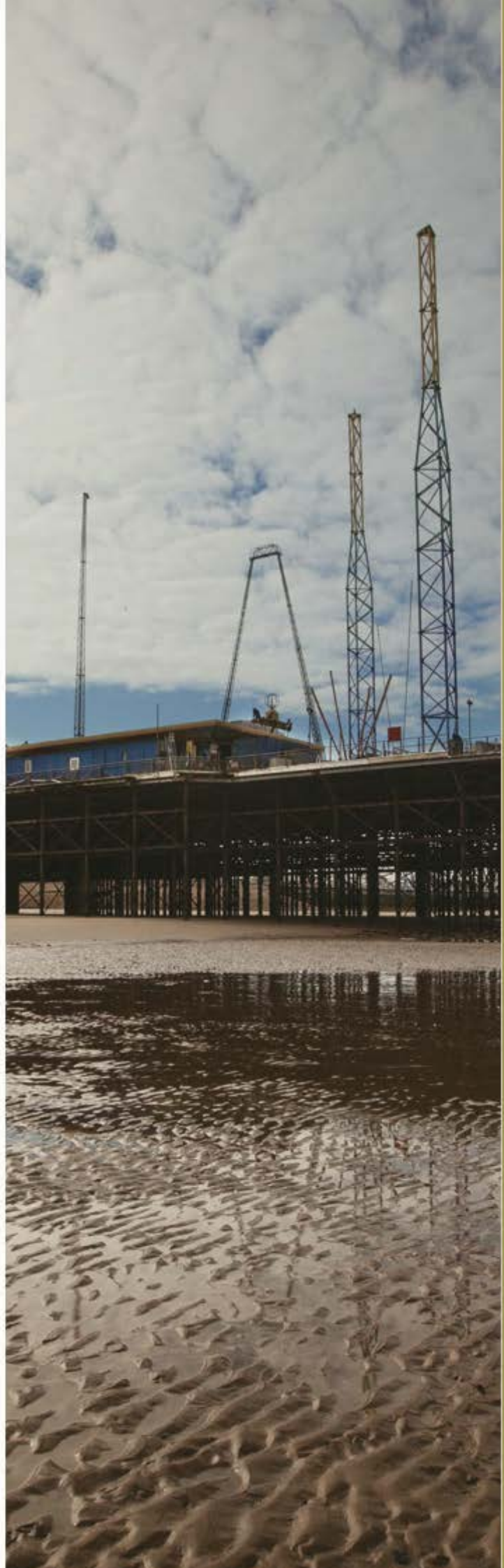




Marine Management Organisation

**Exploring the Potential
of Using Office for
National Statistics (ONS)
Data for Marine Planning**

July 2014



Exploring the Potential of Using Office for National Statistics (ONS) Data for Marine Planning

MMO Project No: MMO1075



Marine
Management
Organisation

Project funded by: The Marine Management Organisation



Report prepared by: Eunomia Research & Consulting

© Marine Management Organisation 2014

This publication (excluding the logos) may be re-used free of charge in any format or medium (under the terms of the Open Government Licence www.nationalarchives.gov.uk/doc/open-government-licence/). It may only be re-used accurately and not in a misleading context. The material must be acknowledged as Marine Management Organisation Copyright and use of it must give the title of the source publication. Where third party Copyright material has been identified, further use of that material requires permission from the Copyright holders concerned.

Disclaimer

This report contributes to the Marine Management Organisation (MMO) evidence base which is a resource developed through a large range of research activity and methods carried out by both MMO and external experts.

The opinions expressed in this report do not necessarily reflect the views of MMO nor are they intended to indicate how MMO will act on a given set of facts or signify any preference for one research activity or method over another. MMO is not liable for the accuracy or completeness of the information contained nor is it responsible for any use of the content.

This report should be cited as

MMO (2014). Exploring the Potential of Using Official National Statistics (ONS) for Marine Planning. A report produced for the Marine Management Organisation, pp 80. MMO Project No: 1075. ISBN: 978-1-909452-37-4.

First published July 2014.

Contents

Executive Summary	1
1. Introduction	5
2. Data Needs in the Marine Planning Process	6
2.1 Statement of public participation	7
2.2 Developing the plan	8
2.2.1 Identifying issues.....	8
2.2.2 Gathering evidence	8
2.2.3 Setting vision and objectives	9
2.2.4 Development of options	9
2.2.5 Plan policy development	9
2.3 Consultation and review	9
2.4 Sustainability appraisal and impact assessment.....	10
3. Specific Data Requirements	11
3.1 Data challenges	11
3.2 Sector data challenges.....	11
3.3 Spatial data challenges	20
3.4 Temporal data challenges.....	26
4. Analysis of Data Sets and Sources	27
4.1 Socio-economic metrics	27
4.2 Data sources	28
4.3 Access points for ONS data identified and used	29
4.3.1 Published data	29
4.3.2 Virtual Microdata Laboratory	29
4.3.3 Nomis online	29
4.3.4 Annual Business Survey Special Analysis	30
4.3.5 Regional Accounts	30
4.4 Possible additions to ONS data gathering.....	30
4.4 Apportionment issues.....	36
4.4.1 Geographical apportionment.....	36
4.4.2 Sectoral apportionment.....	36

5. Conclusions	47
5.1 Overview	47
5.2 Data source recommendations	48
5.2.1 Published data	48
5.2.2 Virtual Microdata Laboratory	48
5.2.3 Nomis online	48
5.2.4 Annual Business Survey Special Analysis	48
5.2.5 Regional Accounts	48
5.3 Assessment of metrics	49
5.4 Conclusion	50
6. References	51
Annex 1: Methodologies for the Production of Metrics from ONS Data	53
Annex 2: Data Processing Method Diagram – Marine Plan Metrics	70
Annex 3: Metrics for the South Plans Areas	75

Figures

Figure 1: The Marine Planning Cycle	7
Figure 2: Marine Plan Areas in England	21
Figure 3: Data Processing Method	70

Tables

Table 1: Initial Mapping between Marine Sectors and 2007 SIC Codes	12
Table 2: NUTS and LAU Classification	22
Table 3: Mapping Marine Plan Areas to Adjoining LAU1 Data	22
Table 4: Key ONS Data Sets	32
Table 5: Sectoral Definitions – South Plans Apportionment	37
Table 6: Mapping Marine Plan Areas to Adjoining LAU1 Data	65
Table 7: Marine Plan Industries and 2007 SIC codes >0% Apportionment	68
Table 8: Marine Sector Business Employees in Local Authority Areas Adjoining South Plans Areas (2012) (UK Business Count)	75
Table 9: Marine Sector Business Local Unit Numbers in Local Authority Areas Adjoining South Plans Areas (2012) (UK Business Count)	76
Table 10: Marine Sector Business Gross Value Added in Local Authority Areas Adjoining South Plans Areas (2012) (Annual Business Survey)	76
Table 11: Gender Distribution of People 16+ in Local Authority Areas Adjoining South Plans Areas (2012/13) (Annual Population Survey)	77

Table 12: Age Distribution of People 16+ in Local Authority Areas Adjoining South Plans Areas (2012/13) (Annual Population Survey)	77
Table 13: Ethnicity and Origin of People in Local Authority Areas Adjoining South Plans Areas (2012/13) (Annual Population Survey)	77
Table 14: Highest Qualification of People in Local Authority Areas Adjoining South Plans Areas (2012/13) (Annual Population Survey)	77
Table 15: Percentage of Households in each Accommodation Type and Tenure in Local Authority Areas Adjoining South Plans Areas (2011) (Census)	78
Table 16: Economic Inactivity Amongst People in Local Authority Areas Adjoining South Plans Areas (2012/13) (Annual Population Survey)	79
Table 17: Economic Inactivity Due to Sickness Amongst People in Local Authority Areas Adjoining South Plans Areas (2012/13) (Annual Population Survey)	79
Table 18: Benefits Claimants Amongst People in Local Authority Areas Adjoining South Plans Areas (2012/13) (Claimant Count)	79

Executive Summary

This report sets out recommendations regarding how Office for National Statistics (ONS) data can be adapted by the Marine Management Organisation (MMO) to improve the socio-economic evidence supporting the development and monitoring of English marine plans.

The study provides an analysis of the data sets held by the ONS that could be used by MMO, and considers their relative suitability in meeting MMO's requirements.

In order to understand the data needs of the marine planning process, a review has been undertaken of the steps in the marine planning process which are reliant on economic and social data.

In order to best inform the development and monitoring of marine plans, good quality social and economic data for all coastal areas of England produced year on year is required by MMO. Social and economic data is of particular importance at the "Gathering Evidence", "Plan Policy Development", and "Implement, Monitor and Review" stages. Further details regarding MMO's data requirements are supplied in Section 2.

MMO requires social and economic data to evaluate and produce indicators regarding the industries, communities and environment affected by marine planning. In order to understand the data that is required, three key challenges posed by MMO's focus on marine industries and marine plan areas need to be understood:

Sectoral: MMO requires data that relates to, and quantifies, each of the sectors highlighted in the Marine Policy Statement, as many of the policies contained within the marine plans are expected to be focussed at the sectoral level. Based on our assessment of the data, some of these sectors are a poor fit with more standard means of industrial classification typically used by the ONS in the industrial data it collects.

ONS data can in large part meet the sectoral challenge where it is available at the maximum level of detail offered through the Standard Industrial Classification (SIC) system of coding. This level of detail is rarely available through published data tables, and (especially when required at quite fine-grained geographical levels) is likely to require either bespoke work or special permission from the ONS to enable it to be obtained. Further, for some sectors, the most detailed level of SIC code will still necessitate some apportionment of data, which is typically reliant on non-ONS data.

Geographical: The data must be able to be presented so as to show the activity taking place in each marine plan area. Marine plan areas do not map readily to the geographical boundaries typically used by the ONS in its publications, which are based on the Nomenclature of Territorial Units for Statistics (NUTS) system.

However, ONS Data can in large part meet the geographical challenge. Numerous data sets are available at the Local Authority Unit 1 (LAU1) level of detail, although this level of detail is rarely published. Local authority boundaries can be mapped

Using ONS data in marine planning

closely to the adjoining marine plan areas, avoiding the need for geographical apportionment and capturing a smaller amount of inland geographies than is the case with data published using larger geographical divisions.

Temporal: The data must also be available on a recurring, rather than on a one-off basis, so that changes can be monitored over the lifetime of a plan.

One of the key benefits of using ONS data is that it enables temporal data challenges to be overcome. Many ONS data sets are collected annually, using a consistent methodology, allowing MMO to be confident that it will be able to obtain the data it needs to produce consistent information over time. Further information about the data challenges is supplied in Section 3.

MMO is interested in identifying the exact data that it may wish to use in the course of marine planning. Determining this requires an understanding of the surveys carried out by the ONS and the means that exist of accessing the data. Whilst ONS would not be unwilling to consider introducing new survey work to collect additional data on marine sector activity, this is expected to be costly, especially if they were to necessitate the development of new industrial codings with specific relevance to marine industries.

Within the data already collected by ONS, it appears that many of MMO's data needs can be met. Numerous means of accessing existing ONS data are available, and have been reviewed within the project. The following data sources have been deemed the most useful based on their relevance to MMO's areas of interest and their ability to meet the identified data challenges.

ONS data published in statistical bulletins is typically too aggregated to meet the geographical and sectoral challenges posed by MMO's requirements. However, results of the National Wellbeing Survey are published at the local authority level, and supply useful information about the attitudes of people living within areas affected by Marine Planning. Otherwise, published data is rarely available at the required level of detail.

Nomis is a service provided by the ONS offering access to detailed and up-to-date UK labour market statistics, including the Business Register and Employment Survey (BRES). This offers information on business numbers and employment at the maximum level of SIC code detail. In addition, Nomis provides access to census data, and information regarding the number of benefit claimants.

Both free Nomis data and data obtained on payment of a fee have been used in the course of this project. The ease of access to most Nomis data, and the facility to create saved queries for user-defined geographies and SIC code groupings makes the interface highly attractive as a means of accessing ONS data.

The Annual Business Survey (ABS) collects bottom-up data on Gross Value Added (GVA) at the maximum level of SIC code detail. Special analysis is available on a charged-for basis, and provides a good analysis of GVA in the marine based sectors. Once the ABS Special Analysis team has set up the necessary queries to pull out data regarding the sectors and geographical areas of interest to MMO, further use of them is likely to be relatively low cost.

Using ONS data in marine planning

Although the Regional Accounts team is willing to produce data on GVA and Gross Household Disposable Income (GHDI) for MMO, when this was requested in the course of the project the team was not able to produce the data within the time available. The Regional Accounts data would have certain advantages over ABS data on GVA, in that it can be related back to national accounts totals, and it accounts separately for offshore GVA. As with the ABS Special Analysis, once the cost of setting up queries has been covered, subsequent data requests are likely to be relatively low cost.

More details regarding the different means of accessing ONS data are presented in Section 4, and their advantages and disadvantages summarised in Section 5.2.

Based on analysis of the need for data within the marine planning process, the geographical, sectoral and temporal challenges posed by marine planning, and the information available through the ONS, the following key metrics have been identified as being the most relevant and readily produced:

Economic

GVA by economic sector

Number of businesses by economic sector

Direct employment by economic sector

Social

Quantitative

Economically inactive rate

Claimant numbers

Gender, age and ethnicity in coastal areas

Health – Economically inactive due to sickness

Education – Qualifications profile

Migration – Number of people not UK born

Housing – Tenure

Qualitative

Life satisfaction

Sense that life is worthwhile

Happiness

Anxiety

More details regarding the suggested metrics can be found in Section 4, and an assessment of each is given in Section 5.3.

MMO's approach to the selection of specific metrics is still emerging, supported by the evidence reports that have been commissioned to look at a range of economic, social and environmental considerations, and may change over time. The use of ONS data has the considerable advantage of allowing MMO to retain flexibility – for example, should MMO decide to adopt a new metric, the availability of historical data will allow back-calculation where required.

The final output of this project is a methodology for the production of each of the metrics identified. This explains how to find, define and obtain the relevant data from

Using ONS data in marine planning

the ONS, and how to process the data to produce each metric. The methodology is set out in written form in Annex 1, and as a diagram in Annex 2.

In Annex 3, the methodology is applied to data for the South Inshore and South Offshore Marine Plan Areas, to demonstrate the results that are thereby delivered.

The methodology devised through this report has considerable advantages for MMO. It is based on data from regularly conducted, independent ONS surveys, meaning that the information required by MMO will be available on a consistent basis year after year. It enables an assessment to be made of the relative importance of different marine economic sectors, and for changes in their output and role in employment to be tracked over time. It also provides insight into the social and attitudinal characteristics of the population affected by marine plans. Whilst inevitably there is a level of geographical imprecision and the need for apportionment of certain sectoral information, in these respects it compares favourably with efforts to characterise marine plan areas numerically by reference to a range of disparate sources.

1. Introduction

This report sets out recommendations regarding how Office for National Statistics (ONS) data can be adapted to improve the socio-economic evidence supporting the development and monitoring of English marine plans. The aim of this work is to provide assurance regarding Marine Management Organisation's (MMO) socio-economic baseline against which plan impacts may be assessed. These include distributional impacts – the different impacts that proposed developments or changes may have on specific economic sectors or social groups.

The social and economic importance of the UK marine environment is increasingly being appreciated, but the needs and interests of its different users have the potential to come into conflict. Renewable energy generation and aggregate extraction, commercial fisheries and tourism, marine recreation and gas drilling; all may find themselves to some degree in competition for space at a given point in time.

The improved evidence will inform a number of marine planning outputs including Impact Assessments, and feed into the narrative sections of the options stage of planning. The socio-economic baseline may also be used within the design process that feeds into setting the vision, defining the objectives and selecting the policies that shape marine planning. The information, or the analytical techniques supporting it, may facilitate the monitoring of plans and assessment of their social impact. Furthermore, it may enhance the integration of an ecosystem approach with marine planning in a more cost-effective way than that currently being deployed.

This report explains the findings of the current project, which has focused on the analysis of the data sets held by the ONS that could be used by MMO, and considers their relative suitability to MMO's requirements. The preferred data sets are then used to prepare data regarding the South Marine Plan areas, and the method used is described both in a written methodology and diagrammatic form.

2. Data Needs in the Marine Planning Process

The requirement for data is fundamental to the marine planning process. In order for policies contained within marine plans to be effective, they need to be both evidenced and have impacts that are measurable. Gathering and analysing the necessary socio-economic data on marine-based activities entails a great deal of effort on the part of MMO throughout the marine planning cycle (see Figure 1).

In order to understand the data needs of the marine planning process, a review has been undertaken of the steps in the marine planning process and the key documents published to date by MMO relating to socio-economic data. In this section we describe the marine planning process, and give consideration to the role of socio-economic evidence in enabling successful delivery at each stage.

