal areas are less likely to be receiving sickness and disability benefits than workless people in non-coastal areas. This is likely to be related to the higher prevalence of work-limiting illness in former mining and manufacturing areas which are predominantly located in inland areas of Wales.

Skill levels are higher in coastal Wales, and people are more likely to be employed in professional occupations

3.4.11 In general, a higher proportion of people in coastal areas are qualified to degree level than across non-coastal areas. Skill levels are highest in "Prosperous suburbia" (D1), "Cosmopolitan coast" (C) and "Rural chic" (A3) areas. At the other end, skill levels are lower in the "Coastal challenges" (B1, B2 and B3) areas.

3.4.12 Areas with higher than average skill levels are also more likely to have a higher proportion of people working in professional occupations. The “Prosperous suburbia” (D1), “Cosmopolitan coast” (C) and “Rural chic” (A3) areas have the highest proportion of people in professional occupations. Overall six of the nine coastal typology groups have a higher proportion of people in professional occupations than in non-coastal areas (the exception being the three “Coastal Challenges” groups).

3.4.13 The higher skill profile of coastal areas in Wales relative to non-coastal areas is likely to be related to the concentration of larger population centres (including the nation’s capital) as well as the majority of higher education institutions being located in coastal areas of Wales.

People in coastal areas are more likely to be employed in hospitality sectors and less likely to be employed in manufacturing than those in non-coastal areas.

3.4.14 The proportion of people employed in accommodation and food services is significantly higher in coastal than non-coastal areas. The proportion employed in these services is particularly high in the “Cosmopolitan coast” (C), “Rural tourism” (A2) and “Resorts and ports” (B2) groups. The proportion of jobs in tourist industries is also significantly higher in these areas than the Wales average.

3.4.15 By contrast, the proportion of people employed in manufacturing is significantly lower in coastal areas than non-coastal areas with none of the coastal typology categories having a higher proportion of people employed in manufacturing compared with the non-coastal average. The proportion is particularly low in the “Cosmopolitan coast” (C) category, where people are less than half as likely to be employed in manufacturing compared to the national average.

3.4.16 However, the largest employment sector in both coastal and non-coastal areas is the retail sector. The proportion of people employed in the retail sector is highest in areas with higher levels of overall unemployment: “Striving communities” (B3), “Resorts and ports” (B2) and “Structural shifters” (B1).

Vulnerable groups

Poverty levels are lower in coastal Wales than non-coastal Wales

3.4.17 The proportion of working age people receiving DWP benefits (for low income, poor health or worklessness) is lower in coastal areas than non-coastal areas in Wales. Six of the nine coastal typology groups have a lower proportion of benefit claimants than the national average; however, the areas in the “Coastal challenges” typology group have a higher proportion of people receiving working age benefits than the coastal, non-coastal and national average.

3.4.18 The distribution for children and older people living in low income benefit households[5] is similar to the pattern for working age adults: coastal areas have a lower child and pensioner poverty rates as a whole, but areas classified as “Coastal challenges” (B1-3) have higher child and pensioner poverty rates than the coastal, non-coastal and national average. The “Cosmopolitan coast” group (C) also has igher levels of child and pensioner poverty than the coastal and national average,

[5] Children in households receiving Income Support, Jobseekers Allowance, incapacity benefits or in tax credit households earning 60% of the median income and pensioners receiving Pension Credit

despite having a lower than average proportion of working age people receiving benefits.

There are also lower levels of poor health and disability in coastal areas

3.4.19 The proportion of people of working age with a limiting long-term illness is also lower in coastal areas than in non-coastal areas. Again the “Coastal challenges” (B1-3) groups are the only groups with higher levels of limiting long-term illness than the national average. The same pattern can be seen with the proportion of people receiving disability benefits, with a relatively high proportion of Disability Living Allowance claimants in “Coastal challenges” areas, and relatively low proportion in other typology groups compared with Wales as a whole.

3.4.20 The “Coastal challenges” group also have a higher proportion of people providing intensive unpaid care (for more than 50 hours a week) compared with other typology groups.

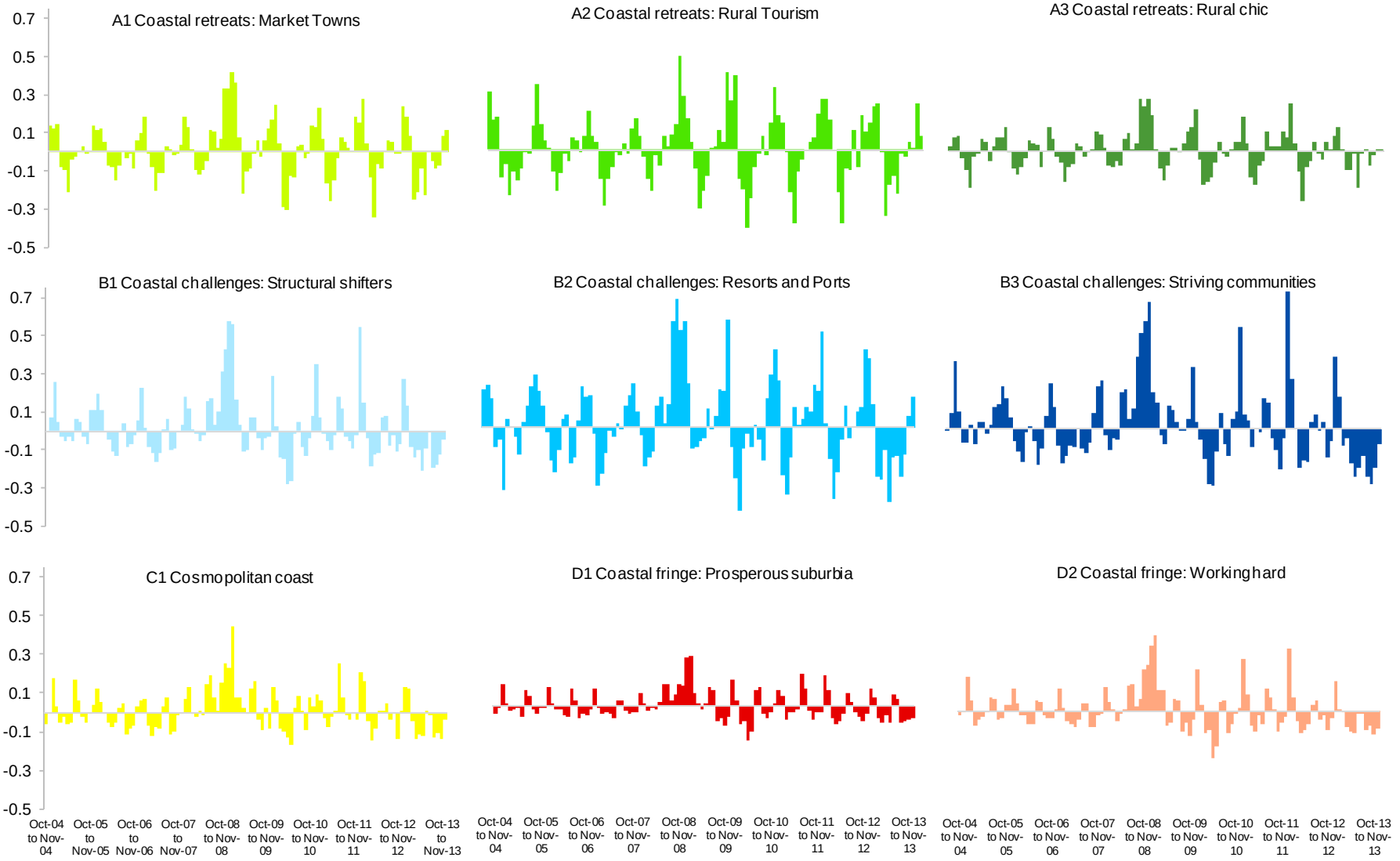
Coastal areas have on average higher levels of overcrowded housing and housing lacking central heating than non-coastal areas

3.4.21 While coastal areas have on average lower levels of deprivation than non-coastal areas in Wales (with the exception of the “Coastal challenges” group), a higher proportion of people in coastal areas experience issues relating to housing than in non-coastal areas – with a higher proportion of households living in overcrowded conditions and households lacking central heating.

3.4.22 However, there is significant variation across coastal typologies in terms of housing conditions. Areas classified as “Cosmopolitan coast” (C) are three times more likely to be living in overcrowded conditions than the national average, with overcrowding levels also high in “Striving communities” (B3) and “Resorts and ports” (B2). By contrast the proportion of people living in overcrowded conditions is very low in the “Coastal fringe” (D) areas.

3.4.23 The proportion of households lacking central heating is particularly high in the “Coastal retreats” categories (A), with the highest levels in the “Rural tourism” (A2) category where the proportion of households lacking central heating is more than four times the national average.

Figure 3.4 Monthly change in Jobseekers' Allowance claimant rate across the coastal typology groups



How are areas changing over time?

Coastal areas have experienced a smaller increase in unemployment benefit between 2004 and 2013

3.4.24 There has been a significant increase in the proportion of people receiving Jobseekers Allowance (JSA) following the recession in 2008. Each of the typology groups experienced an increase following the recession.

3.4.25 Non-coastal areas have generally been hit harder than coastal areas, with each of the nine coastal cluster groups experiencing a smaller percentage increase in JSA claimants than the average across non-coastal areas between 2004 and 2013.

3.4.26 The areas with the highest overall levels of JSA claimants have also generally experienced the largest increases in claimant rates, with people in “Striving communities” (B3) and “Structural shifters” (B1) experiencing the largest increase in JSA claimant rate over the period. However, the “Working hard” (D2) cluster group has also seen a large increase in relative claimant rate, with the % of people receiving JSA increasing 71% between October 2004 and October 2013. By contrast, the “Rural tourism” (A2) and “Rural chic” (A3) areas have seen a very small increase in JSA (less than 15%) over the same period.

3.4.27 However, the overall trend masks significant fluctuations in the claimant rate over the period. Figure 3.4 shows the monthly change in Jobseekers’ Allowance claimant rate across the coastal typology groups. Key features seen in the figure are the impact of the recession in 2008, and seasonal variation in the level of unemployment in coastal areas.

3.4.28 The figure shows that all typology groups experienced a large increase during 2008 (at the time of the recession) with increases particularly large in the “Coastal challenge” (B) groups. The chart also shows the degree of seasonality in unemployment particularly in the “Rural tourism” (A2) and “Resorts and ports” (B2) groups, which see large monthly increases in JSA claimant rates in the winter and falls in the summer in each year.

However, there has been an increase in the proportion of coastal areas classified as deprived

3.4.29 Analysis of the 2005 and 2011 Welsh Index of Multiple Deprivation (WIMD) by typology category is shown in the table below (Table 3.4). Although not a direct measure of deprivation, this gives a relative perspective on how coastal areas fared in terms of deprivation levels relative to other Welsh areas.

Typology category	All LSOAs	LSOAS in WIMD 2005 most deprived 20%		LSOAS in WIMD 2011 most deprived 20%	
	N	N	%	N	%
A1 Coastal retreats: Market towns	141	1	0.7%	1	0.7%
A2 Coastal retreats: Rural tourism	30	0	0.0%	0	0.0%
A3 Coastal retreats: Rural chic	116	0	0.0%	0	0.0%
B1 Coastal challenges: Structural shifters	234	27	11.5%	56	23.9%
B2 Coastal challenges: Resorts and ports	57	30	52.6%	41	71.9%
B3 Coastal challenges: Striving communities	163	141	86.5%	158	96.9%
C Cosmopolitan coast	147	29	19.7%	35	23.8%
D1 Coastal fringe: Prosperous suburbia	222	0	0.0%	0	0.0%
D2 Coastal fringe: Working hard	192	0	0.0%	0	0.0%
All coastal areas	1,302	228	17.5%	291	22.4%

Table 3.4 Change in multiple deprivation by typology group

3.4.30 Almost all areas in “Striving communities” (B3) are ranked among the most deprived 20% on the 2011 Welsh Index of Multiple Deprivation (WIMD). “ Resorts and ports” (B2) also has a high proportion of LSOAs ranked as deprived, with more than half of LSOAs ranked in the most deprived 20% of areas across Wales across this category. “Structural shifters” (B1) and “Cosmopolitan coast” (C) also have a higher than average proportion of areas ranked as deprived.

3.4.31 The number of coastal areas ranked among the most deprived 20% of LSOAs in Wales increased from 228 in WIMD 2005 to 291 in WIMD 2011. This increase was primarily driven by a large increase in the number of LSOAs classified as deprived among the “Coastal challenges” groups. There was a particularly large increase in the proportion of areas classified as “Resorts and ports” (B2) (from 53% to 72% ranked among the most deprived in Wales) and “Structural shifters” (from 11.5% to 24% ranked among the most deprived 20% in Wales.

3.4.32 This suggests that while coastal areas as a whole have not been impacted as badly by increases in unemployment as non-coastal areas, the most deprived coastal areas are becoming increasingly deprived relative to non-coastal areas.

Appendix A. Summary of coastal typology groups

It is very important to be clear how the typology set out in this Appendix can – and cannot – be used.

A.1.1. The typology is intended to be used in the following ways.

- The typology provides a way of grouping areas with similar characteristics, and is intended as a tool for marine planners and other users. The typology is provided as a strategic overview for users to understand local socio-economic conditions and inform further discussions with local land-based planners, economic development staff and other stakeholders.
- We have developed the typology for use by Welsh Government teams. The Welsh Government is not expecting Local Authorities or other stakeholders to use the typology: although of course, they are free to use the work if it is seen as helpful locally

A.1.2. The typology should not be used for the following purposes.

- Planning decisions will not be based on the typology on its own. The typology exists to aid marine planners and other users. No planning decisions will rest wholly or mostly on this information. Planning decisions will be based on a far wider range of information.
- Licensing or investment decisions will not be based on the typology on its own. No licensing or investment decisions will rest wholly or mostly on this information. Again, licensing decisions will be based on a far wider range of information.

A.1.3. Any typologies approach has a number of clear limitations:

- The typology category names are provided as an aid to using the typology as a technical tool, helping users get a sense of how these areas differ from the average.
- Many people living in a particular area will not fit the profile of the typology category or the name.
- The typology categories reflect how areas fare, at a point in time, on a range of social and economic indicators available on a consistent basis all around the Welsh coast. They do not reflect future plans that Local Authorities or local communities may have for such areas, or reflect issues for which data is not available on a consistent basis around the coastline, such as local wellbeing, needs or aspirations.

Summary of coastal typology groups

A.1.4. The table below highlights the nine categories in the coastal typology. The following sections outline each category in more detail.

