



Bord Iascaigh Mhara
Irish Sea Fisheries Board

A Socio-economic Profile of Ireland's Fishing Communities

The FLAG North West Region

A report commissioned by BIM

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1 Introduction

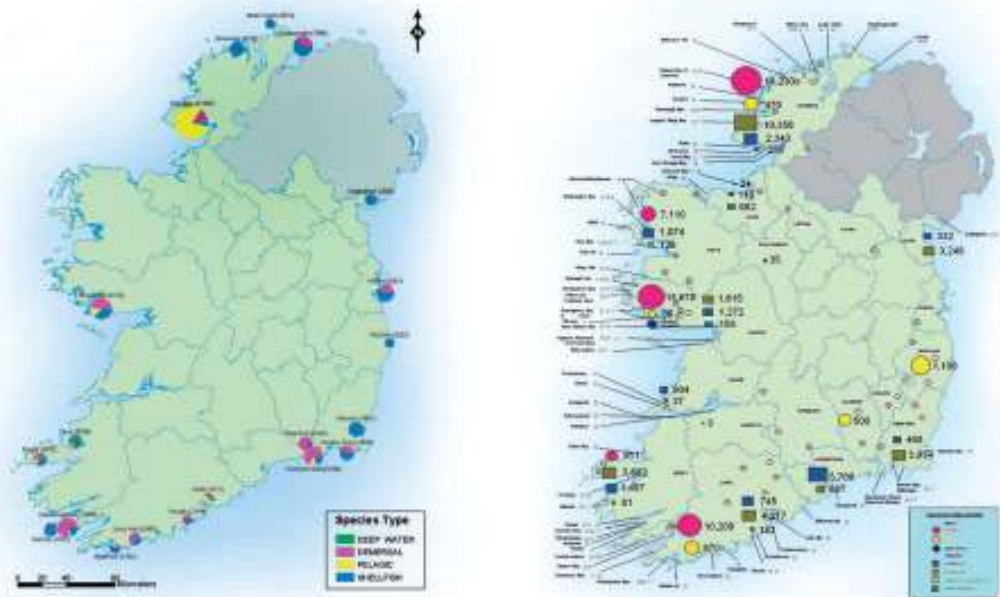
Priority AXIS 4 of the European Fisheries Fund (EFF) represents a new departure for structural aid in the fisheries sector. Unlike previous programmes, AXIS 4 focuses on the sustainable development of fisheries areas. This area-based approach was introduced into the EFF for the first time in the period 2007-2013 and reflects the complex and rapidly-changing forces affecting fisheries areas and communities.¹

The purpose of this report is to assist in policy formulation for Irish fishing communities with respect to (i) local development studies for each of the six major Fishery Harbour Centres and (ii) local area plans under Priority Axis 4 of the EFF. To this end, the report presents a set of background statistics which describe the social and economic characteristics of each area as well as providing additional data specific to the fishing industry. This report centres on the North West FLAG region, which is the only FLAG region that does not contain any of the six major Harbour Areas.

2 Background

Fish and shellfish are landed at the six major Fishery Harbour Centres (Killybegs, Castletownbere, Howth, Rossaveal, Dunmore East, and Dingle), at forty secondary ports and a further eighty piers and landing places where fish landings are recorded. Although fishing is of great importance to the local communities that make up the Irish coastal regions, there are few statistics which show the contribution made by fishing and aquaculture to sustainable local development, how this contribution has changed over time, and what the current constraints and opportunities are for the industry and the people involved in it. The purpose of this profile is to fill this knowledge gap using existing data sources.

Figure 1: Major Fish Landings in Irish Ports and Irish Aquaculture Production²



¹ BIM – AXIS 4 Start-up Guide for FLAG

² *Steering a New Course* – Report of the Seafood Industry Strategy Review Group, 2006

3 Available Data Sources

In outlining the key data sources, we draw closely on Hynes and Farrelly (2012)³ who have recently undertaken a review of the issues involved in data collection on coastal regions in Ireland. In particular, we follow their three-fold classification of areas: shoreline EDs, coastal counties and EU coast (NUTS3). Whilst, from an EU perspective, coastal regions are defined at the NUTS3 level, Hynes and Farrelly argue that from an Irish policy perspective, the definitions at county and particularly ED level are more important than the European definition of ‘coastal’ at NUTS3 level, which comprises about 95 per cent of the country’s population. As the North West region does not contain any of the six major Harbour Areas, this report presents data at two spatial levels: (i) coastal counties and (ii) coastal EDs. In each case, comparisons are made to the combined FLAG regions and Ireland as a whole.

The data presented are drawn from Small Area Population Statistics (SAPS) at the level of Electoral Divisions (EDs). Since publication of the 2011 Census of Population, it is possible to analyse data at the level of Small Areas (SA), the new census geography. However, SAs mainly provide a subdivision of urban EDs, offering few additional insights into the predominantly rural areas of the coastal region. It would also restrict the analysis to the 2006 and 2011 censuses. Undertaking the analysis at the ED level, by contrast, allows us to draw on consistent datasets covering the past five census waves, which we believe to be of major significance when analysing the developmental trajectories of coastal communities over a 20-year period.

Table 3.1: Availability of core socio-economic data at various levels of coastal definition

Data	Source	Year	Shoreline ED	County	NUTS 3
Population	Census of Population	1991 - 2011	✓	✓	✓
Population Change	Census of Population	1991 - 2011	✓	✓	✓
Age Dependency Ratio	Census of Population	1991 - 2011	✓	✓	✓
Lone Parents	Census of Population	1991 - 2011	✓	✓	✓
Low Education	Census of Population	1991 - 2011	✓	✓	✓
High Education	Census of Population	1991 - 2011	✓	✓	✓
Professional Classes	Census of Population	1991 - 2011	✓	✓	✓
Semi- and unskilled Classes	Census of Population	1991 - 2011	✓	✓	✓
Male Unemployment Rate	Census of Population	1991 - 2011	✓	✓	✓
Female Unemployment Rate	Census of Population	1991 - 2011	✓	✓	✓
Pobal HP Deprivation Index	Haase & Pratschke	1991 - 2011	✓	✓	✓
Vessel Owners *	Dept. of Agriculture	2012	✓	✓	✓
Gross Tonnage *	Dept. of Agriculture	2012	✓	✓	✓
Enterprises in Fishing	GeoDirectory	2012	✓	✓	✓
Enterprises in Aquaculture	GeoDirectory	2012	✓	✓	✓
Enterprises in Processing	GeoDirectory	2012	✓	✓	✓
Enterprises in Wholesale	GeoDirectory	2012	✓	✓	✓

* This Department of Agriculture data required prior geocoding for the purposes of this study

Table 3.1 summarises the data used in this report. Unlike Hynes and Farrelly, we do not consider data from the Agricultural Census, or GDP which cannot be calculated at the level of counties, never mind electoral divisions.

A major advance with respect to the considerations put forward by Hynes and Farrelly is the longitudinal nature of the data provided in this report. At least for the Census-based information, it is

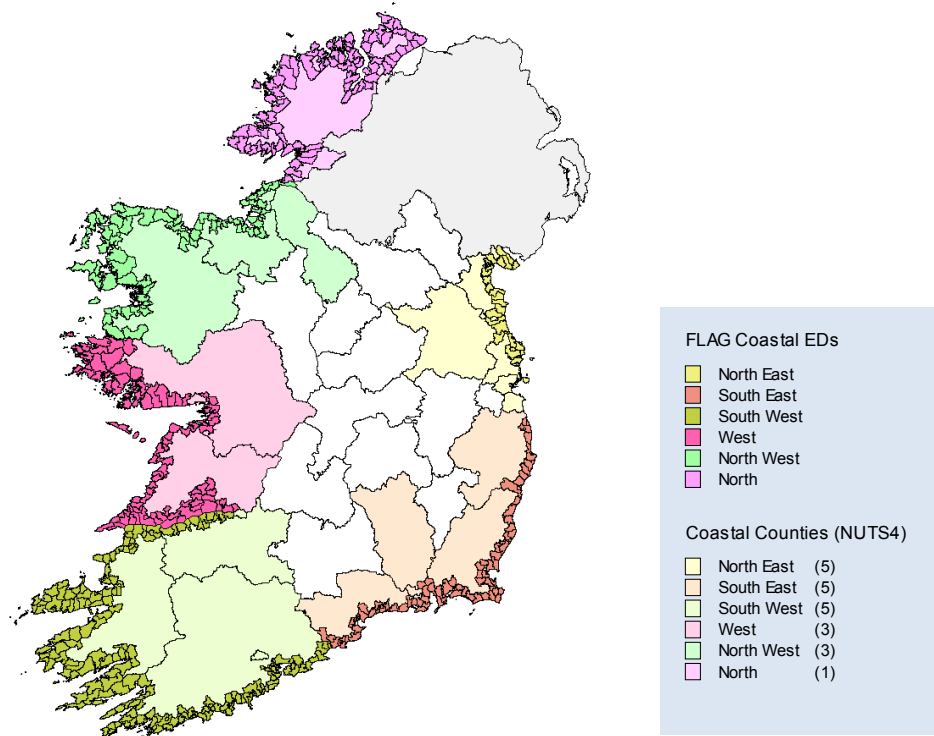
³ Hynes, S. and Farrelly, N. (2012) “Defining standard statistical coastal regions for Ireland” in *Marine Policy*, Vol 36, pp. 393-404.

