



RECOMMENDATIONS FOR THE IMPROVEMENT OF THE WORKFORCE AND LABOR MARKET INFORMATION SYSTEM



**WORKFORCE INFORMATION
ADVISORY COUNCIL**

Draft for WIAC meeting January 11, 2018

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Workforce Information Advisory Council

WASHINGTON, DC

January 25, 2018

The Honorable R. Alexander Acosta, Secretary
U.S. Department of Labor
Frances Perkins Building
200 Constitution Ave., NW
Washington, DC 20210

Dear Secretary Acosta:

On behalf of the Workforce Information Advisory Council, and pursuant to Public Law 113–128, we are pleased to submit the following report detailing our recommendations. We believe that adoption of the recommendations contained in our report is needed to ensure the nation’s economy maintains its position as the leading economy in the world.

Over the course of its work, the Council heard from numerous subject matter experts and members of the public. The recommendations contained in the report have been unanimously agreed to by the members of the Council.

The Council envisions a future in which advancements in the collection, analysis and delivery of comprehensive, high quality workforce and labor market information are part of collaborative federal and state government operations. Advances in technology and statistical methodology make it possible to improve the workforce and labor market information system to deliver more effective workforce investments, provide for more efficient labor markets for businesses, workers, and students, and lead to the more efficient functioning of local economies throughout the nation.

We call on the Secretary to act to ensure that this vision becomes a reality.

Respectfully yours,

Cynthia Forland
Cynthia Forland, Chair

<i>Signature</i> Member Name	<i>Signature</i> Member Name	<i>Signature</i> Member Name	<i>Signature</i> Member Name	<i>Signature</i> Member Name
<i>Signature</i> Member Name	<i>Signature</i> Member Name	<i>Signature</i> Member Name	<i>Signature</i> Member Name	<i>Signature</i> Member Name



WORKFORCE INFORMATION ADVISORY COUNCIL

Name	Organization	Representing
Aaron Fichtner	New Jersey Department of Labor and Workforce Development	State Workforce Investment Agencies
Bruce Madson	Ohio Department of Job and Family Services	State Workforce Investment Agencies
Ellen Golombek*	Colorado Department of Labor and Employment	State Workforce Investment Agencies
Pamela Bucy**	Montana Department of Labor and Industry	State Workforce Investment Agencies
Cynthia Forland	Washington State Employment Security Department	WLMI Directors
Brenda Lisbon	South Carolina Department of Employment and Workforce	WLMI Directors
Mathew Barewicz	Vermont Department of Labor	WLMI Directors
Angela Pate	University of Florida Startup Quest, OwnForce, Inc.	Providers of Training Services
Jennifer Zeller	Georgia Power	Economic Development Entities
Mark McKeen	General Motors	National Business or Trade Organizations
Chelsea Orvella	Society of Professional Engineering Employees In Aerospace, IFPTE Local 2001	Labor Organizations
Bruce Ferguson	CareerSource of Northeast Florida	Workforce Development Boards
Andrew Reamer	George Washington Institute of Public Policy	Research Entities

* Member resigned due to new position in October 2017.

** Member resigned due to new position in July 2017.

Introduction

Through the Workforce Innovation and Opportunity Act of 2014 (WIOA), Congress directs the Secretary of Labor to oversee development of a workforce and labor market information system (WLMIS) that enables state and local labor market participants—including employers, students, workers, workforce investment boards, and education and training agencies and institutions—to make informed decisions.¹ The law directs the Secretary to develop the WLMIS:

- through the Bureau of Labor Statistics and the Employment and Training Administration;
- in collaboration with States;
- in cooperation with the heads of other Federal agencies to ensure complementarity and nonduplication; and
- in consultation with the 14-member Workforce Information Advisory Council (WIAC) appointed by the Secretary.

In fulfillment of Secretary Acosta’s directive to the WIAC to provide him with “written recommendations . . . concerning the evaluation and improvement of the nationwide workforce and labor market information system,” the WIAC is honored to present this document for his consideration.²

Importance of Workforce and Labor Market Information

Workforce and labor market information consists of the data and information used by businesses, workers, students, jobseekers, education and training providers, workforce development planners and policymakers, and others, to make informed decisions in areas such as hiring and advancement, career choice, curriculum development, and investments in training.

Workforce and labor market information is essential to the nation’s economy, providing for the efficient operation of labor markets by supplying quality labor market intelligence. Accurate, objective, relevant, timely, and accessible workforce and labor market information is critical for:

- Building a skilled workforce that spurs business competitiveness and economic growth;
- Strengthening career pathways and guiding skill attainment for good jobs, economic opportunity, and career growth;
- Understanding the rapidly changing nature of work and how it impacts the workforce and U.S. economy; and
- Using evidenced-based policymaking to ensure the effective use of workforce training and education funds.

Summary of Recommendations

The WIAC was guided in the development of its specific recommendations by information-related objectives and priorities articulated in WIOA; the Secretary’s draft strategic plan for fiscal years 2018-2022; President Trump’s Executive Order 13801, “Expanding Apprenticeships in America”; and Secretary Acosta’s meeting with the WIAC on November 2, 2017. Collectively, these objectives and priorities include:

- Enable State and local workforce boards to identify in-demand occupations and industries, as required by WIOA;
- Address students’ career awareness gap – facilitate their ability to make informed choices about career and educational options, including apprenticeships, industry-recognized certifications, and other non-degree credentials;³
- Enhance the capacity of education and training institutions to graduate students with the knowledge, skills, and abilities sought by employers;⁴
- Facilitate evidence-based policymaking through measuring the outcomes of federal employment and training programs;⁵ and
- Recognize the changing natures of:
 - education – in terms of increased emphasis on competencies attainment; non-traditional credentials and modes of learning; and the growing number of adult learners;⁶ and
 - work – in terms of the ongoing transformation of occupations by technology and the rise of non-traditional work arrangements.⁷

Through a series for Council meetings and numerous subcommittee deliberations, which included reviews of existing products, programs and initiatives, discussions with subject matter experts, and consideration of public comments, the Council examined many areas and elements of the workforce and labor market information system. The following nine recommendations received the unanimous support of the members of the Council.