Table B.1 Differences between each of the typology categories and the average

Typology category	Overview -	Above the coastal average	Below the coastal average
A1 Coastal retreats: Market towns	Retirement areas primarily located in smaller market towns, less developed resorts	• People of pensionable age	• Child poverty

Table B.1 Differences between each of the typology categories and the average			
Typology category	Overview -	Above the coastal average	Below the coastal average
		• Lone pensioner households • Home working • Self-employment • People employed in tourism • People travelling long distances to work	• Settlement size • Recorded crime
A2 Coastal retreats: Rural tourism	Predominantly rural areas, sparsely populated or in smaller settlements , with people employed in tourism sectors	• Travel time to key amenities • Second homes • People of pensionable age • Lone pensioner households • People employed in tourism • People employed in hotels and catering • Part time employment • People working from home • Detached housing • Caravans • Households lacking central heating • Home working • People travelling long distances to work	• Population density • Jobs growth • People living in flats • People receiving Incapacity Benefit/Employment Support Allowances • Household income • Housing Benefit • People working in knowledge industries • Settlement size
A3 Coastal retreats: Rural chic	Predominantly rural areas, sparsely populated or in smaller settlements, with a well-qualified population	• Travel time to key amenities • Detached housing • People qualified to degree level • Dwellings with 8 or more rooms • % of dwellings in Council Tax band E to I • Jobs growth • Self-employment • Households with 3+ cars or vans • Home working • People travelling long distances to work	• Population density • People living in flats • Households with no car or van • Child and pensioner poverty • Housing Benefit • Settlement size • Percentage of people aged 18-19 not in higher education • People receiving DWP benefits
B1 Coastal challenges: Structural shifters	Towns and cities which have lost their primary markets, and are facing the challenge to find new ones. This group includes a range of single industry coastal towns, including mining areas, industrial heartlands and former agricultural centres	• People working in manufacturing • Jobseekers Allowance claimants • Incapacity Benefit/Employment Support Allowance claimants • Disability Living Allowance claimants • All people with a limiting long-term illness aged 0-64 • Terraced housing • Proximity to waste and industrial sites	• People living in detached housing • People qualified to degree level • Overall employment rate • Jobs Growth • People living in flats • Pupil attainment
B2 Coastal challenges: Resorts and ports	Challenges relating to poor skills and high levels of worklessness often in older poor	• Recorded crime	• People qualified to degree level

Table B.1 Differences between each of the typology categories and the average			
Typology category	Overview -	Above the coastal average	Below the coastal average
	quality housing. This group includes a range of single industry coastal towns, including seaside resorts and ports. Some evidence of jobs growth in recent years	• People employed in ports • Jobs growth • Child and pensioner poverty • Jobseekers Allowance claimants • Incapacity Benefit/Employment Support Allowance claimants • Disability Living Allowance claimants • All people with a limiting long-term illness aged 0-64 • People living in flats • Private rented accommodation • Households lacking central heating • People employed in hotel and catering • People in social rented accommodation	• People in professional occupations • Owner occupiers • Settlement size • Pupil attainment
B3 Coastal challenges: Striving communities	High levels of deprivation across all indicators, and a very high proportion of people living in social rented accommodation	• Social housing • Housing Benefit claimants • Jobseekers Allowance claimants • Incapacity Benefit/Employment Support Allowance claimants • Disability Living Allowance claimants • Child and pensioner poverty • People providing intensive unpaid care • People working in wholesale, retail and motor vehicle repair • Recorded crime • Terraced housing • People living in flats • Settlement size • Households with no car • Population density	• People qualified to degree level • Overall employment rate • Jobs Growth • People living in detached housing • Owner occupiers • Pupil attainment
C Cosmopolitan coast	City and market town service centres with highly skilled populations and dynamic economies, but relatively high levels of deprivation among older people and children	• People qualified to degree level • Full-time students aged 16-74 • People who have moved address in the last year • Recorded crime • People travelling more than 40km to work • Terraced housing • Private rented housing • People living in flats • Pensioner poverty	• People of pensionable age • Part time employees • People living in houses • People with a limiting long-term illness (aged 16-64) • People proving unpaid care • Car ownership • Travel time to services • People with no qualifications

Table B.1 Differences between each of the typology categories and the average			
Typology category	Overview -	Above the coastal average	Below the coastal average
		• Child poverty • Housing Benefit • One person households • Overcrowded housing • Professional occupations • Settlement size	
D1 Coastal fringe: Prosperous suburbia	Affluent areas predominantly on the edge of towns and in satellite towns around larger coastal cities	• People qualified to degree level • Overall employment rate • Owner-occupied households • Pupil attainment: average point score at GCSE • Dwelling with 8 rooms or more	• Jobseekers Allowance claimants (unemployment benefit) • People receiving workless benefits due to poor health • Child and pensioner poverty • Households with no car or van
D2 Coastal fringe: Working hard	Towns characterised by high levels of employment typically in industrial sectors, and a stable population	• Overall employment rate • Full-time employment • People working in manufacturing • Owner-occupied households • People with apprenticeship qualifications	• People who have moved address in the last year • Jobseekers Allowance claimants (unemployment benefit) • People receiving workless benefits due to poor health • Self-employed people • Social rented housing • Home working

A.2. Typology group A1 Coastal retreats – Market towns

Smaller, less developed coastal towns and resorts with older population

Example locations
Areas in and around: Conwy, Pwllheli, St Asaph, Fishguard, Barmouth

A.2.1. 'Market towns' areas have a higher than average proportion of people of pensionable age, with approximately 22% of the population of pensionable age on average, compared with 18% across coastal areas as a whole and 18% across Wales. The proportion of lone pensioner households is also above the coastal average, with 16.5% of all households comprised of one pensioner living alone compared with 13.7% across Wales coastal areas as a whole.

A.2.2. The areas are predominantly located in smaller towns with higher concentrations in North Wales. A higher proportion of jobs in the areas are connected with tourist industries than across other typology groups, with fewer jobs in knowledge industries.

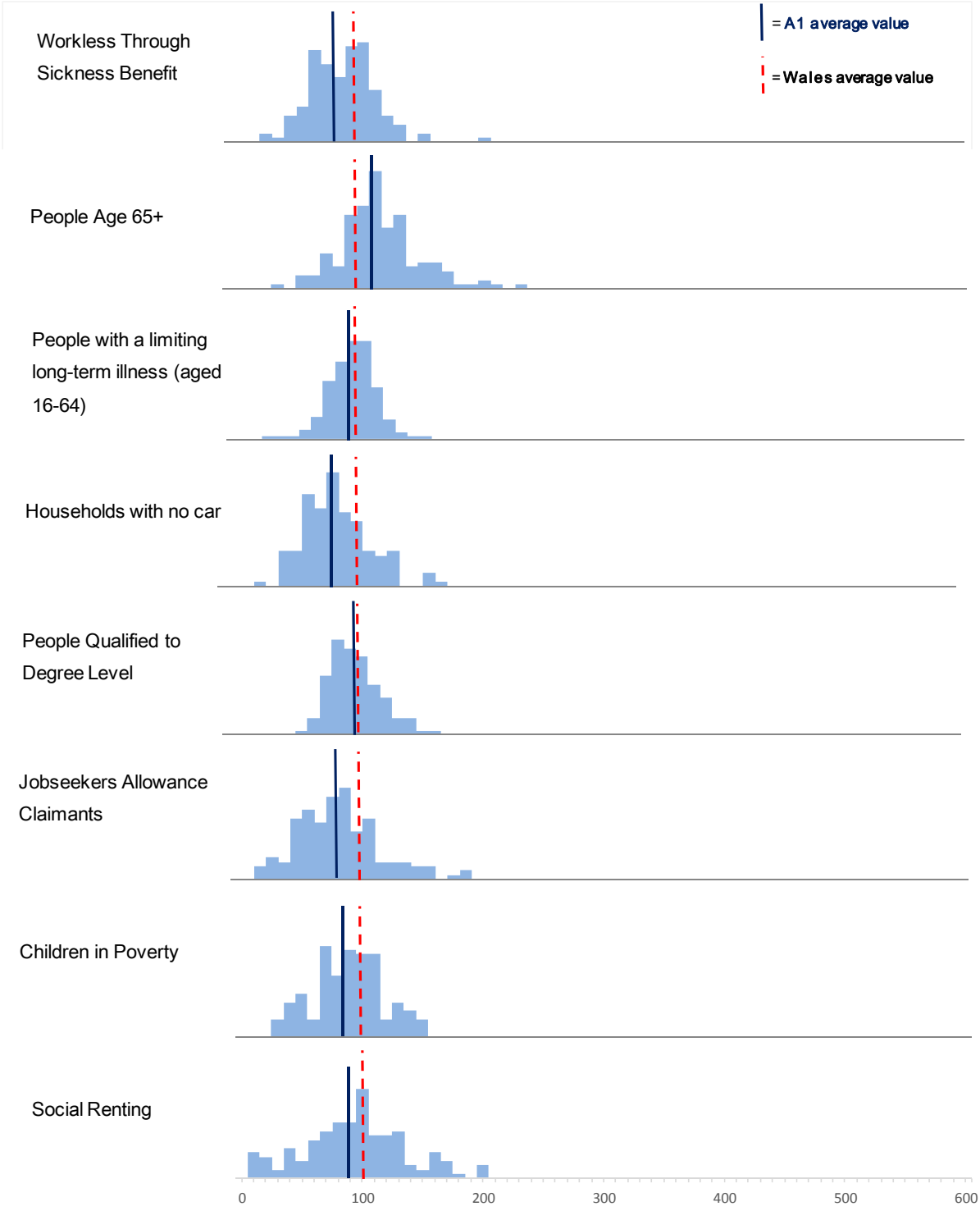
A.2.3. A relatively high proportion of people live in detached accommodation. The vast majority of housing is owner-occupied.

A.2.4. The proportion of people receiving benefits is lower than the seaside and coastal average for all major types of benefit, and benefit claimants are more likely to be older than across other typology groups, with 39% of working age people receiving DWP benefits aged 50+.

A.2.5. These areas are relatively peripheral, with higher travel times to key services than the coastal average. This is reflected in higher levels of short distance commuting, long

distance commuting, home working home working and self-employment than the coastal average.

Figure A.1. All areas in the 'A1 Coastal retreats – Market towns' typology category, on selected indicators



A.3. Typology group A2 and A3 Coastal retreats – Rural tourism and rural chic

Predominantly rural areas, sparsely populated or in smaller settlements with populations less than 1,500. Rural chic areas have a higher skill levels and people employed in professional occupations. Rural tourism areas are typified by more tourist-related activities including hotels and catering and a higher proportion of second homes.

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A.3.1. Areas classified in this category are very sparsely populated, with an average population density of less than 0.4 people per square km, compared with 2 people per square km across coastal Wales as a whole.

A.3.2. Travel times to key services are significantly further than across other groups and car ownership is relatively high.

A.3.3. The population is older in these groups than across other classifications, with 27% of people in rural tourism and 24% in rural chic aged 65+, compared with 18% in Wales coastal areas as a whole.

A.3.4. Rural tourism and Rural chic areas have higher levels of home working and self-employment than other areas. This is likely to be related to longer travel times to centres of employment.

A.3.5. Deprivation levels are below average, with below average levels of people receiving benefits, and the lowest levels of crime (on average) of all the typology groups.

A.3.6. The housing stock is characterised by a high proportion of detached housing and is relatively large. There are also a higher proportion of households living in caravans than across other typology groups (however caravans make up a small proportion of the total housing).

A2: Coastal retreats – Rural tourism

Example locations
Large concentrations in the North West Wales (Gwynedd) including Harlech, Criccieth, Tal-y-bont, Nefyn, Abersoch. Approximately half are located in smaller settlements with populations less than 300 people.

A.4. A3 Coastal retreats: Rural chic

A3: Coastal retreats – Rural chic

Example locations
Predominantly rural areas with some concentrations in historical small towns including St Davids and some in small seaside villages Benllech, Trearddur. More than 90% located in smaller settlements with populations less than 1,500.

A.4.1. "Rural tourism" and "Rural chic" areas share similar characteristics in terms of population density, distance to services, benefit claimant rates and housing characteristics. However, areas classified as rural chic have a higher proportion of adults qualified to degree level than areas classified as "Rural tourism". Both areas also have a relatively high proportion of older people but this is particularly the case for the "Rural tourism" classification.

A.4.2. There are also differences in employment characteristics, with a higher proportion of people employed in hotels and catering and other tourist industries in "Rural tourism" and a higher proportion of second homes.

Figure A.2. All areas in the 'A2: Coastal retreats – Rural tourism' typology category, on selected indicators

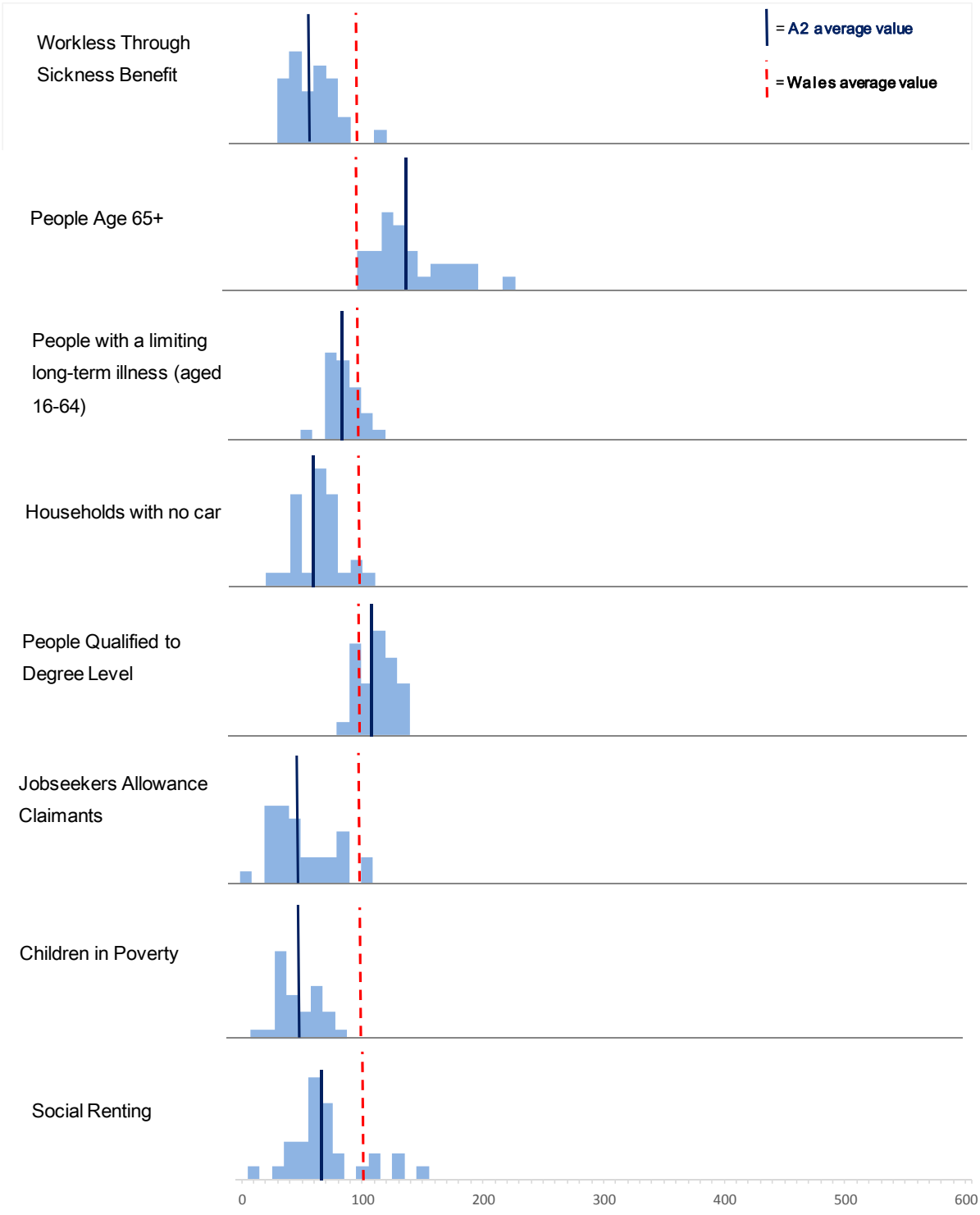
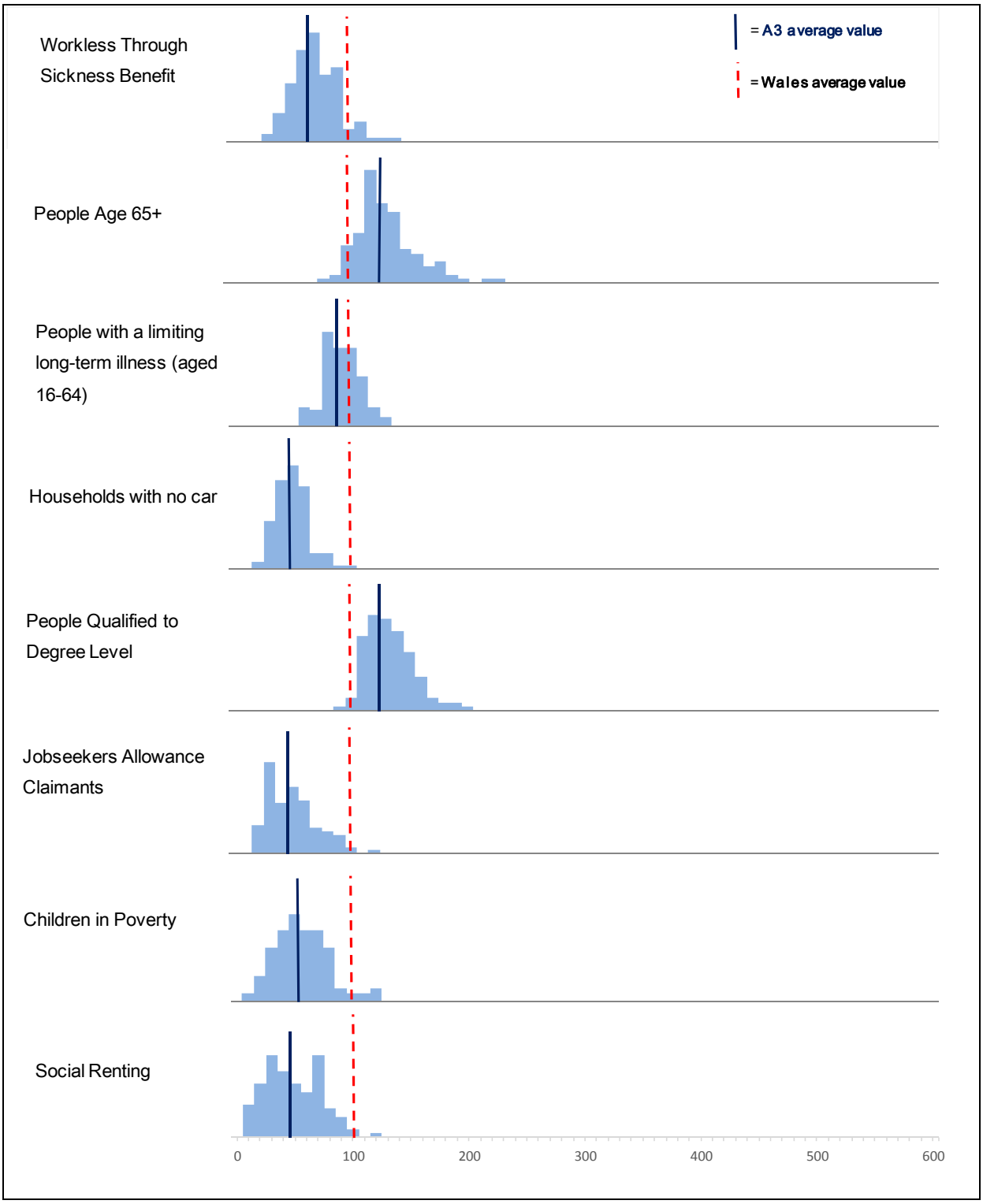


