

The W.E. Upjohn Institute for Employment Research

**300 South Westnedge Avenue • Kalamazoo, MI 49007 • phone (269) 343-5541
fax (269) 343-3308**

Southwest Michigan Prosperity Committee Microgrant Application

Measuring Occupations in Demand

Project Description

- a) Describe the project, the need(s) it intends to alleviate and communities and/or populations it will serve and positively impact

This project proposes to develop a methodology that produces and publishes timely and data driven guidance for identifying occupations in demand at the national, state and Metropolitan Statistical Area (MSA) level. Partners around the region will be able to use of the output of this project to prioritize job training resources based on actual and recent job market trends. Similarly, job seekers will be able to use these data to identify good-paying, growing occupations for training and job search.

One of the most significant benefits of developing a single, consistent and data-driven methodology for identifying in-demand occupations, especially down to the MSA level, is that it permits publication of these data in creative formats (such as through maps, interactive web applications, and even simple spreadsheet data listings, among others). *The overall goal of this project is simple: develop, maintain and regularly update these in-demand occupation lists for the use by all workforce boards in the U.S. for use by employers and job seekers.*

The Workforce Innovation and Opportunity Act (WIOA) of 2014 requires each State to identify ‘in-demand’ occupations in their annual plan to the Secretary of Labor as well as each local workforce development board to develop and implement ‘sector initiatives for in-demand industry sectors or occupations for the region.’ To develop such sector initiatives, local workforce development boards work closely with local employers to understand their occupational hiring and training needs. As well, one-stop career centers provide guidance to job seekers as to which occupations are in-demand. However, one of the challenges of the current system is there is little agreement or consistency on the best way to define occupations in demand. States vary widely on the data sources and methodologies used to develop to these estimates.

A recent study by the Bureau of Labor Statistics (BLS) / Labor Market Information (LMI) Oversight Council (BLOC), a Federal/state governance body overseeing BLS Federal/state employment programs, conducted a survey of all state LMI Directors to identify the variety of approaches being taken. The study found that states often used multiple approaches (63% of states used more than one metric), which included the use of 10-year employment projections and job openings, current day on-line job ads, formal models of supply and demand, employer job vacancy surveys, and surveys of employers in targeted industries.

For this project, we propose using BLS Occupational Employment Statistics (OES) survey data that allows comparisons of occupational employment levels over time to identify which occupations have been growing faster than some pre-determined threshold to qualify as an ‘in-demand’ occupation. While these data are relatively current, there is always a lag in their publication (the most current OES data is for May 2018, for example). We will also investigate the efficacy of coupling these data with current data on job postings to provide a more comprehensive portrait of the hiring conditions for occupations.

Because the OES has such a large sample size, with over 1.2 million establishments providing a representative sample for the most recent three-year data collection period, these data are published for detailed occupations at the national,

state, and MSA levels. In addition, each state, including Michigan, has access to a model that develops OES estimates at the county level. *As part of this project, we will examine the feasibility of producing in-demand occupation lists for each of the 7 counties in Prosperity region 8.*

One of the areas that workforce boards are especially interested in is being able to provide advice to job seekers whose education level is less than a bachelor's degree. What are the best occupations for those with less than a high school degree, a high school degree but no college, some college but no degree, or an associate degree? How do occupations requiring licenses or certifications fit into the framework of determining if an occupation is in-demand?

This project will use three different data sources to account for these considerations. The first is an official Bureau of Labor Statistics' classification of occupations based on the most prevalent or common educational and training required for entry into the occupation. The second and third are data related to occupational licenses and certifications. The Upjohn Institute houses an extensive data base on the licensing requirements by state for selected occupations. As well, the Current Population Survey has consistent monthly data on whether survey individuals have licenses or occupations (or both). These data sources will allow us to investigate the feasibility of developing lists of in-demand occupations by presence of licensing and/or certifications.