Recommendation 1. Enhance UI Wage Records

The WIAC recommends that the Secretary pursue the inclusion of additional data elements to UI wage records, including occupational title, hours worked and work site.

Recommendation 2. Expand Information on Occupations, Skills and Credentials

The WIAC recommends that the Secretary increase investments in information on the workforce skill requirements of current and emerging occupations, including credential attainment and outcomes, and transferability of skills among industries and occupations.

Recommendation 3. Develop and Disseminate a K-12 Career Awareness Educational Framework

The WIAC recommends that the Secretary develop and disseminate a K-12 career awareness educational framework to address the career awareness gap and increase public understanding of career pathways and options starting at an early age.

Recommendation 4. Develop Information on the Changing Nature of Work

The WIAC recommends that the Secretary pursue the collection and development of information that provides an understanding of the scope and volume of alternative work arrangements or other causes for the reduction in traditional workforce participation.

Recommendation 5. Increase Support for State and Local Information in the WLMI System

The WIAC recommends that the Secretary include in the Department of Labor budget for FY2020 a request for annual funding to states from BLS for the Federal-State Cooperative Statistics System and from ETA for Workforce Information Grants to States at twice the current funding level to strengthen the provision of state and local information in the nationwide WLMI system.

Recommendation 6. Overcome Barriers to Data Sharing

The WIAC recommends that the Secretary enable greater use of WLMI for evidence-based workforce investment decision making by supporting and facilitating the implementation of recommendations of the Commission on Evidence-Based Policymaking to advance policy, program and personal decisions on workforce investments.

Recommendation 7. Improve Consistency and Availability of Program Evaluation Data

The WIAC recommends that the Secretary improve consistency and availability of workforce program assessment and evaluation data by establishing the state WLMI unit or other unit determined by the state as the designated state entity for the provision of WIOA workforce program participant outcomes, performance assessments and evaluations.

Recommendation 8. Create a 21st Century WLMI System Using Advanced Technologies

The WIAC recommends that the Secretary create a 21st century WLMI system based on a distributed knowledge management system (DKMS) that uses an open architecture/open data approach and artificial intelligence (AI) and related advanced technologies.

Recommendation 9. Initiate Collaboration Among WLMI System Agencies

The WIAC recommends that the Secretary initiate collaboration among WLMI system agencies by directing ETA and BLS to convene a one-day gathering of representatives from federal and state programs that contribute information essential to a well-functioning workforce and labor market information system, as defined by Congress.

Recommendation 1

Enhance UI Wage Records

The WIAC recommends that the Secretary pursue the inclusion of additional data elements to UI wage records, including, but not limited to, occupational title, hours worked and work site.

Why This is Needed: The inclusion of additional data elements on wage records would have numerous benefits, enabling production of valuable information not currently available, including much needed local data. Among the benefits:

- It would enable the ability to obtain better data on employment outcomes related to training and education, which can inform businesses, workers and students of the value of investments in training and education programs.
- It would enable production of detailed state and local area information on employment by occupation, hours of work and wages, which would inform employer location and recruitment decisions, as well as individual work search.
- It would enable the analysis and improved understanding of career pathways or ladders.
- Other federal WLMI programs and their products, such as OES, QCEW, and LEHD, would also be enriched from enhanced UI wage records.
- It would enable the production of occupational wage trends that cannot currently be produced.
- It would contribute to the production of important information regarding emerging, growing, and shrinking occupations.
- It would enable states to do a better job of maintaining a skilled workforce, providing better job applicants for business, and reducing hiring and UI costs for employers, and reducing overall public assistance costs.
- It could lead to reduced employer survey burden and cost savings through the eventual elimination of the OES survey, and reduced need for additional surveys and data cleansing/correction activities.

However, there are issues and concerns pursuing the enhancement of wage records among some employers and state UI agencies that would be impacted. **In September 2015**, the Workforce Information Council (WIC) released *Enhancing Unemployment Insurance Wage Records: Potential Benefits, Barriers, and Opportunities*, which summarized the findings of a three-year study that “explored using the administrative records as an alternative source for improving local and state labor market information . . . for state and local education and training program planning and accountability, economic analysis, career planning, and workforce program administration.”

According to the WIC report, business associations highly valued the potential benefits of enhanced wage records, as did respondents associated with human resource functions. However, many individual businesses and persons associated with payroll divisions expressed concerns over reporting burdens and cost. Small employers in particular felt they were at a disadvantage in access to resources necessary to provide the additional details on the reports.

However, the WIC study also found that several of the data elements that have been the focus of discussions on wage record enhancement are currently available in the payroll systems of most employers; in thirteen states, employers have been able to report additional variables; substantial numbers of employers use either commercial payroll software or contract providers to prepare their reports; and a majority of payroll services firms are capable of handling most of the enhanced wage record variables. In addition to interests in the potential benefits for human resource functions, employers desired simplified reporting, including clarified and standardized data element definitions, which currently differ from state to state.

State UI agencies also varied in their response to wage record changes. While most states are requiring employers to report electronically, which facilitates modifications to the wage records and lowers the marginal costs of adding variables, there are still states running old legacy systems that expressed concerns regarding the difficulty of adding variables to existing systems and the time and resources needed to replace those systems. In addition, it was noted that while use of paper reporting by a diminishing, in some states there is still large number of employers who continue to report using paper forms.

How This Can Be Implemented: The Secretary should direct ETA and BLS to jointly lead an effort, with participation of the states, to establish strategies and processes that will promote the enhancement of UI wage records. In accordance with and in supplement to the WIC report, the following actions are recommended:

- Provide opportunities for affected parties to participate in wage record enhancement planning, including state LMI divisions and UI administrative agencies, payroll services and software firms, and businesses and business associations.
- Establish national standards by identifying and pursuing:
 - Common data elements that should be collected by all states
 - Standardized data element titles, definitions, and reporting requirements
 - Appropriate employer incentives for accurate, complete, and timely reporting
 - Alternative implementation strategies
 - Standard reporting formats and methods
 - Legislative actions
 - Common system capabilities
- Provide financial assistance and/or other incentives to encourage states to:
 - Complete UI systems modernization projects to accommodate wage record enhancement
 - Adopt national system standards
 - Increase electronic reporting
 - Begin or expand enhanced data collection
- Develop tools to assist with occupational and geographic coding, and that minimize or eliminate the need for employer involvement
- Develop employer training and technical assistance materials, with the assistance of the American Payroll Association, to explain new reporting elements, their benefits, and methods for completing them.