The Marine Policy Statement (HM Government *et al.*, 2012) requires that marine planning integrates environmental, economic and social factors in developing plan policies in order to support sustainable development. Marine plans in England are currently, or due to be, developed for the eleven marine plan areas, for the most part in pairs. Each plan is itself based on data regarding the economic activity, social demography and environment of the area.

In addition to individual marine plans, MMO has developed and is updating the Strategic Scoping Report for Marine Planning in England. This report gives an overall picture of how activities, resources and ecosystems vary across each of England's marine plan areas, so MMO can understand the specific characteristics of each. Reliable and up-to-date economic and social data is therefore critical to the accuracy of the Strategic Scoping Report.

Each marine plan is supported by two key documents:

- a Sustainability Appraisal (SA), which aims to promote sustainable development by assessing the extent to which the emerging plan will help to achieve relevant environmental, economic and social objectives; and
- an Impact Assessment (IA), that presents the likely costs and benefits of the marine plans on the areas they cover.

Evidence is at the centre of the marine planning cycle (see Figure 1), which in each area encompasses the plans, sustainability appraisal and impact assessment. There are a number of key stages supporting the formation and development of the plan documents where social, economic and environmental data is first required, including the 'identifying issues', 'gathering evidence', 'vision and objectives', 'options development' and 'plan policy development' stages.

Figure 1: The Marine Planning Cycle.



One of the aims of the marine planning process is to establish a robust baseline of evidence which will inform the individual marine plans. This includes the identification of both economic and social trends, which sit within an overarching ecosystem approach (MMO, in press).

Evidence will also be required to support stakeholder engagement and to enable the monitoring and review of marine plans, to examine the impacts of their implementation.

It is likely that, to a great extent, the core information required at each stage in the marine planning process will be similar – although in each marine plan area there may be some specific areas of interest which require particular examination. At each stage, MMO is likely to want to understand the key characteristics of the local population, in order to understand the ways in which society may be affected by change stemming from marine plans; the scale of marine sector industries in terms of their economic and employment impacts within the marine plan area, so that the likely effects of marine plans on industries can be assessed and monitored; and the characteristics of the marine ecosystem, so that important features can be preserved and protected.

We have identified and outlined at a high level where both social and economic evidence and data is required in the marine planning process as it currently operates, as well as the way in which it would operate following the updated ecosystem approach framework described in MMO Project 1048 (in press).

2.1 Statement of public participation

Once a decision has been taken regarding which area a plan is to be prepared for, the marine planning process begins with the production of a Statement of Public

Participation (SPP), which is also the first step in the sustainability appraisal. It is important that, as well as drawing on best practice and experience, the views of stakeholders are taken into account, notably in terms of how they wish to be involved to ensure their participation at appropriate stages in the planning process. For the purpose of marine planning, stakeholders are defined by MMO as people, groups, individuals, and businesses with an interest in the marine area.

Whilst data is not key to the success of this stage, designing the correct stakeholder engagement approach, based on the views of stakeholders, is important to ensure the correct evidence is collected at appropriate stages throughout the process.

2.2 Developing the plan

Having established the SPP for a marine plan, the key stages during the development of the marine plan that require social, economic and environmental evidence are:

- Identifying issues ;
- Gathering evidence;
- Vision and objectives;
- Options development; and
- Plan policy development.

Each of these stages are explained in further detail in the following sub-sections.

2.2.1 Identifying issues

Identifying the issues that the plan must address will be greatly assisted by reliable information about the marine plan area. This may help to identify the relative value of different industries in the area; the work people do; the demographics of the area; important natural features and resources; and the extent of any dependencies upon, and benefits derived from, ecosystem services. Taken together with stakeholder views about what the important issues are, an initial review of data will enable the plan to be tailored to a specific area, and help decide what additional evidence will be required.

At this stage in the marine planning process, an initial review of the available - evidence is also likely to be carried out. It is also likely that a number of gaps or deficiencies in the data will be identified, as each marine plan area will have unique features that are difficult to assess using national data sets. Identified data issues will be addressed during the lifetime of the marine planning process. Information may need to be obtained from sources such as relevant agencies, the academic community, local authorities, or through bespoke surveys.

2.2.2 Gathering evidence

A solid understanding of the evidence that is readily available will help to clarify where a particular approach may be required to collect specific evidence during this stage. For instance, where there are particular local issues, such as an important single industry or a prominent social group, it may be necessary to engage with local residents and stakeholders to supplement national or regional statistics. However, it

is recognised that it is not possible to obtain perfect data, and a proportionate approach will need to be taken to evidence gathering.

2.2.3 Setting vision and objectives

An accurate social and economic dataset is essential for establishing the vision and objectives of the marine plan. The vision will need to be informed by a clear picture of the current circumstances of the marine plan area. Any vision must take account of the social and economic context and baseline of the marine plan area. Objectives will build on what is already present.

2.2.4 Development of options

The vision and objectives then feed into the development of options to be considered for the marine plan. Options will need to have measurable expected outcomes; data will be needed in order to assess the likely impacts of options that are under consideration, so that a final option set can be selected.

2.2.5 Plan policy development

The development of a final policy proposal for the plan area will mean seeking to satisfy a range of objectives, and will require solid and broad evidence. Where there are issues with the evidence, if it is incomplete, difficult to apply directly to the marine plan area in question, or the product of a sample frame that may not be a good match for the area, steps will need to be taken. These steps could involve either adding to the data, or making clear why, despite such considerations, the choice of policies remains valid. The impacts of the policy selected should be measurable, so data will also be required to assess the success or otherwise of efforts to deliver against the plan.

2.3 Consultation and review

Following the drafting of the marine plan, two further important stages take place.

- Stakeholders have the opportunity to comment on the plan during the 'representation period on draft plan' stage. This consultation phase allows relevant stakeholders to input further views on social and economic evidence into the marine plan. Stakeholders will require access to evidence to enable them to give informed input; and feedback from stakeholders will need to be assessed against the evidence base for the draft plan where the two are in disagreement.
- Once the plan is published and adopted, an ongoing requirement for social and economic data and evidence remains through the 'implement, monitor and review' stage. In order to measure the impact of the plans against their objectives, social, economic and environmental data will be required on a periodic basis in order to provide evidence of progress towards the delivery of the plan's objectives, or to identify any unforeseen developments.

The findings arising from monitoring and review may result in changes to the plan, leading to a further iteration.

2.4 Sustainability appraisal and impact assessment

It is intended that each marine plan should be accompanied by a SA and an IA. In particular, the SA is a requirement of the Marine and Coastal Access Act 2009 (MCAA) (HM Government, 2009).

The SA is an important mechanism for assessing the potential impacts of draft plan policies on human use activities and for evaluating potential social impacts. For example, the sustainability appraisal for the East Marine Plans (MMO, 2014a) presents qualitative information on the potential social and economic impacts of the draft plan policies alongside information on potential environmental impacts. The extent to which it can be effective in supporting sustainable development will depend heavily on the quality of the underlying data.

The IA will also rely on the availability of high-quality data in order to allow the normal range of impacts against which a government policy must be assessed to be properly considered. Improved capacity for monitoring environmental outcomes, including that developed to meet the requirements under the Marine Strategy Framework Directive, should help inform evaluation of the impact of marine planning.

Both documents must be founded on reliable and well-analysed data in order that they can stand up to the scrutiny to which they are subjected through the marine planning process. The choice of data and metrics will depend on the social and economic issues that are identified as being of particular interest in the course of developing the plan, and the objectives of the plan. If the plan targets the protection or expansion of a particular industry, this may require a focus on its economic output or the jobs it supports. If the plan targets increasing employment more generally, then the count of benefits claimants in the area may be the most relevant data.

MMO Strategic Evidence Plan (MMO, 2011) recognises the importance of taking forward economic and social research to support marine planning. MMO has also prepared a separate social research strategy (MMO, 2013d). The purpose of the strategy is to enable MMO to develop its social research capacity and capability, so that it can fully integrate social considerations into not only marine planning but also licensing, fisheries management and conservation. MMO has carried out related work under the socio-economic theme¹.

In addition, MMO seeks to ensure that marine decision-making is informed by a better understanding of how increased productive use of marine resources can be facilitated at the same time as reducing the instances where environmentally sensitive thresholds and limits are breached. This approach is in line with an ecosystem approach; but in order to be successful, a credible and reliable evidence base will be required.

¹https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/317753/evidenceregister_sep.pdf

3. Specific Data Requirements

3.1 Data challenges

The marine planning process depends on a wide range of data, which may need to be presented spatially, temporally and sectorally so that total and distributional impacts can be assessed. Data will be required that relates to, and quantifies, each of the sectors highlighted in the Marine Policy Statement, as presented in the first column of Table 1. The data must be able to be presented so as to show the activity taking place in each marine plan area. It must also be available on a recurring, rather than on a one-off basis, so that changes can be monitored over time.

3.2 Sector data challenges

The marine based sectors each hold a great deal of social, economic and environmental importance for the marine plan areas. Accordingly, they are separately identified in marine planning.

The United Kingdom Standard Industrial Classification (SIC) of Economic Activities is used to classify business establishments and other standard units by the type of economic activity in which they are engaged. They are the basis upon which much UK economic data is prepared. The new version of these codes (SIC 2007) was adopted by the UK as from 1st January 2008. The SIC codes provide a clear framework to identify different economic sectors within the marine environment. They divide industries into broad groupings or 'sections', which are then further subdivided through a multi-digit classification system. The most detailed level available is 5-digit SIC codes, which specify quite narrow areas of economic activity. However, the codes do create certain data issues, as not all the marine sectors can be clearly mapped even to 5-digit SIC codes.

An initial, inclusive mapping between the most detailed level of the 2007 SIC codes and sectors identified in the Marine Policy Statement is shown in Table 1, together with comments regarding where particular mapping difficulties are posed.

Table 1: Initial Mapping between Marine Sectors and 2007 SIC Codes.

Sector	SIC Code Section	2007 SIC Code (s)	Comments
Aggregates	B: Mining and quarrying	08120: Operation of gravel and sand pits; mining of clays and kaolin	Marine aggregates may only be part of this total within a marine plan area
Aquaculture	A: Agriculture, forestry and fishing	03210: Marine aquaculture 03220: Freshwater aquaculture	Marine aquaculture likely to be wholly included, but freshwater aquaculture may only partially fall within marine plan area
Carbon Capture and Storage (CCS)	E: Water supply; sewerage, waste management and remediation activities	None	No clear mapping on to current SIC codes, but operation of CCS likely to fall in this section.
Coastal protection	F: Construction	42910: Construction of water projects	Dredging also falls within this category, as may many other types of project (dams, weirs, sluices, harbours)
Coastal tourism	H: Transportation and storage	49100: Passenger rail transport, interurban 49311: Urban and suburban passenger railway transportation by underground, metro and similar systems 49319: Other urban, suburban or metropolitan passenger land transport (not underground, metro or similar) 49320: Taxi operation	Significant risk of overlap with marine recreation. Potential overlap with ports and shipping. Interested only in those aspects of transport and storage that relate to coastal tourism

Using ONS data in marine planning

Sector	SIC Code Section	2007 SIC Code (s)	Comments
		49390: Other passenger land transport 50100: Sea and coastal passenger water transport 51101: Scheduled passenger air transport 51102: Non-scheduled passenger air transport 52212: Operation of rail passenger facilities at railway stations 52213: Operation of bus and coach passenger facilities at bus and coach stations 52219: Other service activities incidental to land transportation, 52220: Service activities incidental to water transportation 52230: Service activities incidental to air transportation	
	I: Accommodation and food service activities	55100: Hotels and similar accommodation 55201: Holiday centres and villages 55202: Youth hostels 55209: Other holiday and other collective accommodation 55300: Recreational vehicle parks, trailer parks and camping grounds 55900: Other accommodation	Relevant only where related to coastal tourism

Using ONS data in marine planning

Sector	SIC Code Section	2007 SIC Code (s)	Comments
		6101: Licenced restaurants 56102: Unlicensed restaurants and cafes 56103: Take-away food shops and mobile food stands 56210: Event catering activities 56290: Other food services 56301: Licenced clubs 56302: Public houses and bars	
	N: Administrative and support service activities	79110: Travel agency activities 79120: Tour operator activities 79901: Activities of tourist guides	Relevant only where related to coastal tourism
	R: Arts, entertainment and recreation	90010: Performing arts 90020: Support activities to performing arts 90030: Artistic creation 90040: Operation of arts facilities 91012: Archives activities 91020: Museums activities 91030: Operation of historical sites and buildings and similar visitor attractions 91040: Botanical and zoological gardens and nature reserves activities 92000: Gambling and betting activities	Relevant only where related to coastal tourism

Using ONS data in marine planning

Sector	SIC Code Section	2007 SIC Code (s)	Comments
		93110: Operation of sports facilities 93120: Activities of sport clubs 93130: Fitness facilities 93199: Other sports activities 93210: Activities of amusement parks and theme parks 93290: Other amusement and recreation activities	
Defence and national security	O: Public administration and defence; compulsory social security	84220 Defence activities	
Dredging	F: Construction	42910: Construction of water projects	Coastal protection and other construction also falls within this category, as may many other types of project (dams, weirs, sluices, harbours)
Fisheries	A: Agriculture, forestry and fishing	03110: Marine fishing 03120: Freshwater fishing	Freshwater fishing relevant only where it takes place in freshwater within the marine plan area
	C: Manufacturing	10200: Processing and preserving of fish, crustaceans and molluscs	Whilst closely tied to the marine sector, may not rely on the particular marine plan sector in question if fish landed elsewhere are

Using ONS data in marine planning

Sector	SIC Code Section	2007 SIC Code (s)	Comments
			processed
	G: Wholesale and retail trade; repair of motor vehicles and motorcycles	46380: Wholesale of other food, including fish, crustaceans and molluscs 47230: Retail sale of fish, crustaceans and molluscs in specialised stores	Whilst closely tied to the marine sector, may not rely on the particular marine plan sector in question if fish landed elsewhere are sold
Marine conservation	N/A	N/A	Not clearly able to be mapped to SIC Codes
Marine recreation	H: Transportation and storage	49100: Passenger rail transport, interurban 49311: Urban and suburban passenger railway transportation by underground, metro and similar systems 49319: Other urban, suburban or metropolitan passenger land transport (not underground, metro or similar) 49320: Taxi operation 49390: Other passenger land transport 50100: Sea and coastal passenger water transport 51101: Scheduled passenger air transport 51102: Non-scheduled passenger air transport 52212: Operation of rail passenger facilities at railway stations 52213: Operation of bus and coach passenger	Significant risk of overlap with coastal tourism. Potential overlap with ports and shipping. Interested only in those aspects of transport and storage that relate to marine recreation

Using ONS data in marine planning

Sector	SIC Code Section	2007 SIC Code (s)	Comments
		facilities at bus and coach stations 52219: Other service activities incidental to land transportation, 52220: Service activities incidental to water transportation 52230: Service activities incidental to air transportation	
	I: Accommodation and food service activities	55100: Hotels and similar accommodation 55201: Holiday centres and villages 55202: Youth hostels 55209: Other holiday and other collective accommodation 55300: Recreational vehicle parks, trailer parks and camping grounds 55900: Other accommodation 6101: Licenced restaurants 56102: Unlicensed restaurants and cafes 56103: Take-away food shops and mobile food stands 56210: Event catering activities 56290: Other food services 56301: Licenced clubs 56302: Public houses and bars	Relevant only where related to marine recreation

Using ONS data in marine planning

Sector	SIC Code Section	2007 SIC Code (s)	Comments
	R: Arts, entertainment and recreation	92000: Gambling and betting activities 93110: Operation of sports facilities 93120: Activities of sport clubs 93130: Fitness facilities 93199: Other sports activities 93290: Other amusement and recreation activities	Relevant only where related to marine recreation
Oil and gas	B: Mining and quarrying	06100: Extraction of crude petroleum 06200: Extraction of natural gas	Relevant only where extracted from marine areas
	D: Electricity, gas, steam and air conditioning supply	35220: Distribution of gaseous fuels through mains 35230: Trade of gas through mains	Relevant only where oil and gas is distributed through marine pipelines
Ports and shipping	H: Transportation and storage	50100: Sea and coastal passenger water transport 50200: Sea and coastal freight water transport 50300: Inland passenger water transport 50400: Inland freight water transport 52101: Operation of warehousing and storage facilities for water transport activities 52220: Service activities incidental to water transportation 52241: Cargo handling for water transport	Inland transport relevant only where it takes place in waterways within the marine plan area