possible to provide consistent data spanning five census waves. This allows us to study trends in the contribution that the fishing industry has made to coastal regions in general, and to assess whether these trends differ with respect to the individual harbour centres and FLAG regions. These are important considerations when gauging the sustainability of each area and identifying their respective strengths and weaknesses. Finally, we will compare the experience of each area during the 15 years of economic growth (1991 to 2006) and over the latest census period, 2006 to 2011, following the onset of recession in 2007.

4 Defining Coastal Areas

We will present data using two geographical definitions: (i) the coastal counties and (ii) the strip of shoreline EDs, comprising small clusters of EDs. As we noted above, the EU defines coastal regions at NUTS 3 level. Seven out of eight NUTS 3 regions have a shoreline and the Irish Coastal Region, thus defined, would include 94.4 per cent of Ireland's population. When defining coastal regions in terms of counties with a shore line, Coastal Counties include 22 out of 34 local authority areas, or about three quarters of the Irish population⁴. Defining coastal regions in terms of a strip of shoreline EDs leads to the identification of 513 out of 3,409 EDs and about one sixth of the population, which would appear to be more satisfactory. We have also made some minor adjustments to the definitions used by Hynes and Farrelly. For example, we exclude coastal EDs which are further upstream and belong to any of the five city areas and exclude South County Dublin, which does not have any shoreline.

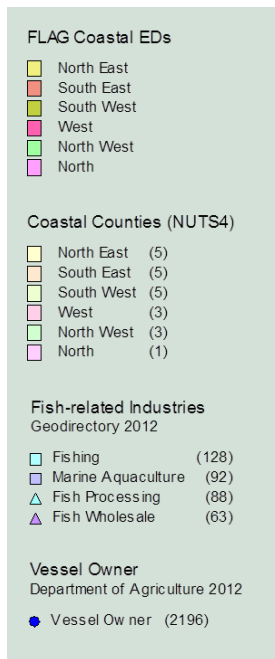
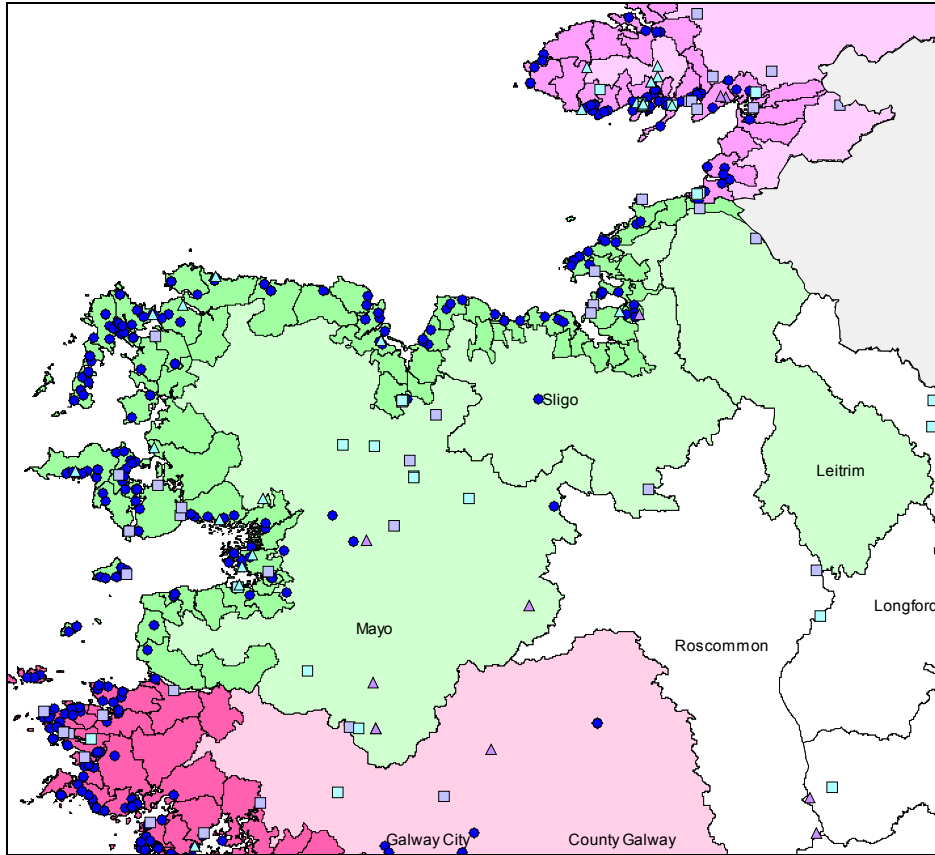
Figure 2: Definition of Coastal EDs and Counties



⁴ Note: whilst using the term 'counties', we actually base our calculations on NUTS 4 regions, which are defined as Local Authorities. As the wider Dublin area comprises four such areas, South County Dublin does not have a shoreline and is excluded from the definition of coastal counties.

Figure 3 shows the coastal EDs and counties for the North West FLAG Region. The Region comprises three counties – Mayo, Sligo and Leitrim – and 69 coastal EDs (40 in County Mayo, 27 in County Sligo and 2 in County Leitrim).

Figure 3: Coastal EDs and Counties of the North West Region



5 Key Socio-economic Indicators

In this section we present a series of socio-economic indicators for the FLAG North West Region. The data are based on five successive population censuses, spanning the period from 1991 to 2011. In addition, we report scores for the Pobal HP Deprivation Index, which provide an overall measure of relative affluence/deprivation based on ED-level census indicators. A more detailed description of the Pobal HP Deprivation Index, as well as a guide to the interpretation of the scores, is provided in the appendix to this report.

An evaluation of the experience of the coastal regions relative to the country as a whole depends upon how these regions are defined. As the definition at NUTS 3 level is not particularly meaningful in the Irish context, we provide separate evaluations of developments over the past 20 years for counties and EDs.

5.1 Population

Ireland experienced sustained population growth between 1991 and 2011, leading to an overall increase of 30.1 per cent. Following a slight decline (just 0.4%) between 1986 and 1991, the population grew by 2.8 per cent during the following inter-censal period and at just over eight per cent in each of the last three periods, including 2006-2011, which coincided with the onset of recession.

Table 5.1 CO: Population – Coastal Counties

FLAG Area	1991	1996	2002	2006	2011	Change 1991-2011
North East	1,012,659	1,041,434	1,119,812	1,214,339	1,314,896	29.8%
South East	364,593	377,070	413,157	453,462	491,174	34.7%
South West	694,219	711,682	755,660	805,185	856,343	23.4%
West	271,282	282,860	312,354	342,620	367,849	35.6%
North West	190,770	192,402	201,445	213,683	227,829	19.4%
North	128,117	129,994	137,575	147,264	161,137	25.8%
Coastal Counties	2,661,640	2,735,442	2,940,003	3,176,553	3,419,228	28.5%
Ireland	3,525,719	3,626,087	3,917,203	4,239,848	4,588,252	30.1%

When we define coastal regions in terms of counties, population growth was marginally below that experienced nationally, leading to a decline of one percentage point in the share of population living in coastal regions, from 75.5 per cent in 1991 to 74.5 per cent in 2011 (Table 5.1 CO %). Growth was uneven across FLAG Regions, with the South East (34.7%) and West (35.6%) growing at an above-average rate, and the North West (19.4%) and South West (23.4%) at a much lower rate.