Recommendation 2

Expand Information on Occupations, Skills, and Credentials

The WIAC recommends that the Secretary increase investment in information on the workforce skill requirements of current and emerging occupations, on credential attainment and workforce outcomes, and on transferability of skills among industries and occupations. As part of this investment, the WIAC recommends the Department of Labor lead an initiative that maintains a comprehensive resource of credentials that creates standards in the labor market for, and a common understanding of the labor market value of, degrees, certificates, industry certifications, and licenses.

Why This Is Needed: Students, jobseekers and workers need up-to-date information on in-demand occupations, required job skills, and what may be required to enable them to move from one job to another. Businesses need timely and accessible information on the skills of the talent pool and confidence that the credentials workers obtain will help prepare them to meet the challenges of their business operations. Education and training providers need current information on the knowledge, skills and competencies required by occupations to make strategic investments in curricula to effectively serve their students and the businesses that hire them.

O*NET, a resource maintained by ETA, is the nation's primary source of occupational information. O*NET contains hundreds of standardized and occupation-specific descriptors on almost 1,000 occupations covering the entire U.S. economy. It is essential that this indispensable resource be maintained and improved upon to ensure our understanding of the rapidly changing attributes of work and how it impacts the workforce and U.S. economy. While it is continually updated from input by a broad range of workers in each occupation, there is concern that it is not keeping pace with the changes occurring in the workplace. The DOL's 2016 and 2017 budget requests included funding, not received, to study and test approaches "to modernize and potentially streamline data collection" for O*Net to provide "up to date coverage of occupations and skills, particularly for high growth, changing industries."⁸

While O*NET provides comprehensive information on hundreds of occupations, there is no comparable resource with respect to credentials – including degrees, certifications, licenses and certificates – and their value to gainful employment. In an efficient and effective labor market, employers and workers must be able to have access to a reliable source of credentials that reflect the knowledge and skills relevant to jobs. Employers need to be confident that credentials can be depended upon for hiring job candidates with the knowledge and skills they need. Workers, jobseekers and students need to be confident that their investments in education and training will provide them the competencies that prepare them for positions that employers are seeking to fill.

To address this need, ETA has compiled and maintains data on occupational certifications, but acknowledges it to be incomplete and lacking information on the number of certification holders and their employment relative to the certification they received. ETA also has compiled and is seeking to improve on a resource of state-specific information on occupational licenses.

A number of other interested groups have taken initiatives to improve the credentialing

marketplace. One non-profit organization, Credential Engine, has made efforts to promote collaboration among credentialing stakeholders and establish an open credential registry to be populated through the voluntary participation of credentialing organizations.⁹ Although still in development, this initiative is promising if participation by a critical mass of education and training organizations can be achieved.

How This Can Be Implemented: The WIAC recommends the following approaches be taken to enhance information available on occupations, skills and credentials:

- 1) Identify occupations and the necessary skills for those occupations that are changing most rapidly and update O*NET content for them more frequently. Sources of aggregated job openings data should be seen as possible indicators of evolving occupational skill sets, and enhanced wage records should be seen as a possible information source on emerging occupations. Existing O*NET capabilities can be used to create or improve tools that both job seekers and employers utilize to identify skills that are transferable from one occupation to another and what is needed to make those transitions.
- 2) Use information on rapidly changing and emerging occupations to identify the need for Standard Occupational Classification (SOC) revisions, and consider how these changes may be incorporated into the SOC more timely than current update timeframes permit. Any improvement that could be made in updating the SOC would benefit the overall discussion of occupations and skills and their supply and demand in the labor market.
- 3) Explore a partnership with the Department of Education to develop a skills-based crosswalk between occupations and training programs, further defining career pathways.
- 4) The Council recognizes a DOL role in increasing the transparency of the value credentials and the credibility of credentialing programs. DOL should ensure the establishment and maintenance of this resource. Among the approaches to consider are:
 - a. Promoting joint efforts by DOL and private organizations to establish and maintain a comprehensive resource of credentials and improved data on the outcomes for individuals who obtain credentials,
 - b. Exploring the mining of resumes on the Internet for credentials.
 - c. Working with licensing bodies to determine how to collect and maintain licensing information by occupation.
 - d. Establishing public-private partnerships to create employer-driven initiatives to identify the credentials that are valued in the labor market.
 - e. Expanding the collection of credential information by occupation through O*NET and ACS data collection activities.
 - f. Expanding the availability of credential information like that displayed in the CyberSeek Cybersecurity Heat Map to other occupations.
 - g. Establishing a methodology to produce information on the employment outcomes of persons who obtain credentials, which will provide new information on the value of credentials, giving workers and businesses greater confidence that a credential will contribute to success on the job.
 - h. Maintaining credential characteristics, including, among other details, type of credential, associated industry, awarding entity, geographic location of the award, and employment outcomes of persons obtaining the credential.

Recommendation 3

Develop and Disseminate a K-12 Career Awareness Educational Framework

The WIAC recommends that the Secretary develop and disseminate a K-12 career awareness educational framework to address the career awareness gap and increase public understanding of career pathways and options starting at an early age. The educational framework should be developed for voluntary use by public schools through a joint U.S. Department of Labor (DOL) and U.S. Department of Education (ED) initiative and state pilot grant program, and designed to:

- Provide standardized, replicable, and customizable career guidance educational materials as appropriate to three K-12 levels—elementary, middle, and high school levels
- Promote proficiency in understanding basic labor market concepts, industry, occupation, and skills data, and the changing nature of work in the U.S. economy
- Leverage existing career guidance materials produced by ETA, state workforce agencies, the National Career Development Association, and others (not reinvent the wheel)
- Increase the capacity among state and local education agencies to better address the career awareness gap among youth

Why This Is Needed: As reported by BLS, the labor force participation rate of young people has been declining. In addition, the BLS projects the decline to continue. Postponement of entry into the labor market has negative effects on individuals and the economy as it delays important experiential learning in the labor market. Early job searches and early employment inform future decisions on education and career pathways. For example, too often young people learn about career technical education after high school or realize after post-secondary graduation that they are not interested in employment in their field of study. Systematic dissemination of critical industry, occupation, skills, and other career awareness information will reduce the number of “wrong turns” people make when starting out in the labor market.