Using ONS data in marine planning

Sector	SIC Code Section	2007 SIC Code (s)	Comments
		activities	
Renewables	C: Manufacturing	27120: Manufacture of electricity distribution and control apparatus	Relevant only where related to marine renewables
	D: Electricity, gas, steam and air conditioning supply	35110: Production of electricity 35120: Transmission of electricity 35130: Distribution of electricity 35140: Trade of electricity	Relevant only where related to marine renewables
	F: Construction	42210: Construction of utility projects for fluids 42220: Construction of utility projects for electricity and telecommunications	Relevant only where related to marine renewables
Telecoms and communications	J: Information and communication	61100: Wired telecommunications activities	Relevant only where communication is via marine cables
Waste water treatment and disposal	E: Water supply, sewerage, waste management and remediation activities	36000: Water collection, treatment and supply 37000: Sewerage	Relevant only in so far as it relates to disposal to marine plan area waters

Using ONS data in marine planning

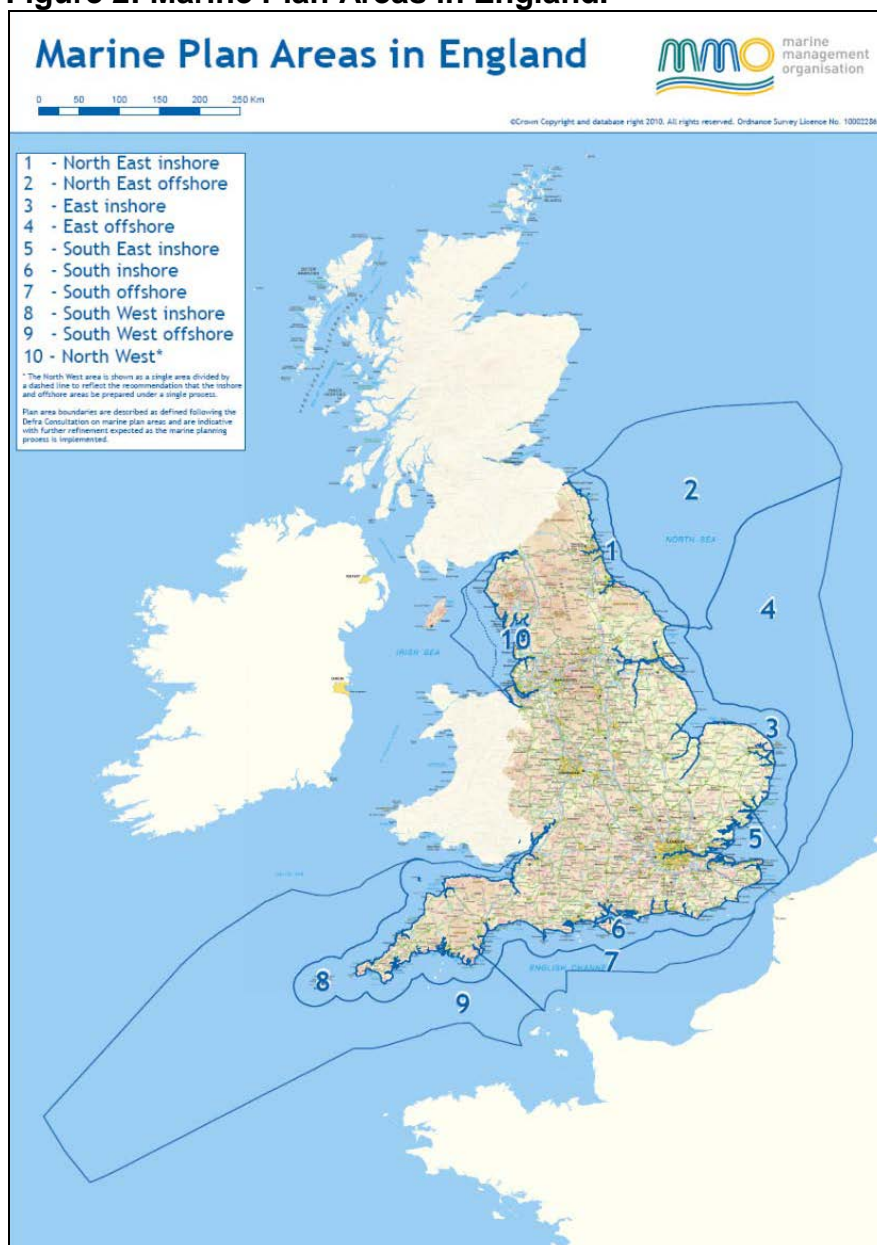
In preparing this initial mapping, an inclusive approach has been taken – all of the industries that seem likely to include some substantive level of contribution from marine sector activities have been highlighted. Whilst many of the mappings are approximate, some will include significant amounts of non-marine based activity. The sectoral data required for an assessment of certain marine sectors will therefore always depend on some level of apportionment within existing data, or supplementary data, to allow their scale and impacts to be assessed. In some cases, it may be appropriate to exclude SIC codes that make a very small contribution to the overall impact of an industry in order to focus on its key components. A suggested approach for the South Inshore and Offshore Marine Plans areas is set out in Section 4 of this report.

To enable the most accurate data to be produced for sectors on which the ONS has information, it will be necessary to obtain economic data from the ONS at its highest level of detail – broken down according to the most detailed SIC codes, down to 5-digits where available. This level of detail is not made available through ONS publications. Where sectoral information is provided, this is typically at the SIC Code Section level. **A criterion for any sectoral data set to be used by MMO is therefore that it should be available at the maximum possible SIC code level of detail.**

3.3 Spatial data challenges

Marine plans are to be prepared for eleven marine planning areas (although one plan is expected to be prepared to cover both the North West inshore and offshore areas). The marine plan areas are illustrated in Figure 2.

Figure 2: Marine Plan Areas in England.



Where ONS data is broken down into sub-national geographical areas, this is typically done using one of the Nomenclature of Territorial Units for Statistics (NUTS) set of boundaries. NUTS was created by the European Office for Statistics (Eurostat) as a single hierarchical classification of spatial units used for statistical production across the European Union. At the top of the hierarchy are the individual member states of the EU: below that are levels 1 to 3, then Local Administrative Units (LAU) levels 1 and 2. LAUs were introduced in July 2003. Previously there had been five different NUTS levels. Table 2 summarises the NUTS and LAU classification.

Table 2: NUTS and LAU Classification.

Classification	Scale
NUTS 1	(Former) Government Office Regions (GORs)*
NUTS 2	Counties/Groups of counties
NUTS 3	Counties/Groups of unitary authorities
LAU 1	Districts/unitary authorities
LAU 2	Electoral wards/divisions

The ONS publishes a number of data sets at the NUTS1 regional level of detail. However, the mapping between the boundaries of the NUTS1 regions and the adjoining Marine Plan areas is poor, with the only complete alignment being between the North West region in the two cases. A further challenge arises from the fact that MMO's principal concern is with areas directly affected by changes in the Marine Plan areas, which are likely to be those closest to the sea. The NUTS1 areas include substantial inland areas.

LAU1 data is therefore more useful for marine planning areas. Local authority boundaries can be mapped closely to the adjoining marine plan areas, while the extent of the inland areas caught within local authority level data is considerably smaller, reducing the requirement for the use of apportionment methods in order to focus on the relevant communities and businesses. proposed mapping between Marine Plan areas and LAU 1 data is shown in Table 3.

Table 3: Mapping Marine Plan Areas to Adjoining LAU1 Data.

Plan Area	Name	Description
East inshore	Bassetlaw District	District
	Boston District	District
	Broadland District	District
	City of Kingston upon Hull	Unitary Authority
	City of Peterborough	Unitary Authority
	Doncaster District	Metropolitan District
	East Cambridgeshire District	District
	East Lindsey District	District
	East Riding of Yorkshire	Unitary Authority
	Fenland District	District
	Great Yarmouth District	District
	Huntingdonshire District	District
	King's Lynn and West Norfolk District	District
	Newark and Sherwood District	District
	North East Lincolnshire	Unitary Authority
	North Lincolnshire	Unitary Authority
	North Norfolk District	District
	Norwich District	District
	Selby District	District
South Cambridgeshire District	District	

Plan Area	Name	Description
	South Holland District	District
	South Norfolk District	District
	Suffolk Coastal District	District
	Waveney District	District
	West Lindsey District	District
	York	Unitary Authority
North East inshore	County Durham	Unitary Authority
	Gateshead District	Metropolitan District
	Hambleton District	District
	Hartlepool	Unitary Authority
	Middlesbrough	Unitary Authority
	Newcastle upon Tyne District	Metropolitan District
	North Tyneside District	Metropolitan District
	Northumberland	Unitary Authority
	Redcar and Cleveland	Unitary Authority
	Scarborough District	District
	South Tyneside District	Metropolitan District
	Stockton-on-Tees	Unitary Authority
	Sunderland District	Metropolitan District
	North West	Allerdale District
Barrow-in-Furness District		District
Blackpool		Unitary Authority
Carlisle District		District
Cheshire West and Chester		Unitary Authority
Chorley District		District
Copeland District		District
Fylde District		District
Halton		Unitary Authority
Lancaster District		District
Liverpool District		Metropolitan District
Preston District		District
Sefton District		Metropolitan District
South Lakeland District		District
South Ribble District		District
Warrington		Unitary Authority
West Lancashire District		District
Wirral District		Metropolitan District
Wyre District		District
South East inshore		Babergh District
	LB Barking and Dagenham	London Borough
	Basildon District	District
	Bexley London Borough	London Borough
	Canterbury District	District

Using ONS data in marine planning

Plan Area	Name	Description
	Castle Point District	District
	Chelmsford District	District
	LB City of London	London Borough
	LB City of Westminster	London Borough
	Colchester District	District
	Dartford District	District
	Dover District	District
	Gravesham District	District
	LB Greenwich	London Borough
	LB Hammersmith and Fulham	London Borough
	LB Havering	London Borough
	LB Hounslow	London Borough
	Ipswich District	District
	LB Kensington and Chelsea	London Borough
	LB Lambeth	London Borough
	LB Lewisham	London Borough
	Maidstone District	District
	Maldon District	District
	Medway	Unitary Authority
	LB Newham	London Borough
	LB Redbridge	London Borough
	LB Richmond upon Thames	London Borough
	Rochford District	District
	Southend-on-Sea	Unitary Authority
	LB Southwark	London Borough
	Swale District	District
	Tendring District	District
	Thanet District	District
	Thurrock	Unitary Authority
	Tonbridge and Malling District	District
	LB Tower Hamlets	London Borough
	LB Wandsworth	London Borough
	South inshore	Adur District
Arun District		District
Bournemouth		Unitary Authority
Chichester District		District
Christchurch District		District
City of Portsmouth		Unitary Authority
City of Southampton		Unitary Authority
East Devon District		District
Eastbourne District		District
Eastleigh District		District
Exeter District		District

Using ONS data in marine planning

Plan Area	Name	Description
	Fareham District	District
	Gosport District	District
	Hastings District	District
	Havant District	District
	Horsham District	District
	Isle of Wight	Unitary Authority
	Lewes District	District
	New Forest District	District
	Poole	Unitary Authority
	Purbeck District	District
	Rother District	District
	Shepway District	District
	South Hams District	District
	Teignbridge District	District
	Test Valley District	District
	The City of Brighton and Hove	Unitary Authority
	Torbay	Unitary Authority
	Wealden District	District
	West Dorset District	District
	Weymouth and Portland District	District
Winchester District	District	
Worthing District	District	
South West inshore	City of Bristol	Unitary Authority
	City of Plymouth	Unitary Authority
	Cornwall	Unitary Authority
	Gloucester District	District
	Isles of Scilly	Unitary Authority
	North Devon District	District
	North Somerset	Unitary Authority
	Sedgemoor District	District
	South Gloucestershire	Unitary Authority
	South Hams District	District
	South Somerset District	District
	Stroud District	District
	Taunton Deane District	District
	Torridge District	District
	West Devon District	District
West Somerset District	District	

A criterion for any sectoral data set to be used by MMO is therefore that it should be available at the LAU 1 level.

3.4 Temporal data challenges

In order to enable trends to be examined and indicators to be developed that can be monitored over the lifetime of a marine plan, data will be needed that is collected regularly and reliably. However, in certain previous MMO publications (e.g. MMO (2013b)) the most specifically relevant evidence has been found in some cases to be drawn from pieces of academic or industry research, which is unlikely to be regularly and consistently repeated.). In some cases, the best available information that has been relied on is already several years old. This creates temporal challenges, necessitating the adjustment of financial data to reflect current prices, and assumptions being made regarding changes that may have occurred since the data was gathered.

One of the key benefits of using ONS data is that it enables temporal data challenges to be overcome. Many ONS data sets are collected annually, using a consistent methodology, allowing MMO to be confident that it will be able to obtain the data it needs to produce consistent information over time.

4. Analysis of Data Sets and Sources

The two key criteria identified for high quality data include:

- the need for sectoral data to be presented at 5-digit SIC codes; and
- the need for data to be presented at LAU1 – district and unitary authority level

Each of these criteria mean that publically available ONS data tables do not provide the level of specificity needed in order to meet MMO's data requirements. Therefore, the use of such data will necessitate application of apportioning methodologies that introduce a significant degree of uncertainty into the data, as the availability of the data used to apportion may change over time.

If more detailed, ONS-sourced data can be obtained it will have significantly improved validity.

4.1 Socio-economic metrics

A review of previous MMO studies² identified the following key socio-economic metrics that have been used to assemble evidence for the development of Marine Plans:

- **Gross Value Added (GVA):** This is a metric relating to the value of goods and services produced in the economy. Fundamentally, GVA represents the difference between the revenue from selling a product (Output) and the costs associated with its production (Intermediate Consumption). GVA is published publically by ONS at regional (NUTS1) and sub-regional levels (both NUTS2 and NUTS3), and broken down by high-level SIC Code Sections.
- **Number of businesses:** This is a metric relating to economic activity. ONS data is available on the number of businesses in the UK, and published at the regional (NUTS1) and sub-regional levels (both NUTS2 and NUTS3), and broken down into SIC Code Sections. Detailed information about the types of businesses and their size is not publicly available.
- **Direct employment:** This is a metric relating to economic activity and social impact. It represents the number of Full Time Equivalent (FTE) workers employed within the marine sector. Jobs are not homogenous: they vary in terms of hours worked, length of contract and salary. ONS data is available on employment at the regional (NUTS1) level, including data on the gender of employees, full and part time employment, hours worked, and reasons for economic inactivity. Basic data on employment by SIC Code Section is also available.
- **Indirect employment:** This is a metric relating to economic activity and social impact. It represents the number of FTE workers employed within industries in supply chains and supporting activities for marine sectors. Indirect employment is less straightforward to determine due to potential overlaps between indirect employment supported by different sectors.

² Studies consulted included: (MMO and Marine Scotland, 2012), (MMO, 2013a), (MMO, 2013b), (MMO, 2013c) and (HM Government, 2014)

Using ONS data in marine planning

Estimates for each of these metrics have previously been generated for the following marine sectors:

- Oil & gas;
- Shipping;
- Ports;
- Fisheries; and
- Marine recreation

However, the selection of these sectors was in part a function of the difficulty in apportioning data regarding industries where the connection with Marine Plan areas was less easy to identify.

In addition to the above metrics, MMO is also interested in general demographic data regarding the populations in local authorities adjoining the Marine Plan areas, including factors such as gender, age, ethnicity, household income and employment status. Information about the local population helps to set the context and establish the types of people likely to be affected by marine planning. An understanding of the social character of the areas adjoining marine plans will help to inform the priorities of the plan, and may help shape the way consultation is carried out. In addition, distributional impacts of marine planning can only be carried out if there is an understanding of the characteristics of the people likely to be affected.

4.2 Data sources

Through liaison with the ONS and research via the ONS website, considerable progress has been made in identifying suitable data sources and accessing the information that MMO will need for Marine Plans. The following potential data sources have been identified and reviewed (see Table 4).

Whilst ONS collects a great deal of detailed data, especially from survey sources, the organisation rightly takes care to avoid disclosing any information that may be able to be related to a particular individual or business. As a result, highly disaggregated data must meet the ONS's disclosure criteria. Material that is produced directly by the ONS will in all cases come with any data that does not meet the disclosure tests removed. Data produced by researchers using the access to raw data available through the ONS 'Virtual Micro Laboratory' (VML) facility must be vetted for potential disclosure issues by ONS to ensure that confidentiality is maintained.

In general, ONS advises that:

- Any cell containing unweighted counts of less than 10 units needs justification that it is safe;
- The sum of all but the largest two units in a set of data (e.g. contributing to a total GVA) should exceed 12.5% of the value of the largest unit; and
- The largest unit in a set of data should not exceed 45% of the sum of all of the units.

