

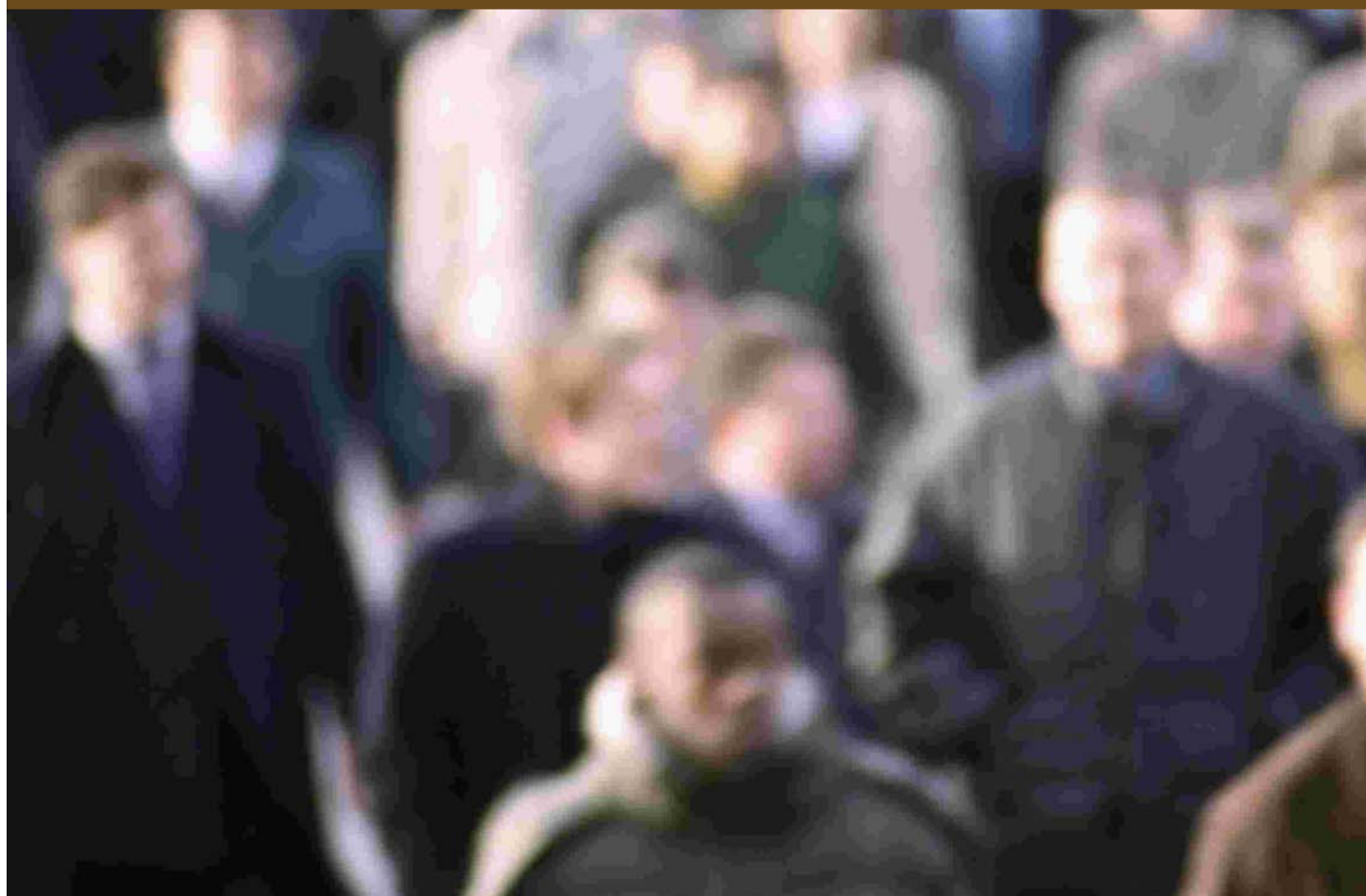
Environment Jobs Scotland: A Review of the Potential of SIC and SOC codes for the categorisation of jobs in the Environment

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Prepared by
Training and Employment Research Unit,
Glasgow University

Executive Summary





Background

Standard Industrial Classifications (SIC) and Standard Occupational Classifications (SOC) codes are statistical indicators which classify establishments or individuals by the type of work activity in which they are engaged. SIC and SOC codes are internationally recognised classification systems and are highly valuable for analysis of statistics relating to industrial activity and employment. The UK Labour Force Survey and Annual Business Inquiry use SIC and SOC codes to collect labour market information by industry and occupation.

SIC and SOC codes work by providing progressively detailed information about an occupation or industry. Each unique industry or occupation has a numerical code. The first digit of each code refers to the very broad category within which the subject operates, with the second digit referring to a sub-category within each broad category and subsequent digits further categorising into more specific groups. Unique codes can be as long as 7 numbers, providing an extremely detailed level of information about each industry or occupation.

