Information Resources for Middle Skills Workforce Development

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Information's Role in U.S. Labor Markets

- Economic growth and full employment require well-functioning labor markets
- Well-functioning labor markets require good information
  - Most workers need to acquire specialized knowledge, skills, and abilities to get a good job
  - Workers must be able to quickly adapt to changes beyond their control, including changes in:
    - Competitive outcomes
    - Corporate structure
    - Products and services
    - Process technology

Middle Skills Labor Market Participants

- Students and workers without middle skills
- Workers with middle skills
- Guidance and career counselors
- Educators and trainers
- Employers – line and HR staff
- Workforce development program managers
- Policymakers and analysts
- Researchers

Information Useful for Successful Middle Skills Decisions

- Useful occupational descriptions
- Current and projected labor demand and supply by occupation
- Employment outcomes of programs and pathways
- Match between personal talents and occupation/career options

Federal Information Role

- Federal government has critical role in promoting access to needed information
  - Public purpose
  - Scale of resources and expertise
  - Legal authority
  - Public response to surveys
  - Data reliability, objectivity, and consistency over space and time

- In federal toolkit, return on information is very high

- Traditional federal means—surveys

- IT advances enable greater availability and accessibility of useful information through increased
  - Analysis of administrative data—longitudinal, linked
  - Modeled estimates
  - Role for non-government data providers
  - Web-based data tools

Federal Information Providers

- Federal data system – decentralized, idiosyncratic, uncoordinated
- Agencies with primary responsibilities for workforce and labor market information (WLMI)
  - Bureau of Labor Statistics
  - Census Bureau
  - Employment and Training Administration
  - National Center for Education Statistics
- All work with state agency partners

Federal Information Providers

- Other agencies providing WLMI
  - National Center for Science and Engineering Statistics, NSF
  - National Center for Health Workforce Analysis, HHS
  - Social Security Administration
  - Statistics of Income Division, IRS
  - Economic Research Service, USDA
  - National Center for Veterans Analysis and Statistics, VA

Federal Information Providers

- Annual cost of federal WLMIS – about $800 million ($2.49 per capita)
- Data guide the labor market decisions of $17.7 trillion economy ($55,000 per capita), which includes $10.9 trillion in work earnings ($34,000 per capita)
- WLMIS cost/GDP = 0.00005%.
- Low cost compared to annual spending on education, training, unemployment
  - Employer spending on training – over $450 billion
  - Educational services (private) – $335 billion
  - Government higher education spending – $174 billion
  - Government spending on unemployment -- $150 billion in 2010, $63 billion in 2013
  - Federal employment and training – over $17 billion

Private WLMI

- Database categories
  - Job openings
  - Personal profiles and resumes
  - Student achievement
  - Credential programs
  - Assessments of personal KSAs
  - Assessments of firms
- Methods
  - Webscraping (e.g., Burning Glass)
  - Web-based data postings (e.g., LinkedIn)
  - Testing (e.g., ACT, Knack)
- State of rapid flux and growth
- Government agencies actively exploring how best to use

Employer-led Collaboratives

- Talent Pipeline Management Initiative, U.S. Chamber of Commerce Foundation
  - Demand planning
  - Talent flow analysis
- Communities That Work – Economic Development Administration and Aspen Institute
- WIOA encourages employer collaboratives

Legal and Policy Framework for WLMIS

- WIOA directs Labor Secretary to:
    - "oversee the development, maintenance, and continuous improvement of a workforce and labor market information system" to
    - "enumerate, estimate, and project employment opportunities and conditions at national, State, and local levels in a timely manner"

Legal and Policy Framework for WLMIS

- WIOA directs Labor Secretary to:
  - Actively seek the cooperation of heads of other Federal agencies to establish and maintain mechanisms for ensuring complementarity and nonduplication
  - Solicit, receive, evaluate, and respond in writing to the recommendations from a 14-member, user-dominated Workforce Information Advisory Council (WIAC) concerning WLMIS evaluation and improvement
  - Eliminate gaps and duplication in statistical undertakings
  - Prepare a 2-year WLMIS plan—acting through the Commissioner of BLS and the Assistant Secretary for ETA and in consultation with the WIAC and heads of other appropriate Federal agencies

Legal and Policy Framework for WLMIS

- Biden job-driven training checklist
  - "Make better use of data to drive accountability, inform what programs are offered and what is taught, and offer user-friendly information for job seekers to choose programs and pathways that work for them and are likely to result in jobs."
  - "Measure and evaluate employment and earnings outcomes."