As a consequence, it cannot be guaranteed that for any Marine Plan area where a small number of businesses participate in a particular economic activity the information that relates to them will be released.

4.3 Access points for ONS data identified and used

Table 4 identifies at least one data source for each MMO data requirement at the necessary level of detail. Where more than one source is available, a recommendation has been made regarding which sources should be pursued. This assessment has been made based on the following considerations regarding the access points for ONS data.

4.3.1 Published data

Whilst some data that is published in ONS statistical bulletins approximates MMO's requirements, more detailed information is available in each case that will better meet the two criteria defined.³

4.3.2 Virtual Microdata Laboratory

The ONS VML is a facility within ONS which enables access to restricted microdata contained in ONS surveys and other confidential datasets. Several useful surveys can be accessed through the VML, and access is free of charge.

However, in order to access the VML, researchers must undertake an application process and receive security training, which can take time. VML access is only available at sites in London, Titchfield and Newport.

Data is accessed using the Stata database tool, which requires a degree of technical expertise to use, and all inputs and outputs to the VML environment must be vetted by ONS staff. The data tables are not always labelled in ways that make them readily accessible.

The contact point for the VML is: maus@ons.gsi.gov.uk

4.3.3 Nomis online

Nomis is a service provided by the ONS which gives free access to detailed and up-to-date UK labour market statistics from official sources, including:

- Annual Population Survey/Labour Force Survey
- Business Register and Employment Survey (BRES)/Annual Business Inquiry
- Claimant Count
- Jobs Density
- Population Estimates
- UK Business Counts
- Workforce Jobs

³ For example, (ONS, 2013). This Statistical Update provides Gross Household Disposable Income figures for each UK NUTS1 region, but this does not allow data to be adapted to fit the marine plan boundaries.

Using ONS data in marine planning

In many cases, these data can be analysed at local authority geography levels and 5-digit SIC codes (where relevant) without charge. However, for access to employment statistics and information about the number of businesses, it is necessary to register with Nomis and to obtain a “notice” permitting access to the detailed data and restricting to whom it may be passed. There is a fee, currently £60, for access to the data. The fee permits access until the data is next refreshed. Given the importance of business numbers and employment statistics at 5-digit SIC code level, this expenditure seems proportionate.

Nomis data can be obtained from the ONS website here:

<http://www.nomisweb.co.uk/>

4.3.4 Annual Business Survey Special Analysis

Some of the information gathered through the Annual Business Survey (ABS) is not directly accessible to the public, but bespoke analysis can be requested through the ABS Special Analysis service. Such work is conducted in house by the ONS, and is charged at an hourly rate. The outputs are vetted and quality assured, so as to ensure that they meet a high standard. They are also published on the ONS website.

The contact point for ABS Special Analysis is: ABI2@ons.gsi.gov.uk

4.3.5 Regional accounts

The Regional Accounts team agreed to produce data on GVA and Gross Household Disposable Income (GHDI), matching MMO’s sectoral and geographical criteria. The top down approach used by the team would offer a useful comparison with the bottom-up approach used by ABS Special Analysis, and will be useful to undertake at least on a one-off basis to verify that data has been collected appropriately.

4.4 Possible additions to ONS data gathering

In its dealings with the project team, ONS staff were at all times helpful and willing to provide assistance. The ONS is keen to deliver high quality statistical information for users, and if MMO approaches the ONS regarding areas of particular statistical difficulty, or where information is currently absent or insufficiently broken down for MMO’s purposes, it appears probable that the ONS will respond positively.

However, the extent to which they are able to do so will be limited by the resources that the ONS has available and by their use of established coding systems such as SIC codes. Whilst it would be possible for MMO to ask ONS to expand its current survey work to draw out specific information regarding marine activities that are not currently clearly identifiable, ONS would be likely to expect MMO to meet any additional costs that would be incurred.

Insofar as any expansion of ONS survey work would require departure from SIC codes (for example, to make marine energy generation, pipeline or cabling activity distinct from such work carried out on land) this may lead to additional complications – both due to the need to establish clear definitions for any special codes used, and potential difficulties in applying such codes to businesses whose activities may span multiple categories. Where the number of businesses that fall within a sub-code is small, there may be issues of disclosure that could make it difficult for ONS to

Using ONS data in marine planning

release data. Nevertheless, it may be worthwhile for MMO to approach ONS regarding the scope for additional work to be carried out where the current ONS data is a poor fit for MMO's needs.

Table 4: Key ONS Data Sets.

Potential Data	Data Source	Source Notes	Access Point	Available at 5 Digit SIC?	Available at LAU1?	Cost	Notes	Recommend for use by MMO?
GVA by sector	Regional Accounts	Regional accounts cover a limited set of the national accounts for regions, sub-regions and local areas of the UK. All data are produced using a top-down method, meaning estimates are consistent with the UK national accounts.	ONS in house	Yes	Yes	Bespoke quote	Will require bespoke work from ONS staff.	Yes
		Published data	ONS publications	No	No	Free	Only at NUTS 3 and SIC Section level	No
Employment in marine industries (direct and indirect)	Annual Business Survey	ABS produce a standard extract that is available on request. This has standard breakdowns of turnover and employment information as well as GVA data.	ABS Special Analysis	Yes	Yes	Bespoke quote	Disclosure of data will depend on whether it meets ONS disclosure rules re: identifiability of businesses	Yes
	Business Register and Employment	Although the Annual Population Survey covers employment,	Nomis online	N/K.	N/K.	£60	One-off fee for access until next refresh	Yes

Using ONS data in marine planning

Potential Data	Data Source	Source Notes	Access Point	Available at 5 Digit SIC?	Available at LAU1?	Cost	Notes	Recommend for use by MMO?
	Survey	industry breakdown employment is usually taken from BRES. BRES is a business survey. 5 digit SIC breakdowns available. Application for researcher access required to access datasets through Nomis.	VML	Yes	Yes	Free	No cost, but time consuming and requires ONS vetting of outputs	No
Number of Businesses by sector	Inter-Departmental Business Register (IDBR) /UK Business Counts	Business counts by 5 digit SIC, are available from UK Business Count datasets on Nomis. These are sourced from IDBR data as local unit or enterprise counts.	Nomis online	Yes	Yes	£60	One-off fee for access until next refresh	Yes
			VML	Yes	Yes	Free	No cost, but time consuming and requires ONS vetting of outputs	No
Economically inactive rate	Annual Population Survey (APS)	APS is a household survey which covers many variables including Labour Market status. Results over time for small areas must be considered in the context of sampling variability.	Nomis online	No	Yes	Free		Yes

Using ONS data in marine planning

Potential Data	Data Source	Source Notes	Access Point	Available at 5 Digit SIC?	Available at LAU1?	Cost	Notes	Recommend for use by MMO?
Claimant numbers in coastal areas	Claimant Count	Administrative data on claimants of Jobseeker's Allowance (JSA). Does not include all unemployed, but has no sampling variability and provides stable comparisons between areas and over time. Available from Nomis.	Nomis online	N/A.	Yes	Free		Yes
Gender, age and ethnicity in coastal areas	Population Estimates	Information for gender and age can come from mid-year population estimates.	Nomis online	N/A.	Yes	Free		Yes
	Annual Population Survey	Ethnicity information comes from APS	Nomis online	N/A.	Yes	Free		Yes
Life satisfaction	Annual Population Survey	The version of these that is analysed for publication also comes from APS. However, these questions do not currently form part of the data disseminated on Nomis. Although also asked elsewhere, it is only this source that currently feeds into analysis.	ONS publications	N/A.	Yes	Free		Yes
Sense that life is worthwhile								Yes
Happiness								Yes
Anxiety								Yes

Using ONS data in marine planning

Potential Data	Data Source	Source Notes	Access Point	Available at 5 Digit SIC?	Available at LAU1?	Cost	Notes	Recommend for use by MMO?
Health		All of these variables are available from APS. Some general breakdowns available from Nomis. If not available would require an ad-hoc request.	Nomis online	N/A.	Yes	Free		Yes
Education								Yes
Migration								Yes
Housing								Yes

4.5 Apportionment issues

Whilst the use of local authority boundaries and 5-digit SIC codes enables data to be prepared that more closely approximates the information needed for marine planning, the match is not perfect. It is important to consider and address the remaining issues, and any areas where additional data may be needed to ensure that wherever possible the data prepared closely reflects the social and economic impacts of marine activities.

4.5.1 Geographical apportionment

The ONS data that has been investigated in this study allows information to be gathered at the local authority level. This enables authorities that have no coastline to be excluded from analysis, and therefore focuses attention on the authorities whose populations and businesses are most likely to be affected by marine activities.

However, many of the authorities included within consideration have extensive inland areas, and the greatest impact of marine activities may be expected to be felt near the coast. This issue has been discussed with MMO, and a view reached that for the purposes of marine planning, it would not be proportionate to seek to further subdivide the local authority areas adjoining marine plan areas. No geographical apportionment has therefore been built into the proposed methodologies or example data arising from this project.

4.5.2 Sectoral apportionment

Sectoral considerations cannot so easily be dealt with. In Table 1, a “long list” of SIC codes that could be relevant to each marine sector is set out. However, in this table some SIC codes are included within multiple sectors; some codes may be more relevant than others; and some SIC codes appear likely to include some activity that relates to onshore activities.

Consideration of the steps needed to refine and apportion the SIC code definitions in Table 1 is provided in Table 5. Where possible, the suggestions made in this table are applicable to any geographical area, but in some cases, where industries are distributed very unevenly around the coast, specific considerations relevant to the South Marine Plans area (for which indicative data is prepared within this report) are given as an example of how such apportionment could be carried out.

Table 5: Sectoral Definitions – South Plans Apportionment.

Industry / Sector	2007 SIC Code(s)	SIC Code Title	South Plans Apportionment	Commentary
Aggregates	08120	Operation of gravel and sand pits; mining of clays and kaolin	27%	Marine aggregates account for 27% of the 4.8m tonnes of sand and gravel aggregates raised in counties that contain authorities within the South Marine Plan areas (Department for Communities and Local Government, 2014). This is suggested as the proportion of GVA, employment and businesses to be assigned to marine aggregates. A unique assessment of the contribution of marine aggregates to the total economic impact of aggregate extraction is likely to need to be made.
Aquaculture	03210	Marine aquaculture	100%	No apportionment required
	03220	Freshwater aquaculture	50%	No clear data available – we assume 50% takes place below mean high water ⁴
Coastal protection	42910	Construction of water projects	50%	There is no clear basis to split '42910: Construction of water projects' between Coastal Protection, Dredging and Ports. We assume that all port related work will be captured in other codes; and equally

⁴ This assumption has been made in the absence of clear data to inform the level of freshwater aquaculture in England taking place on rivers below mean high water. Since a significant amount of the industry in England is concerned with the production of ornamental fish in ponds, it cannot be 100%; but the existence of a number of salmon farms in England and the siting of some fish farms in estuary areas indicates that the proportion is unlikely to be 0%, especially since the selection of local authority areas will tend to exclude such activities that take place in lakes far inland. No detailed data on the location of aquaculture activities in England has been found, and an estimate of 50% of this activity taking place within a marine context has therefore been used.

Using ONS data in marine planning

Industry / Sector	2007 SIC Code(s)	SIC Code Title	South Plans Apportionment	Commentary
				divide the total between coastal protection and dredging.
Coastal tourism	49100	Passenger rail transport, interurban	0%	The economic influence of coastal tourism is difficult to separate out from other factors. Coastal tourism is will only be part of the total tourist activity within any local authority area, but following the approach agreed with MMO for social metrics, it seems reasonable to count all tourism activity within the local authorities adjoining marine plan areas as coastal tourism. Further, tourists contribute to the economy by using services and amenities that are also use by residents, commuters and others. This problem has been encountered by ONS in its own attempts to analyse the economic impact of tourism, which unfortunately are available only to the NUTS3 level of detail. ONS, 2014). The ONS comments that the measure they use, GVA of Tourist Industries (GVATI) "sums the total gross value added of all establishments belonging to tourism industries, regardless of whether all their output is provided to visitors and of the degree of specialization of their
	49311	Urban and suburban passenger railway transportation by underground, metro and similar systems	0%	
	49319	Other urban, suburban or metropolitan passenger land transport (not underground, metro or similar)	0%	
	49320	Taxi operation	0%	
	49390	Other passenger land transport	0%	
	51101	Scheduled passenger air transport	0%	
	51102	Non-scheduled passenger air transport	0%	
	52212	Operation of rail passenger facilities at railway stations	0%	
	52213	Operation of bus and coach passenger facilities at bus and coach stations	0%	
	52219	Other service activities incidental to land transportation	0%	
	52230	Service activities incidental to air transportation	0%	
	55100	Hotels and similar accommodation	100%	
	55201	Holiday centres and villages	100%	
	55202	Youth hostels	100%	
55209	Other holiday and other collective	100%		

Using ONS data in marine planning

Industry / Sector	2007 SIC Code(s)	SIC Code Title	South Plans Apportionment	Commentary
		accommodation		<p>production process. It leaves out the value added from other non tourism industries which outputs have been acquired by visitors or by others for their benefit". GVATI is therefore "an imperfect measure as it doesn't distinguish between resident and visitor expenditure on the goods and services provided and it also excludes expenditure by visitors on goods and services provided by industries that are not part of the tourism industries, for example retail industries."</p> <p>Following ONS's approach, we have opted to include the GVA of all hotels and holiday accommodation; tour guides; and likely visitor attractions. However, we have excluded transport facilities; shops and restaurants; travel agents (likely to be serving the travel needs of local residents).</p> <p>There is clearly a close relationship between coastal tourism and marine recreation – for example, tourists may well undertake marine recreation during their holiday. In order to separate them, only recreational activities actually taking</p>
	55300	Recreational vehicle parks, trailer parks and camping grounds	100%	
	55900	Other accommodation	100%	
	56101	Licensed restaurants	0%	
	56102	Unlicensed restaurants and cafes	0%	
	56103	Take-away food shops and mobile food stands	0%	
	56210	Event catering activities	0%	
	56290	Other food services	0%	
	56301	Licensed clubs	0%	
	56302	Public houses and bars	0%	
	79110	Travel agency activities	0%	
	79120	Tour operator activities	0%	
	79901	Activities of tourist guides	100%	
	90010	Performing arts	0%	
	90020	Support activities to performing arts	0%	
	90030	Artistic creation	0%	
	90040	Operation of arts facilities	0%	
	91012	Archives activities	0%	
	91020	Museums activities	100%	
	91030	Operation of historical sites and buildings and similar visitor attractions	100%	
	91040	Botanical and zoological gardens and nature reserves activities	100%	
	92000	Gambling and betting activities	0%	
	93210	Activities of amusement parks and	100%	

Using ONS data in marine planning

Industry / Sector	2007 SIC Code(s)	SIC Code Title	South Plans Apportionment	Commentary
		theme parks		place on the sea are deemed to be marine recreation. Other amusement and recreation activities, which include marinas, beach huts, parks and pleasure piers are split equally between tourism and recreation.
	93290	Other amusement and recreation activities	50%	
Defence	84220	Defence activities	N/A	ONS does not have data on the economic contribution of defence activities.
Dredging	42910	Construction of water projects	50%	No clear basis to split 42910 between Coastal Protection, Dredging and Ports. Assume that all port related work will be captured in other codes; and equally divide the total between coastal protection and dredging.
Fisheries	03110	Marine fishing	100%	Due to small likely scale of commercial freshwater fishing above mean high water in the South Plans area, we assume 100% of this is attributable to marine sector – but this would vary between marine plan areas. However, we assume that none of the packing and retailing activities should be captured in this sector.
	03120	Freshwater fishing	100%	
	10200	Processing and preserving of fish, crustaceans and molluscs	0%	
	46380	Wholesale of other food, including fish, crustaceans and molluscs	0%	
	47230	Retail sale of fish, crustaceans and molluscs in specialised stores	0%	
Marine recreation	49100	Passenger rail transport, interurban	0%	There is clearly a close relationship between coastal tourism and marine recreation – for example, tourists may well undertake marine recreation during their holiday. In order to separate them, only recreational activities actually taking
	49311	Urban and suburban passenger railway transportation by underground, metro and similar systems	0%	
	49319	Other urban, suburban or	0%	