Figure A.3. All areas in the 'A3 Coastal retreats: Rural chic' typology category, on selected indicators


= A3 average value
= Wales average value
Workless Through Sickness Benefit
People Age 65+
People with a limiting long-term illness (aged 16-64)
Households with no car
People Qualified to Degree Level
Jobseekers Allowance Claimants
Children in Poverty
Social Renting
0
100
200
300
400
500
600

A.5. Typology group B1 Coastal challenges - Structural shifters

Areas which have lost their primary markets, and are facing the challenge to find new ones. This group includes a range of single industry coastal towns, including seaside resorts, mining areas, industrial heartlands and former agricultural centres

Example locations
Areas in and around: Maesteg, Burry Port, Llanelli, parts of Newport, Bridgend, Swansea, Flint, Barry

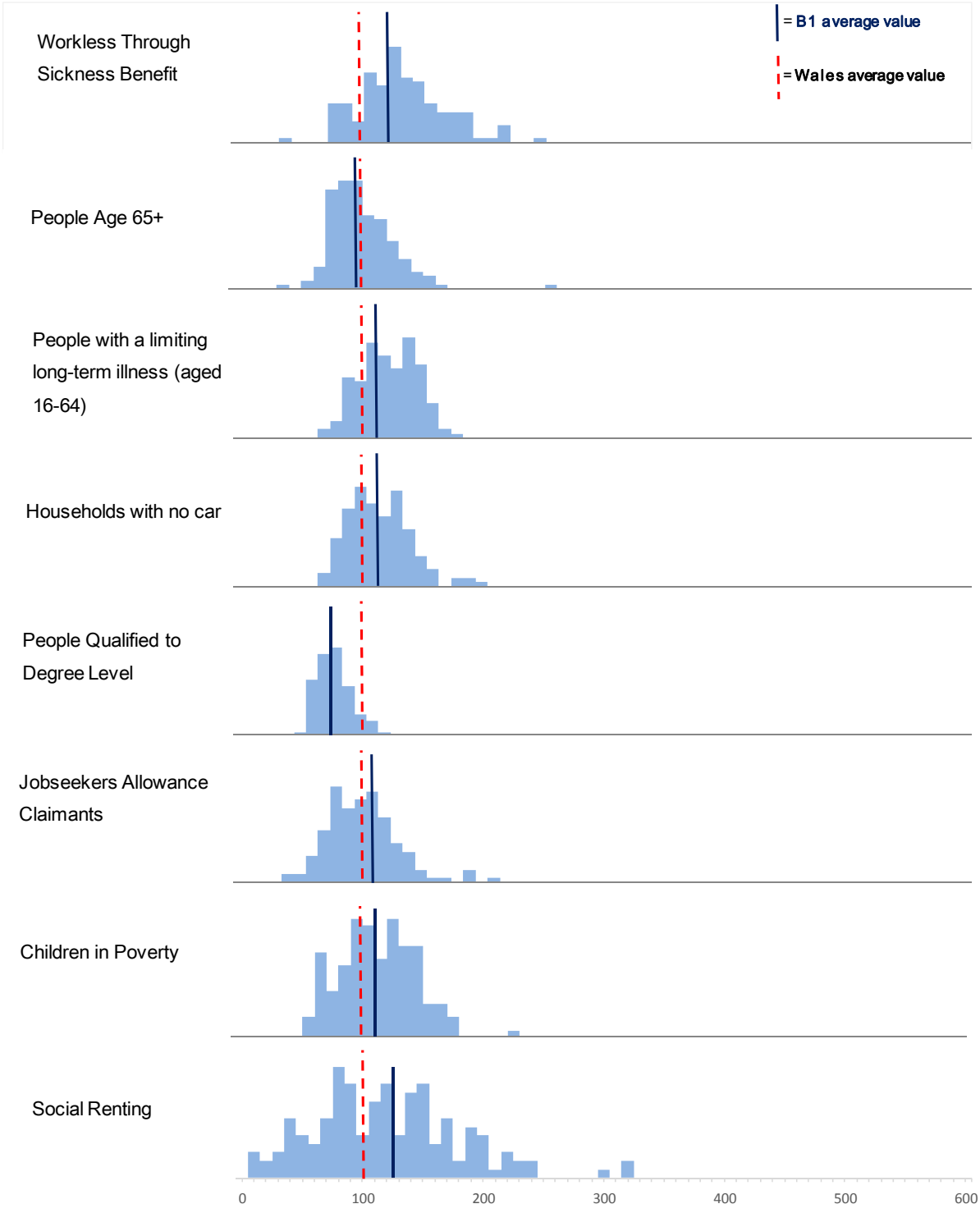
A.5.1. These areas are characterised by a low proportion of people with degree level qualifications and a high proportion of people involved in blue collar activities - manufacturing, waste management, transport storage and communication. By contrast there are lower proportions of people involved in managerial and professional occupations. These sectors have been struggling in recent years and jobs growth has been lower on average in these areas than across coastal areas and Wales as a whole.

A.5.2. Deprivation levels are relatively high with a high proportion of people on all main benefit types (with high levels of seasonal unemployment).

A.5.3. However, home ownership levels are higher than across other 'Coastal Challenges' groups with relatively low levels of social housing. A higher proportion of people live in terraced housing (33%) than the coastal average (25%) and the average across Wales as a whole (28%).

A.6.

Figure A.4. All areas in the 'B1 Coastal challenges: Structural shifters' typology category, on selected indicators



A.7. Typology group B2: Coastal challenges - Resorts and Ports

Challenges relating to poor skills and high levels of worklessness often in older poor quality housing. This group includes a range of single industry coastal towns, including seaside resorts and ports. Some evidence of jobs growth in recent years

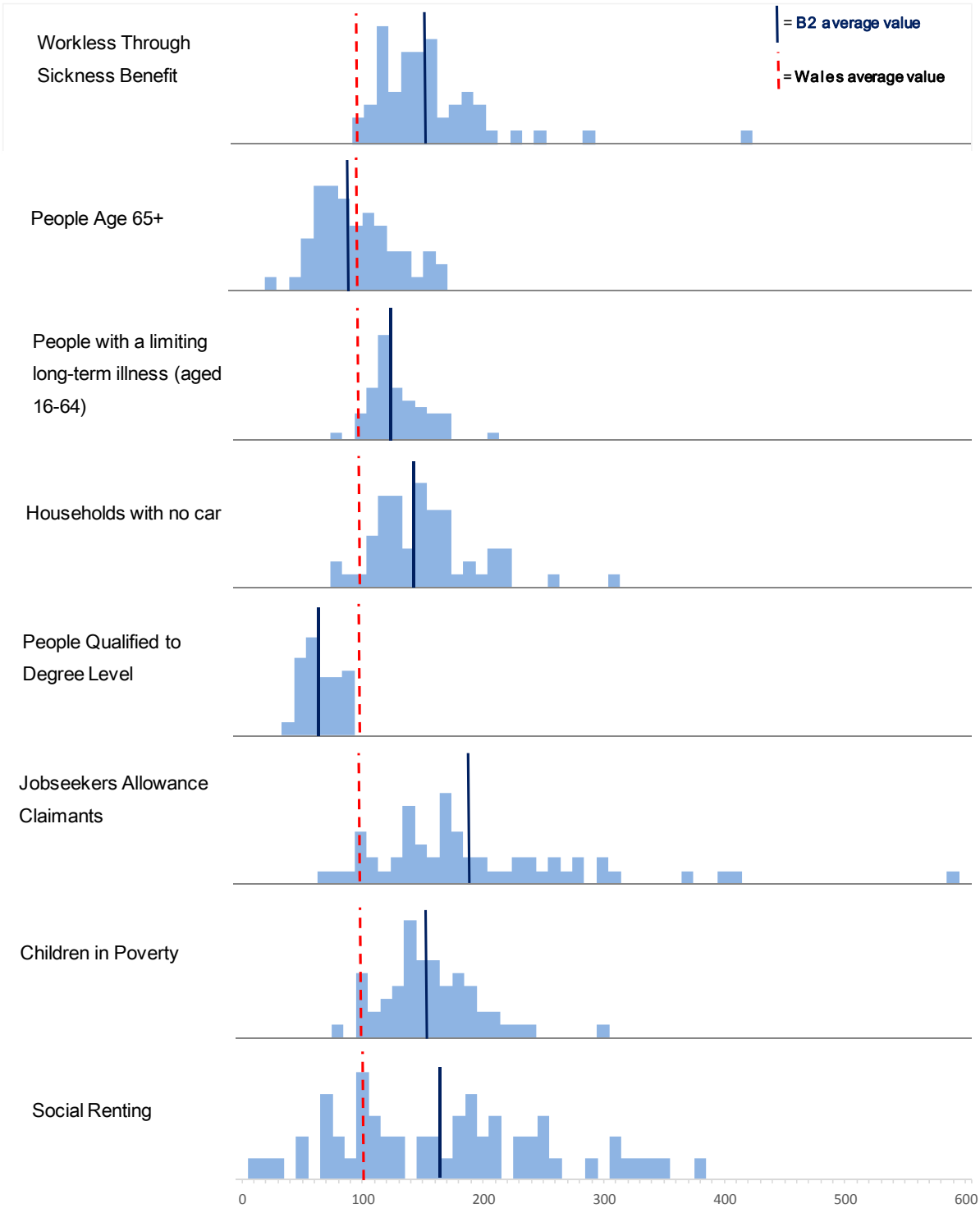
Example locations
Areas in and around: Holyhead, Milford Haven, Pembroke Dock, Rhyl, Caernarfon, Amlwch

A.7.1. These areas have higher than average levels of people receiving out of work benefit and child and pensioner poverty. However, jobs growth has been strong in recent years. Females make up a higher proportion of benefit claimants than in other areas.

A.7.2. A high proportion of people are involved in activities associated with ports including marine transport, storage and communication. There is also a relatively strong concentration of people involved in tourism related activities included hotels and catering. This suggests that these areas are more closely tied to coastal related activities.

A.7.3. The proportion of rented accommodation (especially private rented accommodation) is relatively high and there are some issues with the quality of housing with a higher than average proportion of households lacking central heating.

Figure B.5. All areas in the 'B2 Coastal challenges: Resorts and ports' typology category, on selected indicators


Workless Through Sickness Benefit
= B2 average value
= Wales average value
People Age 65+
People with a limiting long-term illness (aged 16-64)
Households with no car
People Qualified to Degree Level
Jobseekers Allowance Claimants
Children in Poverty
Social Renting
0
100
200
300
400
500
600

A.8. Typology group B3: Coastal challenges - Striving Communities

High levels of deprivation across all indicators, and a very high proportion of people living in social rented accommodation

Example locations
Social housing estates in larger towns and cities including Swansea, Cardiff, Newport and some presence in smaller towns including Neath, Port Talbot, Flint, Llanelli, Barry and Cwmavon

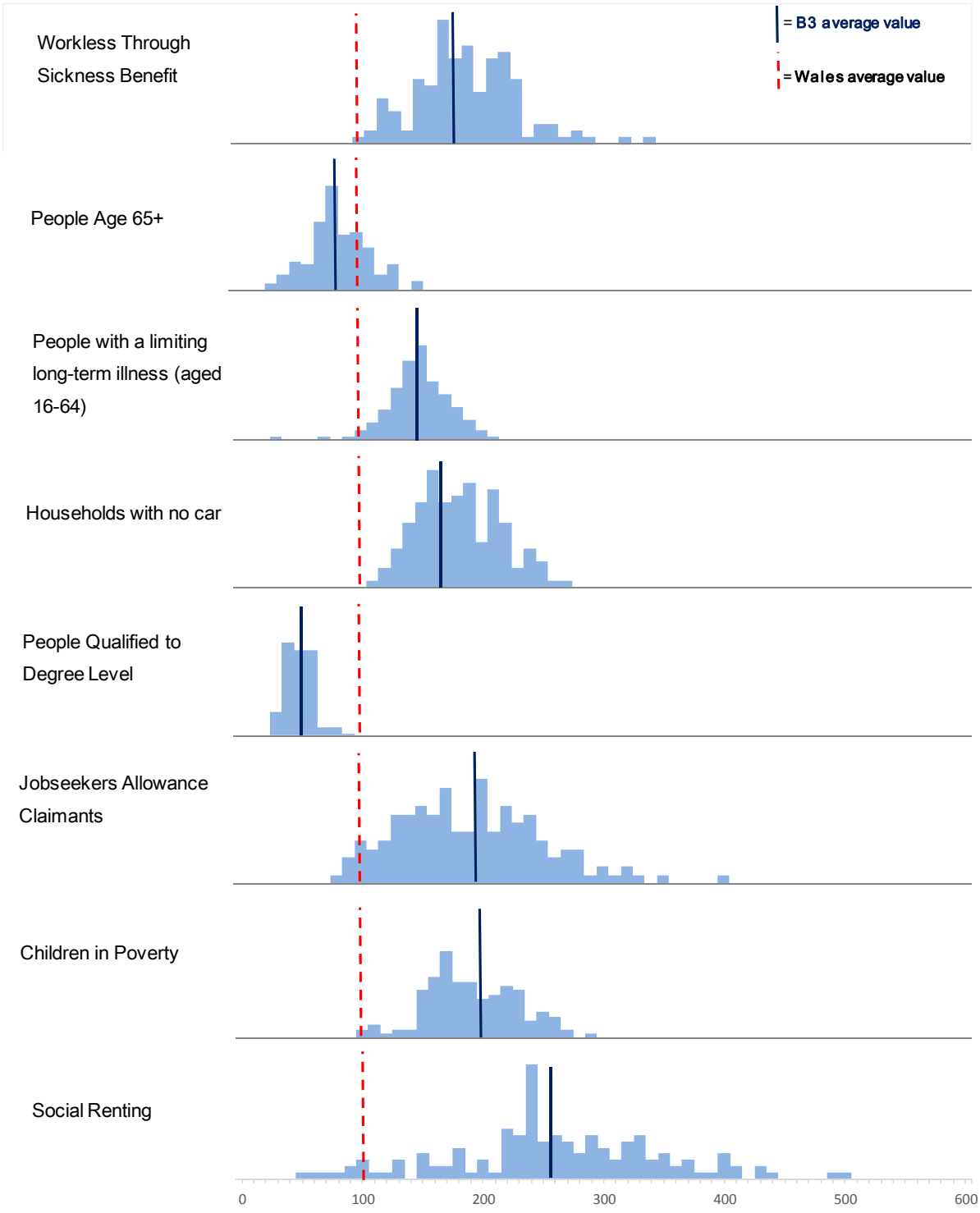
A.8.1. Just under half of the population in this classification group (43%) lives in social rented housing (significantly above the average across coastal areas 16%). There are higher proportion of people living in terraced housing and purpose built flats and a lower proportion of other housing types.

A.8.2. These areas have very high levels of deprivation on many measures:

- Education: The lowest proportion of people with degree level qualifications and the lowest levels of pupil attainment of all typology groups.
- Employment: Highest proportion of people receiving Jobseekers Allowance and Incapacity Benefit and the lowest overall employment rate. Highest levels of under-employment (part time working) and highest seasonal variations in unemployment.
- Health: Highest proportion of people who have self-reported that they have a limiting long-term illness. Highest levels of people providing intensive unpaid care. Highest proportion of people receiving disability benefits (Disability Living Allowance, Attendance Allowance, Incapacity Benefit
- Crime: Highest levels of crime.

A.8.3. The population profile is relatively young with a lower proportion of people of pensionable age and a higher proportion of lone parent households.