In addition, too many people are not aware of the economic infrastructure of modern society enough to understand how their unique skillsets could help them profit from gainful employment. The general public’s lack of career awareness spans the gamut of career guidance information—from industry, occupation, and skills data, to what jobs and career pathways lead to greater economic security, to what training or education is needed. All too often people are unaware of accessible career paths that do not require college degrees such as apprenticeship employment and training and other technical education and work-based learning opportunities. Furthermore, career counseling in public schools tends to encourage students to attend four-year colleges. By focusing on youth, this recommendation seeks to address career awareness needs at an early age.

How This Can Be Implemented: The following four strategies address processes for launching and supporting this initiative, and key design concepts for developing the framework.

- (1) Establish a DOL/ED Memorandum of Understanding (MOU), including joint federal funding commitments to support this initiative. The Departments should collaboratively determine who will develop the standard educational framework and parameters for the state pilot grants, overall timeline and budget, and funding sources.
- (2) Develop the standard educational framework at the federal level by engaging knowledgeable professionals in its creation (in-house or contracted), using existing materials, and including key concepts. Existing career guidance materials should be packaged within the framework, including, for example, those from ETA's vast library housed on the CareerOneStop website and those produced by the National Career Development Association. Currently available materials are excellent but lack context and an educational framework to support teacher use and customization. The framework should be designed to:
 - Be standardized but flexible so that states and teachers can customize content based on local labor markets and customize content delivery within regular classroom lessons.
 - Provide up-to-date content and experiential activities such as employer and job site field trips or classroom presentations.
 - Provide K-12 students with three levels of career awareness activities by introducing industries in primary school and covering occupations in middle school, thereby providing the foundation for personalized learning and career plans in high school.
 - Include a "community-based learning approach" by having students present the content to parents, siblings, or neighbors as part of their coursework, thereby reinforcing the learning and increasing public sharing of career awareness knowledge.
- (3) Establish a joint DOL-ED state pilot grant program. Pilot grants should be used by states to: create a state-level workforce and education agency partnership to support the initiative; customize the standard educational framework developed at the federal level to address unique state labor market and educational needs, leveraging existing state materials; develop a train-the-trainer process for preparing public school teachers to use the framework; pilot test the state framework; and disseminate and promote use of the customized state framework throughout the state public school system.
- (4) Execute a joint DOL-ED dissemination strategy to ensure the framework is available to all public schools and its voluntary use is promoted.

Recommendation 4

Develop Information on the Changing Nature of Work

The WIAC recommends that the Secretary pursue the collection and development of information that provides an understanding of the scope and volume of alternative work arrangements or other causes for the reduction in traditional workforce participation.

Why This Is Needed: There is increasing evidence that the traditional nature of full-time employment with one employer is giving way to a growing segment of voluntary and involuntary contingent workers (workers who do not have an explicit or implicit contract for long-term employment) and workers with alternative work arrangements (on call workers, temp agency workers, independent contractors, and workers provided by contract firms). A thorough understanding of this evolution is needed to provide for deeper comprehension of its implications on businesses, individuals, and families. A failure to understand these changes could lead federal, state and local policymakers to make erroneous and ineffective investments of limited resources.

BLS received one-time funding to collect information on contingent workers in 2017. The Contingent Worker Survey was previously conducted five times by BLS, but was discontinued after 2005 due to lack of funding. The change in the nature of work has grown since then, and is expected to continue. In a 2016 study, researchers conducted a version of the Contingent Worker Survey and found a significant increase from 2005 to 2015 in the incidence of alternative work arrangements in the U.S. economy. They reported the percentage of workers engaged in alternative work arrangements – defined as temporary help agency workers, on-call workers, contract workers, and independent contractors or freelancers – had risen from 10.1 to 15.8 percent.¹⁰

There have been efforts by others to gather information on the changing nature of work. Nation1099, a website dedicated to the professional independent contractor and the “gig” economy, compiled and reviewed surveys and studies on the changes taking place. A summary of their findings includes citations such as:

- *7.6 million Americans will be working in the on-demand economy regularly by 2020.* [Intuit Investor Forecast](#)
- *By 2027, more than half of American workers — 58 percent — will have had some experience as independent contractors.* [MBO Partners Looking Forward: What Will the Independent Workforce Look Like In 2027?](#)
- *44 percent of business leaders say the top socio-economic driver of changes in industry is the “changing nature of work, flexible work.”* – [The Future of Jobs Report](#). World Economic Forum¹¹

Further, Technology Vision 2017, a report by Accenture, predicts that ultimately the legacy models of employment will be “dissolved and replaced with talent marketplaces” driven by the “surge of on-demand labor platforms and online work management solutions.”¹²

How This Can Be Implemented: The WIAC recommends the Secretary pursue funding for BLS to conduct the Contingent Worker Survey on a regular basis in order to increase our knowledge and understanding of the changing nature of work, its impact on businesses and workers, and how the workforce investment system can continue to effectively support their evolving needs. Further, BLS should consider providing an option for states to invest in an expanded CPS sample to enable the production of state-level data on the changing nature of work, which would identify the varying extent to which this is taking place in labor markets across the nation, as well as strengthen measures of other characteristics of local labor markets.