Using ONS data in marine planning

Industry / Sector	2007 SIC Code(s)	SIC Code Title	South Plans Apportionment	Commentary
		metropolitan passenger land transport (not underground, metro or similar)		place on the sea are deemed to be marine recreation.
	49320	Taxi operation	0%	Yachting, surfing, diving and rowing are all popular marine recreational activities in the South Plans area. However, the detailed indexes to the Standard Industrial Classification system makes little explicit reference to these activities (ONS, 2009). '93210: Activities of Sports Clubs' includes yacht clubs and rowing clubs, alongside a wide range of other sporting activity. There is no data available to indicate the share of sport club economic activity and employment associated with marine sports; a 10% share is assumed to be reasonable.
	49390	Other passenger land transport	0%	
	50100	Sea and coastal passenger water transport	0%	
	51101	Scheduled passenger air transport	0%	
	51102	Non-scheduled passenger air transport	0%	
	52212	Operation of rail passenger facilities at railway stations	0%	
	52213	Operation of bus and coach passenger facilities at bus and coach stations	0%	
	52219	Other service activities incidental to land transportation	0%	
	52220	Service activities incidental to water transportation	0%	
	52230	Service activities incidental to air transportation	0%	
	55100	Hotels and similar accommodation	0%	Whilst '93110 Operation of Sports Facilities' focuses on stadia and sports grounds and is unlikely to include marine recreation, '93199: Other Sports Activities' includes recreational fishing and may well include other marine activities. 10% of this activity is therefore assumed to be associated with 'Marine Recreation'.
	55201	Holiday centres and villages	0%	
	55202	Youth hostels	0%	
	55209	Other holiday and other collective accommodation	0%	
	55300	Recreational vehicle parks, trailer parks and camping grounds	0%	

Using ONS data in marine planning

Industry / Sector	2007 SIC Code(s)	SIC Code Title	South Plans Apportionment	Commentary
	55900	Other accommodation	0%	
	56101	Licensed restaurants	0%	
	56102	Unlicensed restaurants and cafes	0%	
	56103	Take-away food shops and mobile food stands	0%	
	56210	Event catering activities	0%	
	56290	Other food services	0%	
	56301	Licensed clubs	0%	
	56302	Public houses and bars	0%	
	79110	Travel agency activities	0%	
	79120	Tour operator activities	0%	
	79901	Activities of tourist guides	0%	
	90010	Performing arts	0%	
	90020	Support activities to performing arts	0%	
	90030	Artistic creation	0%	
	90040	Operation of arts facilities	0%	
	91012	Archives activities	0%	
	91020	Museums activities	0%	
	91030	Operation of historical sites and buildings and similar visitor attractions	0%	
	91040	Botanical and zoological gardens and nature reserves activities	0%	
	92000	Gambling and betting activities	0%	
	93110	Operation of sports facilities	0%	
	93120	Activities of sport clubs	10%	
	93130	Fitness facilities	0%	
	93199	Other sports activities	10%	

Using ONS data in marine planning

Industry / Sector	2007 SIC Code(s)	SIC Code Title	South Plans Apportionment	Commentary
	93210	Activities of amusement parks and theme parks	0%	
	93290	Other amusement and recreation activities	50%	
Oil and gas	06100	Extraction of crude petroleum	0%	There is no offshore oil or gas extraction in the South Inshore or Offshore areas, and so all economic activity is assumed to come from onshore oil and gas extraction and distribution. In other marine plan areas, the apportionment would be different.
	06200	Extraction of natural gas	0%	
	35220	Distribution of gaseous fuels through mains	0%	
	35230	Trade of gas through mains	0%	
Ports and shipping	50100	Sea and coastal passenger water transport	100%	No apportionment needed
	50200	Sea and coastal freight water transport	100%	No apportionment needed
	50300	Inland passenger water transport	25%	Assume 25% of this takes place within inland waters below mean high water
	50400	Inland freight water transport	25%	
	52101	Operation of warehousing and storage facilities for water transport activities	100%	Assume this is all, or almost all, marine-related.
	52220	Service activities incidental to water transportation	100%	
	52241	Cargo handling for water transport activities	100%	
		42910	Construction of water projects	0%

Using ONS data in marine planning

Industry / Sector	2007 SIC Code(s)	SIC Code Title	South Plans Apportionment	Commentary
				divide the total between coastal protection and dredging.
Renewables	27120	Manufacture of electricity distribution and control apparatus	Not known	No information about renewable energy has been able to be obtained. No data on electricity generation has been supplied by ONS for the South Plans area for disclosure reasons. Previous attempts to uncover information about the value of offshore renewables have also yielded no information (MMO, 2013b). Where data is available, a unique assessment of the contribution of offshore renewables to the total economic impact of electricity generation is likely to need to be made.
	35110	Production of electricity	Not known	
	35120	Transmission of electricity	Not known	
	35130	Distribution of electricity	Not known	
	35140	Trade of electricity	Not known	
	42210	Construction of utility projects for fluids	Not known	
	42220	Construction of utility projects for electricity and telecommunications	Not known	
Telecoms and communications	61100	Wired telecommunications activities	10%	Information about the economic contribution of offshore wired communications is limited. A unique assessment is likely to need to be made in each Marine Plan area. According to (MMO, 2013e) aside from the cables between the Isle of Wight and the mainland, “just two [telecommunication cables] make landfall in the area – UK-France comes ashore at Brighton and Circe South comes ashore at Bexhill. In addition, the cable Atlantic Crossing 1 runs along the seabed through the area in an East-West orientation”. The

Using ONS data in marine planning

Industry / Sector	2007 SIC Code(s)	SIC Code Title	South Plans Apportionment	Commentary
				<p>report also highlights the activity of the Portland Cable Depot which “acts as a hub for the eight cable maintenance ships that may be located throughout the world, and a cable storage depot”. Some of the economic contribution of this activity is likely to be captured within “Ports and Shipping”, but there is likely to be significant (if difficult to quantify) economic contribution from the facility’s cabling work. To recognise this, 10% of ‘61100: Wired Telecommunications Activities’ is apportioned to the marine sector.</p>
Waste water treatment and disposal	36000	Water collection, treatment and supply	0%	<p>‘Waste Water Treatment and Disposal’ is an important aspect of marine planning, and “allocating sufficient space to facilitate future growth of current sewerage services is essential to the integration of land-use plans with Marine Plans” (HM Government <i>et al.</i>, 2012). However, whilst waste water may ultimately be disposed of into the sea, treatment facilities are based on land and do not form part of the marine economy. The contribution of the seas to the disposal aspect of this activity is perhaps best seen as an avoided cost rather than an economic benefit, and it is therefore</p>
	37000	Sewerage	0%	

Using ONS data in marine planning

Industry / Sector	2007 SIC Code(s)	SIC Code Title	South Plans Apportionment	Commentary
				deemed appropriate not to include the economic impacts of this sector within the totals for marine planning purposes.

5. Conclusions

5.1 Overview

MMO's work in the development and monitoring of marine plans will depend heavily on access to a large amount of high quality, consistent data. This project has focused on the potential of the data gathered by the ONS to fulfil MMO's socio-economic data needs, and in particular to provide data that matches the marine plan boundaries and relates to the industrial sectors that are of interest within marine planning.

Through the work carried out in the course of the project, a method has been established by which data to support many metrics, especially of a social nature, can be derived for each marine plan area, from sources that will be reliably and consistently collected.⁵ However, there remain challenges around certain economic metrics where the most detailed SIC codes available cannot readily distinguish marine activities from those taking place onshore, and apportionments must be made – in some cases in the absence of good data on which to base them, which could limit the accuracy of the results⁶. Further, ONS data is not well suited to providing environmental metrics, and these appear likely to need to be derived from other sources. Environmental metrics and related sources are explored in MMO's East Inshore and Offshore Marine Plans Implementation and Monitoring Plan (MMO, 2014c).

MMO's approach to the selection of specific metrics is still emerging, supported by the evidence reports that have been commissioned to look at a range of economic, social and environmental considerations. A key advantage of the ONS data that has been examined in this project is the breadth of the information available, and the opportunities to cross-tabulate different metrics, especially within social data sets. This richness provides considerable opportunities for MMO to retain flexibility about the metrics it ultimately selects – and to drill down into certain metrics where this appears to be relevant in the context of a specific marine plan area.

Indeed, MMO's preferred metrics may change over time, in response both to external circumstances and to the findings that emerge from marine planning activity. The use of ONS data has the considerable advantage of allowing MMO to retain flexibility – for example, should future work result in MMO deciding to adopt a new metric, the availability of historical data will enable MMO to back-calculate metrics for marine plan areas for which assessments have already been carried out. The metrics can also be generated for previous years if MMO wishes to develop trend information, and once settled upon, the data supporting them can be expected to be reliably available for future years. The use of ONS data therefore has much to recommend it.

⁵ MMO project 1061 (MMO, 2014b) has produced a method and data for monitoring social marine objectives outcomes of marine plans.

⁶ MMO (2013bf) highlights relevant issues encountered in producing economic baseline information.

The key products of this project are included as Annexes to this report. They are:

- Methodologies for the production of metrics from ONS data to meet MMO requirements (see Annex 1);
- Data Processing Templates showing graphically the process that was carried out to produce the metrics (see Annex 2); and
- Example metrics prepared using data obtained from the ONS covering the South Inshore and Offshore Marine Plan areas (see Annex 3).

In this section we comment on our findings regarding the recommended data sources and the remaining limitations of the data.

5.2 Data source recommendations

5.2.1 Published data

ONS data published in statistical bulletins was used within this project only for the National Wellbeing Survey, where results are published at the local authority level. Except where information is available at the required level of detail, it is recommended that MMO should not rely on data published in this way in its future projects where more detailed data is available.

5.2.2 Virtual Microdata Laboratory

VML data was not used in the course of this project. Due to the logistical challenges (the VML can be accessed only by prior arrangement by approved researchers at sites in London, Newport and Titchfield), travel costs, and the need for particular database skills and familiarity with the ONS's data labelling, it is recommended that MMO should not rely on data extracted using the VML in its future projects.

5.2.3 Nomis online

Both free Nomis data and BRES data obtained under a notice have been used in the course of this project. The ease of access to most Nomis data, and the facility to create saved queries for user-defined geographies and SIC code groupings makes the BRES interface highly attractive as a means of accessing ONS data. The administration involved in obtaining a notice is not time consuming and ONS seems able to progress applications quickly.

It is therefore recommended that MMO can reasonably place reliance on data available through Nomis as the basis of metrics in future projects.

5.2.4 Annual Business Survey Special Analysis

The ABS Special Analysis will provide a good, bottom-up analysis of GVA in the marine based sectors. Once the ABS Special Analysis team has set up the necessary queries, future use of them is likely to be quite low cost. Obtaining ABS data for each marine plan in turn therefore appears to be a worthwhile investment by MMO, which will help to ensure that high quality data can be obtained at low cost for future projects. It is therefore recommended that MMO continues to make use of ABS Special Analysis as the source of GVA estimates.

5.2.5 Regional Accounts

Although the Regional Accounts team is willing to produce data on GVA and GHDI for MMO, when this was requested in the course of the project the team was not able

Using ONS data in marine planning

to produce the data within the time available. It was suggested that a likely lead-time of two to three months would be required due to a seasonally high level of workload.

The Regional Accounts team can provide an estimate of the cost of undertaking the analysis for all marine plan areas. An estimate can be requested by e-mail from named individuals – there is no generic e-mail address for the team.

The Regional Accounts data would have certain advantages over ABS data on GVA, in that it can be related back to national accounts totals, and it accounts separately for offshore GVA.

It is therefore recommended that MMO consider whether it would be worthwhile to obtain Regional Accounts figures for GVA, perhaps on a one-off basis, as a point of comparison for ABS data. However, since metrics will primarily be concerned with change rather than absolute values, consistent use of ABS GVA data may generally be regarded as a satisfactory measure of GVA.

5.3 Assessment of metrics

The metrics that have been identified from this study have strengths and weaknesses and, as with any metric, are only a partial representation of the factors that one would wish to take into account. We therefore provide a brief commentary on the limitations of the ONS data as a source of metrics.

Economic

The key metrics identified here are:

- GVA by sector
- Number of businesses by sector
- Employment in marine industries

GVA is a measure of output, while the number of businesses and number of employees are simple counts. They are not sophisticated measures, although taken together they will give a clear sense of the scale and importance of each sector within a marine plan area. However, measures of employment and value will not directly provide information on the actual level of output within each sector. For example, if the price of fish were to increase by 5%, while at the same time the tonnage caught declined by 5% the GVA for fishing would remain the same. Equally, no direct measure of productivity has been included within the metrics, although it may be possible to approximate such a measure by comparing GVA with employment.

Data is available through ONS on all of the economic sectors identified in the Marine Policy Statement with the exception of defence. The analysis carried out in this report has also found that there appears to be for example, negligible direct economic impact (e.g. generation of economic output) arising from the aspects of sewerage that are considered relevant to the marine sector. In addition, some sectors such as marine recreation and coastal tourism are difficult to separate from other recreation, and from the activities of non-tourists making use of the facilities and attractions that tourists may enjoy. With these exceptions and limitations, ONS data appears a

Using ONS data in marine planning

highly useful source of geographically relevant and temporally continuous data that can be used to support the marine planning process.

Social

Quantitative

Economically inactive rate
Claimant numbers
Gender, age and ethnicity in coastal areas
Health – Economically inactive due to sickness
Education – Qualifications profile
Migration – Number of people not UK born
Housing – Tenure

Qualitative

Life satisfaction
Sense that life is worthwhile
Happiness
Anxiety

The social metrics identified provide a mixture of quantitative and qualitative social information. The quantitative data has the potential to provide a good degree of insight into key areas of social change within coastal areas, and the richness of many of the data sets permits interesting analysis of quite specific areas of concern – for example, the qualification profile of different age groups, or the range of reasons why people might be economically inactive. Taken alone, the quantitative data would give little insight, however, into the impact of changes in these social metrics; the qualitative data helps to fill this gap.

The key absence from the metrics is in the field of environmental considerations. No ONS data sets have been identified that would be relevant to the creation of environmental metrics. The development of such metrics will therefore need to rely on other authoritative data sources. This potential has been explored in MMO (2014c).

5.4 Conclusion

Despite the reservations highlighted above, the use of data from regularly conducted, independent ONS surveys, means that the information required by MMO will be available on a consistent basis year after year. It enables an assessment to be made of the relative importance of different marine economic sectors, and for changes in their output and role in employment to be tracked over time. It also provides insight into the social and attitudinal characteristics of the population affected by marine plans. Whilst inevitably there is a level of geographical imprecision and the need for apportionment of certain sectoral information, in these respects it compares favourably with efforts to characterise marine plan areas numerically by reference to a range of disparate sources.

6. References

Department for Communities and Local Government (2014) Mineral Extraction in Great Britain 2012. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/285128/Mineral_extraction_in_Great_Britain_2012_-_Business_Monitor_PA1007.pdf, accessed on 25 April 2014.

HM Government (2014) East Inshore and East Offshore Marine Plans. Available at: <http://www.marinemanagement.org.uk/marineplanning/areas/documents/east-plan.pdf>, accessed on 6 May 2014.

HM Government (2009) Marine and Coastal Access Act 2009. London: HMSO. Available at www.legislation.gov.uk/ukpga/2009/23/contents, accessed on 24 July 2014.

HM Government *et al.*, (2012) UK Marine Policy Statement. London: HMSO. Available at https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/69322/pb3654-marine-policy-statement-110316.pdf, accessed on 24 July 2014.

MMO (2011) Marine Management Organisation Strategic Evidence Plan. Available at: http://www.marinemanagement.org.uk/about/documents/strategic_evidence_plan.pdf, accessed on 27 February 2014

MMO and Marine Scotland (2012) A review of marine social and economic data. A report produced for the Marine Management Organisation and Marine Scotland, pp 42. MMO Project No: 1012. ISBN: 978-1-909452-01-5. Available at: <http://webarchive.nationalarchives.gov.uk/20140108121958/http://www.marinemanagement.org.uk/evidence/1012b.htm>

MMO (2013a). Compilation of information on tourism relevant to marine planning in the South Inshore and Offshore marine plan areas. A report produced for the Marine Management Organisation, pp 71. MMO Project No:1038. ISBN: 978-1-909452-09-1. Available at: <http://webarchive.nationalarchives.gov.uk/20140108121958/http://www.marinemanagement.org.uk/evidence/documents/1038.pdf>

MMO (2013b). Economic baseline assessment of the South Coast. A report produced for the Marine Management Organisation by Eunomia Research & Consulting Ltd, pp 125. MMO Project No: 1050. ISBN: 978-1-909452-13-8. Available at: <http://webarchive.nationalarchives.gov.uk/20140108121958/http://www.marinemanagement.org.uk/evidence/documents/1050.pdf>

MMO (2013c). Social impacts of fisheries, aquaculture, recreation, tourism and marine protected areas (MPAs) in marine plan areas in England. A report produced for the Marine Management Organisation, pp 192. MMO Project No: 1035. ISBN: 978-1-909452-19-0. Available at: <http://webarchive.nationalarchives.gov.uk/20140108121958/http://www.marinemanagement.org.uk/evidence/documents/1035.pdf>

Using ONS data in marine planning

MMO (2013d) Social Research Strategy. Available at: <http://www.marinemanagement.org.uk/about/documents/socialresearch.pdf>, accessed on 27 February 2014.