Figure B.6. All areas in the 'B3: Striving communities' typology category, on selected indicators


Workless Through Sickness Benefit
= B3 average value
= Wales average value
People Age 65+
People with a limiting long-term illness (aged 16-64)
Households with no car
People Qualified to Degree Level
Jobseekers Allowance Claimants
Children in Poverty
Social Renting
0
100
200
300
400
500
600

A.9. Typology group C: Cosmopolitan Coast

City and market town service centres with highly skilled populations and dynamic economies, but relatively high levels of deprivation among older people and children

Example locations
Areas in and around: Central Cardiff, parts of university towns: Bangor and Aberystwyth. Also present in parts of smaller seaside resorts Tenby, Llandudno, Porthcrawl

A.9.1. High proportion of people qualified to degree level and a high proportion of people working in high skilled sectors including real estate, renting and business activities and health, professional, scientific and technical activities and education. Employment is less likely to be part time then across other typology groups.

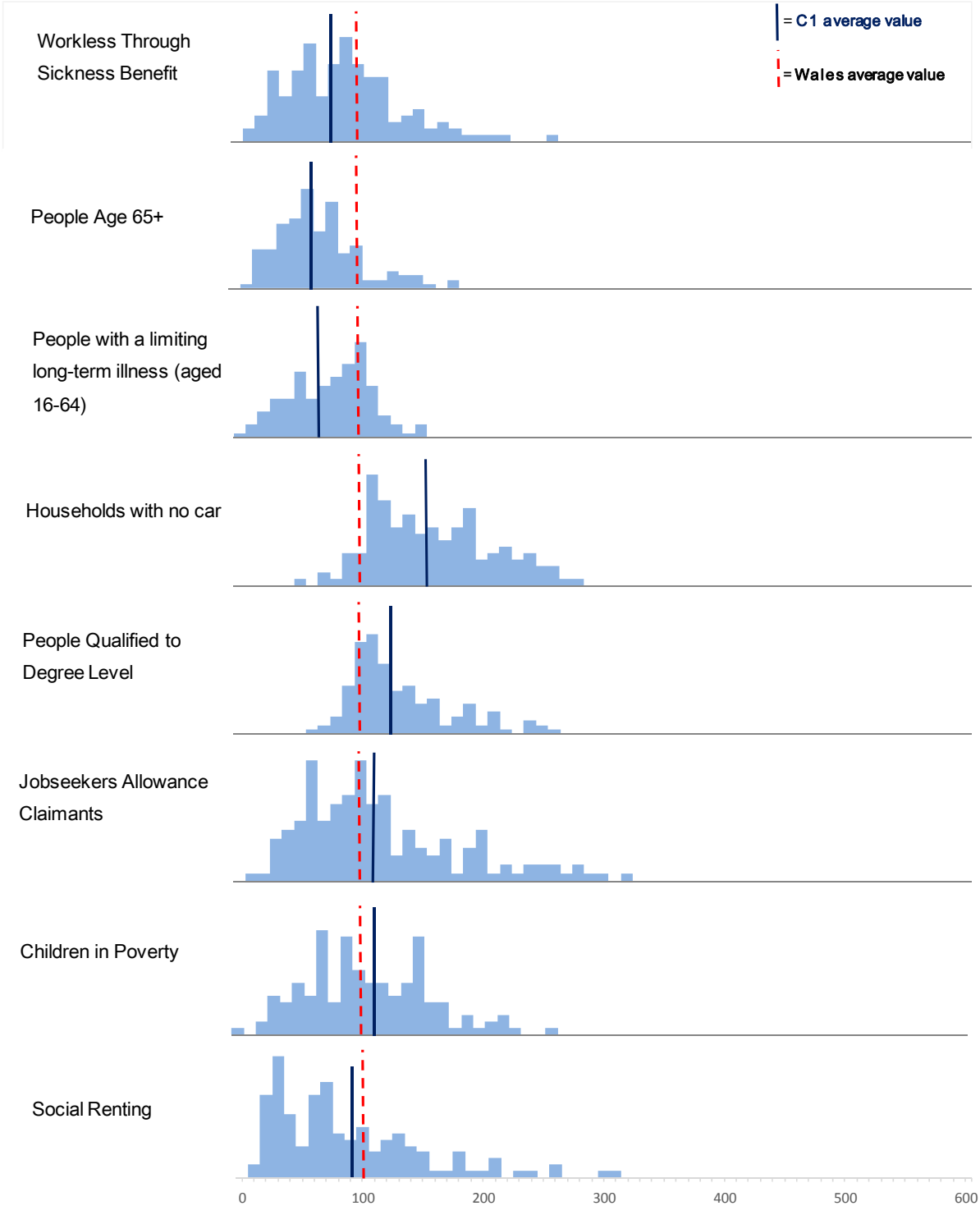
A.9.2. However deprivation levels are generally higher than the coastal average particularly for older people and children.

A.9.3. A higher proportion of people live in private rented accommodation than the coastal and national average. A high proportion of people live in flats (both in purpose built blocks and converted houses) and population densities are high. A high proportion of people live in dwellings with two rooms or fewer and overcrowding levels are above the national average. Travel times to key services are lower than across all other typology groups.

A.9.4. It is more common for people to live alone than across the other typology groups, and there are also a higher proportion of student households.

A.10.

Figure B.7. All areas in the 'C: Cosmopolitan coast' typology category, on selected indicators



A.11. Typology group D1: Coastal Fringe - Prosperous suburbia

Affluent areas predominantly on the edge of towns and in satellite towns around larger coastal cities

Example locations
Predominantly commuter towns close to larger towns for example Cowbridge, Pentyrch and Penarth (Cardiff), Murton (Swansea), Gresford (Wrexham)

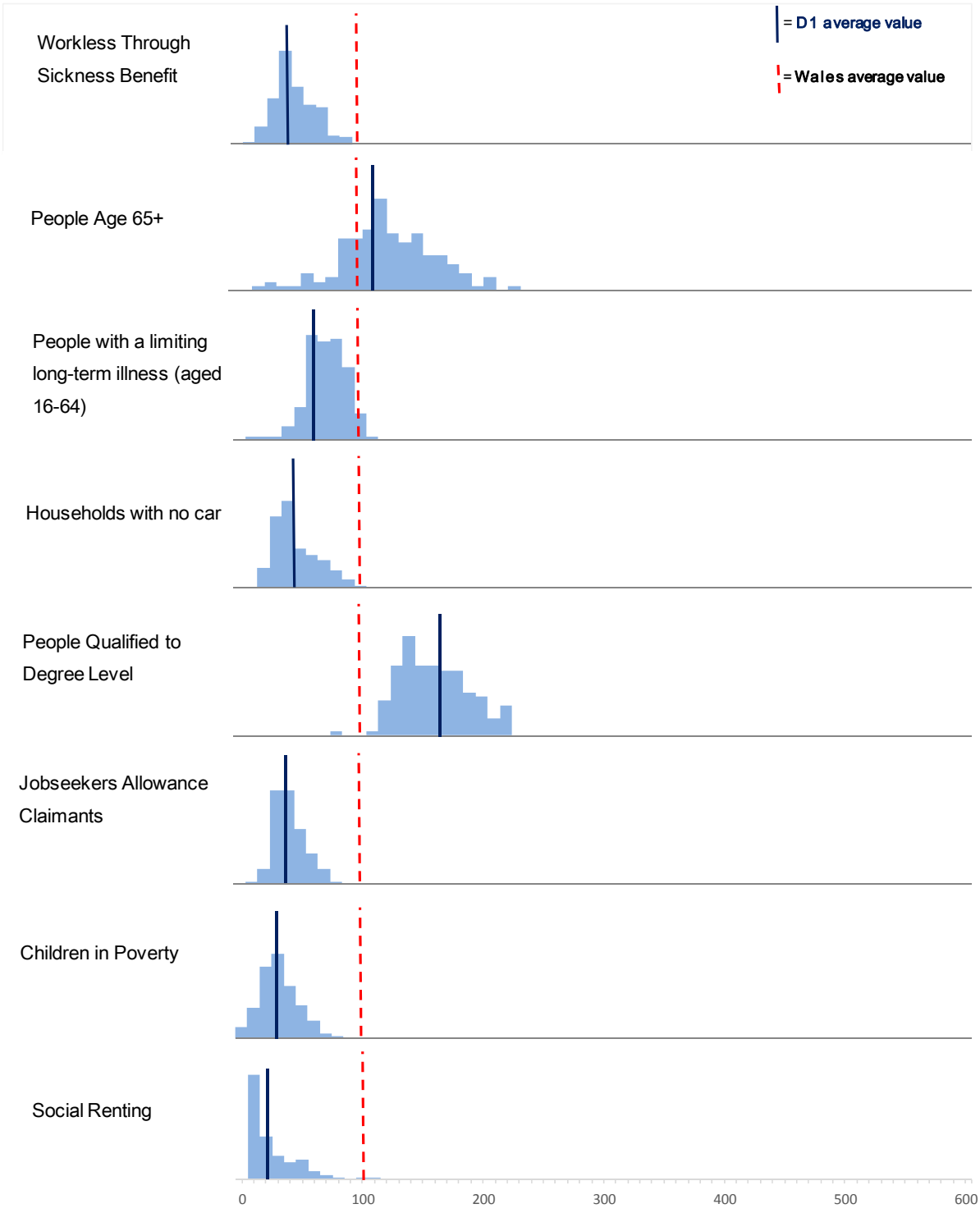
A.11.1. Half of the people living in these areas reside in detached housing and approximately 30% live in housing with eight or more rooms. People are more likely to own their own homes in these areas than across all other typology groups.

A.11.2. These areas are characterised by low levels of deprivation on most measures:

- Education: The highest proportion of people with degree level qualifications and the highest levels of pupil attainment of all typology groups.
- Employment: Lowest levels of people receiving workless benefits - Jobseekers Allowance and Incapacity Benefit.
- Health: The Lowest proportion of people who have self-reported that they have a limiting long-term illness and the lowest proportion of people receiving disability benefits (Disability Living Allowance, Attendance Allowance, Incapacity Benefit)

A.11.3. Employment in these areas is largely concentrated in managerial and professional occupation groups and in high skilled employment sectors including finance and real estate and business activities, professional, scientific and technical activities, public administration and education.

Figure B.8. All areas in the 'D1: Coastal fringe: Prosperous suburbia' typology category, on selected indicators


= D1 average value
= Wales average value
Workless Through Sickness Benefit
People Age 65+
People with a limiting long-term illness (aged 16-64)
Households with no car
People Qualified to Degree Level
Jobseekers Allowance Claimants
Children in Poverty
Social Renting
0
100
200
300
400
500
600

A.12. Typology group D2: Coastal Fringe – Working hard

Towns characterised by high levels of employment typically in industrial sectors, and a stable population

Example locations
Areas in and around: Broughton, Penyffordd, Rhoose, Pencoed parts of Buckley.

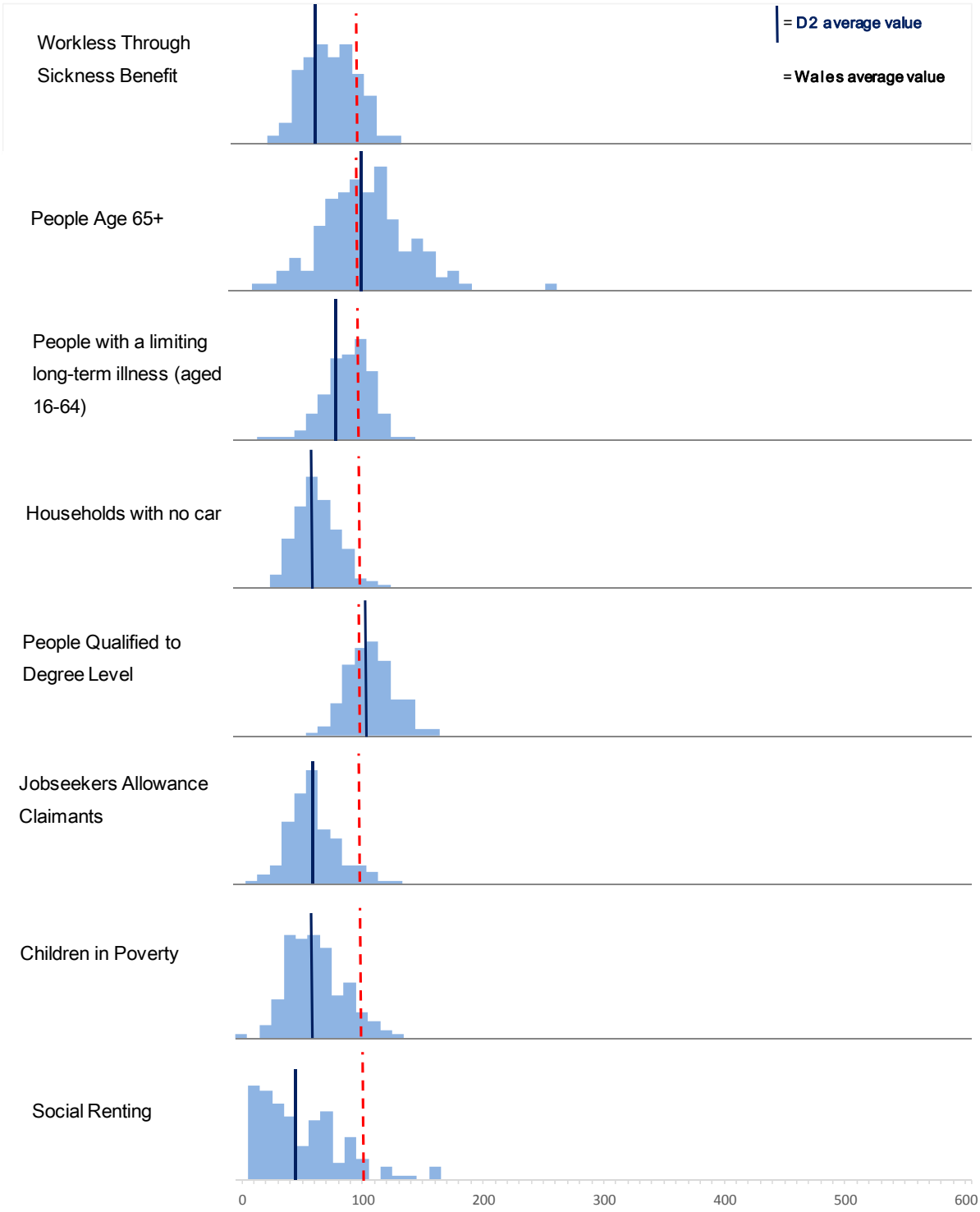
A.12.1. These areas have a more stable population with fewer people moving in or out of the area in a given year (9%) than the coastal average (12%).

A.12.2. The areas have a strong economy with a higher proportion of people in full-time compared with other typology groups. In general, employment is more concentrated in manufacturing than average across coastal areas.

A.12.3. Deprivation levels are generally lower than the coastal and national average. However, the proportion of people qualified to degree level is similar to the coastal average (26%)

A.12.4. Owner-occupation levels are high, with more than 44% of households living in semi-detached accommodation.