Recommendation 5

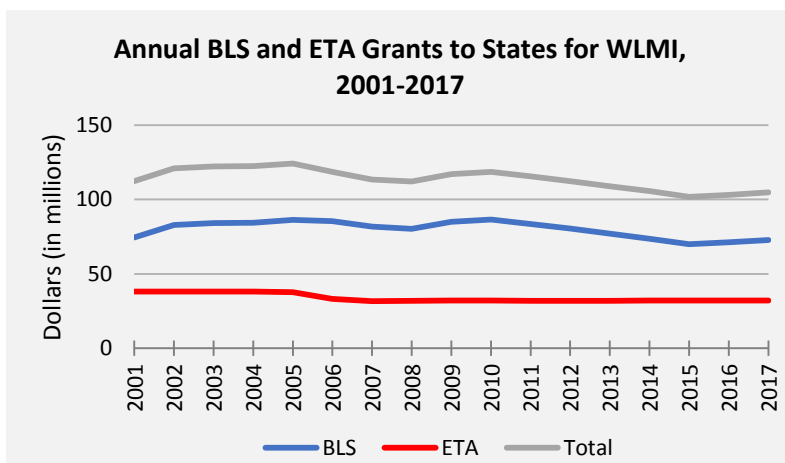
Increase Support for the State’s Role in the WLMISystem

The WIAC recommends that the Secretary include in the Department of Labor budget for FY2020 a request for annual funding to states from BLS for the Federal-State Cooperative Statistics System and from ETA for Workforce Information Grants to States (WIGS) at twice the current funding level; that is, from \$104.8 million in FY2017 to \$209.6 million in FY2020.

- BLS labor statistics funding from \$72.8 million in FY2017 to \$145.6 million in FY2020.
- WIGS program funding from \$32 million in PY2017 to \$64 million in FY2020

Why This Is Needed: BLS and WIGS grants to states are essential for the production, dissemination, and analysis of state and local labor force statistics. These data are a central component of the WLMIS, as specified by Congress, and are critical to state and local government decision-makers and public and private labor market participants. Moreover, state and local WIOA and Department of Education grantees use state-produced data to determine investments of \$4 billion in education and training programs for “in-demand occupations and industries,” as required by law.¹³

In 2017, total annual federal support for state-produced labor force statistics was \$104.8 million. This figure is 16 percent below 2005 funding of \$124.1 million in nominal terms and down 39 percent from an inflation-adjusted 2005 figure of \$171.0 million.¹⁴ (See graph.)



The ongoing decline in real funding since 2005 has led to reductions in the quantity and quality of WLMISystem important to the participants in the workforce system. In response to a request for information, a significant majority of 25 responding state LMI agencies indicate that they have reduced the availability state and sub-state WLMISystem products and services. A number specifically note that, as a result, their capacity to provide information on “in-demand occupations and industries,” as required by WIOA, is diminished. (See box for examples of lost state capacity.)

Overview of State LMI Agency Responses Regarding Diminished WLMIS Capacity Due to Cuts in BLS and ETA Grants

Individual State LMI agencies report to BLS and ETA that the decline in federal funding has led to the loss of one or more the following aspects of WLMIS capacity:

- Data Collections – elimination of:
 - Surveys – vacancy, labor availability, skill gaps, fringe benefits, industry-specific
 - Real-time LMI (job postings)
- Products and Services – loss of:
 - Ability to timely respond to stakeholder requests
 - Occupational projections at a sub-state level
 - Industry and occupational analyses
 - Economic impact analysis for business recruitment or reemployment analysis
 - Reports customized to needs of state and local workforce boards and other customers
 - Special studies – such as on underemployment, labor availability, program impact evaluation
 - GIS mapping for economic and workforce development
 - Publications and Web tools – such as career guides for secondary students and laid-off workers
- Staff – loss of:
 - Local labor market analysts
 - Staff needed to raise, or even maintain, data quality
 - Well-qualified staff attracted to better paying positions in the private sector
 - Ability of staff to improve capacity by attending training workshops and conferences
- Information Technology – inability to have:
 - State-of-the-art internet data delivery systems
 - State-of-the art software for data management and analysis
- Customer outreach – loss of ability to inform students, workers, educators, and employers about State LMI products and services

The WIAC's recommended FY2020 funding level of \$142 million for BLS and \$64 million for ETA reflects the increased congressional expectations as reflected in WIOA as well as expected inflation between 2017 and 2020. By enabling a robust federal-state WLMIS, the proposed infusion of new funds will lead to significantly more functional labor markets; substantial federal and state cost savings in unemployment compensation, disability payments, health care costs, retraining costs, student debt defaults, and criminal justice costs; and increased federal and state revenues as a result of higher worker earnings.

How This Can Be Implemented: The WIAC recommends that Secretary Acosta first direct the Labor Department's Chief Evaluation Officer to assess the public and federal return on investment on the proposed funding increase and then, in light of the findings, direct the Labor Department's Budget Office to prepare the Department's FY2020 budget request accordingly.

Recommendation 6

Overcome Barriers to Data Sharing

The WIAC recommends that the Secretary enable greater use of WLMI for evidence-based workforce investment decision making by supporting and facilitating the implementation of recommendations of the Commission on Evidence-Based Policymaking (CEP) where they advance the development of information that improves policy, program and personal decisions based on workforce investments. These include:

- Providing constructive input and support to bipartisan congressional efforts to implement the overall framework proposed by the CEP;
- Supporting and facilitating implementation of CEP recommendation 2-6 regarding greater availability of state quarterly employee wage records for evidence-based policy research and analysis;¹⁵ and
- Supporting the capacity of state agencies to carry out evidence-based policy analysis and program evaluation using state administrative records linked to other administrative records by the federal government, consistent with CEP recommendation 4-1.¹⁶

Why This Is Needed: In his comments to the WIAC, Secretary Acosta expressed his desire to expand the Labor Department’s capacity to measure the outcomes of federal employment and training programs, consistent with the Department’s draft strategic plan for 2018-22 and President Trump’s recent executive order directing outcome-based evaluations of all federal employment and training programs.¹⁷ In its final report, [The Promise of Evidence-Based Policymaking](#), the bipartisan CEP proposed a framework to improve “the availability of rigorous evidence to inform policymaking.”¹⁸ The CEP’s recommendations and legislation implementing them, such as the bills recently introduced by Speaker Paul Ryan and Senator Patty Murray and unanimously passed by the House in November 2017, provide a foundation for a well-functioning WLMI system to support evidence-based workforce development policymaking.