WLMIS Effectiveness

- WLMIS far less effective than could be
- Immediate factors
  - Insufficient budget requests, appropriations
  - Low understanding of labor market participant data needs
  - Production shop culture
  - Legacy approach to data products
  - Lack of BLS and ETA collaboration
  - Lack of evaluation of WLMIS performance and impacts

WLMIS Effectiveness

- Underlying factors
  - Congress, OMB, department budget office non-appreciation of very high ROI on information
  - BLS orientation to serving macroeconomists – emphasis on Principal Federal Economic Indicators
  - Labor Secretary's lack of interest
  - Administration focus on programs, not strategy

Occupational Descriptions

- Products
  - Standard Occupational Classification System (OMB)
  - O*NET (ETA)
  - Occupational Outlook Handbook (BLS)
  - Competency Model Clearinghouse (ETA)
  - National Compensation Survey (BLS)
  - Occupational Requirements Survey (BLS)
- Strength – broad foundation based on SOC
- Weaknesses
  - Confusing array, not well integrated
  - Insufficient updates
  - Lack of evaluation of market penetration and use
  - Absence of useful occupation-skills crosswalk

Characteristics of Labor Markets

- General labor market conditions
  - Strength—good and getting better
  - Weakness—vulnerability of American Community Survey to diminishment by Congress
- Occupational structure
  - Strength—comprehensive, detailed
  - Weakness—lack of time series, geographic detail due to small sample
- Workforce characteristics
  - Strength—ACS provides excellent data
  - Weakness—lack of non-degree credential data, but it's coming

Characteristics of Labor Markets

- Near-term trends in occupational supply and demand (current, 2-year projected)
  - Strengths
    - Datasets on multiple components
    - Due to IT, generating data on flows, e.g., job openings, hires/separations, school-to-job flows
    - Much experimentation in modeling
  - Weaknesses
    - Insufficient data on supply
    - Overreliance on new graduates data

Employment Outcomes

- IT-enabled capacity to ascertain
  - Near-term outcomes by credential, major, program
  - Actual career paths ("climbing wall")
- Strength – multiple new valuable efforts
  - Statewide Longitudinal Data Systems + State UI Wage Records
  - Longitudinal Employer-Household Dynamics Program, Census
  - LinkedIn
  - Resume text analysis (Georgetown/NASWA)
- Weaknesses
  - Absence of occupation on UI wage record
  - Difficulty tracking graduates moving out of state

Customized Guidance for Individuals

- New field of predictive analytics
  - Knack
  - Sociometric Solutions
  - ConnectCubed
  - Ultimate Software
- ACT Aces Applied Research Network
- Opportunity – analyze large volumes of personal skill and aptitude tests to identify correlated fits with occupations

Recommendations: WLMIS Governance

- Secretary of Labor should
  - Develop and implement demand-driven WLMIS plan with clear vision, roadmap, and rationale
  - Include BLS, ETA, Census Bureau, NCES, NCSES, state LMI and education agencies in WLMIS
  - Educate Congress and OMB regarding the enormously high ROI in WLMI
  - Direct DOL budget office to base WLMIS budget requests on expected ROI relative to other forms of investment

Recommendations: WLMIS Governance

- Secretary of Labor should direct BLS and ETA to:
  - Coordinate and collaborate on WLMI activities
  - Create relationships with labor market participant reps to better understand data needs
  - Measure performance and impacts of WLMI products and services
  - Provide budget requests to substantially increase grants to state LMI agencies, which have been flat at $110 million for over 10 years
  - Educate Congress on importance of WLMI to the economy and employment

Recommendations: WLMIS Governance

- White House policy offices—Office of Management and Budget, National Economic Council, Domestic Policy Office, Council of Economic Advisers, and Office of Science and Technology Policy—should:
  - Work with Labor Secretary to produce a coherent federal WLMIS strategy
  - Actively seek the appropriations adequate to fulfill it

- NCES should expand mission of the National Postsecondary Education Collaborative to support labor market participant decision-making

- Federal Committee on Statistical Methodology should propose principles and practices for use of advanced IT data methods and third-party services

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