Figure B.9. All areas in the 'D2: Coastal fringe: Working hard' typology category, on selected indicators


= D2 average value
= Wales average value
Workless Through Sickness Benefit
People Age 65+
People with a limiting long-term illness (aged 16-64)
Households with no car
People Qualified to Degree Level
Jobseekers Allowance Claimants
Children in Poverty
Social Renting
0
100
200
300
400
500
600

Appendix B. Data tables for typology categories

	A1	A2	A3	B1	B2	B3	C	D1	D2	Coastal average	Non-coastal average	Wales average
Population												
People of pensionable age (2012) (%)	21.5	26.6	23.6	17.8	17.8	14.3	11.5	20.7	18.6	18.3	18.5	18.4
Population density (2011) (persons per hectare)	2.3	0.2	0.4	8.8	14.5	21.3	6.4	2.6	5.5	2.1	0.9	1.5
Lone pensioner households (2011) (% of all h'holds)	16.4	18.8	14.8	14.2	14.5	13.0	10.7	13.3	12.4	13.6	13.8	13.7
Other lone person households (2011) (% of h'holds)	16.6	17.2	13.6	17.5	20.8	21.2	28.7	11.8	13.5	17.6	16.0	17.1
Households of one lone parent family with dependent children (2011) (% of all h'holds with dependent children)	25.6	18.7	18.8	30.7	36.1	42.2	27.8	14.8	21.3	26.5	27.3	26.8
Couple households with dependent children (2011) (% of all h'holds)	17.9	15.4	18.2	17.8	16.4	16.3	13.1	22.9	21.1	18.2	18.9	18.4
Children in lone parent families (2011) (% of all children)	27.8	17.9	19.0	34.9	40.1	47.4	31.2	15.3	24.4	29.7	30.1	29.8
People who have moved address in the last year, (2001) (%)	12.2	9.7	9.6	9.3	13.6	10.8	24.2	9.9	9.3	11.8	9.7	11.2
No people in household have English or Welsh as a main language (2011) (%)	0.9	0.8	0.4	1.3	1.1	2.2	7.6	1.0	0.8	1.9	1.1	1.7
Education												
No qualifications (2011) (%)	25.0	24.0	21.3	30.3	32.4	39.6	17.6	14.9	21.6	24.3	29.8	25.9
Highest level of qualification: Level 1 qualifications (2011) (%)	13.3	12.1	11.6	15.3	15.8	16.4	9.4	10.5	14.0	13.0	13.9	13.3
Highest level of qualification: Level 2 qualifications (2011) (%)	16.5	17.1	16.1	16.3	16.6	15.2	11.8	15.6	17.2	15.6	15.9	15.7
Highest level of qualification: Apprenticeship (2011) (%)	4.2	4.2	4.2	4.7	3.9	3.4	2.2	4.0	5.3	4.0	3.7	3.9
Highest level of qualification: Level 3 qualifications (2011) (%)	12.4	11.1	11.6	11.1	11.3	9.4	21.8	11.5	12.4	12.8	11.1	12.3
Highest level of qualification: Level 4 (degree) qualifications + (2011) (%)	24.4	27.3	31.3	17.9	15.2	11.3	31.4	40.1	25.6	25.9	21.3	24.5
Schoolchildren and full-time students: Age 16 to 17 (2011) (%)	2.7	2.4	2.6	2.8	2.8	2.9	1.7	2.9	2.8	2.6	2.8	2.7
Schoolchildren and full-time students: Age 18 and over (2011) (%)	4.7	2.3	2.9	3.2	3.4	4.2	23.3	3.8	3.1	6.2	3.7	5.5
Average point score (GCSE) (2009-2011)	420.9	466.4	457.4	381.9	343.4	320.8	405.4	479.1	418.9	410.4	406.4	409.1
Percentage of people aged 18-19 not in higher education (2010/11) (%)	66.1	58.6	51.9	76.5	82.2	88.3	65.8	41.4	63.4	65.3	69.9	66.8
Employment												
Jobseekers Allowance claimants (Jan-14) (%)	3.2	2.3	1.7	3.9	7.1	6.8	3.8	1.3	2.0	3.4	3.8	3.5
Incapacity Benefit/Employment Support Allowance (May-13) (%)	7.5	5.1	5.7	10.5	13.2	15.5	6.7	3.4	5.9	8.0	9.9	8.6
Economy												
Jobs growth 2001-2008 (% change)	11.0	-1.5	11.4	3.5	16.0	3.5	5.6	5.2	4.0	6.1	8.8	7.0
Employment in port related activities (2009) (%)	0.9	1.3	0.9	0.8	1.7	1.0	1.2	1.1	0.8	1.0	1.1	1.0
Employment in knowledge industry (2009) (%)	5.2	5.0	5.0	8.9	6.0	8.7	8.2	9.2	9.8	8.0	6.5	7.5
Employment in tourism (2009) (%)	25.4	32.9	24.2	18.5	24.5	18.5	18.9	18.4	18.6	20.4	18.8	19.9
Public sector employment (2008) (%)	28.9	19.5	29.1	27.5	28.4	27.4	27.3	26.5	26.3	27.3	28.2	27.6
Overall employment rate (2011) (%)	61.8	62.6	64.4	60.9	55.6	52.6	58.8	67.0	66.7	61.8	60.8	61.5
People working mainly from home (2011) (%)	3.4	8.1	8.3	1.6	1.9	1.0	2.4	4.4	2.3	3.1	3.5	3.3
People travelling more than 40km to work (2001) (%)	6.6	8.3	6.3	3.6	5.9	3.2	5.7	5.2	4.5	5.0	4.3	4.8

Self-employed people (2011) (%)	9.6	17.8	17.0	5.9	6.6	4.2	6.4	10.5	7.3	8.4	9.1	8.6
Part time employees (2011) (% of all in employment)	31.7	30.9	30.4	30.3	34.1	34.4	31.9	28.9	28.5	30.7	29.0	30.2
A Agriculture, forestry and fishing (2011) (%)	1.5	6.8	6.9	0.3	0.7	0.2	0.2	0.9	0.5	1.3	2.6	1.7
B Mining and quarrying (2011) (%)	0.4	0.2	0.3	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.3	0.2
C Manufacturing (2011) (%)	6.9	6.0	6.1	12.7	7.9	11.3	5.3	8.5	12.5	9.2	13.6	10.5
D Electricity, gas, steam and air conditioning supply (2011) (%)	1.0	1.1	1.0	0.7	0.9	0.7	1.0	0.9	0.8	0.9	0.7	0.8
E Water supply; sewerage, waste management and remediation activities (2011) (%)	0.9	1.0	0.7	1.0	0.9	1.3	0.6	0.6	0.9	0.8	1.1	0.9
F Construction (2011) (%)	9.2	10.6	9.4	8.1	9.1	7.9	4.9	6.7	7.9	7.7	9.2	8.2
G Wholesale and retail trade; repair of motor vehicles and motor cycles (2011) (%)	16.1	13.6	13.7	17.7	18.9	19.7	15.6	13.0	15.8	15.9	14.9	15.6
H Transport and storage (2011) (%)	4.0	3.4	3.2	4.7	5.8	5.6	3.3	2.8	4.0	4.0	3.8	3.9
I Accommodation and food service activities (2011) (%)	8.0	10.8	6.9	5.6	9.2	7.4	10.5	4.5	4.5	6.7	5.2	6.2
J Information and communication (2011) (%)	1.7	1.5	1.8	2.0	1.3	1.7	4.2	3.5	2.3	2.5	1.8	2.3
K Financial and insurance activities (2011) (%)	1.5	1.3	1.4	3.4	1.3	3.1	4.7	4.7	4.1	3.4	2.3	3.1
L Real estate activities (2011) (%)	1.3	1.2	1.3	1.2	1.1	1.1	1.4	1.6	1.3	1.3	1.1	1.2
M Professional, scientific and technical activities (2011) (%)	3.9	4.2	4.9	3.2	2.7	2.4	6.0	7.1	4.2	4.6	3.6	4.3
N Administrative and support service activities (2011) (%)	3.6	3.7	3.2	4.5	4.3	5.9	4.3	3.1	3.7	4.0	4.0	4.0
O Public administration and defence; compulsory social security (2011) (%)	8.1	5.6	7.7	8.0	6.3	6.1	7.1	9.7	10.0	8.2	7.3	7.9
P Education (2011) (%)	10.7	10.9	12.1	8.2	7.5	6.7	11.4	13.3	9.8	10.4	9.5	10.1
Q Human health and social work activities (2011) (%)	16.2	12.7	14.4	14.2	16.8	14.3	13.4	14.4	13.6	14.3	14.7	14.5
R, S, T, U Other (2011) (%)	4.9	5.5	5.0	4.3	5.1	4.5	6.1	4.4	4.0	4.7	4.2	4.5
1. Managers, directors and senior officials (2011) (%)	9.9	12.8	11.4	7.4	8.1	5.8	8.7	13.1	9.3	9.5	8.5	9.2
2. Professional occupations (2011) (%)	15.0	14.1	17.9	11.4	9.1	7.6	20.9	26.2	16.0	16.7	13.8	15.8
3. Associate professional and technical occupations (2011) (%)	10.1	8.9	10.6	9.8	8.3	7.6	13.4	14.1	12.4	11.3	9.6	10.8
4. Administrative and secretarial occupations (2011) (%)	10.0	8.2	9.8	12.0	9.0	10.2	10.7	12.6	13.4	11.4	10.5	11.1
5. Skilled trades occupations (2011) (%)	14.6	21.9	19.5	13.1	14.4	12.7	8.1	9.2	12.4	12.6	15.4	13.4
6. Caring, leisure and other service occupations (2011) (%)	12.4	10.6	9.9	11.5	14.5	12.8	8.5	7.3	9.6	10.2	11.3	10.5
7. Sales and customer service occupations (2011) (%)	8.8	6.2	6.1	10.8	11.3	13.1	11.6	6.9	9.3	9.4	8.1	9.0
8. Process, plant and machine operatives (2011) (%)	7.4	6.4	6.1	10.1	9.0	11.5	4.8	4.2	7.8	7.3	10.1	8.1
9. Elementary occupations (2011) (%)	11.8	11.0	8.8	13.9	16.3	18.9	13.3	6.3	9.8	11.6	12.7	11.9
Health												
WIMD 2011 Health domain - average rank (where 1 is most deprived)	1,041	1,384	1,367	706	534	285	858	1,602	1,223	1,006	827	950
Attendance Allowance claimants (May-13) (%)	19.4	17.3	15.8	23.1	22.3	24.7	24.2	17.1	19.6	20.1	19.7	19.2
Disability Living Allowance claimants (May-13) (%)	7.3	4.9	5.6	10.0	10.8	12.4	5.7	4.2	6.9	7.5	9.2	8.0
People who provide unpaid care (2011) (%)	11.8	11.7	12.9	12.7	11.3	11.8	8.3	12.9	13.2	12.0	12.4	12.1
People providing unpaid care for more than 50 hours per week (2011) (%)	3.4	3.3	3.2	4.0	3.9	4.3	2.0	2.6	3.4	3.3	3.6	3.4
People receiving benefits for mental health issues (May-13) (%)	0.9	0.6	0.7	1.4	1.6	2.0	0.9	0.5	0.7	1.0	1.4	1.1
All people with a limiting long-term illness aged 16-64 (2011) (%)	15.7	14.5	14.8	19.1	21.1	23.9	10.9	10.3	13.9	15.5	18.4	16.9
Percentage of live births that are singleton low birth weights (2000-2009) (%)	6.7	5.4	5.9	7.4	8.4	8.3	7.1	5.5	6.3	6.8	7.3	6.9
Housing												
Dwelling type: detached housing (2011) (%)	33.0	50.7	60.9	14.1	19.0	6.2	6.1	49.0	32.7	28.2	26.7	27.7
Dwelling type: semi-detached housing (2011) (%)	31.0	19.2	22.9	38.7	30.4	36.3	13.3	32.2	43.9	31.6	29.9	31.0
Dwelling type: terraced housing (2011) (%)	23.2	21.3	10.6	33.2	28.2	37.4	39.4	11.0	17.8	25.0	34.4	27.8
Dwelling type: flat (block of flats) (2011) (%)	7.9	3.9	2.1	11.2	15.7	18.1	26.9	5.8	4.1	10.9	6.6	9.6
Dwelling type: flat (in house or commercial building) (2011) (%)	4.3	3.2	2.0	2.5	6.3	1.8	14.2	1.6	1.1	3.9	2.2	3.4

Dwelling type: caravan or other temporary accommodation (%)	0.6	1.6	1.5	0.2	0.5	0.0	0.1	0.4	0.4	0.5	0.3	0.4
Households lacking central heating (2011) (%)	3.8	9.2	4.8	1.5	4.3	1.4	3.2	1.2	1.0	2.4	1.9	2.3
Dwellings with 2 rooms or fewer (2011) (%)	1.5	1.6	0.9	1.7	2.5	2.4	8.4	0.9	0.8	2.3	1.4	2.1
Dwelling with 8 rooms or more (2011) (%)	14.6	20.4	24.8	7.7	7.9	3.6	11.2	29.3	15.1	14.8	12.9	14.2
Overcrowded housing (2011) (%)	4.1	3.4	2.7	4.9	6.3	7.8	15.0	2.1	2.8	5.5	4.3	5.2
Owner-occupied households (2011) (%)	68.7	72.8	78.7	65.2	53.2	44.5	48.2	86.2	81.3	67.6	68.3	67.8
Private rented housing (2011) (%)	14.5	13.9	11.8	12.5	18.1	11.1	35.4	9.4	9.7	14.8	12.7	14.1
Social rented housing (2011) (%)	14.6	10.6	7.2	20.9	27.2	42.5	14.8	3.4	7.9	16.1	17.4	16.5
Household vacancy rate (2011) (%)	5.2	6.7	5.3	4.0	4.9	3.5	6.1	3.0	3.1	4.3	4.9	4.6
% of dwellings in Council Tax band E to I (2011) (%)	23.2	33.1	45.7	8.3	5.5	2.0	31.6	70.5	27.1	28.8	19.7	26.0
Second homes/holiday accommodation (2011) (%)	3.0	15.6	6.4	0.1	0.8	0.0	1.0	0.8	0.2	1.7	0.9	1.4
Crime												
WIMD 2011 Community safety domain, rank	1,043	1,377	1,563	723	385	259	575	1,533	1,237	975	899	951
Anti-social behaviour offences (Jun-13) (rate per 1,000)	3.7	2.2	1.6	3.5	8.3	5.3	5.7	1.2	2.2	3.5	3.3	3.4
Burglary recorded offences (Jun-13) (rate per 1,000)	0.6	0.7	0.3	1.1	1.1	1.5	1.7	1.1	1.1	1.1	1.2	1.1
Vehicle crime offences (Jun-13) (rate per 1,000)	0.2	0.2	0.1	0.5	0.3	0.6	1.0	0.4	0.4	0.5	0.4	0.4
Violence and sexual offences (Jun-13) (rate per 1,000)	0.9	0.7	0.4	0.9	2.1	1.3	1.6	0.3	0.6	0.9	0.7	0.8
Access and transport												
No cars or vans in household (2011) (%)	20.3	14.7	10.3	26.7	34.0	41.0	35.5	10.1	14.4	22.9	22.9	22.9
4 or more cars or vans in household (2011) (%)	2.2	3.7	4.5	1.4	1.1	0.7	1.1	3.2	2.4	2.1	2.3	2.2
Average travel time to NHS dentist (mins) (2007-2008)	22.5	50.8	55.1	14.2	13.9	13.8	8.2	20.1	16.8	20.3	27.0	22.4
Average travel time to food shop (mins) (2007-2008)	11.6	32.4	43.8	7.7	7.2	6.5	5.2	14.0	10.8	13.1	16.8	14.2
Average travel time to GP surgery (mins) (2007-2008)	15.4	41.0	49.8	12.2	12.2	10.3	7.7	18.9	14.3	17.3	21.1	18.5
Average travel time to leisure centre (mins) (2007-2008)	24.6	61.8	59.6	19.3	19.1	18.2	16.2	26.7	21.6	25.7	31.3	27.4
Average travel time to library (mins) (2007-2008)	19.4	50.0	56.5	16.3	15.8	15.1	12.6	22.8	18.7	21.9	25.8	23.1
Average travel time to transport nodes (mins) (2007-2008)	26.4	49.8	61.6	19.6	17.6	20.2	15.8	27.0	23.0	26.2	32.4	28.1
Average travel time to post office (mins) (2007-2008)	11.5	25.1	36.2	9.7	9.2	8.8	7.9	15.2	13.0	13.8	16.5	14.6
Average travel time to primary school (mins) (2007-2008)	11.5	26.0	34.9	8.1	9.5	6.9	7.4	13.7	10.0	12.4	15.7	13.4
Average travel time to secondary school (mins) (2007-2008)	26.8	70.7	61.7	20.0	21.0	18.1	20.9	25.7	20.3	26.6	31.9	28.3
Deprivation and low income												
Welsh Index of Multiple Deprivation (WIMD) 2011, rank	1,000	1,136	1,228	682	360	183	927	1,721	1,371	1,007	823	949
Working-age DWP benefit claimants (May-13) (%)	15.5	10.5	10.9	21.0	28.7	32.3	13.9	7.6	12.3	16.5	19.4	17.4
Children in poverty (2011) (%)	19.0	11.5	11.7	26.1	35.1	43.7	25.6	6.4	13.3	22.1	23.6	22.6
Pension Credit (May-13) (%)	25.3	19.9	17.2	32.3	40.0	48.3	35.2	11.0	18.9	25.3	27.4	25.9
Housing Benefit claimants (Aug-13) (%)	15.6	8.3	7.9	22.9	33.3	41.0	22.1	4.9	9.9	18.0	18.6	18.2
Income Support claimants (May-13) (%)	2.6	1.3	1.4	3.8	5.6	7.3	2.4	0.9	1.9	3.0	3.5	3.1

B.1. Typology by deprivation decile

	Most deprived 10%	Decile 2	Decile 3	Decile 4	Decile 5	Decile 6	Decile 7	Decile 8	Decile 9	Least deprived 10%	Total

A1 Coastal retreats: Market towns	0	1	15	39	28	24	12	17	5	0	141
A2 Coastal retreats: Rural tourism	0	0	0	4	6	9	8	3	0	0	30
A3 Coastal retreats: Rural chic	0	0	0	9	21	33	25	21	6	1	116
B1 Coastal challenges: Structural shifters	13	43	69	47	36	17	8	1	0	0	234
B2 Coastal challenges: Resorts and ports	19	22	11	5	0	0	0	0	0	0	57
B3 Coastal challenges: Striving communities	135	23	5	0	0	0	0	0	0	0	163
C2 Cosmopolitan coast: Coastal professionals	18	17	18	14	19	14	19	14	10	4	147
D1 Coastal fringe: Prosperous suburbia	0	0	0	0	0	0	9	30	108	75	222
D2 Coastal fringe: Working hard	0	0	0	5	15	35	47	52	35	3	192
Total	185	106	118	123	125	132	128	138	164	83	1302