Access to employee unemployment insurance (UI) wage records, obtained by the states through the state UI programs, is particularly important for evaluating the outcomes of education and training programs such as apprenticeships, as noted in CEP recommendation 2-6. However, state agencies tend to err on the side of caution when sharing these confidential records, and other potentially invaluable administrative records created under federal-state cooperative programs administered by the Labor, Education, and Commerce departments, for purposes other than those expressly required for program administration. This limits availability of these records for research and value created by the federal investments that support their creation.

CEP Recommendations 2-7 and 4-1 address this issue by recognizing the value of a “two-way street” through which these administrative records could be securely shared for statistical purposes. Under this framework, qualified researchers working for the states would gain access to linked datasets with cross-state data from a variety of programmatic sources to conduct evidence-based research and analysis. This would enable states to contribute their expertise in the unique characteristics of their data to improve the shared resource and quickly produce valuable new statistical products while efficiently leveraging federal investments in cooperative programs to expand the potential for outcomes-based program evaluations.

Administrative Records of Value for Federal and State Evidence-based Policymaking

- Federal employer and individual tax information
- Education and training records (including enrollment, courses completed, degrees and certificates completed, and financial aid from pre-school to K-12 to post-secondary)
- Census Bureau records on households (particularly through the Decennial Census and American Community Survey)
- State Supplemental Nutrition Assistance Program (SNAP) records
- State Temporary Assistance for Needy Families (TANF) records
- State UI claims records
- State UI quarterly establishment and employee wage records
- Federal government and military employment and wage information
- State WIOA services information

How This Can Be Implemented: Speaker Paul Ryan and Senator Patty Murray are co-sponsoring legislation to implement the Commission’s recommendations. The WIAC recommends that Secretary Acosta:

- Support H.R. 4174 and S. 2046, the bipartisan bills to codify an initial set of CEP recommendations;
- Obtain from ETA’s Office of Workforce Security and the BLS Office of Employment and Unemployment Statistics recommendations regarding legislative and administration approaches to implementing CEP recommendation 2-6 on wider access to state UI wage records for statistical purposes; and
- Provide input to the congressional co-sponsors on 2018 bills to codify CEP recommendations, particularly recommendations 2-6 and 4-1.

Recommendation 7

Improve Consistency and Availability of Program Evaluation Data

The WIAC recommends that the Secretary improve consistency and availability of workforce program assessment and evaluation data by establishing the state WLMI unit or other unit determined by the state as the designated state entity for the provision of WIOA workforce program participant outcomes, performance assessments and evaluations.

Why This Is Needed: Designation of the state WLMI unit (or other qualified state entity) to provide WIOA workforce program participant outcomes, performance assessments and evaluations) would:

- Provide the credibility to build upon existing resources and encourage state partner organizations to support WLMI analytical work, including providing financial support that could help ameliorate reduced federal funding
- Eliminate state duplication of effort which depletes valuable resources (e.g., each WIOA partner organization hiring staff or contracting out for assessments and evaluations)
- Bring greater rigor to state-conducted program assessments and evaluations and help the state build capacity to conduct rigorous program evaluations in support of WIOA
- Further the WIOA mission of closer working relationships across mandatory partners

WIOA emphasizes the need for program evaluation, both at the state and federal levels, to support evidence-based policymaking. Important to this WIAC recommendation is the new requirement for states to conduct evaluations of the six core WIOA programs. The law also emphasizes assessing and providing information on the success of specific training programs to support customer choice (e.g., which providers on the state's Eligible Training Provider List for the WIOA adult program produce the best outcomes).

The Administration has further stressed the need for evidence-based policymaking, program assessment and evaluation, and funding of what works through the President's Fiscal Year 2018 budget statements; the *President's Executive Order on Expanding Apprenticeships in America, June 15, 2017, Section 10 on Improving the Effectiveness of Workforce Development Programs*, which calls for rigorous evaluations of existing programs; and Office of Management and Budget (OMB) agency directives such as *OMB M-17-28 on Fiscal Year 2019 Budget Guidance, July 7, 2017*, which calls for agency proposals on building and using a portfolio of evidence and strengthening agency capacity to use evidence, evaluation, and data as tools to improve federal government effectiveness. Critical to all of this is the determination of metrics that measure outcomes and success, the identification of what works or does not, and the incentivizing of what works through wise spending of taxpayer dollars.

As required under WIOA and state unified planning guidelines, all states have mechanisms in place to oversee the measurement and reporting of common measures and other program data to DOL via the Workforce Integration Performance System (WIPS). In addition, through the use of discretionary grants from the DOL Workforce Data Quality Initiative (WDQI) and the ED State Longitudinal Data System (SLDS) programs, many states have developed centralized state

longitudinal datasets and mechanisms for conducting assessments and evaluations. However, other states have not made similar progress in obtaining, integrating, and/or analyzing a wide range of program outcome and related data, including the conduct of program assessments and evaluations. For example, specific training programs provided by state entities such as corrections, economic development, vocational rehabilitation, and in some cases education lack the data needed to assess program outcomes and/or the expertise to conduct accurate and reliable program assessments and evaluations.

The entity to be designated should be up to the state; however, WLMI units, which routinely perform statistical and analytical functions with workforce data, would likely be best suited to conduct assessments and evaluations for a wide range of programs, given their role and capabilities. State WLMI divisions have access to significant amounts of data (e.g., program participant, earnings, and occupation and industry data, among others), can often gain access to other data as needed, are experienced with privacy and confidentiality laws and practices, and have the expertise to accurately and reliably integrate and analyze the data.

This WIAC recommendation aligns with the findings and recommendations of the September 2017 final report of the Commission on Evidence-based Policymaking, *The Promise of Evidence-Based Policymaking*, and recent legislation, *Foundations for Evidence-Based Policy Making Act of 2017*, passed by the U.S. House of Representatives in mid-November 2017. In particular, it is consistent with the Commission's recommendations to facilitate the use of data for evidence building while ensuring privacy and transparency in how those data are used. The federal entity proposed to be established to enable the provision of data for evidence-based policymaking and the state units designated for workforce program assessment and evaluation should establish a working relationship to address the state data access issues identified by the Commission.