Table 5.1 ED: Population – Coastal EDs

FLAG Area	1991	1996	2002	2006	2011	Change 1991-2011
North East	102,756	106,418	124,115	149,014	171,047	66.5%
South East	105,047	111,082	124,279	139,741	153,317	46.0%
South West	137,163	142,838	155,438	167,652	180,032	31.3%
West	70,609	71,983	77,084	82,602	88,401	25.2%
North West	59,063	60,635	64,855	67,420	71,675	21.4%
North	76,744	77,338	80,265	84,557	91,406	19.1%
Coastal EDs	551,382	570,294	626,036	690,986	755,878	37.1%
Ireland	3,525,719	3,626,087	3,917,203	4,239,318	4,588,252	30.1%

When we define coastal regions as shoreline EDs, the growth experience departs considerably from this picture. Rather than experiencing a below-average rate of population growth, shoreline EDs have actually grown in population by 37.1 per cent over the past 20 years; i.e. seven percentage points above the national average. But differences in the experience of individual FLAG regions are much greater at this level, with the North East (66.5%) experiencing particularly rapid growth, followed by the South East (46.9%), whilst the West (25.2%), North West (21.4%) and North (19.1%) grew at a much lower rate, losing ground in relative terms.

Table 5.1 CO %: Population Share of Total Population – Coastal Counties (%)

FLAG Area	1991	1996	2002	2006	2011	Change 1991-2011
North East	28.7	28.7	28.6	28.6	28.7	-0.1
South East	10.3	10.4	10.5	10.7	10.7	0.4
South West	19.7	19.6	19.3	19.0	18.7	-1.0
West	7.7	7.8	8.0	8.1	8.0	0.3
North West	5.4	5.3	5.1	5.0	5.0	-0.4
North	3.6	3.6	3.5	3.5	3.5	-0.1
Coastal Counties	75.5	75.4	75.1	74.9	74.5	-1.0
Ireland	100.0	100.0	100.0	100.0	100.0	0.0

Table 5.1 ED %: Population Share of Total Population – Coastal EDs (%)

FLAG Area	1991	1996	2002	2006	2011	Change 1991-2011
North East	2.9	2.9	3.2	3.5	3.7	0.8
South East	3.0	3.1	3.2	3.3	3.3	0.3
South West	3.9	3.9	4.0	4.0	3.9	0.0
West	2.0	2.0	2.0	1.9	1.9	-0.1
North West	1.7	1.7	1.7	1.6	1.6	-0.1
North	2.2	2.1	2.0	2.0	2.0	0.2
Coastal EDs	15.6	15.7	16.0	16.3	16.5	1.0
Ireland	100.0	100.0	100.0	100.0	100.0	0.0

Tables 5.1 CO% and 5.1 ED% above show how each region's relative share in the respective populations has changed over time. In terms of Coastal Counties, the South West has decreased its population share by 1.0 percentage point, the greatest relative population decline amongst all FLAG regions, whilst the South East has experienced the greatest increase (0.4 percentage points). When considering the regions at the level of coastal EDs, however, the South West has remained unchanged over the past 20 years, while the North East experienced the greatest increase (0.8 percentage points), with all other changes being comparatively small.

5.2 Age Dependency Rate

The age dependency rate – defined as the percentage of people aged under 15 or over 64 – provides a proxy for emigration. In Ireland, the response to long-term adverse labour market conditions has long been one of emigration, particularly in rural areas. But emigration is socially and demographically selective, as emigrants tend to be of working age and to be better educated. Thus, long-term adverse labour market conditions in rural areas do not necessarily express themselves through higher unemployment rates, but also in terms of a thinning-out of the working-age cohorts, leading to a higher age dependency rate.

The strong performance of the Irish economy over the 1991 to 2006 period resulted in a steady decline in the age dependency rate from 38.1 per cent in 1991 to 31.4 per cent in 2006. Since the onset of the recession in late 2007, and indicative of a return of emigration, the ratio increased once more to reach 33.0 per cent in 2011.

Table 5.2 CO: Age Dependency Rate – Coastal Counties (%)

FLAG Area	1991	1996	2002	2006	2011	Change 1991-2011
North East	34.6	32.5	30.1	29.3	30.8	-3.8
South East	39.0	35.8	33.5	32.8	34.6	-4.4
South West	38.3	35.2	32.4	31.6	33.2	-5.1
West	39.5	36.4	32.7	31.7	33.1	-6.4
North West	43.1	39.4	35.7	34.4	35.4	-7.7
North	42.3	38.8	36.0	35.2	36.3	-6.0
Coastal Counties	37.7	34.9	32.1	31.3	32.8	-4.9
Ireland	38.1	35.1	32.3	31.4	33.0	-5.1

There are significant differences in age dependency rates across Ireland. These reflect not only the prevalence of emigration, but also internal rural-urban migration patterns. When defined in terms of counties, the age dependency rate for coastal counties is almost identical to the national average, which is unsurprising as these counties comprise 75 per cent of the total population. There is, however, a strong urban-rural divide, with particularly high age dependency rates in the North West (43.1% in 1991 and declining to 35.4% in 2011) and North (42.3% declining to 36.3) and a lower rate in the North East (34.6% declining to 30.8%). The higher rates in the more rural regions signal significant differences in economic well-being, implying a higher ratio of dependents to income-earners and a weakening of the labour force as better-educated young people leave these areas.

Table 5.2 ED: Age Dependency Rate – Coastal EDs (%)

FLAG Area	1991	1996	2002	2006	2011	Change 1991-2011
North East	37.8	34.1	32.0	31.4	34.7	-3.1
South East	38.9	35.8	33.7	33.0	34.9	-4.0
South West	40.4	36.7	34.1	33.4	35.0	-5.4
West	39.7	36.8	33.4	32.3	33.8	-5.9
North West	41.9	38.3	34.6	33.8	34.4	-7.5
North	43.0	39.5	36.7	35.9	37.0	-6.1
Coastal EDs	40.1	36.6	33.9	33.1	34.9	-5.1
Ireland	38.1	35.1	32.3	31.4	33.0	-5.1

A very different picture emerges when we look at age dependency rates for shoreline EDs. Whilst the county-level rates capture the powerful differences that exist between urban centres and other regions, at the ED level, the coastal region is entirely rural and characterised by elevated age dependency rates. Only the North East coastal EDs have a marginally below-average age dependency rate, whilst all other regions are well above the average.

The FLAG North West Region stands out in that it experienced the greatest decline in the age dependency rate, moving from the second highest rate (41.9%) in 1991 to 33.8 per cent in 2006 and increasing slightly to 34.4 per cent in 2011, the second lowest rate for any of the FLAG coastal regions.

5.3 Lone Parent Rate

The proportion of lone parents (as a proportion of all households with dependent children) has doubled over the past 20 years in Ireland, growing from 10.7 per cent in 1991 to 21.6 per cent in 2011. There are marked differences between urban and rural areas, and lone parent rates in the major cities are twice the national average (e.g. Limerick City, 37.5%).

Table 5.3 CO: Lone Parent Rate – Coastal Counties (%)

FLAG Area	1991	1996	2002	2006	2011	Change 1991-2011
North East	14.0	17.9	19.8	24.9	24.5	10.5
South East	10.0	13.2	16.8	21.2	21.8	11.8
South West	9.5	12.5	16.0	20.0	20.1	10.6
West	8.8	11.6	14.4	17.4	17.6	8.8
North West	8.5	10.2	13.2	16.5	18.3	9.7
North	9.5	11.9	15.8	21.6	23.0	13.5
Coastal Counties	11.1	14.3	17.1	21.6	21.8	10.7
Ireland	10.7	13.8	16.7	21.3	21.6	10.9

The lone parent rate for coastal counties as a whole has closely reflected the national average, rising from 11.1 per cent in 1991 to 21.8 per cent in 2011. There are marked differences between the FLAG regions, with the more urban regions having higher rates than the more rural regions. The exception to this is the North region, where this rate increased from just 9.5 per cent in 1991 to 23.0 per cent in 2011. The reasons for this high rate require further study. Lone parent rates in the South West are below average and increased from 9.5 per cent (the third lowest rate for FLAG regions in 1991) to 20.1 per cent (the third lowest rate) in 2011.