B.2. Typology by Local Authority District

	A1 Coastal retreats: Market towns		A2 Coastal retreats: Rural tourism		A3 Coastal retreats: Rural chic		B1 Coastal challenges: Structural shifters		B2 Coastal challenges: Resorts and ports		B3 Coastal challenges: Striving communities		C Cosmopolitan coast		D1 Coastal fringe: Prosperous suburbia		D2 Coastal fringe: Working hard		Total
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	
Bridgend	0	0.0	0	0.0	0	0.0	29	38.2	2	2.6	11	14.5	3	3.9	15	19.7	16	21.1	76
Caerphilly	0	0.0	0	0.0	0	0.0	17	45.9	0	0.0	8	21.6	0	0.0	3	8.1	9	24.3	37
Cardiff	0	0.0	0	0.0	0	0.0	18	9.0	0	0.0	35	17.4	78	38.8	58	28.9	12	6.0	201
Carmarthenshire	18	21.2	0	0.0	17	20.0	22	25.9	3	3.5	6	7.1	3	3.5	4	4.7	12	14.1	85
Ceredigion	8	22.2	0	0.0	19	52.8	0	0.0	3	8.3	0	0.0	5	13.9	1	2.8	0	0.0	36
Conwy	30	46.9	0	0.0	11	17.2	0	0.0	14	21.9	0	0.0	5	7.8	3	4.7	1	1.6	64
Denbighshire	16	40.0	0	0.0	3	7.5	2	5.0	13	32.5	1	2.5	0	0.0	2	5.0	3	7.5	40
Flintshire	2	2.2	0	0.0	2	2.2	19	21.3	0	0.0	10	11.2	1	1.1	20	22.5	35	39.3	89
Gwynedd	25	34.7	26	36.1	10	13.9	1	1.4	3	4.2	1	1.4	5	6.9		0.0	1	1.4	72
Isle of Anglesey	12	27.3	3	6.8	18	40.9	0	0.0	8	18.2	1	2.3	0	0.0	2	4.5	0	0.0	44
Monmouthshire	1	2.6	0	0.0	1	2.6	8	21.1	0	0.0	0	0.0	2	5.3	18	47.4	8	21.1	38
Neath Port Talbot	1	1.3	0	0.0	0	0.0	31	40.3	0	0.0	20	26.0	0	0.0	4	5.2	21	27.3	77
Newport	0	0.0	0	0.0	0	0.0	23	24.5	0	0.0	22	23.4	12	12.8	19	20.2	18	19.1	94
Pembrokeshire	25	35.7	0	0.0	33	47.1	0	0.0	10	14.3	0	0.0	2	2.9	0	0.0	0	0.0	70
Powys	1	50.0	1	50.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2
Rhondda Cynon Taff	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	33.3	0	0.0	2	66.7	3
Swansea	1	0.7	0	0	2	1.4	33	22.4	0	0.0	34	23.1	18	12.2	29	19.7	30	20.4	147
The Vale of Glamorgan	1	1.3	0	0.0	0	0.0	15	19.2	1	1.3	5	6.4	12	15.4	35	44.9	9	11.5	78
Torfaen	0	0.0	0	0.0	0	0.0	16	37.2	0	0.0	9	20.9	0	0.0	4	9.3	14	32.6	43
Wrexham	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	5	83.3	1	16.7	6

Appendix C. Typology methodology

C.1.1. Our objective in the development of the coastal community typology was the creation of a set of 'categories' which can be used at national level as a starting point to understand the socio-economic circumstances, and recent trends, of the coastal communities that marine planners and other users will be working with. Our development of the typology followed the series of steps outlined in the Department of Communities and Local Government Places typology toolkit.

C.1.2. Standard cluster analysis techniques were used to create the nine typology categories. In this section we outline the methodology, indicators and options explored in creating the typology.

C.2. Selecting the indicators for the cluster analysis: the initial long-list

C.2.1. The initial list of variables was selected on the basis of relevance to the socio-economic processes operating in coastal areas. Building on the coastal typology work in England, we selected an initial long-list of 140 possible indicators which were considered as part of the English analysis.

Removing indicators not available for Wales

C.2.2. From this long-list of indicators, we removed indicators that were not available for Welsh areas. From the list of 140 the following indicators were removed:

- Index of Multiple Deprivation 2010
- Indices of Deprivation 2010 (ID 2010) Crime domain
- ID 2010 Health Deprivation and Disability domain
- ID 2010 Indoors Living Environment subdomain
- Core Accessibility Indicators: Distance to Employment centres, Further Education institutions, GPs, Hospital, Primary and Secondary Schools, Supermarkets and Town Centres

C.2.3. These were replaced with suitable indicators available for Welsh areas:

- Welsh Index of Multiple Deprivation (WIMD) 2011
- WIMD 2011: Community Safety domain
- WIMD 2011: Health domain
- Travel time to key services by Public Transport/walk[6]

Additional indicators

C.2.4. A number of additional useful indicators are now published at neighbourhood level, that were not available to the original study. We identified a set of indicators relevant to the socio-economic processes operating in coastal areas that have been published since the England study using the Data4nr data signposting tool[7]. The following were added to the long-list of indicators considered in the cluster analysis:

- Housing Benefit claimants

[6] Post Office, Library, Dentist, Primary School, Secondary School, Food Shop, Leisure Centre, Transport node.
[7] Data for Neighbourhoods and Regeneration (www.data4nr.net) is a data signposting tool run by OCSI on behalf of the Department of Communities and Local Government.

- Street-level police recorded crime[8]
- Land registry property price and transaction data at postcode level
- Low birth weight data
- Household language (Proficiency in English or Welsh)
- Proximity to waste disposal and industrial sites
- Young adults who are not in higher education.

Time-points

C.2.5. The most recent time-points were used for each of the indicators from the long-list, rather than matching the time-points used in the original study. The majority of indicators used in the English MMO study have been updated since the study, with only five indicators from the original study not updated by the end of 2013.

C.3. Excluding indicators from the long-list

C.3.1. Indicators in the long-list were examined, and excluded if any of the following criteria were met:

- Is the indicator highly correlated with one or more other indicators?
- Does the indicator have a 'skewed' distribution?
- Does the indicator *not* have a useful geographical distribution?
- Does the indicator *not* clearly identify a specific population or housing group?

C.3.2. These are explored in the following sections.

Is the indicator highly correlated with one or more other indicators?

C.3.3. It is important to avoid including highly correlated variables in cluster analysis, as it is more difficult to discern the impact of a particular variable. Where indicators are correlated and measure a similar attribute (where they are related to another indicator in the cluster analysis), it is also less desirable to include as the cluster analysis may over-weight this attribute versus other attributes.

C.3.4. Spearman's correlation analysis of the long-list of indicators was used to identify potential indicators to drop from the long-list. In practice, a correlation coefficient threshold of 0.8 was used to define "highly correlated".

C.3.5. Where variables correlated highly and were closely associated with other measures, they were excluded them from the indicator list. Variables excluded as a result of this process included:

- Working age population: High correlation with pensionable age population and an associated relationship. Also highly correlated with full-time students and school children.
- Housing, Detached: High correlation with houses with 8 or more rooms. The latter was retained as it was felt to be more descriptive of a certain type of area. Whereas detached houses vary from small two-roomed bungalows to country mansion, houses with 8 rooms tend to have closer associations with affluence, whether the accommodation is detached or attached).

[8] 13 crime types: bicycle theft, burglaries, robberies, violent crime and sexual offences, vehicle crime, criminal damage and arson, shoplifting, possession of weapons, drugs, public order offences, theft from a person, other thefts, other crimes have been combined to create an overall crime rate

- Households with no cars or vans: High correlation with a number of deprivation variables. A measure that is not straightforwardly interpreted: in rural areas this is closely associated with pensioner poverty but in urban areas it identifies poorer young adults and transitional groups including students.
- Dwellings with 2 room or fewer: Excluded due to close correlation with overcrowded households. Overcrowded households and Dwellings with 2 room or fewer are both measures of people living in space restricted living conditions but overcrowded households is a more comprehensive measure as it encompasses overcrowding in larger dwellings but where there are a large number of people in a household.
- All people with a limiting long-term illness (aged 0-64): Excluded due to close correlation with health benefits datasets. The health benefits datasets were retained as a) they provided a more up to date picture of poor health b) broke down poor health into physical and mental characteristics
- Travel time to nearest key service by Public Transport/walk: Each of the nine key services (Dentist, GP, Primary School, Secondary School, Food shop, Post Office, Transport Node, Library and Leisure Centre) are highly correlated with each other. Travel time to GP has been retained as this identifies vulnerable groups excluded from key health services.
- People working in Education: Excluded due to correlation with people with degree qualifications.
- Owner occupied households: Excluded due to close (inverse) relationship with private and social rented housing. However the latter two variables were retained as measure transitory status and lack of wealth (key features in a coastal typology).
- Working-age DWP benefit claimants, Incapacity Benefits: Close relationship with other disability and unemployment benefits and employment rate.
- Working-age DWP benefit claimants, Carer: Close relationship with disability benefits and provision of unpaid care. Relatively low numbers of people receive this benefit.
- Children in out-of-work families: High correlation with all benefit claimant measures, excluded to avoid double counting the children and adults.
- Working-age DWP benefit claimants aged 50 and over: Close relationships with benefit claimants aged under 25 and the age profile of the areas as a whole. Also closely related to Pension Credit claims.
- Self employment: Close correlation with people working from home.
- All pensioner: Highly correlated with single pensioner and people of pensionable age. Lone pensioner a stronger social exclusion indicator so retained.
- All student households: Highly correlated with full-time students and school children
- Couples with no children: High correlation with couples with children and less descriptive life-stage as could be before or after children.
- Lone parent households with children: High correlation with lone parents receiving benefits. Latter is retained as focuses more specifically on disadvantaged lone parents.
- Overall employment rate: Close associations with benefit datasets (Jobseekers Allowance, IB Mental Health, DLA) but less up to date and more of a vague indicator (encompassing students, people who are ill, people who are looking after the family) so not wholly descriptive.

- Land registry property price and transaction data at postcode level: Strong correlation with council tax band data. Only includes transactions rather than full value of properties in the area so less explanatory value. Data excluded.
- WIMD 2011: Community Safety domain: Close correlation with recorded crime data (but less up to date).

C.3.6. However, those indicators that were highly correlated but seen to be measuring slightly different, but useful, attributes were kept in the analysis:

> *"Common sense suggests that one of each pair of highly correlated variables should be removed because much of the information is redundant; however, there is another way of looking at highly correlated variables. The predictive and descriptive power of the highly correlated variables is exactly what we are looking for in variables for use in the classification (Voas and Williamson, 2001). It is likely that variables that can predict the value of other variables would enable the classification to predict other behaviours. Therefore, there is an advantage in retaining a high proportion of highly correlated variables as they can be seen as powerful predictors."*[9]

Does the indicator have a 'skewed' distribution?

C.3.7. Variables with a large number of zeroes or a small concentration of very high values can reduce the reliability of the clustering giving undue weight to certain indicators [10]. 'Skewness' and 'kurtosis' tests on each of the proposed indicators were used to exclude those with highly skewed distributions, except where identified as measuring an important attribute of coastal areas. The following variables were excluded as a result of this analysis:

- Medical or care establishment
- Children's homes
- Housing, Caravan or other mobile or temporary home
- Dwelling Stock by Council Tax Band - Band H
- All student households
- Housing, Second Residence / holiday accommodation
- Change in population 2001-2011
- People working in Mining and quarrying
- Residential or Nursing Home
- Full-time students and schoolchildren aged 16-74
- People working in Transport storage and communication
- People working in Agriculture; hunting; forestry
- No people in household have English or Welsh as a main language
- Street-level police recorded crime
- Proximity to waste disposal and industrial sites.

Does the indicator *not* have a useful geographical distribution?

C.3.8. In contrast to variables with highly skewed distributions, it is also important to exclude variables with similar distributions across all areas. Indicators with little

[9] Dan Vickers and Phil Rees (2006) Creating the UK National Statistics Output Area Classification page 384. http://areaclassification.group.shef.ac.uk/Vickers%26%20Rees%20Creating_OAC.pdf

[10] Dan Vickers and Phil Rees (2006) Creating the UK National Statistics Output Area Classification page 384

variation over space are less useful for classifying areas. We have selected these indicators after running a range of cluster analysis and finding that there was little variation between cluster groups. Variables marked with an asterisk were excluded from the ONS Output Area Classification (OAC) for similar reasons.

C.3.9. The indicators excluded for this reason were:

- Working-age DWP benefit claimants, female
- People working in Electricity, Gas and Water Supply*
- People working in Public administration and defence*
- Renting real estate and business activities*
- People working in Construction
- People working in Health and social work
- Households with 1 car.

Does the indicator *not* clearly identify a specific population or housing group?

C.3.10. Indicators that do not clearly identify a specific population or housing group have been excluded. These are often indicators that group together a range of different characteristics. For example, datasets on 'industry group other' bring together information on a range of different occupations not covered by the main Standard Industrial Classification (SIC) groups, but that are not particularly similar to one another.. Variables excluded for this reason are:

- Working-age DWP benefit claimants, Others on Income Related Benefit (covers a range of different income related benefits)
- Households of other composition (covers a range of contrasting household arrangements)
- Other households of all pensioners (see above)
- Other households with dependent children (see above)
- Semi-detached housing: Excluded as highly correlated with other types of housing and less descriptive.

Composite variables

C.3.11. Where two variables are closely associated, they can be combined into a single 'composite' variable. This is useful where variables on their own have low numbers (or have skewed distributions), but provide a useful indicator when combined together. The following lists the indicators we have included as composites:

- Housing in Council Tax Band E and above. Measures of high property prices, with relatively low numbers in each category and a shared denominator, so variables have been combined.
- Couples with children: Combination of married and couple households with dependent and non-dependent children.
- Street-level police recorded crime: These indicators on their own correlate highly with one another, some of the less common offences have a skewed distribution which is not present when they are combined.

C.4. The final short-list of indicators used in creating the typology

C.4.1. Based on cutting down the long-list of indicators using the techniques above, we produced a short-list of 45 variables that were used in creating the typology: typology

(note indicators marked with an asterisk* are additional indicators that were not in the English coastal typology):

Table C.1. Short-list of indicators used in the typology

Indicator	Source	Date
People of pensionable age	ONS	2012
Population density	Census 2011	2011
Settlement size[11]	ONS	2012
People who have moved address in the last year	Census 2001	2001
Couple households with dependent children	Census 2011	2011
Lone pensioner households	Census 2011	2011
Other lone person households	Census 2011	2011
Jobseekers Allowance claimants (unemployment benefit)	DWP	Jan 2014
Lone parents receiving benefits	DWP	May 2013
People receiving benefits for mental health issues.	DWP	May 2013
Older people receiving pension credit (low income benefit)	DWP	May 2013
% of benefit claimants aged under 25	DWP	May 2013
Seasonal unemployment	DWP	2013
Part time employees	Census 2011	2011
People working mainly from home	Census 2011	2011
People travelling more than 40km to work	Census 2011	2011
Employment in tourist industry	Business Register & Employment Survey	2009
Employment in knowledge industry	Business Register & Employment Survey	2009
Pupil sector employment	Business Register & Employment Survey	2009
Jobs growth	Business Register & Employment Survey	2009
People working in manufacturing	Census 2011	2011
People working in hotels and catering	Census 2011	2011
People working in wholesale, retail and motor vehicle repair	Census 2011	2011
People working in financial intermediation	Census 2011	2011
People qualified to degree level	Census 2011	2011
Pupil attainment: average point score at GCSE	Welsh Government	2009-2011
WIMD 2011: Health domain	Welsh Government	2011
Disability Living Allowance claimants	DWP	May 2013
Attendance Allowance claimants	DWP	May 2013

[11] 'Settlement size' was excluded after the first analysis, as had too strong an influence on overall cluster membership e.g. all LSOAs in a settlement were classified as the same.