Typically, occupations have 4-digit SOC codes. For example, the SOC code for a weaver is 5411, in the group 'Weavers and knitters'. Weavers and knitters are part of minor group 541 - Textiles and Garments Trades, which is part of sub-major group 54 - Textiles, Printing and Other Skilled Trades, which is part of major group 5 - Skilled Trades Occupations. To further distinguish between types of weaver group 5411 could be further separated into 54111 - Weavers and 54112 - Knitters. The Weaver group could then be further separated to distinguish between different types of weaver.

At present, SIC and SOC codes do not adequately capture the extent of employment in the environmental sector. Consensus exists between stakeholders involved in growing environment sectors, advisory services and those supporting new business development that the codes do not adequately capture the extent of environmental employment and need reviewed. In recognition of this, Forward Scotland commissioned the Training and Employment Research Unit at Glasgow University to review the potential of SIC and SOC systems to better represent jobs in the environment. This exercise would focus particularly on emerging jobs in the Waste Management Sector, the Waste Industry, the Renewable Energy sector and the Natural Heritage Sector.

Environmental Industrial Sectors and Fit with SIC Codes

In an ideal world, environmental jobs would be measured in the first instance by measurement of jobs in environmental businesses and sectors using the UK SIC codes. It would then be possible to cross-tabulate the SIC codes with SOC codes to analyse occupations of employees within these sectors, or calculate the total number of people working in the environmental sector who are employed in a specific occupation, e.g. separating electricians employed by environmental businesses from those that are not.

- The mapping of environmental industrial sub-sectors against SIC codes showed that it is not possible to effectively measure jobs in environmental industries using the SIC (2003) system.
- While most of the environmental sub-sectors fit within existing SIC codes, in most cases it is not possible to separate jobs in these sectors from jobs in other non-environmental sectors classified under the same SIC codes.
- Some relatively new environmental sub-sectors are not covered by any of the SIC codes, in particular; Biomass and bio-fuels, Hydrogen/fuel cells/energy storage and Waste to energy/energy to waste.



The Annual Business Inquiry collects industrial data by UK SIC 5-digit subclass, so development of the 5-digit subclasses would allow more accurate information to be collected on environment jobs

It is possible to adapt the current SIC code system to better represent the Environmental Sector. However, the following issues must be considered:

- the first two digits of the SIC codes are UN wide (ISIC) and the first four are EU wide (NACE, includes ISIC codes). This means that wholesale changes to the first four digits in the 2007/2008 and 2018/2020 updates of the SIC does are unlikely as they must remain comparable across all member countries and must also remain comparable with previous SIC codes to allow data comparison over time
- influencing the update of the UK specific 5-digit subclass could allow better classification of environmental jobs in Scotland and the rest of the UK, although data collected using 5-digit subclasses may not be comparable with countries outside the UK

Environmental Occupations and Fit with SOC Codes

Environmental occupations were mapped under Waste Management, the Water Industry, Renewable Energy and Natural Heritage. A review of current literature on each of the key environmental sectors was undertaken to draw up a comprehensive list of environmental occupations. The closest fitting SOC codes and titles were then allocated to each occupation and a grade awarded on the basis of the fit.

Issues with the current codes include:

- difficulty separating some exclusively environmental occupations from non-environmental occupations classified under the SOC codes
- some environmental occupations are not covered by the SOC codes and require the creation of new SOC codes
- some environmental occupations are misrepresented by the relative skills level of SOC category under which they are classified
- some environmental occupations are included in the Index to SOC but not in the details of the assigned SOC code
- some environmental occupations fit generally well with the activities of a particular SOC code but are not included in the SOC Coding Index

There is potential to adapt the current SOC system so that it is sufficiently detailed to allow exclusively environmental occupations to be drawn out from non-environmental occupations. While many environmental jobs involve fairly generic occupations and are best measured using SIC codes, some occupations are exclusively environmental but can be found in the sectors that are not traditionally thought as 'environmental' or within businesses not exclusively focussing on environmental activities.



Recommendations on Potential to Adapt UK SIC and SOC Codes

To more accurately measure environmental jobs in Scotland, it is necessary for the SIC system to be adapted so environmental businesses and sectors can be classified separately from non-environmental sectors. This would increase the opportunity for those developing policy to appreciate the extent that the environment sector contributes to the economy. Furthermore, it would improve the level of information available to those providing advice to business and job seekers as to the range and nature of employment in a greening economy.

- Develop new 5-digit sub-classes for emerging environmental sub-sectors
- Create new SOC codes for occupations that are exclusively environmental in nature but which cannot currently be separated from other non-environmental occupations classified under the same SOC code
- Introduce 4-digit classes for some environmental sub-sectors, such as renewable energy, to enable comparison of jobs with other countries
- Make sure all environmental occupations are accurately included in the SOC Coding Index and that they are included in the list of job titles under allocated SOC code
- Create new SOC codes for new and emerging occupations, which are not already covered by the SOC codes
- Create new SOC codes for occupations that are exclusively environmental in nature but cannot currently be separated from other non-environmental occupations classified under the same SOC code
- Ensure environmental occupations are graded at an appropriate skill level by the SOC codes



Summary Report produced by Forward Scotland
Portcullis House, 21 India Street, Glasgow, G2 4PH
Tel: 0141 222 5600
e-mail: enquiries@forward-scotland.org.uk

www.forward-scotland.org.uk | www.ejscotland.info



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