Table 5.3 ED: Lone Parent Rate – Coastal EDs (%)

FLAG Area	1991	1996	2002	2006	2011	Change 1991-2011
North East	10.9	14.1	17.7	21.3	22.2	11.3
South East	11.3	14.7	18.1	22.2	23.2	11.8
South West	9.8	11.9	15.3	19.0	19.2	9.5
West	9.4	11.8	14.2	17.1	17.2	7.8
North West	9.7	11.0	14.4	18.7	20.7	11.0
North	9.4	11.6	13.9	19.8	21.4	11.9
Coastal EDs	10.2	12.8	16.0	20.1	21.0	10.8
Ireland	10.7	13.8	16.7	21.3	21.6	10.9

The patterns observed for lone parent rates at the level of coastal counties also hold at the level of the coastal regions when defined as shoreline EDs, with an overall rate of 10.2 per cent in 1991, rising to 21.0 per cent in 2011. This is somewhat surprising, as the coastal EDs are more “rural” in character than the coastal counties, which include the five cities of Ireland. The North West FLAG Region has experienced a marginally lower-than-average increase in the lone parent rates, from 9.7 per cent in 1991 to 20.7 per cent in 2011 (maintaining its position as the region with the third lowest rate amongst the FLAG regions).

5.4 Population with Primary Education only

There has been continuous improvement in education attainments amongst the adult population of Ireland over the past 20 years. In 1991, 36.7 per cent of those who had completed their education never went beyond primary school. This figure had halved by 2006 (18.9%) and fell further to reach 16.0 per cent in 2011.

For the coastal counties, the improvement in the educational profile of the population closely mirrors that of Ireland as a whole, as expected. The FLAG North West region has the second highest proportion of adults with primary education only, falling from 42.1 per cent in 1991 to 19.6 per cent in 2011.

Table 5.4 CO: Population with Primary Education only – Coastal Counties (%)

FLAG Area	1991	1996	2002	2006	2011	Change 1991-2011
North East	34.0	26.2	19.5	17.1	14.3	-19.7
South East	36.9	29.5	22.8	19.2	16.3	-20.6
South West	35.4	28.7	21.5	18.1	15.1	-20.3
West	36.2	31.0	22.6	18.5	15.4	-20.8
North West	42.1	37.0	27.9	23.3	19.6	-22.5
North	51.6	43.5	33.7	29.8	26.1	-25.5
Coastal Counties	36.3	29.4	22.1	18.8	15.8	-20.5
Ireland	36.7	29.5	22.2	18.9	16.0	-20.7

Table 5.4 ED: Population with Primary Education only – Coastal EDs (%)

FLAG Area	1991	1996	2002	2006	2011	Change 1991-2011
North East	32.8	25.9	18.8	15.2	13.0	-19.7
South East	34.2	27.4	21.1	17.6	14.9	-19.3
South West	36.2	29.3	21.4	18.0	14.8	-21.4
West	38.8	33.2	24.8	20.2	16.8	-21.9
North West	39.8	34.9	26.6	23.0	19.1	-20.7
North	52.1	44.1	34.3	30.1	26.0	-26.1
Coastal EDs	38.1	31.4	23.4	19.6	16.5	-21.6
Ireland	36.7	29.5	22.2	18.9	16.0	-20.7

When we define the coastal region in terms of shoreline EDs, a slightly different picture emerges with regard to education levels. In the shoreline EDs, educational levels were historically poorer than at national level, but this differential has narrowed over time. The percentage of people who completed their education having only attended primary school fell rapidly from 38.1 per cent in 1991 to 19.6 per cent in 2006 and 16.5 per cent in 2011. Reflecting this scenario, the rate for the FLAG North West shoreline EDs fell from 39.8 per cent in 1991 to 19.1 per cent in 2011, again the second highest amongst the FLAG regions.

5.5 Population with Third-level Education

The situation is roughly analogous as far as third-level education is concerned, as the percentage of people who continued their studies beyond secondary school has more than doubled over the past 20 years. In 1991, 13.0 per cent of people in Ireland who had completed their education had attended a third-level institution. This grew to 30.5 per cent in 2006, but increased only marginally between 2006 and 2011, when it reached 30.6 per cent.

Table 5.5 CO: Population with Third-level Education – Coastal Counties (%)

FLAG Area	1991	1996	2002	2006	2011	Change 1991-2011
North East	16.4	24.9	32.7	37.3	37.5	21.2
South East	11.3	16.9	22.1	26.8	26.6	15.3
South West	12.7	19.1	25.2	29.5	29.5	16.7
West	14.4	20.4	26.7	31.8	32.6	18.2
North West	10.4	16.0	20.7	25.1	26.0	15.5
North	7.6	13.5	18.3	22.6	23.5	15.9
Coastal Counties	13.7	20.7	27.1	31.7	31.9	18.2
Ireland	13.0	19.7	26.0	30.5	30.6	17.6

The proportion of the coastal counties' population with a third-level education grew from 13.7 per cent in 1991 to 31.7 per cent in 2006, reaching 31.9 per cent in 2011. This 20-year growth is marginally above the national average (18.2 percentage points compared to 17.6 percentage points nationally). Mirroring the situation with regard to low levels of education, the North West region is characterised by comparably low levels of third-level education, rising from 10.4 per cent in 1991 to 26.0 per cent in 2011, the second lowest level amongst the FLAG regions.

Table 5.5 ED: Population with Third-level Education – Coastal EDs (%)

FLAG Area	1991	1996	2002	2006	2011	Change 1991-2011
North East	14.1	21.1	27.7	33.5	31.7	17.6
South East	12.7	18.9	24.1	29.0	29.0	16.3
South West	11.7	18.9	25.2	30.0	29.5	17.8
West	13.3	19.0	24.9	30.4	31.6	18.3
North West	12.5	19.0	24.2	27.7	29.1	16.6
North	8.6	13.7	18.2	22.8	23.8	15.3
Coastal EDs	12.2	18.6	24.4	29.5	29.4	17.2
Ireland	13.0	19.7	26.0	30.5	30.6	17.5

When defined as shoreline EDs, the coastal region has slightly lower educational rates when compared with the country as a whole or with the coastal counties (those with a third-level education increased from 12.2% in 1991 to 29.4% in 2006). Initially, the North West region had almost identical educational levels, accounting for 12.5 per cent in 1991. Over the 20-year period this has risen to 29.1 per cent, which is practically identical to the rate for the coastal EDs as a whole.

5.6 Proportion of Adult Population in Professional Classes

The changes in social class composition experienced throughout Ireland over the past 20 years largely parallel those in educational achievement, with a gradual increase in the number of professionals and a significant decline in the proportion of semi- and unskilled manual workers. At national level, the proportion of professionals rose from 25.2 per cent in 1991 to 34.6 per cent in 2011, an increase of 9.5 percentage points.

Table 5.6 CO: Proportion of Adult Population in Professional Classes – Coastal Counties (%)

FLAG Area	1991	1996	2002	2006	2011	Change 1991-2011
North East	28.3	30.5	35.4	35.8	38.7	10.5
South East	25.9	27.3	30.9	32.6	33.9	8.0
South West	24.9	26.9	30.8	32.3	33.5	8.5
West	24.3	27.6	31.4	33.3	35.3	11.0
North West	20.5	23.4	27.7	30.7	31.1	10.6
North	18.6	20.6	24.6	27.5	28.8	10.2
Coastal Counties	25.6	27.8	32.1	33.5	35.4	9.7
Ireland	25.2	27.3	31.6	32.9	34.6	9.5

The class composition of the coastal counties in terms of the proportion of people living in households where the reference person is in the higher or lower professional classes is just marginally above the country as a whole, rising from 25.6 per cent in 1991 to 35.4 per cent in 2011. The share of professionals in the North West region (20.5%) was well below the average for 1991, and increased to 31.1 per cent in 2011, reflecting a growth below the national average. As a result, the proportion of professionals in the North West region remains three to four percentage points below the figure for the coastal counties (35.4%) and the national average (34.6%).