MMO (2013e) South Inshore and Offshore Plan Areas. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/326907/south_spar.pdf.

MMO (in press) Ecosystem Approach in Marine Planning. A report produced for the Marine Management Organisation. MMO Project No: 1074. ISBN: 978-1-909452-33-6..

MMO (2014a) Sustainability Appraisal of the East Inshore and East Offshore Marine Plans. Available e at: <http://www.marinemanagement.org.uk/marineplanning/areas/documents/east-plan-sa.pdf>, accessed on 4 May 2014.

MMO (2014b). Method and Data to Monitor Social Outcomes of Marine Plans. A report produced for the Marine Management Organisation, pp83. MMO Project No: 1061. ISBN: 978-1-909452-28-2.

MMO, (2014c). East Inshore and Offshore Marine Plans Implementation and Monitoring Plan. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/324567/eastimpfinal.pdf

ONS (2009) Indexes to the UK Standard Industrial Classification of Economic Activities 2007. Available at: https://www.google.co.uk/url?sa=t&rct=j&q=&esrc=s&source=web&cd=2&ved=0CDQQFjAB&url=http%3A%2F%2Fwww.ons.gov.uk%2Fons%2Fguide-method%2Fclassifications%2Fcurrent-standard-classifications%2Fstandard-industrial-classification%2Fsic-2007-indexes.pdf&ei=uJpGU_fjH-uA7QaZyYHgAg&usq=AFQjCNFwZydehFx_HP_0F02bEsXK2yVJXA.

ONS (2013) Statistical Bulletin: Regional Gross Disposable Household Income (GDHI) 2011. Available at: http://www.ons.gov.uk/ons/dcp171778_307651.pdf, accessed on 23 April 2014.

ONS (2014) The Regional Value of Tourism 2011. Available at: http://www.ons.gov.uk/ons/dcp171776_353069.pdf, accessed on 26 April 2014.

Annex 1: Methodologies for the Production of Metrics from ONS Data

Using ONS data, the following metrics have been developed to measure the economic and social activity within marine plan areas:

- Economic metrics
 - Direct employment
 - Number of businesses
 - GVA
 - Gross household disposable income
- Social metrics:
 - Age and gender balance
 - Population not UK born
 - Qualifications
 - Economically inactive
 - Benefits claimant count

This annex sets out the methodology used to produce each metric for a particular marine plan area.

A1.1 Economic Metrics

A1.1.1 Downloading data from Nomis

The process by which Nomis economic data can be downloaded is described below.

Whilst data can be accessed from Nomis without registering, it is useful to **register** so that you can save user defined lists of local authority areas and SIC codes. Registering requires the researcher to fill in some personal details. <https://www.nomisweb.co.uk/login/login.asp?target=/default.asp>

- Business Register and Employment Survey / Annual Business Inquiry (BRES) data can only be accessed by **obtaining an authorisation** (called a Notice). you must apply to Nomis, explaining the research purpose for which you require the data and how it will be used. There is a charge of £60 to obtain a Notice, which remains valid until the data set accessed is next updated.
- To commence the download process, **sign in** to your account.
- From the home page, **select** 'advanced query' from within the 'detailed statistics' box, to navigate to: <https://www.nomisweb.co.uk/query/select/getdatasetbytheme.asp?opt=3&theme=&subgrp>
- From the 'selection method' box on the left hand side of the page **select** 'by theme'.

N.B. To review what has been selected in a query at any point after selecting the dataset, select 'review/save' from the 'options' box on the left hand side.

N.B. To navigate away from a query and select a new dataset to investigate, select 'change dataset' from the 'data source' box on the left hand side.

A1.1.1.1 Creating 'user defined' geographical areas

In order to download data relating only to the local authorities that fall within the marine plan area you are interested in, you need to create a user defined geographical area. The marine plan areas are defined in terms of adjoining local authorities in Table 6. You can save user defined geographical areas for future use. To create a user defined geographical area:

- **Select** the data set for which you wish to download data (e.g. Business Register and Employment Survey / Annual Business Inquiry => Business Register and Employment Survey).
- As this is a restricted dataset, the following steps must be followed to access the data:
 - 1. **Select** the relevant notice (which should be displayed)
 - 2. **Select** your name from the drop down list of researchers
 - 3. **Check** the box to agree to restrictions on use
 - **Click** 'continue'
- **Select** 'geography' from the 'options' box on the left hand side of the page
- Still within the 'options' box, **select** the subheading 'user defined'
- **Select** 'create your own area'
- Under the title 'commonly used' **select** 'local authorities: district / unitary'
- **Refer** to a list of the local authorities that fall within each marine plan area. Using the drop-down menu, **select** the NUTS1 region you wish to pick authorities from (for example, South West). You may need to select authorities from more than one region in order to define a marine plan area.
- **Check the boxes** next to the local authorities you wish to select. Clicking on the UK map icon opens another page showing the location of that authority.
 - Alternatively, above all of the listed authorities is an option to 'use map'. Checking this box changes the selection facility to a map of the region selected. Each authority can be identified by hovering the mouse over the authority. To select an authority, simply click on the map.
 - You can zoom in on a specific area of the map to view the authorities in greater detail.
- Once all the desired authorities have been selected, **click** the 'next' button on the top right hand side of the page.
- A list of the authorities you have selected will be shown. **Check** this against the list of authorities that fall within the marine plan area (see Table 6). If any are missing, **click** the 'back' button and select any additional authorities that are required.
- Use the blank box to **enter** a name for your area, e.g. 'South Inshore Authorities'
- **Click** Finish. The user defined geographical area will now be saved in your Nomis account, and can be used when downloading any data set.

N.B. To select authorities from more than one region, simply use the drop-down menu to select another region, and select authorities as in the previous steps.

N.B. Once checked or selected, the authority remains selected even when picking authorities from another region.

A1.1.1.2 Creating 'user defined' industries

For economic metrics, it will be necessary to select the industries that fall within the marine sectors as shown in Table 7. You can save user defined industries for future use. You will need to refer to a list of industries that fall within the marine economic sectors. To create a user defined industry:

- Under 'Business Register and Employment Survey / Annual Business Inquiry' **select** 'business register and employment survey (2009 to 2012)'.
- As this is a restricted dataset, the following steps must be followed to access the data:
 - 1. **Select** the relevant notice (which should be displayed).
 - 2. **Select** your name from the drop down list.
 - 3. **Check** the box to agree to restrictions on use.
 - **Click** 'continue'.
- **Select** 'industry' from the 'options' box on the left hand side of the page.
- Still within the 'options' box, **select** the subheading 'user defined'.
- **Select** 'create your own industry'.
 - Using the drop down menu for '(5-digit) subclasses' **select** 'some'.
 - Using the drop down menu **select** the relevant 2-digit division, e.g. '03 : Fishing and aquaculture'.
 - Within the list presented, **check the boxes** of the 5-digit subclasses you wish to included within the user defined industry.
 - If the user defined industry has 5-digit subclasses from more than one 2-digit division, simply use the drop down menu to **select** another 2 digit division, and use the boxes to **check** the 5 digit subclasses required.
 - In order to allow for later apportionment, you may need to ensure that each SIC code row can be viewed separately.
 - Once all the required 5-digit subclasses have been selected, **click** 'next' (top right hand corner of the page).
 - **Enter** a name for your industry into the blank box provided.
 - **Click** 'finish'.

N.B. Once checked a 5-digit subclass will remain selected when moving between different 2-digit divisions (unless you go back and un-check it)

A1.1.1.3 Downloading Nomis datasets for the marine plan area

Once user-defined geographies and industries have been selected, you can download the data sets required to create the metrics. The Nomis interface allows detailed breakdowns of data by local authority area, business size, legal status and employment status. However, detailed figures are less likely to be suitable as metrics because of the sheer volume of figures created, and because using these breakdowns increases the likelihood that disclosure issues will arise.

A1.1.1.3.1 Employment

- From the advanced query page
<https://www.nomisweb.co.uk/query/select/getdatasetbytheme.asp?theme=28>

select 'Business Register and Employment Survey / Annual Business Inquiry', and then **select** 'business register and employment survey (2009 - 2012)'.

- As this is a restricted dataset, the following steps must be followed to access the data:
 - 1. **Select** the relevant notice (which should be displayed).
 - 2. **Select** your name from the drop down list.
 - 3. **Check the box** to agree to restrictions on use.
 - **Click** 'continue'
- **Select** 'geography' from the 'options' box on the left hand side of the page
 - Still within the 'options' box, **select** the subheading 'user defined'.
 - **Check the box** of your user defined area, as established in Section 2.1.1.
- **Select** 'date' from the 'options' box on the left hand side of the page
 - **Select** the option 'I want data for the following date(s)' (this is normally pre-selected).
 - **Uncheck** any pre-selected boxes, and select the appropriate box(es) to select the dates for which you wish data to be downloaded.
- **Select** 'employment status' from the 'options' box on the left hand side of the page, then select 'Employment'⁷.
- **Select** 'industry' from the 'options' box on the left hand side of the page
 - Still within the 'options' box, **select** the subheading 'user defined'
 - **Check** the box(es) of your user defined industries, as established in Section 2.1.2
- **Select** 'percent' from the 'options' box on the left hand side of the page
 - The default is for percentages to be 'off'
 - Select 'on' to display the percentages
- **Select** 'review/save' from the 'options' box on the left hand side of the page
 - This allows you to check the geography, date and variables that have been selected.
 - To save this search, **click** the 'save query...' button
 - **Save** the query with the desired name and location
- **Select** 'download data' from the 'results' box on the left hand side of the page
- Once the data has downloaded, **save** the excel file to the desired location on your computer.
- Where applicable, apply apportionment methods to data to ensure that only the proportion of the GVA attributable to the marine sector is counted.
- After apportionment, extract totals for each sector.
- Check the data for potential disclosure issues.

⁷ **Employment** includes both employees + working proprietors. Working Proprietors are sole traders, sole proprietors, partners and directors. This does not apply to registered charities. **Employees** includes only employees aged 16 years or over that an organisation directly pays from its payroll(s), in return for carrying out a full-time or part-time job or being on a training scheme. It excludes voluntary workers, self-employed, working owners who are not paid via PAYE. **Full-time employees** are those working more than 30 hours per week; **Part-time employees** are those working 30 hours or less per week.

A1.1.1.3.2 Number of businesses

- From the advanced query page
<https://www.nomisweb.co.uk/query/select/getdatasetbytheme.asp?theme=28>
select 'UK Business Counts' and then **select** 'UK Business Counts - Local units (2011 to 2013)'
- As this is a restricted dataset, the following steps must be followed to access the data:
 - 1. **Select** the relevant notice (which should be displayed)
 - 2. **Select** your name from the drop down list
 - 3. **Check** the box to agree to restrictions on use
 - **Click** 'continue'
- **Select** 'geography' from the 'options' box on the left hand side of the page
 - Still within the 'options' box, **select** the subheading 'user defined'
 - **Check the box** of your user defined area, as established in Section 2.2.
- **Select** 'date' from the 'options' box on the left hand side of the page
 - **Select** the option 'I want data for the following date(s)' (this is normally pre-selected).
 - **Uncheck** any pre-selected boxes, and select the appropriate box(es) to select the dates for which you wish data to be downloaded.
- **Select** 'employment size band' from the 'options' box on the left hand side of the page
 - **Select** 'Total' (this should be pre-selected)
- **Select** 'industry' from the 'options' box on the left hand side of the page
 - Still within the 'options' box, **select** the subheading 'user defined'
 - **Check** the box(es) of your user defined industries, as established in Section 2.3
- **Select** 'legal status' from the 'options' box on the left hand side of the page
 - **Select** 'Total' (this should be pre-selected)
- **Select** 'review/save' from the 'options' box on the left hand side of the page
 - This allows you to check the geography, date and variables that have been selected.
 - To save this search, **click** the 'save query...' button
 - **Save** the query with the desired name and location
- Select '**download data**' from the 'results' box on the left hand side of the page
- Once the data has downloaded, **save** the excel file to the desired location on your computer.
- Where applicable, apply apportionment methods to data to ensure that only the proportion of the GVA attributable to the marine sector is counted.
- After apportionment, extract totals for each sector.
- Check the data for potential disclosure issues.

A1.1.2 Obtaining data from ABS Special Analysis

Data on Gross Value Added can be requested from the ABS Special Analysis team by e-mailing ABI2@ons.gsi.gov.uk. You will need to allow at least two weeks for data to be prepared, and must expect to pay a fee for preparation of the data.

A1.1.2.1 Gross Valued Added

- **E-mail** the ABS Special Analysis team to request a quote for the data you require. You will need to set out:
 - The fact that you require GVA data.
 - The purpose for which the data is required.
 - How it will be used.
 - The geographical area (specified in terms of local authority areas) for which the data is required.
 - The marine industries (specified in terms of SIC codes) for which the data is required.
- Once a quote is received, confirm whether you wish to go ahead, and agree how payment will be made.
- Where applicable, apply apportionment methods to data to ensure that only the proportion of the GVA attributable to the marine sector is counted.
- After apportionment, extract totals for each sector.

A1.1.3 Obtaining data from Regional Accounts

Data on Gross Value Added and Gross Household Disposable Income can be requested from the Regional Accounts team by e-mail. You may need to allow two or more months for data to be prepared depending on the other activities in which the team is engaged, and must expect to pay a fee for preparation of the data.

We have been unable to obtain data from Regional Accounts as part of this project, but anticipate that the process will be similar to that for ABS Special Analysis (see Section 2.2 above).

A1.2 Social Metrics

A1.2.1 Downloading data from Nomis

The process by which Nomis economic data can be downloaded is described below.

- Whilst data can be accessed from Nomis without registering, it is useful to **register** so that you can save user defined lists of local authority areas and SIC codes. Registering requires the researcher to fill in some personal details. <https://www.nomisweb.co.uk/login/login.asp?target=/default.asp>
- To commence the download process, **sign in** to your account.
- From the home page, **select** 'advanced query' from within the 'detailed statistics' box, to navigate to: <https://www.nomisweb.co.uk/query/select/getdatasetbytheme.asp?opt=3&theme=&subgrp>
- From the 'selection method' box on the left hand side of the page **select** 'by theme'.

N.B. To review what has been selected in a query at any point after selecting the dataset, select 'review/save' from the 'options' box on the left hand side.

N.B. To navigate away from a query and select a new dataset to investigate, select 'change dataset' from the 'data source' box on the left hand side.

A1.2.1.1 Creating 'user-defined' geographical areas

In order to download data relating only to the local authorities that fall within the marine plan area you are interested in, you need to create a user defined geographical area. The marine plan areas are defined in terms of adjoining local authorities (see Table 6). You can save user defined geographical areas for future use. See Section A1.1.1.1 for further information about creating user defined geographical areas.

A1.2.1.2 Downloading datasets

Once user-defined geographies have been selected, you can download the data sets required to create the metrics. The Nomis interface allows detailed breakdowns of data by local authority area. However, detailed figures are less likely to be suitable as metrics because of the sheer volume of figures created, and because using these breakdowns increases the likelihood that disclosure issues will arise.

A1.2.1.2.1 Population, age and gender balance

- From the advanced query page
<https://www.nomisweb.co.uk/query/select/getdatasetbytheme.asp?theme=28>
select 'population estimates', and then **select** 'mid-year population estimates (1981 to 2012)'.
- **Select** 'geography' from the 'options' box on the left hand side of the page
 - Still within the 'options' box, **select** the subheading 'user defined'.
 - **Check the box** of your user defined area, as established in Section A1.1.1.1.
- **Select** 'date' from the 'options' box on the left hand side of the page
 - **Select** the option 'I want data for the following date(s)' (this is normally pre-selected).
 - **Uncheck** any pre-selected boxes, and select the box(es) for which you wish data to be downloaded.
- **Select** 'age' from the 'options' box on the left hand side of the page
 - The default is for 'total' to be pre-selected (if not, make sure this box is checked)
 - Select the following age groups to breakdown the data into these groups:
 - Aged 0-15
 - Aged 16-64
 - Aged 65 and over
- **Select** 'percent' from the 'options' box on the left hand side of the page
 - The default is for percentages to be 'off'
 - Select 'on' to display the percentages
- **Select** 'sex' from the 'options' box on the left hand side of the page
 - The default is for the total to be displayed
 - Select 'male' and 'female' to display the gender balance
- **Select** 'review/save' from the 'options' box on the left hand side of the page
 - This allows you to check the variables that have been selected.
 - To save this search, **click** the 'save query...' button
 - **Save** the query with the desired name and location

- Select '**download data**' from the 'results' box on the left hand side of the page.
- Once the data has downloaded, **save** the excel file to the desired location on your computer.