People providing unpaid care for more than 50 hours per week	Census 2011	2011
Social rented housing	Census 2011	2011
Private rented housing	Census 2011	2011
Dwelling in council tax band E to I	Valuation Office Agency	2011
Dwelling type: terraced housing	Census 2011	2011
Dwelling type: flat (in house or commercial building)	Census 2011	2011
Dwelling type: flat (block of flats)	Census 2011	2011
Overcrowded housing	Census 2011	2011
Dwelling with 8 rooms or more	Census 2011	2011
Travel time to GP*	Welsh Government	2007-2008
Households with 4 or more cars*	Census 2011	2011
Households lacking central heating*	Census 2011	2011
Dwelling stock by council tax band A*	Valuation Office Agency	2011
Housing benefit*	DWP	Aug-13
Babies born with a low birth weight*	Welsh Government	2000-2009
Young adults who are not in higher education*	Welsh Government	2010/11

C.5. Carrying out the cluster analysis

Standardising the indicators

C.5.1. The variables we have included in the coastal typology are based on different scale units; some are ratios, some are ranks, some are percentages, some are measures of change and so on. Clustering techniques (including K-means clustering) typically require commensurable variables - interval or ratio scaled variables with equal scale units[12].

C.5.2. We have standardised all variables using range standardisation[13], variables have been transformed so that fall within a scale of 0 to 1.

C.5.3. In order to reduce the impact of outliers on the overall result, we applied natural log transformations before applying the range standardisation. The log-transformation essentially 'pulls in' the extremes of the distribution.

Weighting indicators

C.5.4. Where a variable is considered important, it is permissible in cluster analysis to multiply this variable by an importance weighting. The skills indicator has been double-weighted in this way, as was done with the English coastal typology.

K-means cluster analysis

C.5.5. We used the K-means cluster algorithm for cluster analysis. This is the method used in the ONS Output Area Classification (OAC). The SPSS statistical package was used to run the typology.

[12] "Spss TwoStep Cluster– A First Evaluation. Bacher, Wenzig, Vogler. http://www.statisticalinnovations.com/products/twostep.pdf.

[13] Range standardisation was also used in the ONS Output Area Classification (OAC).

The number of clusters

"Selection of number of clusters should be based on usefulness of the result rather than a mathematical concept of representation of the data…[however] it is preferable to have the clusters as closely sized to each other as possible"[14].

C.5.6. We explored various different cluster numbers, with an emphasis on providing meaningful groups that were sufficiently distinct in nature from each other, but which were reasonably homogenous in size.

C.5.7. We also used a 'hierarchical' structure for the classification, with cluster 'sub-groups' used to subset the higher level groups. For example, the 'Coastal Retreats' group is split into the 'Market towns' and 'Rural life' subgroups, see Figure A.1 below. Hierarchical categories can be used to reflect the relationships between smaller groups and larger groups. They are also useful in providing users with an option to analyse a smaller number of types which are easier to grasp, or a larger number of types which are more distinct and homogenous.

C.5.8. We explored using four to eight cluster groups. For each, we compared the average size of the cluster groups[15].

C.5.9. Clusters were considered to be homogenously sized if the smallest group was greater than 45% of the average size. The table below shows the number of LSOAs in the smallest cluster for cluster solutions using 4-8 clusters. The "Minimum permitted" column refers to the number of LSOAs in a cluster that was 45% of the average cluster size, "Minimum actual" refers to the actual number of LSOAs in the Cluster group.

Table C.2. Minimum number of LSOAs in each cluster group by number of groups

Number of clusters	Minimum permitted number of areas (45% of average cluster size)	Minimum actual number of areas
4	146	147
5	117	124
6	98	70
7	84	51
8	73	40

C.5.10. Using four clusters produced the most equally sized groups. Using a larger number of group clusters resulted in some cluster groups widely varying in size with the majority of areas concentrated in one or two cluster groups.

C.5.11. The selection of four clusters had the additional advantage that it reflected the approach we took with the English analysis.

C.5.12. After the four cluster groups were produced, we ran the K-means algorithm separately on each of these groups to produce 1-3 subgroups in each of the four

[14] (Vickers p 396)

[15] The number of clusters followed principles used in previous typology work (Callingham, 2003) which highlighted that "'at the highest level of aggregation, the cluster groups should be around 6". Essentially, this is so that groups are sufficiently distinct to identify meaningful differences between areas in different groups, but with not so many categories that users struggle to recall the different group types.

groups. The decision to develop one, two or three subgroups was based on exploring the characteristics of the created subgroups, also on the number of LSOAs in each group. Another factor in determining the number of clusters was the consideration that we wanted the methodological approach to be as consistent as possible with the approach used in England.

C.5.13. We therefore experimented with using the same number of sub-clusters as were explored in England. This proved to be appropriate for three of the four cluster groups where categorically distinct cluster groups with sufficient number of LSOAs in them where produced. However, there was one cluster group with relatively small numbers of LSOAs in it. This cluster group could not be split easily into sub-cluster groups and when this was attempted it produced one cluster group with relatively few LSOAs.

C.5.14. In total we produced nine cluster groups, see Figure C.1 below.

C.6. Categories and names

C.6.1. We have developed typology category names, as an aid to using the typology as a technical tool. The category names help users get a sense of how these areas differ from the average.

C.6.2. Naming the different categories in a typology is one of the hardest, and most controversial, aspects to developing a typology. But they are important – users often highlight the value of names in using and disseminating information from analysis of classifications[16].

C.6.3. The process of naming typology clusters typically involves reviewing a range of socio-economic data for each of the cluster groups, to determine a consistent set of underlying characteristics in each cluster group that could be used to describe the cluster areas.

C.6.4. In this project, we started from a slightly different perspective of wanting to use the same cluster definitions as developed with the English work for the MMO, where these were appropriate. This would maximise the read-across of this work with the earlier work in England. We therefore examined whether the underlying characteristics of the cluster groups were consistent across the English and Welsh coastal typologies.

C.6.5. In the majority of cases, each of the nine Welsh cluster groups had very similar underlying characteristics to their English counterparts, it was therefore appropriate to use the same cluster names for these groups. However, there were minor differences from the English typology categories:

- In the English work for MMO, the Cosmopolitan Coast category was split into two sub categories - Cosmopolitan Coast: Coastal professionals and Cosmopolitan Coast: Re-inventing resorts. However, this cluster group could not be split into sub-categories in Wales as there would have been too few LSOAs in one of the two sub-categories. We have therefore named this single category Cosmopolitan Coast for the Welsh typology.

[16] For example Lupton et al (2011), Vickers & Rees (2007).

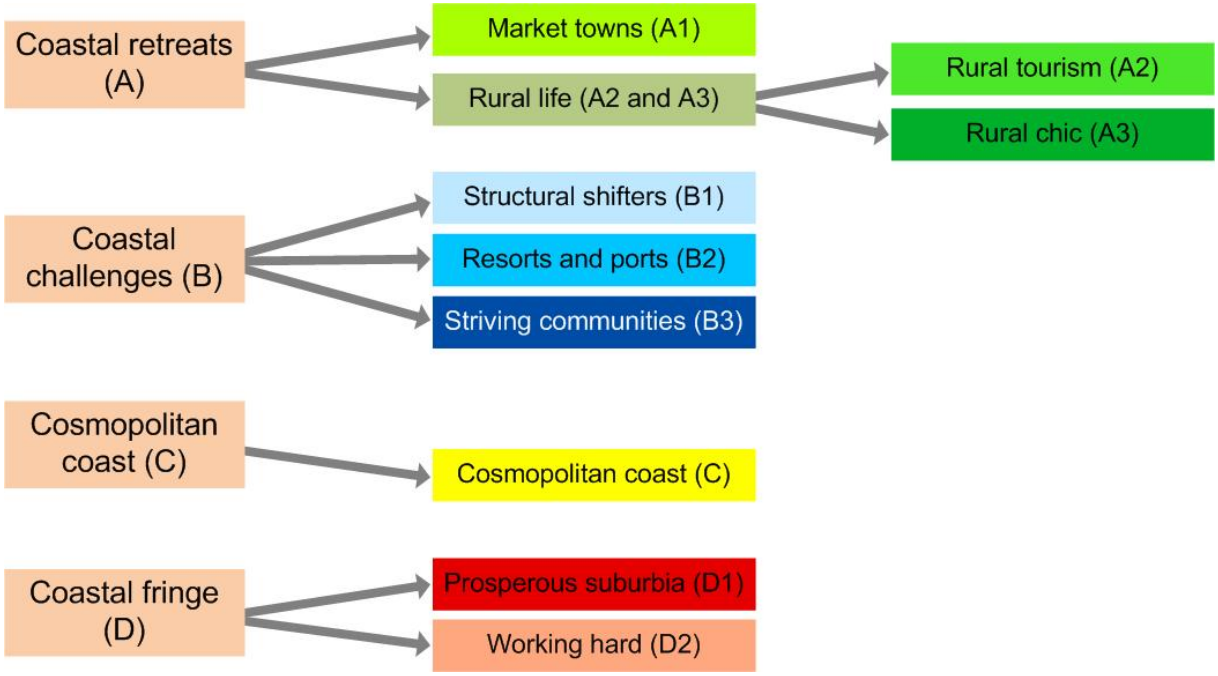
- In the English work, the cluster analysis created a set of areas with a high proportion of older people. This category was labelled silver seaside. In Wales there was a category with similar socio-economic characteristics, which was prevalent in areas of similar settlement size but while this category had a slightly older age profile than coastal Wales as a whole, this was not the defining characteristics of this group. We therefore decided to rename this category Market Towns.
- Cluster B, coastal challenges, produced three sub-categories in both England and Wales. Two of these sub-categories have very similar characteristics in both the English and Welsh typologies and have been assigned the same name. However the third subcategory had different economic characteristics and covered different settlement types (although showed similar deprivation levels in both England and Wales). In the English typology we named these categories New Towns and Ports, reflecting the type of areas where this category was prevalent – in Wales the third coastal challenges typology was prevalent in ports but there are fewer post war new towns in coastal locations, and this category also covered some seaside resorts. The category was therefore renamed Resorts and Ports.
- The subcategories within the most rural areas in Wales were not split along skill lines as they were in England, but between areas where there was a high proportion of people employed in tourist sectors and second home areas and those that have a more affluent residential population. We retain the rural chic category for the latter but changed the former from Working Countryside to Rural Tourism, to reflect the relatively high proportion of people engaged in these sectors in this category.

C.7. The final typology categories

C.7.1. The final nine clusters were identified as:

- A1 Coastal retreats: Market towns
- A2 Coastal retreats: Rural tourism
- A3 Coastal retreats: Rural chic
- B1 Coastal challenges: Structural shifters
- B2 Coastal challenges: Resorts and ports
- B3 Coastal challenges: Striving communities
- C1 Cosmopolitan coast
- D1 Coastal fringe: Prosperous suburbia
- D2 Coastal fringe: Working hard

Figure C.1 The nine Coastal typology categories


Coastal retreats (A)
Market towns (A1)
Rural life (A2 and A3)
Rural tourism (A2)
Rural chic (A3)
Coastal challenges (B)
Structural shifters (B1)
Resorts and ports (B2)
Striving communities (B3)
Cosmopolitan coast (C)
Cosmopolitan coast (C)
Coastal fringe (D)
Prosperous suburbia (D1)
Working hard (D2)

Appendix D. Indicators used in this report

Dataset name	Description	Source	Date
Attendance Allowance	Attendance Allowance is payable to people over the age of 65 who are so severely disabled, physically or mentally, that they need a great deal of help with personal care or supervision. You may get Attendance Allowance if: you have a physical or mental disability, or both, your disability is severe enough for you to need help caring for yourself you are aged 65 or over when you claim. Attendance Allowance is not means tested so claims are not affected by whether claimants have high income or savings.	Department for Work and Pensions (DWP)	May-13
Children in out of work families	Out of work families with children who receive the same level of support as provided by CTC, but where it is paid as child allowances in Income Support or income-based Jobseeker/s Allowance (IS/JSA).	HM Customs and Revenue	2011
Communal establishment residents (census table KS023)	This dataset is shows the number of people by type of communal establishment. A communal establishment is defined as an establishment providing managed residential accommodation. Managed means full-time or part-time supervision of the accommodation.	Census 2011	2011
Disability Living Allowance	Disability Living Allowance (DLA) is payable to children and adults aged under 65, who need help with personal care or have walking difficulties because they are physically or mentally disabled. People can receive DLA whether they are in or out of work. It is a non-means tested and is unaffected by income or savings of the claimant.	Department for Work and Pensions (DWP)	May-13
Distance travelled to work (census table KS015)	This dataset shows all people aged 16 to 74 in employment, by means of travel to work, average distance travelled to work, and the numbers of public transport users in households with and without cars or vans. The means of travel to work is that used for the longest part, by distance, of the usual journey to work. The distance travelled to work is the distance in kilometres of a straight line between the residence postcode and workplace postcode.	Census 2001	2001
Dwelling stock by Council Tax Band	Overall number of domestic properties (the 'dwelling stock') and the number and percentage of properties allocated to each of the eight standard Council Tax bands. Council Tax valuations are based on the price a property would have fetched if it had been sold on the open market on 1 April 1991.	Valuation Office Agency (VOA)	2011
Employees by sector	This indicator contains data on the number of employees by sector. These sectors are: manufacturing; construction; distribution, hotels and restaurants; transport and communications; banking, finance and insurance; public administration, education & health and other services.	Census 2011	2011
Employees working full-time	This indicator contains data on the percentage of employees working full time	Census 2011	2011
Employment in Knowledge industry	This indicator contains data on the number of employees (FTE) by key sector. These key sectors are: medium-high-tech industries; narrow definition of knowledge intensive business services (KIBS); wide definitions of knowledge-intensive businesses; the 'creative industries' and high technology sectors. Defined as jobs in SIC codes 182, 212, 261, 264, 265, 267, 271, 279, 303, 692, 731, 591, 61, 62, 64, 65, 71, 66, 72. Data is based on Travel to work areas.	Annual Business Inquiry	2009
Employment in port related activities (2009) (%)	Employee jobs in the following key industrial sectors - SIC codes 50: (Water transport) and 52 (Warehousing and support activities for transportation). Data is supplied at TTWA level	Annual Business Inquiry	2009
Employment in tourist industry (2009) (%)	Employee jobs in the following key industrial sectors - SIC codes 47, 55, 56, 79, 90, 91. Data is supplied at TTWA level	Annual Business Inquiry	2009
Employment Rate	Proportion of working age adults in employment	Census 2011	2011
Employment Support Allowance	Employment and Support Allowance (ESA) replaced Incapacity Benefit and Income Support paid on the grounds of incapacity for new claims from 27th October 2008. People are eligible for Employment Support Allowance if they are unable to work due to illness or disability	Department for Work and Pensions (DWP)	May-13
Full time students and schoolchildren aged 16-74	The level of students in the local area.	Census 2011	2011
Household composition (census table KS020)	This dataset is about Household Composition. Households consisting of one family and no other people are classified according to the type of family and the number of dependent children. Other households are classified by the number of dependent children or whether all student or all pensioner. The population of the dataset is all households.	Census 2011	2011
Household Earnings Estimates: Model-based estimates of income	Model-based estimates, at a small area level, of the proportion of households in poverty - measured as the proportion of households earning 60% of the median income. These estimates were designed to meet a user requirement, for estimates of the proportion of households in poverty, using a specific poverty measure, at a low level of geography, which are up-to-date, and on boundaries consistent with the 2001 Census. The estimates and associated confidence intervals have been produced using a single measure; the proportion of households whose mean weekly equivalised income is below 60% of the England and Wales. In 2007/08 a household's net equivalised income would need to be below £199 for it to be classified as in poverty.	Office for National Statistics (ONS)	2008
Households lacking central heating	Proportion of households that have self-reported that they have no central heating.	Census 2011	2011
Household language (Proficiency in English or Welsh)	Proportion of households where no members are proficient in either English or Welsh	Census 2011	2011
Household spaces	This dataset is about household spaces and accommodation type. It shows whether	Census 2011	2011