Table 5.6 ED: Proportion of Adult Population in Professional Classes – Coastal EDs (%)

FLAG Area	1991	1996	2002	2006	2011	Change 1991-2011
North East	29.8	30.9	35.4	35.5	37.2	7.4
South East	27.4	28.6	32.6	34.5	35.9	8.5
South West	23.8	26.3	31.1	33.1	34.4	10.5
West	22.8	25.8	30.4	33.2	35.3	12.5
North West	22.8	25.6	29.6	32.1	32.2	9.4
North	19.0	20.7	25.0	28.0	29.2	10.2
Coastal EDs	24.7	26.7	31.2	33.2	34.6	9.9
Ireland	25.2	27.3	31.6	32.9	34.6	9.5

When defining coastal regions in terms of shoreline EDs, the proportion of the adult population in the professional classes almost exactly matches that of Ireland as a whole. The North West region had the third lowest growth in professionals amongst the FLAG regions, at 9.4 percentage points over the 20-year period, compared to 9.9 percentage points for the shoreline EDs and 9.5 percentage points for Ireland as a whole.

5.7 Proportion of Adult Population in Semi- and Unskilled Manual Classes

Mirroring the gradual increase in the number of professionals, the past two decades have seen a significant decline in the proportion of semi- and unskilled manual workers. At national level, the proportion of people living in households where the reference person was classified as part of the semi- and unskilled classes declined from 28.2 per cent in 1991 to 17.5 per cent in 2011, representing a decline of 10.6 percentage points.

Table 5.7 CO: Proportion of Population in Semi- and Unskilled Classes – Coastal Counties (%)

FLAG Area	1991	1996	2002	2006	2011	Change 1991-2011
North East	24.8	21.8	17.2	16.5	15.3	-9.6
South East	29.3	26.0	21.8	19.7	18.8	-10.5
South West	28.8	24.9	21.5	19.5	18.4	-10.4
West	26.7	23.6	20.0	18.1	16.9	-9.8
North West	32.5	27.1	23.2	20.0	19.1	-13.3
North	40.4	35.3	27.2	23.5	21.5	-18.9
Coastal Counties	27.9	24.4	20.2	18.5	17.3	-10.7
Ireland	28.2	24.4	20.2	18.6	17.5	-10.6

The decline of the semi- and unskilled classes in the coastal counties was practically identical to that experienced in the country as a whole, whilst the figure for the North West region remained slightly higher, resulting in being the second highest amongst the FLAG regions (32.5% in 1991 and 19.1% in 2011).

Table 5.7 ED: Proportion of Population in Semi- and Unskilled Classes – Coastal EDs (%)

FLAG Area	1991	1996	2002	2006	2011	Change 1991-2011
North East	25.6	23.1	18.2	16.7	15.5	-10.1
South East	28.3	25.9	21.4	18.8	17.6	-10.6
South West	30.5	26.4	22.3	19.2	18.1	-12.4
West	32.0	29.3	23.0	19.5	17.6	-14.4
North West	33.4	28.3	23.4	20.3	19.4	-14.0
North	40.7	36.7	28.1	24.4	22.5	-18.2
Coastal EDs	31.0	27.6	22.2	19.4	18.0	-13.0
Ireland	28.2	24.4	20.2	18.6	17.5	-10.6

When looking at the coastal region in terms of shoreline EDs, the share of people in the semi- and unskilled classes is slightly higher, both when compared to the coastal counties or to Ireland as a whole. Initially, the North West region performed slightly worse than the coastal EDs as a whole, with the semi- and unskilled classes accounting for 33.4 per cent in 1991. By 2011, the proportion of the lower classes in the North West region had decreased to 19.4 per cent, thus still remaining marginally above the level for the shoreline EDs (18.0%) as a whole.

5.8 Male Unemployment

Of all census indicators used in the development of the HP Deprivation Index, the economic downturn after 2007 most strongly affected the unemployment rates. Unemployment broadly halved over the 15-year period from 1991 to 2006, but the very rapid subsequent increase has pushed the unemployment rates above their 1991 levels. Particular attention will therefore be paid to the change in trends for the 1991 to 2006 period, on the one hand, and the five-year period from 2006 to 2011, on the other. Nationally, the male unemployment rate fell from 18.4 per cent in 1991 to 8.8 per cent in 2006, before rising to 22.3 per cent in 2011.

Table 5.8 CO: Male Unemployment Rates – Coastal Counties (%)

FLAG Area	1991	1996	2002	2006	2011	Change 1991-2011
North East	19.9	17.5	9.5	9.3	20.2	.3
South East	19.1	16.8	9.6	9.2	25.2	6.1
South West	17.4	15.7	9.0	8.1	21.0	3.5
West	15.8	14.6	9.2	8.6	21.7	6.0
North West	16.8	16.9	11.2	9.1	23.3	6.6
North	29.3	26.4	17.5	14.4	31.4	2.0
Coastal Counties	18.9	17.0	9.8	9.1	22.0	3.0
Ireland	18.4	16.4	9.4	8.8	22.3	4.0

Male unemployment rates for the coastal counties closely reflect those prevailing nationally, falling from 18.9 per cent in 1991 to 9.1 per cent in 2006 and subsequently rising to 22.0 in 2011. The North West region initially had a slightly more favourable experience. Starting with a male unemployment rate of 16.8 per cent in 1991, the second lowest of all FLAG regions, it fell to 9.1 per cent in 2006 and rose to 23.3 per cent in 2011. This makes it the third highest male unemployment rate amongst the FLAG regions defined at county level and the greatest increase amongst all FLAG region over the 20-year period.

Table 5.8 ED: Male Unemployment Rates – Coastal EDs (%)

FLAG Area	1991	1996	2002	2006	2011	Change 1991-2011
North East	19.3	16.7	10.2	8.8	21.7	2.4
South East	19.2	16.7	9.8	9.3	25.5	6.3
South West	17.3	15.5	8.9	7.8	21.2	3.9
West	21.6	19.6	12.0	10.2	23.4	1.8
North West	20.1	21.4	13.0	10.2	24.0	3.9
North	30.9	27.0	18.4	15.1	31.8	.9
Coastal EDs	20.7	18.6	11.3	9.7	23.9	3.2
Ireland	18.4	16.4	9.4	8.8	22.3	4.0

The male unemployment rates in the shoreline EDs were slightly above the national averages throughout the 20-year period examined, first falling from 20.7 per cent in 1991 to 9.7 per cent in 2006 and subsequently rising to 23.9 per cent in 2011. Except for 1991, the male unemployment rates observed in the North West region were marginally above those for the shoreline EDs as a whole, first falling from 20.1 per cent in 1991 to 10.2 per cent in 2006 and rising again to 24.0 per cent in 2011.

5.9 Female Unemployment

Female unemployment rates are considerably lower than the male rates, but did not fall at the same pace during the economic boom, primarily due to the rise in female labour force participation. Nationally, the female unemployment rate fell from 14.1 per cent in 1991 to 8.1 per cent in 2006, and nearly doubled by 2011, accounting for 15.0 per cent of the economically-active female population.

Table 5.9 CO: Female Unemployment Rates – Coastal Counties (%)

FLAG Area	1991	1996	2002	2006	2011	Change 1991-2011
North East	15.2	12.6	7.9	8.1	13.9	-1.3
South East	14.8	12.6	8.5	8.2	16.2	1.5
South West	13.3	11.8	7.4	7.6	14.1	.7
West	12.3	10.7	7.8	8.0	14.5	2.2
North West	12.2	11.3	7.8	7.6	14.0	1.8
North	17.2	14.4	12.6	10.8	19.4	2.2
Coastal Counties	14.4	12.2	8.0	8.1	14.6	.2
Ireland	14.1	12.0	8.0	8.1	15.0	.9

Female unemployment rates for the coastal counties as a whole closely resemble the national average. Starting at 14.4 per cent in 1991, this rate fell to 8.1 per cent in 2006 and rose thereafter to 14.6 per cent, marginally below the nationally rate of 15.0 per cent. Throughout the 20-year period, the rates for the North West region remained marginally below the rates for the coastal counties and Ireland as a whole. Starting from 12.2 per cent in 1991, the rate fell to 7.6 per cent in 2006 and subsequently rose to 14.0 per cent in 2011.