How This Can Be Implemented: The Secretary should convene a working group of DOL and ETA program and legal staff to determine the appropriate approach for establishing the designation of a state entity to provide program participant outcomes, performance assessments and evaluations for workforce investment programs under WIOA, and subsequently implement the designation through legislative and/or administrative actions as may be needed.

Recommendation 8

Create a 21st Century WLMI System Using Advanced Technologies

The WIAC recommends that the Secretary create a 21st century WLMI system based on a distributed knowledge management system (DKMS) that uses an open architecture/open data approach and artificial intelligence (AI) and related advanced technologies to:

- Make WLMI more accessible, dynamic, up-to-date, and relevant for all users—jobseekers, employers, students, educators, workforce practitioners, researchers, and policymakers
- Transform the WLMI system so that it provides knowledge rather than large volumes of information and data to decipher, and moves from a system of separate, centralized datasets or databases to one based on the concept of distributed data
- Infuse the WLMI system with more intelligent knowledge systems aligned with new protocols and technologies for the emerging versions of the World Wide Web
- Reduce the costs of software development, data production, and data maintenance

Why This Is Needed: Given the rapid advancement of these technologies over the last few years and the IT modernization goals of the *President’s Executive Order on the Establishment of the American Technology Council, May 1, 2017*, the time is right for DOL to examine the application of such technologies to the WLMI system. AI and related technologies are currently being used in many private and public sector applications such as self-driving vehicles, language translation, image recognition, trip planning, digital tutors, electronic health records management and research, financial and contract transactions, and medical diagnosis, to name a few (well-known implementations include IBM Watson or Amazon Alexa). Like investments in roads and bridges, innovative investments in the WLMI system are needed for these inter-related reasons.

- The current WLMI technological infrastructure—hardware, software, and Application Program Interfaces—is old and cannot efficiently handle today’s user demands for easy-to-find, up-to-date, actionable data and insights.
- The current WLMI system uses closed database architectures and data ownership structures which inhibit external application development, independent research, and public use of WLMI.
- Modernizing the WLMI system through use of state-of-the art technologies will enable new and better ways to meet the information and data needs of users and stakeholders, and increase government effectiveness in serving them.
- An AI-driven DKMS requires standardization of data structures important to the application of machine learning which drives development and maintenance costs down over time and provides a simpler, more useful, and intuitive user experience.

The proposed WLMI DKMS would not create a new set of data. An AI-driven DKMS would serve as a highly-sophisticated platform or interface that interacts with the underlying datasets,

allows existing datasets to talk to one another, and provides users with a simpler, more useful, and intuitive way to obtain information. Underlying datasets would remain as is, except to the extent that common data structures/schemas are needed to facilitate the DKMS ecosystem.

How This Can Be Implemented: The WIAC acknowledges this to be a complex, long-term initiative, but also very important to the future of the nation's workforce system and economy. The five initial strategies outlined below will move this initiative to a pilot test point, with initial system development and testing focused on one WLMI area—occupational data—to serve as the proof of concept. Occupational data, as the initial focus area, would include for example, job postings, O*NET data and selected career information, and related BLS data. Steps to implement this initiative should consider the following:

- (1) Include the use of open architecture/data approaches identified in the DOL strategic IT plan. The DOL Chief Information Officer (CIO) should be encouraged to include the use of such approaches in the *DOL 2018-2022 Information Resources Management (IRM) Strategic Plan*, thereby paving the way for the application of such technologies to WLMI.
- (2) Establish a strategic planning and design task force under the auspices of the WIAC and in collaboration with ETA, BLS, and any existing DOL technology working group to: conduct a Request for Information (RFI) process and other research to obtain expert design thinking; develop a strategic plan and design for the AI-driven, WLMI DKMS; determine parameters for initial system development and pilot testing (proof of concept) focused on occupational data, including specifications for a Request for Proposal (RFP); and obtain WIAC adoption and DOL approval for the plan/design and pilot test parameters. The task force should consist of employee experts drawn from DOL/ETA/BLS, one or two WIAC members and representatives from user communities, and may include experts from university partnerships (see strategy #4).
- (3) Conduct an initial system development/pilot test effort (proof of concept) through issuance of an RFP to obtain a qualified contractor. The assigned DOL program office should oversee the project and provide progress reports to the WIAC. Results dictate next steps concerning further design, development, and deployment.
- (4) Explore development of a public/private partnership with key universities active in AI research and application. Recognizing budget constraints, such partnerships could provide technical expertise to the task force.
- (5) Obtain DOL budget resources to carry out the above activities. Federal resources, in kind through federal staffing of the task force and hard dollars to provide general contractor support constitute the initial seed investments. The initial development/pilot effort may be funded under the provision for WIOA pilot, demonstration, and evaluation projects. If signed into law, the \$500 million Technology Modernization Fund called for by the *Modernizing Government Technology Act of 2017* may also provide a source of funding.

Recommendation 9

Initiate Collaboration among WLMIS System Agencies

The WIAC recommends that the Secretary initiate collaboration among WLMIS system agencies by directing ETA and BLS to convene a one-day gathering of representatives from federal and state programs that contribute information essential to a well-functioning workforce and labor market information system (WLMIS), as authorized by Congress.

The proposed meeting's purpose is to initiate WLMIS development. More specifically, the purpose is to:

- allow each federal WLMIS agency to obtain a full understanding of the data resources of other federal WLMIS agencies;
- promote relationship-building across federal and state WLMIS agencies; and
- discuss how representatives of these agencies might periodically gather to facilitate WLMIS design and implementation.

The WIAC recommends that the agencies listed in the box be invited by the Secretary to send program representatives to the meeting. For the Secretary's use in promoting well-functioning labor markets, the WIAC's conception of the federal and state agencies and programs in the WLMIS are identified in the schematic in the Appendix.