Another area that is of substantial interest to local workforce boards is information on the relative earnings of in-demand occupations. The OES provides extensive information on earnings by occupation, and once again, these data are available at the MSA level.

b) Describe how the project will accomplish one (or more) of the Prosperity Plan goals/opportunities

This project will help accomplish Education goals 1 and 5. Goal 1 seeks to promote opportunities to participate in education and skilled training programs that are tailored to market demands. Goal 5 supports the work of existing organizations such as local workforce boards in various areas including adult education, credential acquisition, and career exploration. This project will provide tailored, market driven guidance on what occupations are in-demand to help meet these goals. *Furthermore, this project will build upon, and refine data assembled in, the Talent Match project funded by SWMPI.*

c) List the counties in which the project will take place

This work will benefit all seven counties in Prosperity Region 8. As we develop the methodology and incorporate the various sources of data into the generation of in-demand occupation lists, we will seek feedback from the SMPC, local workforce boards, and other stakeholders throughout Prosperity Region 8.

Organizational Description

The W.E. Upjohn Unemployment Trustee Corporation was incorporated on October 24, 1932, as a Michigan 501(c)(3) nonprofit corporation, and is doing business as the W.E. Upjohn Institute for Employment Research. The W.E. Upjohn Institute for Employment Research has been conducting economic research and consultation for more than 70 years, since its founding in 1945. The Upjohn Institute currently employs 104 individuals. The research and consultation program is conducted by a resident staff of professional social scientists, 12 of whom are Ph.D.-level economists (senior staff). Senior staff is supported by a staff of six research analysts and an additional support staff. The Institute also administers the federal and state employment programs for its four-county area through the local Workforce Investment Board and publishes books on economic development, workforce development, and other employment-related topics.

The Ph.D.-level economists have more than 175 years of collective experience, conducting research on a broad variety of economic and employment topics. Their experience includes, but is not limited to, employment program evaluation, labor market dynamics, labor-management relations, employment and training programs, economic and workforce development, income replacement policy, worker adjustment, the role of education in labor markets, employment and

compensation, disability, international comparison of labor adjustment policies, site selection experience, and state, regional, and local economic analysis.

The Institute also has a regional team of specialists with experience in economic and workforce development and education strategies; GIS mapping abilities; rural and urban land use and economic development planning services; and regional data analysis.

The project will be led by Dr. Michael W. Horrigan, President since March 2019. Dr. Horrigan has over 32 years of experience in the Federal Statistical system serving most recently as Associate Commissioner at BLS overseeing their employment and unemployment programs. Brad Hershbein will serve as a consultant to the project. Jing Cai will provide the technical data base development work. Gerrit Anderson will develop applications for presenting the data in an easy to use visual display such as by the use of maps.

Partners

We will consult regularly with the South-Central Michigan Planning Council, the Michigan Works! Association, and the Michigan Bureau of Labor Market Information and Strategic Initiatives. We will also consult with local employers and economic developers. It is critical that the methodology we employ be viewed as providing accurate data-driven guidance as to the occupations that in-demand. As part of the consultation process, we will also present our findings to representatives of the Employment and Training Administration that oversee the implementation of the Workforce Innovation and Opportunity Act.

Project Timeline

Oct 1 – Dec 31, 2019

- Development of a methodology for identifying in-demand occupations using OES data

Jan 1, 2020- Mar 31, 2020

- Research the feasibility of incorporating license/certification data, data on job postings into the methodology for creating in-demand occupation lists

Apr 1, 2020 – Jun 30, 2020

- Consultation with partners on the methodology for estimating in-demand occupations

Jul 1, 2020 – Sep 30, 2020

- Development of web-based applications for accessing lists of in-demand occupations

Budget

We request funding in the amount of \$10,000. The total estimated budget for this project is \$44,522. The difference in funding will be made up through internal resources.

Budget	
Development of methodology	\$ 18,342
Development of the data base and occupation lists	\$ 8,132
Development of web/mapping applications	\$ 6,236
Consultation	\$ 7,687
Developing the final product	\$ 4,124
Total	\$ 44,522

Sincerely,

Michael W Horrigan, President
W.E. Upjohn Institute for Employment Research
Horrigan@upjohn.org