Table 5.9 ED: Female Unemployment Rates – Coastal EDs (%)

FLAG Area	1991	1996	2002	2006	2011	Change 1991-2011
North East	16.7	12.1	9.8	8.9	16.4	-.3
South East	14.8	12.1	8.5	7.7	16.6	1.8
South West	13.8	12.1	7.4	7.4	13.9	.0
West	15.2	13.2	9.0	8.4	15.2	.0
North West	13.2	12.4	7.9	7.0	14.2	1.0
North	18.3	14.9	12.7	10.7	18.9	.6
Coastal EDs	15.3	12.6	9.0	8.3	15.8	.5
Ireland	14.1	12.0	8.0	8.1	15.0	.9

When we define the coastal regions in terms of shorelines EDs, we observe marginally higher female unemployment rates, roughly one percentage point above the national rate. Again, the North West region is characterised by female unemployment rates marginally lower than observed for the shoreline EDs and nationally. Female unemployment fell from 13.2 per cent in 1991 to 7.0 per cent in 2006 and rose back to 14.2 per cent in 2011, one percentage point above the rate in 1991. Nevertheless, female unemployment in the North West is the second lowest for any of the FLAG regions.

5.10 Housing

The last socio-economic indicator that we will discuss is the provision of local authority housing.

Table 5.10 CO: Local Authority Housing – Coastal Counties (%)

FLAG Area	1991	1996	2002	2006	2011	Change 1991-2011
North East	12.7	10.3	8.3	8.6	8.5	-4.2
South East	10.1	9.0	8.1	8.0	9.0	-1.1
South West	9.2	8.1	7.2	7.4	7.8	-1.5
West	5.8	5.2	4.7	5.1	5.8	.0
North West	5.8	5.7	5.6	5.8	6.2	.4
North	6.5	6.3	6.1	7.4	8.4	1.9
Coastal Counties	10.0	8.5	7.3	7.6	7.9	-2.1
Ireland	9.8	8.3	7.1	7.5	7.9	-1.8

There has been a 1.9 percentage point decrease in the proportion of local authority housing in Ireland over the past 20 years (from 9.8% in 1991 to 7.9% in 2011). Social housing provision contracted during the first decade by more than one quarter, but rose slightly over the subsequent ten years. The proportion of social housing in the coastal counties declined by 2.1 percentage points, from 10.0 per cent to 7.9 per cent, whilst the provision of social housing in the North West region was slightly lower than the national average, accounting for 5.8 per cent in 1991 and 6.2 per cent in 2011.

Table 5.10 ED: Local Authority Housing – Coastal EDs (%)

FLAG Area	1991	1996	2002	2006	2011	Change 1991-2011
North East	9.8	7.8	6.4	6.2	7.3	-2.5
South East	9.7	8.5	7.6	7.7	8.5	-1.2
South West	6.6	6.2	5.8	6.1	7.0	.4
West	5.6	5.0	4.5	4.7	5.3	-.3
North West	5.4	5.7	6.0	6.5	7.2	1.8
North	5.9	5.8	5.6	6.6	7.7	1.8
Coastal EDs	7.4	6.7	6.1	6.4	7.3	-.1
Ireland	9.8	8.3	7.1	7.5	7.9	-1.8

Social housing provision in the shoreline EDs is below that observed in the coastal counties, which is unsurprising as the shoreline EDs exclude the major population centres. Social housing in the shoreline EDs accounted for 7.4 per cent in 1991, falling to 6.1 per cent in 2002, and rising thereafter to 7.3 per cent in 2011, returning to the level observed 20 years earlier. At the level of shoreline EDs, local authority rented accommodation in the North West region by 2011 had risen to practically identical levels than the coastal EDs as a whole (7.2% compared to 7.3%).

5.11 Relative Affluence and Deprivation

In the previous ten sections, we analysed developments in relation to ten socio-economic indicators of relative affluence and deprivation over the past twenty years, as they apply to the country as a whole, the coastal counties and the shoreline EDs which is the focus of this report. In this section, we draw these observations together to form a single multivariate index, the Pobal HP Deprivation Index.

The Pobal HP Deprivation Index is well-established throughout Ireland and used across a large number of Government Departments and State Agencies and in the community sector. A more detailed description of the Index is provided in the appendix to this profile.

Attention, however, is drawn to the fact that the present report is based on the analysis carried out at the level of Electoral Divisions (ED), and differs from that based on the new census geography of Small Areas (SA), developed jointly by the Ordnance Survey of Ireland (OSI) and the Central Statistics Office (CSO) and displayed on the Pobal Maps and AIRO websites⁵.

We present a comparison of the de-trended HP scores which are centred on zero for each census wave and have a standard deviation of ten. The Ireland scores shown in table 5.11 CO do not have a mean of zero, but are close to zero, as they are weighted by population.

Table 5.11 CO: Relative Affluence and Deprivation – Coastal Counties

FLAG Area	HP 1991 relative	HP 1996 relative	HP 2002 relative	HP 2006 relative	HP 2011 relative	Change 1991-2011
North East	5.7	6.5	6.5	4.7	7.9	2.2
South East	.7	1.0	.6	-.6	-.9	-1.5
South West	2.9	3.4	3.5	2.3	3.1	.2
West	4.4	4.1	4.0	3.3	4.2	-.2
North West	-1.5	-2.0	-2.2	-1.7	-1.3	.2
North	-10.0	-9.0	-9.4	-9.1	-7.7	2.3
Coastal Counties	2.9	3.3	3.3	2.1	3.7	.8
Ireland	2.5	3.0	2.9	1.7	2.8	.3

The scores for the coastal counties as a whole once again closely match the scores for Ireland. However, there are significant differences between the six FLAG regions, which reflect those highlighted above with respect to the individual indicators.

The most affluent of the six FLAG regions is the North East, with a Relative HP Index score of 5.7 in 1991, increasing by 2.2 points to 7.9 in 2011. This is followed by the West, with a Relative HP Index score of 4.4 in 1991 and 4.2 in 2011. The third most affluent region is the South West, with a score of 2.9 in 1991, increasing to 3.1 in 2011. These three regions are the more affluent ones and each has maintained its position of relative affluence over the past twenty years.

The fourth most affluent region is the South East, with a relative HP Index score of 0.7 in 1991, which is below the national average of 2.5. Furthermore, the South East has experienced the largest relative decline over the twenty year period, with a drop of 1.5 points on the Index, yielding a Relative HP Index score of -0.9 in 2011, which is well below the national average. The North West falls into the same category as the South East, as it is significantly below the national average, with a Relative HP Index score of -1.5 in 1991, improving marginally to -1.3 in 2011. The North is by far the most deprived region, with a low Relative HP Index score of -10.0 in 1991. Although this region experienced the largest improvement in its relative HP Index score, it still scored -7.7 in 2011.

⁵ <http://maps.pobal.ie/#> and <http://airomaps.nuim.ie/flexviewer/?config=AIDeplIndex.xml>.

Table 5.11 ED: Relative Affluence and Deprivation – Coastal EDs

FLAG Area	HP 1991 relative	HP 1996 relative	HP 2002 relative	HP 2006 relative	HP 2011 relative	Change 1991-2011
North East	3.5	4.3	4.5	4.0	4.4	1.1
South East	2.1	2.7	1.9	.8	.5	-1.6
South West	1.3	2.6	3.4	2.7	2.9	1.6
West	.4	.3	.9	1.1	2.7	2.3
North West	-1.0	-1.6	-.6	-1.1	.1	1.1
North	-10.2	-9.4	-9.8	-9.1	-7.8	2.4
Coastal EDs	-.1	.6	.9	.6	1.2	1.3
Ireland	2.5	3.0	2.9	1.6	2.8	.3

Interestingly, the observations made with regard to relative affluence and deprivation do not alter significantly when we change scale. Whether we look at the coastal counties or shoreline EDs, the North East is still the most affluent region, although the relative HP Index scores are slightly lower than for the coastal counties. The ranking between the next two regions changes, with the South West being the second most affluent region, closely followed by the West. At this level of observation, the West rather than the North East has experienced the greatest improvement in its relative position over the period in question. The South East and North West occupy the next two positions, as before, and closely match the average for coastal EDs as a whole. As before, the North is by far the most disadvantaged of the FLAG regions, and the scores for its shoreline EDs is almost identical to those for coastal counties.

