Executive Summary

Green Jobs in Scotland: An inclusive approach to definition, measurement and analysis

By

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Executive Summary

The Scottish Government declared a climate emergency in April 2019 and subsequently increased the legislative ambition for Scotland to reach zero greenhouse gas (GHG) emissions by 2045 and 75 per cent reduction by 2030. In response, the Climate Emergency Skills Action Plan[1] (CESAP) was developed by SDS and published alongside the SG's Climate Change Plan update in December 2020. The CESAP is underpinned by a multi-agency response, including Scottish Government (SG), Economic Development Agencies, Scottish Cities Alliance (SCA), Industry Bodies, Unions, and the SFC.

To ensure that everyone has a chance to benefit from the transition to net zero, it is critical that we develop a better understanding of what constitutes a green job and determine what the current and future green jobs and skills needs are for people living, learning and working in Scotland.

This research provides a new evidence-base that aims to do just that i.e. through a new, inclusive definition of green jobs, estimate the extent of and demand for green jobs in Scotland. The research offers a significant new support tool for Scottish policy development and policy evaluation in the transition to a net zero economy. Drawn from a body of existing research and adapted to Scottish circumstances, it offers a robust method of monitoring and assessing the development of green jobs in Scotland. An inclusive definition is important because it takes account of the significant impact the transition to net zero will have on a much broader range of jobs.

During the transition to net zero, this research defined three different categories of Green jobs:

1. **New and emerging**
2. **Enhanced Skills and Knowledge**
3. **Increased demand**

New and Emerging: The impact of green economy activities and technologies creates the need for unique work and worker requirements, which results ***in the generation of new occupations***. These new occupations can be entirely novel or 'born' from an existing

[1] https://www.skillsdevelopmentscotland.co.uk/media/47336/climate-emergency-skills-action-plan-2020-2025.pdf

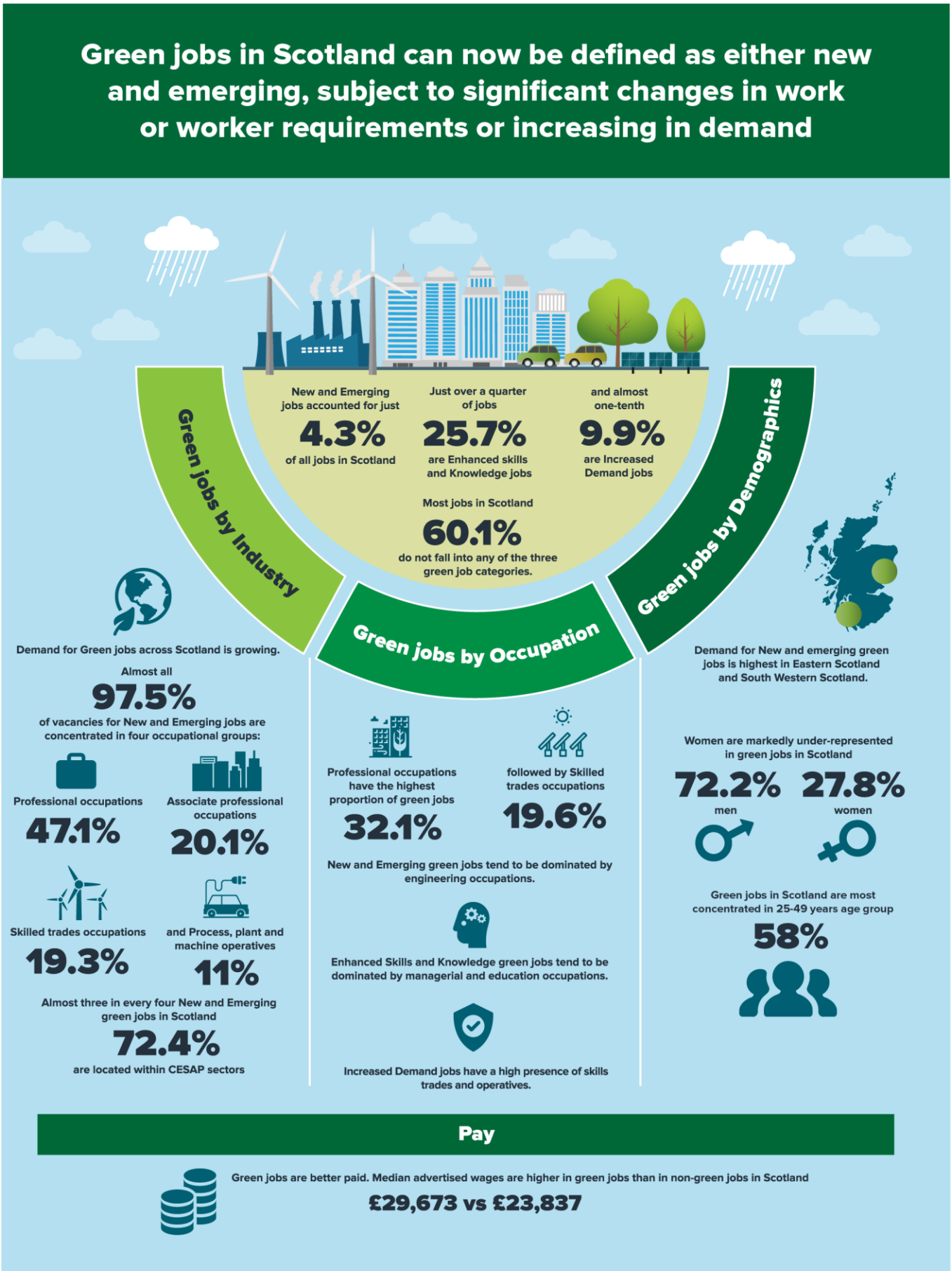
occupation. An example is solar system technicians who must be able not only to install new technology but also to determine how this technology can best be used on a specific site.