A1.2.1.2.2 Population: not UK born

- From the advanced query page <https://www.nomisweb.co.uk/query/select/getdatasetbytheme.asp?theme=28> **select** 'annual population survey/labour force survey', and then **select** 'annual population survey (Dec 2004 to Sep 2013)'.
 - **Select** 'geography' from the 'options' box on the left hand side of the page
 - Still within the 'options' box, **select** the subheading 'user defined'.
 - **Check the box** of your user defined area, as established in Section A1.1.1.1.
 - **Select** 'date' from the 'options' box on the left hand side of the page
 - **Select** the option 'I want data for the following date(s)' (this is normally pre-selected).
 - **Uncheck** any pre-selected boxes, and select the box(es) for which you wish data to be downloaded.
 - **Select** 'variable' from the 'options' box on the left hand side of the page
 - From the drop down menu **select** 'nationality by white/ethnic minority'
 - **Select** the following boxes:
 - % of population who are white UK national
 - % of population who are white not UK national
 - % of population who are ethnic minority UK national
 - % of population who are ethnic minority not UK national
 - **Select** 'review/save' from the 'options' box on the left hand side of the page
 - This allows you to check the variables that have been selected.
 - To save this search, **click** the 'save query...' button
 - **Save** the query with the desired name and location
 - **Select** 'download data' from the 'results' box on the left hand side of the page.
 - Once the data has downloaded, **save** the excel file to the desired location on your computer.

A1.2.1.2.3 Population: ethnicity balance

- From the advanced query page <https://www.nomisweb.co.uk/query/select/getdatasetbytheme.asp?theme=28> **select** 'annual population survey/labour force survey', and then **select** 'annual population survey (Dec 2004 to Sep 2013)'.
 - **Select** 'geography' from the 'options' box on the left hand side of the page
 - Still within the 'options' box, **select** the subheading 'user defined'.
 - **Check the box** of your user defined area, as established in Section A1.1.1.1.
 - **Select** 'date' from the 'options' box on the left hand side of the page
 - **Select** the option 'I want data for the following date(s)' (this is normally pre-selected).
 - **Uncheck** any pre-selected boxes, and select the box(es) for which you wish data to be downloaded.
 - **Select** 'variable' from the 'options' box on the left hand side of the page

- From the drop down menu **select** 'ethnic group by age'
- **Select** 'tick all' (box next to the drop down menu)
- **Select** 'review/save' from the 'options' box on the left hand side of the page
 - This allows you to check the variables that have been selected.
 - To save this search, **click** the 'save query...' button
 - **Save** the query with the desired name and location
- **Select** 'download data' from the 'results' box on the left hand side of the page.
- Once the data has downloaded, **save** the excel file to the desired location on your computer.

A1.2.1.2.4 Education: qualifications

- From the advanced query page
<https://www.nomisweb.co.uk/query/select/getdatasetbytheme.asp?theme=28>
select 'annual population survey/labour force survey', and then **select** 'annual population survey (Dec 2004 to Sep 2013)'.
 - **Select** 'geography' from the 'options' box on the left hand side of the page
 - Still within the 'options' box, **select** the subheading 'user defined'.
 - **Check the box** of your user defined area, as established in Section A1.1.1.1..
 - **Select** 'date' from the 'options' box on the left hand side of the page
 - **Select** the option 'I want data for the following date(s)' (this is normally pre-selected).
 - **Uncheck** any pre-selected boxes, and select the box(es) for which you wish data to be downloaded.
 - **Select** 'variable' from the 'options' box on the left hand side of the page
 - From the drop down menu **select** 'qualifications (GCSE) by age'
 - **Select** 'tick all' (box next to the drop down menu)
 - **Select** 'review/save' from the 'options' box on the left hand side of the page
 - This allows you to check the variables that have been selected.
 - To save this search, **click** the 'save query...' button
 - **Save** the query with the desired name and location
 - **Select** 'download data' from the 'results' box on the left hand side of the page.
 - Once the data has downloaded, **save** the excel file to the desired location on your computer.

A1.2.1.2.5 Housing: accommodation type and tenure

- From the advanced query page
<https://www.nomisweb.co.uk/query/select/getdatasetbytheme.asp?theme=28>
select 'census of population', then **select** '2011 Census - Detailed Characteristics', then select 'DC4406EW - Tenure by number of persons per room in household by accommodation type'.
 - **Select** 'geography' from the 'options' box on the left hand side of the page
 - Still within the 'options' box, **select** the subheading 'user defined'.
 - **Check the box** of your user defined area, as established in Section A1.1.1.1..
 - **Select** 'accommodation type' from the 'options' box on the left hand side of the page.
 - **Select** all of the accommodation types at the greatest level of granularity.

- **Select** 'persons per room' from the 'options' box on the left hand side of the page.
 - **Select** 'all categories' (this should be preselected).
- **Select** 'tenure' from the 'options' box on the left hand side of the page.
 - **Select** the middle level of granularity.
- **Select** 'review/save' from the 'options' box on the left hand side of the page
 - This allows you to check the variables that have been selected.
 - To save this search, **click** the 'save query...' button
 - **Save** the query with the desired name and location
- Select '**download data**' from the 'results' box on the left hand side of the page.
- Once the data has downloaded, **save** the excel file to the desired location on your computer.
- Turn the integer figures into percentages by dividing the figures for each accommodation and tenure type by the total number of households.

A1.2.1.2.6 Economically inactive

- From the advanced query page
<https://www.nomisweb.co.uk/query/select/getdatasetbytheme.asp?theme=28>
select 'annual population survey/labour force survey', and then **select** 'annual population survey (Dec 2004 to Sep 2013)'.
 - **Select** 'geography' from the 'options' box on the left hand side of the page
 - Still within the 'options' box, **select** the subheading 'user defined'.
 - **Check the box** of your user defined area, as established in Section A1.1.1.1..
 - **Select** 'date' from the 'options' box on the left hand side of the page
 - **Select** the option 'I want data for the following date(s)' (this is normally pre-selected).
 - **Uncheck** any pre-selected boxes, and select the box(es) for which you wish data to be downloaded.
 - **Select** 'variable' from the 'options' box on the left hand side of the page
 - From the drop down menu **select** 'economically inactive by age'
 - **Select** 'tick all' (box next to the drop down menu)
 - **Select** 'review/save' from the 'options' box on the left hand side of the page
 - This allows you to check the variables that have been selected.
 - To save this search, **click** the 'save query...' button
 - **Save** the query with the desired name and location
 - **Select** 'download data' from the 'results' box on the left hand side of the page.
 - Once the data has downloaded, **save** the excel file to the desired location on your computer.

A1.2.1.2.7 Health: inactive due to sickness

- From the advanced query page
<https://www.nomisweb.co.uk/query/select/getdatasetbytheme.asp?theme=28>
select 'annual population survey/labour force survey', and then **select** 'annual population survey (Dec 2004 to Sep 2013)'.
 - **Select** 'geography' from the 'options' box on the left hand side of the page
 - Still within the 'options' box, **select** the subheading 'user defined'.

- **Check the box** of your user defined area, as established in Section A1.1.1.1.
- **Select** 'date' from the 'options' box on the left hand side of the page
 - **Select** the option 'I want data for the following date(s)' (this is normally pre-selected).
 - **Uncheck** any pre-selected boxes, and select the box(es) for which you wish data to be downloaded.
- **Select** 'variable' from the 'options' box on the left hand side of the page
 - From the drop down menu **select** 'economically inactive by reason'
 - **Select** the following boxes:
 - % of economically inactive temporary sick
 - % of economically inactive long-term sick
 - % of economically inactive male temporary sick
 - % of economically inactive male long-term sick
 - % of economically inactive female temporary sick
 - % of economically inactive female long-term sick
- **Select** 'review/save' from the 'options' box on the left hand side of the page
 - This allows you to check the variables that have been selected.
 - To save this search, **click** the 'save query...' button
 - **Save** the query with the desired name and location
- **Select** 'download data' from the 'results' box on the left hand side of the page.
- Once the data has downloaded, **save** the excel file to the desired location on your computer.

A1.2.1.2.8 Benefits claimant count

- From the advanced query page
<https://www.nomisweb.co.uk/query/select/getdatasetbytheme.asp?theme=28>
select 'claimant count', and then **select** 'claimant count - with rates and proportions (Jun 1983 - Feb 2014)'.
- **Select** 'geography' from the 'options' box on the left hand side of the page
 - Still within the 'options' box, **select** the subheading 'user defined'.
 - **Check the box** of your user defined area, as established in Section A1.1.1.1.
- **Select** 'date' from the 'options' box on the left hand side of the page
 - **Select** the option 'I want data for the following date(s)' (this is normally pre-selected).
 - **Uncheck** any pre-selected boxes, and select the box(es) for which you wish data to be downloaded.
- **Select** 'rates/proportions' from the 'options' box on the left hand side of the page
 - **Select** the option 'no rates or proportions' (this is normally pre-selected)
- **Select** 'sex' from the 'options' box on the left hand side of the page
 - The default is for the total to be displayed
 - **Select** 'male' and 'female' to display the gender balance
- **Select** 'review/save' from the 'options' box on the left hand side of the page
 - This allows you to check the variables that have been selected.
 - To save this search, **click** the 'save query...' button
 - **Save** the query with the desired name and location

Using ONS data in marine planning

- **Select** 'download data' from the 'results' box on the left hand side of the page.
- Once the data has downloaded, **save** the excel file to the desired location on your computer.

A1.2.2 Obtaining Annual Population Survey National Wellbeing Data

The Annual Population Survey National Wellbeing data is not included within Nomis and must be accessed separately.

All of the four wellbeing metrics are reported in the same reference table, which can be downloaded from the website.

- **Search** for 'Personal Well-being across the UK' on the ONS website (<http://www.ons.gov.uk/ons/index.html>) using the search box in the top right corner.
- **Find** and **click** on the latest 'Personal Well-being across the UK' Statistical Bulletin in the list of search results.
- **Click** on the link to the data section of the publication at the bottom of the list of key points.
- **Click** on 'Reference Table 1: Personal Well-being geographical breakdown' to download the reference table.
- **Save** the excel file to the desired location on your computer.

The 2012/13 Reference Table can be downloaded from

<http://www.ons.gov.uk/ons/rel/wellbeing/measuring-national-well-being/personal-well-being-across-the-uk--2012-13/rft-table-1.xls>

The Reference table spreadsheet contains worksheets for each of the four metrics, for each local authority area in the UK. To produce the metric for each marine plan area:

- **Identify** the local authority areas that comprise the marine plan area on which you are working using the information in Table 6.
- In one worksheet **highlight** or mark the rows relating to the relevant local authorities. This will enable you to readily identify and filter the relevant rows.
- At the end of each highlighted row, **add formulae** to:
 - multiply the sample size by the average rating; and
 - copy the sample size.
- At the bottom of the worksheet, **sum** the results of your formulae.
- **Divide** the sum of the weighted average ratings by the sum of the sample size to produce an overall result for the marine plan area.
- Because the authorities are listed in the same order in each worksheet, you can then simply **paste** the columns containing the formulae into the corresponding columns in the other three worksheets to produce the marine plan area metrics.
- The metrics can be **compared** with the overall results for England.
- **Save** the spreadsheet containing the formulae you have added.

A1.3 Tables

The following tables provide the data required in order to construct the geographical and sectoral groupings used to extract ONS data in line with the methodology explained above. Table 3 (now Table 6) is repeated here for convenience.

Table 6: Mapping Marine Plan Areas to Adjoining LAU1 Data.

Plan Area	Name	Description
East inshore	Bassetlaw District	District
	Boston District	District
	Broadland District	District
	City of Kingston upon Hull	Unitary Authority
	City of Peterborough	Unitary Authority
	Doncaster District	Metropolitan District
	East Cambridgeshire District	District
	East Lindsey District	District
	East Riding of Yorkshire	Unitary Authority
	Fenland District	District
	Great Yarmouth District	District
	Huntingdonshire District	District
	King's Lynn and West Norfolk District	District
	Newark and Sherwood District	District
	North East Lincolnshire	Unitary Authority
	North Lincolnshire	Unitary Authority
	North Norfolk District	District
	Norwich District	District
	Selby District	District
	South Cambridgeshire District	District
	South Holland District	District
	South Norfolk District	District
Suffolk Coastal District	District	
Waveney District	District	
West Lindsey District	District	
York	Unitary Authority	
North East inshore	County Durham	Unitary Authority
	Gateshead District	Metropolitan District
	Hambleton District	District
	Hartlepool	Unitary Authority
	Middlesbrough	Unitary Authority
	Newcastle upon Tyne District	Metropolitan District
	North Tyneside District	Metropolitan District
	Northumberland	Unitary Authority
	Redcar and Cleveland	Unitary Authority
	Scarborough District	District

Plan Area	Name	Description
	South Tyneside District	Metropolitan District
	Stockton-on-Tees	Unitary Authority
	Sunderland District	Metropolitan District
North West	Allerdale District	District
	Barrow-in-Furness District	District
	Blackpool	Unitary Authority
	Carlisle District	District
	Cheshire West and Chester	Unitary Authority
	Chorley District	District
	Copeland District	District
	Fylde District	District
	Halton	Unitary Authority
	Lancaster District	District
	Liverpool District	Metropolitan District
	Preston District	District
	Sefton District	Metropolitan District
	South Lakeland District	District
	South Ribble District	District
	Warrington	Unitary Authority
	West Lancashire District	District
	Wirral District	Metropolitan District
	Wyre District	District
	South East inshore	Babergh District
LB Barking and Dagenham		London Borough
Basildon District		District
Bexley London Borough		London Borough
Canterbury District		District
Castle Point District		District
Chelmsford District		District
LB City of London		London Borough
LB City of Westminster		London Borough
Colchester District		District
Dartford District		District
Dover District		District
Gravesham District		District
LB Greenwich		London Borough
LB Hammersmith and Fulham		London Borough
LB Havering		London Borough
LB Hounslow		London Borough
Ipswich District		District
LB Kensington and Chelsea		London Borough
LB Lambeth		London Borough
LB Lewisham	London Borough	

Using ONS data in marine planning

Plan Area	Name	Description
	Maidstone District	District
	Maldon District	District
	Medway	Unitary Authority
	LB Newham	London Borough
	LB Redbridge	London Borough
	LB Richmond upon Thames	London Borough
	Rochford District	District
	Southend-on-Sea	Unitary Authority
	LB Southwark	London Borough
	Swale District	District
	Tendring District	District
	Thanet District	District
	Thurrock	Unitary Authority
	Tonbridge and Malling District	District
	LB Tower Hamlets	London Borough
	LB Wandsworth	London Borough
	South inshore	Adur District
Arun District		District
Bournemouth		Unitary Authority
Chichester District		District
Christchurch District		District
City of Portsmouth		Unitary Authority
City of Southampton		Unitary Authority
East Devon District		District
Eastbourne District		District
Eastleigh District		District
Exeter District		District
Fareham District		District
Gosport District		District
Hastings District		District
Havant District		District
Horsham District		District
Isle of Wight		Unitary Authority
Lewes District		District
New Forest District		District
Poole		Unitary Authority
Purbeck District		District
Rother District		District
Shepway District		District
South Hams District		District
Teignbridge District		District
Test Valley District		District
The City of Brighton and Hove		Unitary Authority

Plan Area	Name	Description
	Torbay	Unitary Authority
	Wealden District	District
	West Dorset District	District
	Weymouth and Portland District	District
	Winchester District	District
	Worthing District	District
South West inshore	City of Bristol	Unitary Authority
	City of Plymouth	Unitary Authority
	Cornwall	Unitary Authority
	Gloucester District	District
	Isles of Scilly	Unitary Authority
	North Devon District	District
	North Somerset	Unitary Authority
	Sedgemoor District	District
	South Gloucestershire	Unitary Authority
	South Hams District	District
	South Somerset District	District
	Stroud District	District
	Taunton Deane District	District
	Torridge District	District
	West Devon District	District
West Somerset District	District	

Table 7: Marine Plan Industries and 2007 SIC codes >0% Apportionment.