6 Indicators specific to the Fishing Industry

This section provides additional data on the Fishing Industry. Data are provided for the number of vessel owners and the tonnage of the fishing fleet as well as the number of enterprises involved in fishing-related industries.

6.1 Fishing Vessels Owners

Information on the number of fishing vessel owners and the tonnage of the fishing fleet is provided in the annual listing of fishing vessel owners compiled by the Department of Agriculture⁶. By the end of 2012, Ireland had just under 2,200 owners of fishing vessels, with a combined tonnage of nearly 65,000 gross tons.

Table 6.1 CO: Owners and Tonnage of Fishing Vessels – Coastal Counties

FLAG Area	Number of Owners	Owners %	Owners per 1,000 Population	Tonnage gross-tons	Tonnage %	Tonnage per 1,000 Population
North East	148	6.7	0.1	5,764	8.9	4
South East	271	12.3	0.6	7,778	12.1	16
South West	706	32.1	0.8	16,232	25.1	19
West	434	19.8	1.2	5,687	8.8	15
North West	238	10.8	1.0	1,128	1.7	5
North	393	17.9	2.4	27,911	43.2	173
Coastal Counties	2,190	99.7	0.6	64,500	99.9	19
Ireland	2,196	100.0	0.5	64,548	100.0	14

As highlighted in previous sections, the coastal counties account for about three quarter of Ireland's population, but practically all fishing vessel owners (99.7%) and 99.9 per cent of the gross tonnage. There are some variations between FLAG regions, with the South West accounting for nearly one-third of vessel owners and one quarter of total tonnage. The West region has the second largest share

⁶ Available at <http://ec.europa.eu/fisheries/fleet/index.cfm> , accessed in January 2013.

in vessel owners, but only the fourth largest share in the tonnage, reflecting the smaller average size of fishing vessels in the West. The reverse applies to the North, where we find only 17.9 per cent of vessel owners, but 43.2 per cent of total tonnage, which is obviously due to the very large vessels located in Killary Harbour. With 238 (10.8%) the North West region has the smallest share of vessel owners amongst all FLAG regions, which can be explained by the region not being home of one of the major Harbour Areas.

Table 6.1 ED: Owners and Tonnage of Fishing Vessels – Coastal EDs

FLAG Area	Number of Owners	Owners %	Owners per 1,000 Population	Tonnage gross-tons	Tonnage %	Tonnage per 1,000 Population
North East	123	5.6	0.7	5,465	8.5	32
South East	247	11.2	1.6	7,657	11.9	50
South West	669	30.5	3.7	15,814	24.5	88
West	368	16.8	4.2	3,866	6.0	44
North West	219	10.0	3.1	1,060	1.6	15
North	372	16.9	4.1	27,831	43.1	304
Coastal EDs	1,998	91.0	2.6	61,693	95.6	82
Ireland	2,196	100.0	0.5	64,548	100.0	14

A slightly more nuanced picture emerges when looking at shoreline EDs. Whilst the regional shares in terms of vessel owners and tonnage closely resemble the analysis at the level of coastal counties, the most striking observation relates to the extent to which vessel owners are concentrated in the shoreline EDs themselves. Only 9 per cent of vessel owners reside outside the shoreline EDs, and these account for less than 5 per cent of total tonnage (see Figure 3). As a consequence, and as one would expect, fishing is of proportionally greater importance when we define the FLAG regions in terms of shoreline EDs rather than coastal counties. When defined as coastal counties, there are only 0.6 owners (or 19 gross tons) per 1,000 population; when this is defined as shoreline EDs, the figures rise about fivefold to 2.6 owners and 82 gross tons per 1,000 population. In the North West region, at 3.1 there are marginally more owners than at the level of shoreline EDs overall, while there are only 15 gross tons per 1,000 population, pointing to the comparatively lower importance of fishing to the local economy, which again reflects that the region has no major Harbour Area.

6.2 Number of Firms in Fishing-related Industries

The data used to construct Table 6.2 are based on an analysis of the NACE categorisation contained in the Geodirectory.

Table 6.2 CO: Number of Firms in Fishing-related Industries – Coastal Counties

FLAG Area	Fishing #	Aqua-culture #	Process-ing #	Whole-sale #	Fishing per m capita	Aqua-culture per m capita	Process-ing per m capita	Whole-sale per m capita
North East	11	1	7	11	8	1	5	8
South East	7	9	9	12	14	18	18	24
South West	40	13	19	18	47	15	22	21
West	10	24	9	7	27	65	24	19
North West	12	17	13	6	53	75	57	26
North	21	15	28	4	130	93	174	25
Coastal Counties	101	79	85	58	30	23	25	17
Ireland	128	92	88	63	28	20	19	14

There are four NACE codes which relate to fishing industries:

- NACE A.03.10: Fishing
- NACE A.03.21: Aquaculture
- NACE C.10.20: Processing
- NACE G.46.38: Wholesale

In total, the Geodirectory identifies 371 commercial address points which are related to the four fishing industries. Of these, 323 (87.3%) are located within the coastal counties that make up the six FLAG regions. Expressed as a density measure, there is approximately one fishing-related industry per 10,000 people.

The largest number of fishing-related industries is found in the South West region, which accounts for 90 out of 371 enterprises, or nearly one quarter of the total. However, when taken relative to population, the fishing-related industry is of greatest importance in the North, with about 4 enterprises per 10,000 capita, twice the density of the North West, where this industry has the second-greatest incidence.

Regional differences are also important when looking at enterprises. Fishing and fish processing has by far the greatest importance in the North, whilst aquaculture-related enterprises are of particular importance in the North, North West and West regions.

Table 6.2 ED: Number of Firms in Fishing-related Industries – Coastal EDs

FLAG Area	Fishing #	Aqua- culture #	Process- ing #	Whole- sale #	Fishing per m capita	Aqua- culture per m capita	Process- ing per m capita	Whole- sale per m capita
North East	5	0	6	3	29	0	35	18
South East	3	4	8	9	20	26	52	59
South West	35	9	16	12	194	50	89	67
West	5	20	7	5	57	226	79	57
North West	2	13	12	0	28	181	167	0
North	21	10	26	4	230	109	284	44
Coastal EDs	71	56	75	33	94	74	99	44
Ireland	128	92	88	63	28	20	19	14

When regions are defined in terms of shoreline EDs, nearly two-thirds (235 out of 371 or 63.3%) of fishing-related industries are located within the coastal regions. Defined at this level, there are about three fishing-related enterprises per 10,000 people; i.e. three times as many compared to the coastal counties. Again the North has the highest concentration, with almost seven businesses per 10,000 people, whilst the South West, West and North West all have about 4 enterprises for the same number of residents. The relative importance of industries within the different regions reflects those already identified for coastal counties. Fishing is of particular relevance in the shoreline EDs of the North and South West, whilst aquaculture makes the greatest contribution in the West and North West. Fish processing has a particular relevance in the North and North West, again considering the number of enterprises per 10,000 residents, as this is more insightful in terms of contribution to the local economy.

7 Appendix: Key Features of the Pobal HP Deprivation Index

This appendix provides a brief summary of the Pobal Haase-Pratschke Deprivation Index (HP Deprivation Index hereafter), drawing on recent data from the 2011 Census of Population. Building on the innovative and powerful approach to the construction of deprivation indices developed in our previous research (Haase and Pratschke, 2004, 2005, 2008, 2010, 2011), the ED-level 2011 Pobal HP Deprivation Index provides an up-to-date analysis of the changes in deprivation that have occurred during the fifteen years of economic growth between 1991 and 2006, as well as the changes subsequent to the onset of the recession after the 2006 Census.

The HP Deprivation Index presented in this report is based on an analysis at the level of Electoral Divisions (ED) and **not** Small Areas (SA), the new census geography developed jointly by the Ordnance Survey of Ireland (OSI) and the Central Statistics Office (CSO) for the publication of the Small Area Population Statistics (SAPS) from the 2011 Census of Population. The decision to utilise the ED-level analysis rather than one based on SAs is informed by the consideration that coastal EDs are relatively small in (population) size, and thus SA-level analysis does not provide significant advantages compared to the ED-level analysis. However, by basing our analysis on EDs, we are able to provide consistent data for the past five censuses, spanning the 1991 to 2011 period, whilst an SA-level analysis could only be done for the 2006 and 2011 censuses.

