Committee: NACIE Workforce

Priority: Labor Market Data subcommittee

Problem / opportunity being addressed:
What are we solving or taking advantage of?

Today, there are 8.7 million unemployed Americans. These workers face significant challenges connecting with good job matches, particularly workers who need to transition into a new field. While official labor market statistics give an excellent view of the past, they tell us little about the real-time characteristics of unemployed workers and emerging labor demand from employers. This makes it hard to effectively design job training programs for in-demand fields, such as those emphasized in the President's 2015 State of the Union Address. Which unemployed workers should be targeted? What training is most likely to yield the biggest "bang for the buck" from training dollars?

Currently, most official jobs statistics are based on traditional sample-based surveys. With the dramatic growth in online job postings in recent years—along with advances in machine learning and other data-aggregation methods—there is an opportunity to make much greater use of more complete, real-time, holistic data sets available from online sources. Our vision for the future of U.S. labor market data is to bridge the gap between these growing sources of real-time labor market data and our official measures of job openings, vacancy rates, and trends among unemployed workers.

What we're going to about it:
What transformational investments and policies should the Federal Government facilitate that would help communities, businesses, and the workforce be globally competitive?

We propose exploring the possibility of creating a pilot project that would make use of real-time labor market data—both from private companies as well as state unemployment insurance (UI) systems—to help improve U.S. job matching and the targeting of job training programs.

Among the currently unemployed, we know very little about their former occupations. These data are currently collected by state UI agencies but are not available for research. For job openings, real-time data is available from a variety of online job marketplaces. However, positions are listed using millions of non-standardized job titles. This makes it hard to identify which jobs are a close match for the skills of the currently unemployed, and which workers should be targeted for re-training due to insufficient demand for their previous occupations.

Steps to take to address it?
How would NACIE in conjunction with others address this in the next year and a half? What are the steps/activities that would need to happen in sequence to be achieve success with the priority?

As a first step, we recommend partnering with the Department of Labor's Bureau of Labor Statistics, to explore the possibility of creating a public/private data sharing consortium to more effectively identify more real-time, localized data on labor supply and demand. The consortium could identify where those data exist, whether in the private sector or in government systems, then identify ways to combine and analyze those data using advanced technology tools such as machine learning, job-title "normalization" algorithms, and data analytics to create better matching of unemployed workers to the most economically relevant job openings.

Outcomes & Deliverables:
By the end of our NACIE term we will have accomplished:

- A partnership that could establish a public private data sharing consortium to provide more real time, relevant information to help policymakers identify "mismatches" between real-time labor supply and demand, and help more effectively target job training efforts.

- Leveraging existing approaches such as hackathons or datajams to help create online tools allowing unemployed workers to input their former job title and be matched to economically "similar" job openings with the greatest real-time labor demand.

- A "white paper" on the current state of labor market data collection and usage, and suggestions for how to improve these systems using real-time labor market data and standard machine learning techniques.

Success:
What does success look like? Provide a one sentence description of success.

Success for this initiative would be the creation of a partnership, user-friendly online tools allowing unemployed workers to better match up with job openings, as well as a dashboard for policymakers showing real-time mismatches between the supply and demand for standardized job titles.

Potential Subject Matter Experts to Participate if Project is Chosen at March Meeting:
Provide a list of potential subject matter experts along with what role they would play/questions they could answer if they were invited to participate in the subcommittee.

- Staff from the U.S. Department of Commerce and the Department of Labor who can advise on policy issues and the feasibility of obtaining real-time job title information on unemployed workers from state UI systems. (Lynn Overmann (DOC), Tyrone Grandison (DOL))

- Staff from the LMI (Labor Market Information) Institute, who can provide guidance on private-sector sources of real-time labor market information (Kenneth E. Poole, Ph.D.).

- Academic expertise on job titles and matching issues in real-time labor market data (Ioana Marinescu, Assistant Professor, Harris School of Public Policy, University of Chicago).

- Private sector partners (TBD).