Enhanced Skills and Knowledge: The impact of green economy activities and technologies can result in ***significant change to the work and worker requirements of existing occupations***. This impact may result in an increase in demand for these occupations. The essential purposes of the occupation remain the same but tasks, skills, knowledge and external elements, such as credentials, have been altered. An example is architects, an occupation in which greening has increased knowledge requirements pertaining to energy efficient materials and construction, as well as skills associated with integrating green technology into the aesthetic design of buildings.

Increased Demand: The impact of green economy activities and technologies can ***increase employment demand for some existing occupations***. However, this impact does not entail significant changes in the work and worker requirements of the occupation. The work context may change but the tasks do not. An example is the increased demand for electrical power line installers and repairers related to energy efficiency and infrastructure upgrades.

This research has developed a new green occupational definition, or a ‘GreenSoc’. The GreenSoc is based on an adaption of the three types of green occupations, and then applied to Labour Force Survey (LFS) data and data scraped from job vacancy websites. Analysis of web-scraped job vacancy data provides a picture of dynamics of change in ‘real time’, and is especially useful given that green jobs are an unfolding development within the labour market i.e. job vacancy data can usefully capture changes in jobs as signalled by the demands from employers.

Key Findings



Limitations

Challenges remain in developing a comprehensive GreenSOC for Scotland and thereby better estimating the extent of green jobs. This research highlights the problem of understanding what businesses do in terms of green and non-green economic activity because of a lack of sensitivity in the Standard Industry Classification (SIC). A similar problem exists with Standard Occupational Classifications (SOC). SOC2020 4-digit level is blunt in terms of providing detailed information on the exact tasks, skills and knowledge of any occupation. This problem exists for a number of the occupations within the classification used in this research. What is ideally required to better inform and drive awareness and action to support reskilling and upskilling is data disaggregated at the 5-digit or even 6-digit level within the SOC. Given the data limitations, the number of green jobs in Scotland is likely to be an overestimate.

Recommendations

The research undertaken for this report has demonstrated proof of concept for the new GreenSOC. Furthermore, a number of recommendations arise:

- The new GreenSoc should be considered as a method for estimating green jobs in Scotland.
- Analysis of green jobs and skills should incorporate web-scraped job vacancy data.
- Develop and maintain a Scotland-focused green skills taxonomy drawing on repeat web-based job postings data scraping.
- Map the green skills of the GreenSOC onto existing skills frameworks/maps developed for use in the Scottish context.
- Apply the GreenSOC to analyses of regions and industries within Scotland.
- Explore the GreenSOC further in relation to Fair Work in Scotland.
- Encourage the greening of jobs in all sectors.