

# Measuring Green Jobs at the Bureau of Labor Statistics: Discussant Comments

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## Abstract

Two programs at the Bureau of Labor Statistics are measuring employment in the green sector. BLS has laid the groundwork for defining green jobs and processes by examining multiple definitions across organizations and countries and testing data collection and methods to obtain optimal results. They have adapted the sample design for optimizing collection to use multiple surveys while minimizing respondent burden. This discussion provides feedback on the BLS work and suggestions for consideration and future research.

**Key Words:** Green jobs, sustainability, labor force statistics, occupational employment, industry employment, wages.

## 1. Introduction

The Bureau of Labor Statistics (BLS) is developing and implementing the collection of new data on green jobs through and new Green Goods and Services (GGS) and Green Technology and Practices (GTP) surveys. Both surveys coordinate with the Occupational Employment Statistics (OES) Program to collect data on occupational employment and wages for green jobs. The goal of the BLS green jobs initiative is to develop information on (1) the number of and trends over time in green jobs; (2) the industrial, occupational, and geographic distribution of green jobs; and (3) the wages of the workers in these jobs [from [www.bls.gov/green](http://www.bls.gov/green)]. Information provided through the green jobs initiative will allow multiple users to evaluate development of green jobs in the labor force. This discussion presents comments in response to presentations on various aspects of these programs.

The titles, authors, and a brief summary of each of the presentations at the session “Measuring Green Jobs” follow:

- Measuring Green Industry Employment: Developing a Definition of Green Goods and Services — Robert Viégas, Rick Clayton, Kristin Fairman, Donald Haughton, Bureau of Labor Statistics. *This presentation reviewed the BLS research to define green goods and services. Their sources of data included state and local governments, Eurostat, Statistics Canada, and private research organization.*
- Green Industry Employment — Kristin Fairman, Bureau of Labor Statistics. *This presentation focused on the research methodology for the GGS that involved feasibility interviews, forms design, panel testing of the forms, follow-up interviews with panel respondents, and subsequent sample frame enrichment. In the presentation, the presenter discussed the decisions made based on this research.*

- Maximizing Sample Overlap between Two Independent Surveys — David Salvatore Piccone, Shail Butani, and Edwin Robinson, Bureau of Labor Statistics. *This presentation described BLS efforts to minimize respondent burden by coordinating the samples and data collection between the Green Goods Survey (GGS) and the Occupation Employment Survey (OES). The GGS Survey will be used to collect data on the amount of “green” employment and the occupational employment and wages for sampled GGS establishments will come from the OES Survey.*
- Counting Green Jobs: Developing the Green Technologies and Practices Survey — Sharon Schierberg Stang, Bureau of Labor Statistics. *This presentation described the three-phase process for testing and refining the Green Technologies and Practices (GTP) survey. The process involved cognitive and feasibility interviews, design of the survey and procedures, and design of the website to be used for data collection.*

In order for BLS to obtain the goals of their green jobs initiative, they are using two approaches: “the output approach, which identifies establishments that produce green goods and services and counts the associated jobs, and the process approach, which identifies establishments that use environmentally friendly production processes and practices and counts the associated jobs” [from [www.bls.gov/green](http://www.bls.gov/green)]. The BLS website describes these two approaches as follows:

In the output approach, BLS wants to measure jobs that produce a specific set of goods and services, and is not concerned with the environmental impact of the production process. The output approach alone, however, would not cover some activities and associated jobs that favorably impact the environment although the product or service produced is itself not “green.”

In the process approach, BLS wants to measure whether the “business uses practices or technologies that have a favorable impact on the environment, regardless of the good or service produced.” The process approach is relevant to any industry.

Each approach requires different measurement strategies and will tend to count different jobs, with some overlap in industries that produce green goods and services. Thus, BLS defines green jobs as either “(1) jobs in businesses that produce goods or provide services that benefit the environment or conserve natural resources; or (2) jobs in which workers' duties involve making their establishment's production processes more environmentally friendly or use fewer natural resources.”

## **2. Methodology and Other Questions**

BLS staff has put a tremendous amount of thought into the definitions and approaches to measuring green jobs. This is evident in their presentations and the website that describes this initiative. BLS is collecting employment data through multiple surveys—the Occupational Employment Statistics (OES) programs, Green Goods and Services Survey (GGS), and the Green Technologies and Practices Survey (GTP). While there is value in providing a breadth of data, the multiple sources of information can be confusing to users. One recommendation would be for BLS to publish a consolidated release for

employment, occupation, and wages of green jobs, explaining differences in data and definitions, and to provide information about the optimal way to use the data in analyses.

Within the GGS, there is a separate list of green industries and companies. A concern is that this list will quickly become out of date. BLS should describe their method for keeping it up-to-date while maintaining continuity in the series. .

A few questions about methods emerged from the presentations that might involve the use of extended focus groups and cognitive interviews:

- What are implications of allowing respondents to provide revenue data as a proxy for employment?
- Does BLS have best practices to share on locating the right person in a company to speak on a particular topic?
- If “green” is perceived as political, is this reflected in why some companies won’t respond?
- Why do large companies have lower response rates? What can be done to increase their response?
  - Would a marketing campaign to persuade companies to respond be more successful if based on energy efficiency? Could the BLS Business and Labor Advisory groups be used to deliver a message to the companies?
- Some products do not yet have environmental standards; can respondents use their own standards if official ones have not yet caught up?
- What are the long-run plans for measuring the green economy? Will these questions be incorporated into other surveys?
- Does the GGS or OES survey incorporate Green non-profit organizations that also create jobs that both classify as green output and green process? (The non-profit sector increased jobs during the recession while the private and public sector shed jobs.)

### **3. Ideas to Consider**

The BLS Green Team presenters (Viégas, Fairman, Piconne, and Stang) are to be complimented for their rigorous and thorough research to test, refine, and implement surveys that will inform policymakers and researchers about the growth of the green economy. As companies place increasing importance on sustainable practices and production of green goods and services, it seems that ultimately, these questions should be part of other household and establishment surveys, perhaps reducing the need for multiple surveys.

Viégas, Clayton, Fairman, and Haughton examined multiple sources of definitions across organizations and countries. These included state and local governments, EUROSTAT, Statistics Canada, Pew, and others. Interestingly, they did not reference definitions from the United Nations (UN), Organisation for Economic Co-operation and Development (OECD) (who focus on R&D and innovation), National Institutes of Standards and Technology, and Department of Commerce. Providing an explanation of why certain sources were used and others were not would be useful.

The BLS Green Team may want to meet with stakeholders to consider longer run uses of data, for example, the use of the data in the Bureau of Economic Analysis’ satellite

accounts. BEA initiated work in the early 1990s on creating an environmental satellite account but the work was never completed. The BLS green surveys may provide an important source of data for BEA. The UN also estimates a System of Integrated Environmental and Economic Accounting (SEEA) which BLS might want to explore. There may be other stakeholders that would find information about green employment useful such as the Environmental Protection Agency, the Energy Information Agency, and the Department of Interior.

#### **4. Summary**

BLS dedicated significant resources to testing and refining data collection methods and approaches to obtain optimal results. The BLS surveys to measure green jobs by industry, occupations, and geographic location, and the wages of these green workers will provide researchers and policymakers with useful information. BLS is to be commended for their research and implementation of these surveys with limited time and budget. They are encouraged to provide clear explanations and suggestions for uses of the data from multiple sources as clearly and cohesively as possible.

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