Industry / Sector	2007 SIC Code(s)	SIC Code Title
Aggregates	08120	Operation of gravel and sand pits; mining of clays and kaolin
Aquaculture	03210	Marine aquaculture
	03220	Freshwater aquaculture
Coastal Protection	42910	Construction of water projects
Coastal Tourism	55100	Hotels and similar accommodation
	55201	Holiday centres and villages
	55202	Youth hostels
	55209	Other holiday and other collective accommodation
	55300	Recreational vehicle parks, trailer parks and camping grounds
	55900	Other accommodation
	79901	Activities of tourist guides
	91020	Museums activities
	91030	Operation of historical sites and buildings and similar visitor attractions
	91040	Botanical and zoological gardens and nature reserves activities
	93210	Activities of amusement parks and theme parks

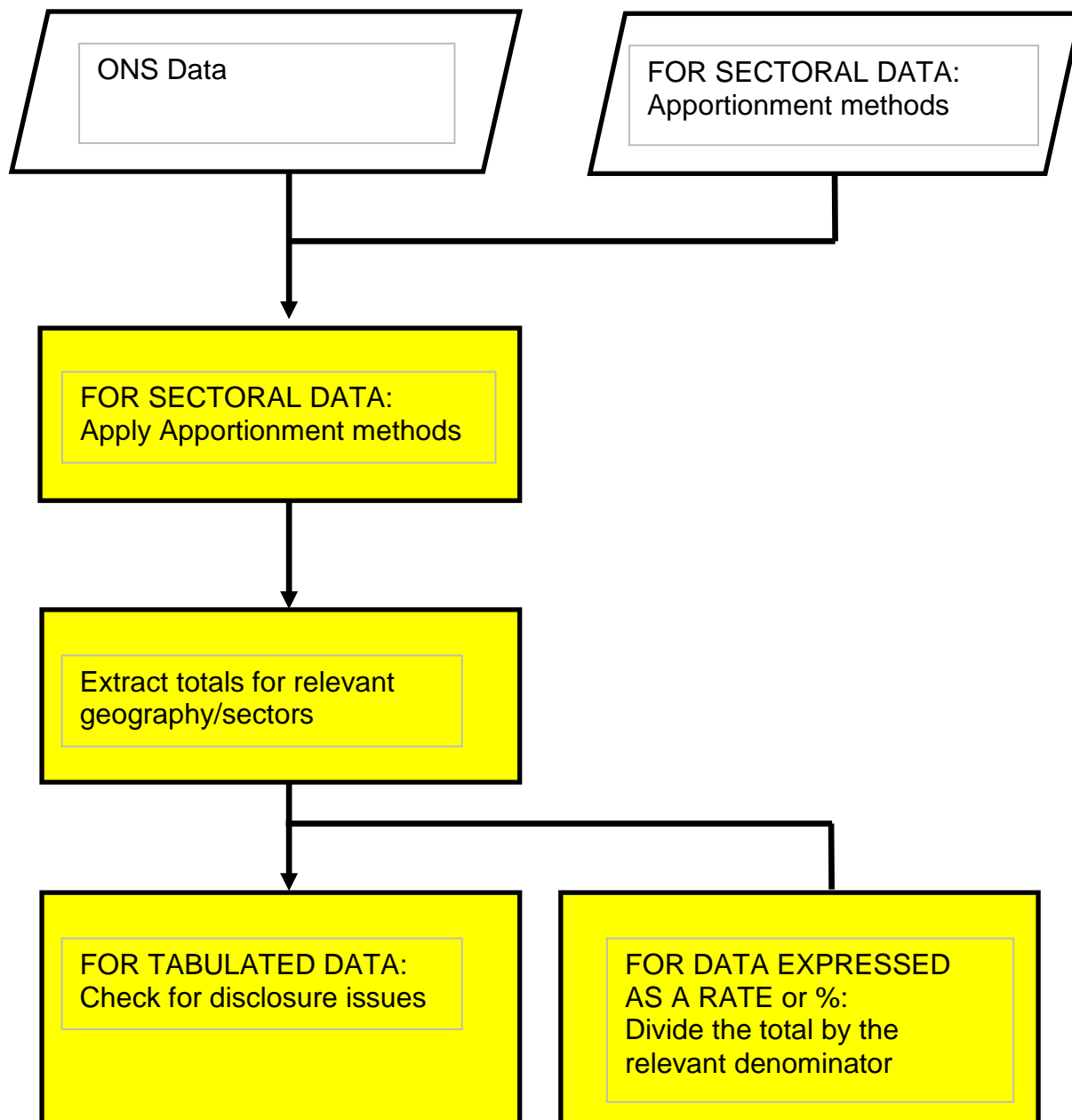
Using ONS data in marine planning

	93290	Other amusement and recreation activities
Defence	84220	Defence activities
Dredging	42910	Construction of water projects
Fisheries	03110	Marine fishing
	03120	Freshwater fishing
Marine Recreation	93120	Activities of sport clubs
	93199	Other sports activities
Oil and Gas	06100	Extraction of crude petroleum
	06200	Extraction of natural gas
	35220	Distribution of gaseous fuels through mains
	35230	Trade of gas through mains
Ports and Shipping	50100	Sea and coastal passenger water transport
	50200	Sea and coastal freight water transport
	50300	Inland passenger water transport
	50400	Inland freight water transport
	52101	Operation of warehousing and storage facilities for water transport activities
	52220	Service activities incidental to water transportation
	52241	Cargo handling for water transport activities
	42910	Construction of water projects
Renewables	27120	Manufacture of electricity distribution and control apparatus
	35110	Production of electricity
	35120	Transmission of electricity
	35130	Distribution of electricity
	35140	Trade of electricity
	42210	Construction of utility projects for fluids
	42220	Construction of utility projects for electricity and telecommunications
Telecoms and Communications	61100	Wired telecommunications activities
Waste Water Treatment and Disposal	N/A	

Annex 2: Data Processing Method Diagram – Marine Plan Metrics

A similar data processing method applies to each data set that may need to be analysed, The method is summarised in Figure 3. Tables 8 to 19 provide a more detailed outline of the method applied for each metric, once the data has been downloaded.

Figure 3: Data Processing Method



A2.1 Economic Metrics

Table 8: Data Processing Method: Employment.

Dataset	Task	Description
BRES employment data	Apply apportionment methods	For certain SIC codes, apportionment methods will need to be applied to ensure only the sum relevant to marine planning is included
	Extract sector totals	Add together the figure for each lower level SIC code to produce a total for each sector
<i>Additional information: data obtained from Nomis (requires BRES access)</i>		

Table 9: Data Processing Method: GVA.

Dataset	Task	Description
GVA for Marine Plan Area	Apply apportionment methods	For certain SIC codes, apportionment methods will need to be applied to ensure only the sum relevant to marine planning is included
	Extract sector totals	Add together the figure for each lower level SIC code to produce a total for each sector
<i>Additional information: data obtained from ABS Special Analysis</i>		

Table 10: Data Processing Method: Number of Businesses.

Dataset	Task	Description
BRES business count data	Apply apportionment methods	For certain SIC codes, apportionment methods will need to be applied to ensure only the sum relevant to marine planning is included
	Extract sector totals	Add together the figure for each lower level SIC code to produce a total for each sector
<i>Additional information: data obtained from Nomis (requires BRES access)</i>		

A2.2 Social Metrics

Table 11: Data Processing Method: Population, Age and Gender Balance.

Dataset	Task	Description
Mid-Year Population Estimates – Gender and Age data	No processing required	Data can be downloaded in percentage form directly from ONS website
<i>Additional information: data obtained through Nomis from Mid-Year Population Estimates</i>		

Table 12: Data Processing Method: Population not UK Born.

Dataset	Task	Description
Population not UK born	No processing required	Data can be downloaded in percentage form directly from ONS website
<i>Additional information: data obtained through Nomis from Annual Population Survey/Labour Force Survey</i>		

Table 13: Data Processing Method: Population - Ethnicity Balance.

Dataset	Task	Description
Ethnicity basis by age	Addition of data	Add together percentages for white/ethnic minority people born overseas and percentages for ethnic minorities born in the UK/born overseas
<i>Additional information: data obtained through Nomis from Annual Population Survey/Labour Force Survey</i>		

Table 14: Data Processing Method: Education – Qualifications.

Dataset	Task	Description
Qualifications - age and economically active	No processing required	Data can be downloaded in percentage form directly from ONS website
<i>Additional information: data obtained through Nomis from Annual Population Survey/Labour Force Survey</i>		

Table 15: Data Processing Method: Housing - Accommodation and Tenure.

Dataset	Task	Description
Accommodation type and tenure	Calculate the % of households of each accommodation and tenure type	Using the figures contained in the downloaded data, divide the number of households falling within each combination of accommodation and tenure types by the total number of households.
<i>Additional information: data obtained through Nomis from Census data</i>		

Table 16: Data Processing Method: Economically Inactive.

Dataset	Task	Description
Economic inactivity age and gender	Obtain the total population for the plan area	The total population for the plan area can be obtained from mid-year population estimate data
	Calculate the economic inactivity rate	Divide the number of people economically inactive by the total population for the plan area, and convert to a percentage
<i>Additional information: data obtained through Nomis from Annual Population Survey/Labour Force Survey and Mid-Year Population Estimate</i>		

Table 17: Data Processing Method: Health - Inactive Due to Sickness.

Dataset	Task	Description
Economic inactivity due to sickness	Obtain the total population for the plan area	The age banded population for the plan area can be obtained from mid-year population estimate data
	Calculate the economic inactivity rate	Divide the number of people economically inactive by the total population aged 16-64 for the plan area, and convert to a percentage
<i>Additional information: data obtained through Nomis from Annual Population Survey/Labour Force Survey and Mid-Year Population Estimate</i>		

Table 18: Data Processing Method: Benefits Claimant Count.

Dataset	Task	Description
Benefits claimant count	Calculate annual average claimant count	Calculate the annual average claimant count for the plan area by summing the total for each month and dividing by the total number of months
	Obtain the total population for the plan area	The age banded population for the plan area can be obtained from mid-year population estimate data
	Calculate the economic inactivity rate	Divide the annual average claimant count for the plan area by the total population for the plan area, and convert to a percentage
<i>Additional information: data obtained through Nomis from Claimant Count and Mid-Year Population Estimate</i>		

Table 19: Data Processing Method: Annual Population Survey National Wellbeing Data.

Dataset	Task	Description
Personal Well-being across the UK reference tables	For each Wellbeing measure, identify the local authority areas that comprise the marine plan	Using the information in Table 6, highlight or mark the relevant rows of data
	Find the total score and sample size for local authority areas	At the end of each highlighted row, add formulae to multiply the sample size by the average rating and copy the sample size. Sum the two resulting columns of data
	Calculate the overall well-being score	Divide the sum of the weighted average ratings by the sum of the sample size to produce an overall result for the marine plan area
<i>Additional information: data obtained through the Personal Well-being across the UK publication on the ONS Website</i>		

Annex 3: Metrics for the South Plans Areas

This annex provides the metrics derived by the process described in Annex 1 and Annex 2 for the South Inshore and South Offshore marine plan areas.

In the following tables, where data is not available:

N/A means the information is not collected by the ONS

* means the information has been suppressed to avoid disclosure

A3.1 Economic Metrics

A3.1.1 Employees

Table 20: Marine Sector Business Employees in Local Authority Areas Adjoining South Plans Areas (2012) (UK Business Count).

Industry	Persons Employed
Aggregates	197
Aquaculture	120
Coastal Protection	87
Coastal Tourism	47,644
Defence	N/A
Dredging	87
Fisheries	498
Marine Recreation	3,239
Oil and Gas	0
Ports and Shipping	6,732
Renewables	*
Telecoms and communications	12
Waste water treatment and disposal	0
Total	58,633

A3.1.2 Business Numbers

Table 21: Marine Sector Business Local Unit Numbers in Local Authority Areas Adjoining South Plans Areas (2012) (UK Business Count).

Industry	Businesses
Aggregates	5
Aquaculture	15
Coastal Protection	10
Coastal Tourism	2,828
Defence	N/A
Dredging	10
Fisheries	400
Marine Recreation	261
Oil and Gas	0
Ports and Shipping	271
Renewables	*
Telecoms and communications	3
Waste water treatment and disposal	0
Total	3,802

A3.1.3 GVA

Table 22: Marine Sector Business Gross Value Added in Local Authority Areas Adjoining South Plans Areas (2012) (Annual Business Survey).

Industry	Total (£000s)
Aggregates	16,026
Aquaculture	4,592
Coastal Protection	5,504
Coastal Tourism	929,455
Defence	N/A
Dredging	5,504
Fisheries	35,159
Marine Recreation	25,227
Oil and Gas	0
Ports and Shipping	888,826
Renewables	*
Telecoms and communications	1,602
Waste water treatment and disposal	0
Aggregates	16,026
Total	1,911,894

A3.1.4 GHDI

Due to the unavailability of data from the Regional Accounts team, no GHDI metric has been able to be derived.

A3.2 Social Metrics

A3.2.1 Population – Age and Gender

Table 23: Gender Distribution of People 16+ in Local Authority Areas Adjoining South Plans Areas (2012/13) (Annual Population Survey).

Population Group	%
People aged 16+ who are male	48.4
People aged 16+ who are female	51.6

Table 24: Age Distribution of People 16+ in Local Authority Areas Adjoining South Plans Areas (2012/13) (Annual Population Survey).

Population Group	%
People aged 0-15	17.1
People aged 16-64	61.8
People 16+ who are aged 65+	21.1

A3.2.2 Population: Ethnicity and Origins

Table 25: Ethnicity and Origin of People in Local Authority Areas Adjoining South Plans Areas (2012/13) (Annual Population Survey).

Population Group	%
People who are ethnic minority	5.2
People who are not UK nationals	5.7

A3.2.3 Education: Qualifications

Table 26: Highest Qualification of People in Local Authority Areas Adjoining South Plans Areas (2012/13) (Annual Population Survey).

Population Group	%
People with degree or equivalent and above - aged 16-64	24.7
People with higher education below degree level - aged 16-64	9.1
People with GCE A level or equivalent - aged 16-64	25.8

People with GCSE grades A-C or equivalent - aged 16-64	24.3
People with other qualifications - aged 16-64	9.3
People with no qualifications - aged 16-64	6.9

A3.2.4 Housing: Type and Tenure

Table 27: Percentage of Households in each Accommodation Type and Tenure in Local Authority Areas Adjoining South Plans Areas (2011) (Census).

Accommodation Type	All categories: Tenure	Owned or shared ownership: Total	Social rented: Total	Private rented or living rent free: Total
Whole house or bungalow: Detached	14.5%	13.2%	0.2%	1.1%
Whole house or bungalow: Semi-detached	12.1%	9.0%	1.6%	1.6%
Whole house or bungalow: Terraced (including end-terrace)	10.6%	7.2%	1.4%	2.0%
Flat, maisonette or apartment in a purpose-built block of flats or tenement	8.8%	2.9%	3.1%	2.8%
Flat, maisonette or apartment that is part of a converted or shared house (including bed-sits)	3.1%	1.1%	0.2%	1.8%
Flat, maisonette or apartment in a commercial building, or mobile/temporary accommodation	0.9%	0.4%	0.0%	0.5%
Total Households	1,766,008	1,192,042	230,026	343,940

A3.2.5 Economically inactive

Table 28: Economic Inactivity Amongst People in Local Authority Areas Adjoining South Plans Areas (2012/13) (Annual Population Survey).

Population Group	%
People who are economically inactive - aged 16+	38.7
People who are economically inactive - aged 16-64	21.5

Two separate figures are provided in order to allow consideration to be given both to the overall number of economically inactive people within the marine plan area (including those over 65, likely to be retired) and those of working age only, who may be (for example) unemployed, unable to work, or engaged in unpaid care work.

A3.2.6 Health: inactive due to sickness

Table 29: Economic Inactivity Due to Sickness Amongst People in Local Authority Areas Adjoining South Plans Areas (2012/13) (Annual Population Survey).

Population Group	%
People economically inactive – temporary sick	1.9
People economically inactive – long-term sick	21.3

A3.2.7 Benefits claimant count

Table 30: Benefits Claimants Amongst People in Local Authority Areas Adjoining South Plans Areas (2012/13) (Claimant Count).

Population Group	
Average Number of Claimants (Apr12-Mar13)	68,248
Claimants as % of Population Aged 16-64	2.7%

A3.2.8 Qualitative Metrics

The findings reported here are based on people's responses to four questions. As part of the Annual Population Survey, people are asked to give their answers on a scale of 0 to 10 where 0 is 'not at all' and 10 is 'completely'.

1. Overall, how satisfied are you with your life nowadays?

South Plans Area Average Score: 7.47
 England Average Score: 7.44

2. Overall, to what extent do you feel the things you do in your life are worthwhile?

South Plans Area Average Score:	7.74
England Average Score:	7.68

3. Overall, how happy did you feel yesterday?

South Plans Area Average Score:	7.30
England Average Score:	7.28

4. Overall, how anxious did you feel yesterday?

South Plans Area Average Score:	3.00
England Average Score:	3.05