Please note that the 2011 HP Deprivation Index replaces all previously published data, as all data are computed in a consistent manner for the 1991 to 2011 census waves. Also note that index scores that are constructed from the SA level analysis – and displayed on Pobal Maps and the AIRO websites - cannot be compared with those derived from an ED level analysis as presented in this report.

7.1 How is the 2011 Pobal HP Deprivation Index constructed?

Most deprivation indices are based on a factor analytical approach which reduces a larger number of indicator variables to a smaller number of underlying dimensions or factors. This approach is taken a step further in the Pobal HP Deprivation Index developed by Haase and Pratschke: rather than allowing the definition of the underlying dimensions of deprivation to be determined by data-driven techniques, the authors develop a *prior conceptualisation* of these dimensions. Based on earlier deprivation indices for Ireland, as well as analyses from other countries, three dimensions of affluence/disadvantage are identified: **Demographic Profile, Social Class Composition and Labour Market Situation.**

Demographic Profile is first and foremost a measure of rural affluence/deprivation. Whilst long-term adverse labour market conditions tend to manifest themselves in urban areas in the form of unemployment blackspots, in rural areas, by contrast, the result is typically agricultural underemployment and/or emigration. Emigration from deprived rural areas is also, and increasingly, the result of a mismatch between education and skill levels, on the one hand, and available job opportunities, on the other. Emigration is socially selective, being concentrated amongst core working-age cohorts and those with further education, leaving the communities concerned with a disproportionate concentration of economically-dependent individuals as well as those with lower levels of education. Sustained emigration leads to an erosion of the local labour force, a decreased attractiveness for commercial and industrial investment and, ultimately, a decline in the availability of services.

Demographic Profile is measured by six indicators:

- the percentage change in population over the previous five years
- the percentage of population aged under 15 or over 64 years of age
- the percentage of population with a primary school education only
- the percentage of population with a third-level education
- the percentage of households with children aged under 15 years and headed by a single parent
- the mean number of persons per room

Social Class Composition is of equal relevance to both urban and rural areas. Social class background has a considerable impact in many areas of life, including educational achievements, health, housing, crime and economic status. Furthermore, social class is relatively stable over time and constitutes a key factor in the inter-generational transmission of economic, cultural and social assets. Areas with a weak social class profile tend to have higher unemployment rates, are more vulnerable to the effects of economic restructuring and recession and are more likely to experience low pay, poor working conditions as well as poor housing and social environments.

Social Class Composition is measured by five indicators:

- the percentage of population with a primary school education only
- the percentage of population with a third-level education
- the percentage of households headed by professionals or managerial and technical employees, including farmers with 100 acres or more
- the percentage of households headed by semi-skilled or unskilled manual workers, including farmers with less than 30 acres
- the mean number of persons per room

Labour Market Situation is predominantly, but not exclusively, an urban measure. Unemployment and long-term unemployment remain the principal causes of disadvantage at national level and are responsible for the most concentrated forms of multiple disadvantage found in urban areas. In addition to the economic hardship that results from the lack of paid employment, young people living in areas with particularly high unemployment rates frequently lack positive role models. A further expression of social and economic hardship in urban unemployment blackspots is the large proportion of young families headed by a single parent.

Labour Market Situation is measured by three indicators:

- the male unemployment rate
- the female unemployment rate
- the percentage of households with children aged under 15 years and headed by a single parent

Each dimension is calculated in the same way for each census wave and then combined to form an Absolute Index Score and Relative Index Score. The **Absolute Index Scores** have a mean of zero and a standard deviation of ten in 1991, with varying means and standard deviations in the successive census waves that reflect the underlying trends.

The **Relative Index Scores** are fully standardised, with a mean of 0 and standard deviation of 10 for each wave, in order to remove temporal trends and highlight differences in relative deprivation between areas at a single point in time.

7.2 Interpretation of the 2011 Pobal HP Deprivation Index

What is the difference between the Absolute and Relative Index Scores?

The **Absolute Index Scores** measure the actual affluence/deprivation of each area on a *single fixed scale* which, for 1991, has a mean of zero and standard deviation of ten. As the economy improved over the 1991 to 2006 census periods, the Absolute Index Scores gradually increased, akin of a rising tide that lifts all boats. However, following the onset of the prolonged and severe recession in 2007, the Absolute Index Scores for most EDs have again decreased significantly over the past census

period. Because affluence/deprivation is measured on a fixed scale, it is possible to use the Absolute Index Scores to quantify these changes across successive waves of data.

If we are interested in targeting resources towards disadvantaged areas, the main emphasis is on the relative position of each area at a specific point in time. This is represented by the **Relative Index Scores**, which have been rescaled so as to have a mean of zero and standard deviation of ten *at each census wave*. Thus, for any current analysis, the appropriate deprivation measure to use is the **2011 Relative Index Score**. It shows the position of any given ED *relative to all other EDs in 2011*. Table 7.1 shows the means and standard deviations for the absolute and relative deprivation scores across the five census waves 1991 to 2011.

Table 7.1: Distribution of Pobal HP Deprivation Scores, 1991 to 2011

HP Deprivation Index	N	Minimum	Maximum	Mean	Std. Deviation
HP 1991 ED absolute	3,409	-28.0	73.3	0.0	10.0
HP 1996 ED absolute	3,409	-27.4	45.7	4.3	9.2
HP 2002 ED absolute	3,409	-30.6	42.1	8.4	9.9
HP 2006 ED absolute	3,409	-35.0	39.9	9.2	9.3
HP 2011 ED absolute	3,409	-43.7	41.6	-1.4	10.1
HP 1991 ED relative	3,409	-28.0	73.3	0.0	10.0
HP 1996 ED relative	3,409	-34.4	45.1	0.0	10.0
HP 2002 ED relative	3,409	-39.4	34.0	0.0	10.0
HP 2006 ED relative	3,409	-47.4	32.9	0.0	10.0
HP 2011 ED relative	3,409	-41.9	42.7	0.0	10.0

How should the HP Index Scores be interpreted?

The first part of Table 7.1 shows the distribution of **Absolute Index Scores** for the 1991 to 2011 census waves and reveals a number of important attributes of the Index. Firstly, for each census wave, most of the scores are in a total range of about 80 Index Scores. The measurement scale is identical for all five census waves, thus allowing the direct comparison of each area's score from one wave to the other. The scale is constructed in such a way that the mean score for 1991 is equal to zero and the standard deviation is equal to ten. The means describe how average affluence first improved between 1991 and 2006, and subsequently reverted to below its 1991 starting point.

The **Relative Index Scores** are rescaled to have a mean of zero and a standard deviation of ten at each census wave. The labels used for each range of standard deviations are shown in table 7.2.

Table 7.2: Distribution and Labels of Relative Index Scores, 2011

Relative Index Score	Standard Deviation	Label	Colour Scheme in Maps	Number of EDs in 2011	Percentage of EDs in 2011
over 30	> 3	extremely affluent	dark blue	19	0.6
20 to 30	2 to 3	very affluent	medium blue	91	2.7
10 to 20	1 to 2	affluent	medium green	368	10.8
0 to 10	0 to 1	marginally above average	light green	1,161	34.1
0 to -10	0 to -1	marginally below average	light yellow	1,332	39.1
-10 to -20	-1 to -2	disadvantaged	medium yellow	352	10.3
-20 to -30	-2 to -3	very disadvantaged	orange	76	2.2
below -30	< -3	extremely disadvantaged	red	10	0.3
Total				3,409	100.0

How are deprivation scores calculated for larger areas?

Both Absolute and Relative Index Scores can easily be derived for any aggregate area, such as counties or local authority areas, regions or Ireland as a whole. In this report, we have used aggregates for the Harbour Centre areas, the coastal EDs and the coastal counties. This is done by calculating the population-weighted average for the aggregate area. Thus, the affluence or deprivation of any ED will contribute to the area score proportionate to the number of people residing within it.

The full SA-level data for all of the underlying indicator variables and the Absolute and Relative Index Scores can be accessed on the interactive mapping site <http://maps.pobal.ie/#/Map>. All supporting material concerning the Pobal HP Deprivation Index may be downloaded from www.trutzhaase.eu.