Dataset name	Description	Source	Date
and accommodation type (census table KS016). Detached, semi-detached, terraced,, flats	household spaces have residents, and if not whether they are vacant or second residences/holiday accommodation. It also shows the accommodation type of those household spaces, for example the whole of a terraced house, or a flat in a purpose-built block of flats.		
Households with no car or van (census table KS017)	This dataset is about access to private transport. Information on the number of cars or vans is based on the number of cars or vans owned, or available for use, by one or more members of a household. It includes company cars and vans available for private use. The count of cars or vans in an area is based on details for private households only. Cars or vans used by residents of communal establishments are not counted.	Census 2011	2011
Housing Benefit claimants	Housing Benefit can be claimed by a person if they are liable to pay rent and if they are on a low income.	Department for Work and Pensions (DWP)	August 2013
Incapacity Benefit	Persons unable to work due to illness or disability. Incapacity Benefit (IB) claimants are people who are assessed as being incapable of work and who meet the appropriate contribution conditions. The dataset also includes Severe Disablement Allowance (SDA) claimants. SDA has not been available to new claimants since April 2001, and has been incorporated into the IB dataset statistics.	Department for Work and Pensions	May-13
Income Support	Income Support (IS) Claimants - people aged over 16 working less than 16 hours a week and having less money coming in than the law says they need to live on.	Department for Work and Pensions	May-13
Industry of employment (all people) (census table KS011a)	This dataset shows the usual resident population aged 16 to 74 in employment by the industrial sector they work in for example Manufacturing, Health, Education, Agriculture etc.	Census 2011	2011
Jobs Density	Change in the total jobs in the local area. Data on jobs is taken from a composite of sources: Employee Jobs from ABI – covers 87% of jobs in GB, Agricultural employees - DEFRA, Self-employment jobs – LFS, Government-supported trainees – DfE, HM Forces – MoD. See https://www.nomisweb.co.uk/articles/news/files/job_densities_lmt0308.pdf for more info. Data is based on travel to work areas.	Office for National Statistics (ONS) / Annual Business Inquiry	2011
Jobseekers Allowance monthly claimant count	Jobseekers Allowance (JSA) Claimants: People under pensionable age who are available for, and actively seeking, work of at least 40 hours a week.	Nomis	Jan 2014
Limiting long-term illness (census table KS008)	This dataset shows the usual resident population by a self-assessment of their general health over the 12 months before the Census for people aged under 65.	Census 2011	2011
Lone parent households with dependent children (census table KS022)	This dataset is about Lone Parent Households with Dependent Children. For the purposes of this dataset, a lone parent is defined as a parent with a dependent child living in a household with no other people (whether related to that dependent child or not).	Census 2011	2011
Low birth weight data	Low birth weight is defined as birth weight less than 2500g. Evidence suggests that low birth rate is linked to the mother's lifestyle and health. Low birth rate can also cause problems for a baby in later life increasing the risk of chronic diseases.	Welsh Government	2011
Migration (Census table KS24)	A migrant is a person with a different address one year before the Census to that on Census Day. The migrant status for children aged under one in households is determined by the migrant status of their 'next of kin' (defined as in order of preference, mother, father, sibling (with nearest age), other related person, Household Reference Person).	Census 2001	2001
Number of rooms per household (census table UV67)	The number of rooms per household	Census 2011	2011
Occupation group (all people) (census table KS012a)	This dataset shows the usual resident population aged 16 to 74 in employment by their occupation. The occupation classification used is the second level of SOC2000 (Standard Occupation Classification). A person 's occupation was coded from the response to the questions in the 2001 Census asking for the full title of the main job and the description of what is done in that job. The Main job is the job in which a person usually works the most hours.	Census 2011	2011
Occupation group	Employment by socio-economic occupation group (managers, professionals etc.)	Census 2011	2011
Overall employment rate	This dataset shows the usual resident population by their employment status. Economic Activity applies only to people aged 16 to 64. It relates to whether or not a person was in paid work. The concept of employment is compatible with the International Labour Organisation (ILO) definition of economic status.	Census 2011	2011
Overcrowded households	Where there are one or more rooms, too few for a household, the house will have an occupancy rating of -1 or less. This indicator counts all people living in a house with an occupancy rating of -1 or lower, based on the 2011 Census.	Census 2011	2011
Pension Credit	Pension Credit claimants (financial help for people aged 60 or over whose income is below a certain level set by the law)	Department for Work and Pensions (DWP)	May-13
People working outside their Local Authority of	People working outside their Local Authority of residence	Census 2001	2001

Dataset name	Description	Source	Date
residence			
Population density (persons per hectare)	The total population (ONS Mid year population estimates) / LSOA area (hectares) from the 2001 census.	Census 2011	2011
Population estimates	Population estimates measuring resident population in each local area and structure of the population in these areas by broad age bands and sex. In 2010, the Office for National Statistics began a substantial and long term programme of work to improve the population statistics. This work highlighted several improvements to methodology that could be made immediately. As a result mid year population estimates have been revised.	Office for National Statistics (ONS)	2011
Population growth	Change in total population	Office for National Statistics (ONS)	2001-2011
Provision of unpaid care (census table KS008)	The dataset shows the usual resident population by whether they provide any unpaid care, and if so, how many hours a week they provide that care. A person is a provider of unpaid care if they give any help or support to family members, friends, neighbours or others because of long-term physical or mental health or disability, or problems related to old age.	Census 2001	2011
Proximity to waste disposal and industrial sites	LSOAs are ranked based on the proportion of the population living within a 1kmzone of each Pollution Prevention Control (PPC) site and active landfill site. Each site is assigned a band score which relates to the potential and the actual deprivation the site could cause to the environment and the people living within its vicinity.	Welsh Government	2011
Public/Private Sector Employment	Sub-Regional public and private sector employee job estimates. This is published quarterly by ONS and the Scottish Government and provides employment estimates at national and regional (government office) level based on public sector returns. Where data is required for GB below regional level, Annual Business Inquiry (ABI) employee jobs estimates provide one possible source of information. This data provides estimates of the level of public and private sector employee jobs by Travel to Work Area.	Office for National Statistics (ONS)	2008
Qualifications	This dataset shows the usual resident population aged 16 to 64, by their highest level of qualification. The highest level of qualification variable was derived from responses in the 2001 Census to both the educational and vocational qualifications question, and the professional qualifications question. The categories are as follows: No Qualifications: No academic, vocational or professional qualifications. Level 1: 1+'O' level passes, 1+CSE/GCSE any grades, NVQ level 1, Foundation GNVQ Level 2: 5+'O' level passes, 5+CSEs (grade 1). 5+GCSEs (grades A-C), School Certificate, 1+'A' levels/AS levels, NVQ level 2, Intermediate GNVQ Level 3: 2+'A' levels,4+AS levels, Higher School certificate, NVQ level 3, Advanced GNVQ Level 4/5: First degree, Higher degree, NVQ levels 4 and 5, HNC, HND, Qualified Teacher status, Qualified Medical Doctor, Qualified Dentist, Qualified Nurse, Midwife, Health Visitor Other qualifications/level unknown: Other qualifications (for example City and Guilds, RSA/OCR, BTEC/Edexcel), Other Professional Qualifications. This data has been combined with Annual Population Survey (APS) data to provide an updated estimate of qualifications. The update is calculated by comparing the change in qualification levels in the area between APS surveys covering the period 2001-2003 and APS surveys covering the period 2007-2009.	Census 2011	2011
Seasonal unemployment	Standard deviation of Jobseekers Allowance claimant rates during the twelve months of 2010. A higher value indicates greater month-to-month variation in Jobseekers Allowance claimant rates – highlighting a possible seasonal unemployment effect.	Department for Work and Pensions (DWP)	2012
Second homes	Household spaces recorded as second homes/holiday homes in Census 2001	Census 2001	2001
Self-employed	Proportion of adults in employment who are self employed	Census 2011	2011
Street level police crime	Recorded crime offences at street level for 13 crime types: bicycle theft, burglaries, robberies, violent crime and sexual offences, vehicle crime, criminal damage and arson, shoplifting, possession of weapons, drugs, public order offences, theft from a person, other thefts, other crimes have been combined to create an overall crime rate	Police.uk	August 2013
Tenure	This dataset is shows all households by whether they own or rent their accommodation and, if rented, whether it is rented from the Council, Housing Association/Registered Social Landlord, Privately rented or Other	Census 2011	2011
Travel time to nearest Post Office by Public Transport/walk	The average time taken (in minutes) for every household in a LSOA to travel to a post office by walking or using public bus services or both. This indicator encapsulates accessibility to a post office. Post offices are used weekly by most of the community and are a vital communications source. This may include obtaining advice and assistance, sending and collection of mail/parcels, collection of benefits, payment of bills, withdrawal of money and many other services.	Welsh Government	2011
Travel time to nearest Library by Public Transport/walk	The average time taken (in minutes) for every household in a LSOA to travel to a public library by walking or using public bus services or both. This indicator covers all static libraries and reflects a library's role as a vital modern communications service, with online access to further advice and information, rather than just access to the more traditional services (e.g. book lending). For WIMD 2008/2011 mobile libraries were also included.	Welsh Government	2011

Dataset name	Description	Source	Date
Travel time to nearest GP by Public Transport/walk	The average time (in minutes) taken for every household in a LSOA to travel to a GP surgery by walking or using public bus services or both. This indicator is intended to cover the day-to-day need for primary health care. This indicator includes all GP surgeries, although the services available across GP surgeries vary, the basic services are offered by all surgeries.	Welsh Government	2011
Travel time to nearest Dentist by Public Transport/walk	The average time (in minutes) taken for every household in a LSOA to travel to a NHS dentist by walking or using public bus services or both. This indicator is based on all dentists offering NHS treatment. It looks solely at an individual's ability to access a surgery and does not take into account whether spaces are available, i.e. the indicator is measuring purely geographical access.	Welsh Government	2011
Travel time to nearest primary school by Public Transport/walk	The average time (in minutes) taken for every household in a LSOA to travel to a primary school by walking or using public bus services or both. This indicator is designed to reflect the access to a primary school of children aged 4 to 11 to a primary school. Access is defined purely on the child's ability to access any primary school and takes no account of the school actually attended.	Welsh Government	2011
Travel time to nearest secondary school by Public Transport/walk	The average time (in minutes) taken for every household in a LSOA to travel to a secondary school by walking or using public bus services or both. This indicator is designed to reflect the access needs of children aged 11 to 16 to a secondary school. Access is defined purely on the child's ability to access any secondary school and takes no account of the school actually attended.	Welsh Government	2011
Travel time to nearest food shop by Public Transport/walk	The average time (in minutes) taken for every household in a LSOA to travel to a food shop by walking or using public bus services or both. This indicator is intended to cover the purchase of basic provisions (e.g. bread and milk). Service points include premises from the local corner shop up to large supermarkets.	Welsh Government	2011
Travel time to nearest leisure centre by Public Transport/walk	The average time (in minutes) taken for every household in a LSOA to travel to a leisure centre by walking or using public bus services or both. This indicator is intended to cover an individual's ability to access facilities important for health and wellbeing.	Welsh Government	2011
Travel time to nearest transport node by Public Transport/walk	The average time (in minutes) taken for every household in a LSOA to travel to a transport node by walking or using public bus services or both. This is a new indicator for WIMD 2008 to show access to long distance transport services. The proximity of transport nodes to each household was computed for coaches and rail routes.	Welsh Government	2011
Welsh Index of Multiple Deprivation (WIMD) 2011	Welsh Index of Multiple Deprivation (WIMD) 2011 is a Super Output Area (SOA) level measure of multiple deprivation and is made up of seven SOA level domain Indices. Income, Employment, Health, Education, Community Safety, Access to services, Physical environment. Each LSOA was then ranked in order, with the most deprived LSOA (rank 1) having the highest proportion of its population deprived and the least deprived LSOA (rank 1,896) having the lowest proportion.	Welsh Government	2011
WIMD 2011: Community Safety domain	The purpose of this domain is to capture the extent of deprivation relating to living in a safe community. Safety includes levels of household and personal crime and quality of experience in public places compatible with access to ordinary work, leisure and social relationships. Each LSOA was then ranked in order, with the most deprived LSOA (rank 1) having the highest proportion of its population deprived and the least deprived LSOA (rank 1,896) having the lowest proportion.	Welsh Government	2011
WIMD 2011: Health domain	This domain measures premature death and the impairment of quality of life by poor health. It considers both physical and mental health. The domain measures morbidity, disability and premature mortality but not aspects of behaviour or environment that may be predictive of future health deprivation. Ill health is an important aspect of deprivation that limits an individual's ability to participate fully in society. Because it is generally accepted that the risk of ill health and death becomes greater as a person ages, and that this increase is not seen as socially unjust, this domain aims to capture unexpected deaths or levels of ill health by using age and sex standardised data. This means that the expected levels of health in a small areas, given their age and sex composition, are compared rather than the absolute levels of health. Each LSOA was then ranked in order, with the most deprived LSOA (rank 1) having the highest proportion of its population deprived and the least deprived LSOA (rank 1,896) having the lowest proportion.	Welsh Government	2011
Vacant dwellings	Household spaces that are vacant (with no residents)	Census 2011	2011
VAT registered enterprises	VAT registrations, de-registrations and stock of VAT-registered businesses. 1.7 million businesses in the UK are registered for VAT. This provides a measure of business activity in the area.	Small Business Service (SBS)	2011
Working age client group	The information in this dataset refers to numbers of working age DWP Benefit Claimants and is derived from a 100% data source; the Work and Pensions Longitudinal Study (WPLS). The dataset provides counts of benefit claimants categorised by their statistical group (their main reason for interacting with the benefit system), gender and age. The key benefits for working age claimants included in this dataset are: Bereavement Benefit, Carers Allowance, Disability Living Allowance, Incapacity Benefit/Severe Disablement Allowance, Income Support, Jobseekers' Allowance, Pension Credit and Widow's Benefit.	Department for Work and Pensions (DWP)	May-13
Young adults who are not in higher education	Higher Education Funding Council for England (HEFCE) statistics on the number of young adults not entering higher education by postcode	Welsh Government	2011

Appendix E. Glossary of terms

ACORN	A widely-used commercial typology developed by CACI, describing neighbourhoods on the basis of over 400 variables.
Area classification, or area typology	Area classifications aim to identify 'types' of areas, based on similar characteristics. For example, places might be defined as 'retirement areas' with a combination of a high proportion of senior citizens and housing owned outright whereas other clusters (often in inner cities) might have distinctive clusters of rented housing, high population turnover and young and minority ethnic residents. Such classifications can be used, for example, to identify areas for priority interventions, understand where different planning/ policy responses might be appropriate, explore underlying trends and planning/ policy issues (for example, do the characteristics of areas make a difference to individual outcomes), and highlight the different functions that different places play in urban systems or hierarchies of settlements. See Lupton et al (2011) Using and developing place typologies for policy purposes for further details.
Correlation	A mathematical measure of the association between two variables. A higher correlation indicates that the variables are more closely associated.
Cluster analysis	A statistical technique used to group a set of objects (for example, Lower layer Super Output Areas) on the basis of a set of characteristics (variables), so that differences within each cluster group are minimised. Statistical packages such as SPSS are typically used to run the cluster analysis. K-means cluster analysis is a standard technique, where users need to choose appropriate variables, carry out any variable standardisation required, and identify the number of cluster groups (in practice, the analysis can be rerun with different numbers of clusters, and the results explored before the final cluster set is identified). See Section 2 for details of the methodology followed for the Coastal typology.
Log standardisation	Form of variable standardisation where a logarithm (or natural logarithm) transformation is applied to variables. Log- standardisation essentially 'pulls in' the extremes of the distribution, so reducing the impact of outliers on the overall result.
Lower layer Super Output Areas (LSOAs)	Standard geography used when reporting National Statistics. LSOAs are groups of adjacent Output Areas, with a consistent population size. There are 34,378 LSOAs in England and Wales, with an average population of around 1,500.
K-means cluster analysis	See Cluster analysis.
Kurtosis	A measure of 'peakedness' in the data distribution. The level of kurtosis can indicate that the dataset is not normally-distributed, so statistical techniques that rely on normal distribution data (i.e., parametric techniques) may not be appropriate.
MOSAIC	A widely-used commercial typology developed by Experian, describing neighbourhoods on the basis of roughly 400 variables.

Output Area Classification (OAC)	An open-source typology commissioned by the Office for National Statistics, describing neighbourhoods at Output Area level on the basis of 50 Census 2001 variables. See http://areaclassification.org.uk/ for details and downloads.
Output Areas (OAs)	The smallest UK Census geography, produced by clustering postcode units, and designed to be as homogenous as possible. OAs are the basic unit for Census data releases.
Range standardisation	Form of variable standardisation where the minimum and maximum values are set to be the same for each variable (typically 0 and 1). Ensures that variables have a similar weight in any cluster analysis.
Skewness	A measure of lack of symmetry in the data distribution. High levels of skewness indicate that the dataset is not normally-distributed, so statistical techniques that rely on normal distribution data (i.e., parametric techniques) may not be appropriate.
Super Output Areas (SOAs)	See Lower layer Super Output Areas (LSOAs).
Standardised variables	Clustering techniques (including K-means clustering) require 'commensurable' variables that can be compared with each other, for example having equal scales. However, different variables typically have very different distributions from one another. For example the proportion of the population in each Welsh Lower layer Super Output Area (LSOA) receiving Jobseekers Allowance (JSA) varies from 0% to 28%, with a mean of roughly 3%. By contrast, the Index of Multiple Deprivation (IMD) rank across the same areas varies from 1 to 32,482, with a mean of 16,241. When using these two variables together in a cluster analysis, the IMD variable would swamp the impact of the JSA variable. Standardising the variables involves transforming the variables in such a way that they can be compared. There are many methods to do this, including Range standardisation and Log standardisation. See above for details of these.
Transformed variables	See standardised variables
Typology	See Area classification