Agencies Recommended for Invitation to Initial WLMIS Meeting

Federal

- Bureau of Labor Statistics, U.S. Department of Labor
- Employment and Training Administration, U.S. Department of Labor
- Census Bureau, U.S. Department of Commerce
- National Center for Education Statistics, U.S. Department of Education
- National Center for Science and Engineering Statistics, National Science Foundation
- National Center for Health Workforce Analysis, U.S. Department of Health and Human Services

State

- State labor market information agencies (through the National Association of State Workforce Agencies' LMI Committee and the LMI Institute)
- State higher education agencies (through the State Higher Education Executive Officers Association)

Why This Is Needed: The Workforce Innovation and Opportunity Act of 2014 (WIOA) directs the Secretary to “oversee the development, maintenance, and continuous improvement of a workforce and labor market information system” with specific capabilities that support labor market decision-making and research at the national, state, and local levels.¹⁹

WIOA further directs the Secretary to develop and maintain the WLMIS:

- through BLS and ETA;
- in collaboration with states;
- in cooperation with other federal agencies, to ensure complementarity, and eliminate data gaps and duplication; and
- in consultation with the Workforce Information Advisory Council.²⁰

In addition, the successful implementation of the multiple programs authorized by WIOA depends on the availability of current, reliable data on “in-demand occupations and industries” at the state and local level.²¹ Congress has directed that the WLMIS supply this information.²² According to the Department of Labor’s FY2018 budget request, it spent \$9.2 billion in FY2017 to support its set of employment and training programs. Effective, efficient federal spending on employment and training depends on current, reliable workforce and labor market information.

How This Can Be Implemented: The WIAC recommends that ETA and BLS create a small group to plan the initial meeting of primary contributors to the WLMIS. The WIAC further recommends that the planning group consider consulting with the WIAC regarding invitations, agenda, topics for discussion, and process; seek to arrange for welcome addresses from the Secretary and BLS and ETA leadership; and seek to issue invitations from the Secretary in the first quarter 2018.

Appendix

About the Workforce Information Advisory Council

The Workforce Innovation and Opportunity Act of 2014 (WIOA) established the Workforce Information Advisory Council (WIAC) to advise the Secretary of Labor on the federal-state workforce and labor market information system—how well it is currently working, what improvements are needed, and how federal and state government can enhance cooperation in managing the system. The Council, consisting of fourteen members representing a broad mix of knowledge and public and private sector interests, was chartered and convened in 2016 under the auspices of the Employment and Training Administration (ETA) in collaboration with the Bureau of Labor Statistics (BLS).

The Act affirms and expands the nation’s commitment to a robust information system—a system of employment and labor market statistical programs that dates to the 1940s. Today it supports a wide range of labor market decision makers with an extensive array of data, tools, and resources. The Act emphasizes that national, state and local workforce information be developed, disseminated, and used to:

- Improve the functioning of state and local labor markets by providing labor market participants—businesses, workers, students, and educators—the information they need to make good decisions; and
- Support workforce system decisions concerning the designation of local workforce areas, development of regional workforce plans, identification of in-demand industries and occupations, development of workforce system performance measures, and allocation and targeting of federal workforce development funds.

The Act requires the Secretary of Labor to formally consult with the Workforce Information Advisory Council regarding evaluation and improvement of the nationwide workforce and labor market information system and statewide systems that comprise the nationwide system, and how the Department of Labor and the states will cooperate in the management of those systems.

In addition, the Act strengthens the governance structure for the nation’s workforce and labor market information system by:

- 1) Giving the Employment and Training Administration shared responsibility, with the Bureau of Labor Statistics, for the federal leadership and management of the system;
- 2) Emphasizing the requirement that the Secretary of Labor develop a two-year plan for the improvement of the system; and
- 3) Establishing the Workforce Information Advisory Council to provide direction and feedback on labor market information effectiveness and customer needs.

Importance of Workforce and Labor Market Information

Workforce and labor market information is essential to the nation’s economy, providing for the efficient operation of labor markets by supplying quality labor market intelligence. *Accurate, Objective, Relevant, Timely, and Accessible* workforce and labor market information is critical for:

- Building a skilled workforce that spurs business competitiveness and economic growth;
- Strengthening career pathways and guiding skill attainment for good jobs, economic opportunity, and career growth;
- Understanding the rapidly changing nature of work and how it impacts the workforce and U.S. economy; and
- Making evidence-based decisions on investments in workforce training and education.

The nation’s labor markets cannot function efficiently and effectively without quality information to support the investment decisions of the workforce development system—federal and state policymakers; state and local workforce development boards; federal, state, and local government agencies; and frontline staff—and the investment decisions of business managers, students, jobseekers, workers, and educators.

An emphasis on evidence-based policymaking, program assessment and evaluation, and funding of what works has been made through Administration directives such as Section 10 of the President’s Executive Order on Expanding Apprenticeships in America, which specifically addresses improving the effectiveness of workforce development programs, and actions by Congress to implement the recommendations of the Commission on Evidence-based Policymaking. The WLMI system provides the fundamental data and information needed to support these and other Administration and Congressional priorities.

The workforce and labor market information system collects, analyzes, and disseminates a wide range of information, from principal employment statistics such as unemployment rates and job levels to complex analyses of topics such as in-demand occupations and rural employment challenges. The system serves a broad range of customers, including businesses and industries; jobseekers, students and workers; educators, counselors and training providers; and government policymakers and planners.

The current workforce and labor market information system consists of the products of many rigorous surveys and data collections, administrative data systems, and analytical resources and tools primarily

Examples of Existing Resources

Rigorous Surveys/Data Collections

- Occupational Employment Statistics (OES)
- Current Employment Statistics (CES)
- Local Area Unemployment Statistics (LAUS)
- Quarterly Census of Employment & Wages (QCEW)
- Employment Projections (EP)
- Occupational Information Network (O*NET)
- Current Population Survey (CPS)
- American Community Survey (ACS)
- Local Employment Dynamics (LED)

Administrative Data Systems

- State Workforce Data Quality Initiative systems
- Business Employment Dynamics
- Local Employment Dynamics

Information Tools

- Occupational Outlook Handbook
- MyNextMove
- MySkills MyFuture
- OnTheMap

produced by the U.S. Department of Labor (Bureau of Labor Statistics; Employment and Training Administration), State Labor Market Information Agencies, and the U.S. Department of Commerce (Census Bureau).

Existing data and information sources, provided through shared responsibility and funding for the federal-state labor market information infrastructure, are critical to maintain. Improvements are needed, however, to address key issues concerning data quality, data gaps, data accessibility for end users, data sharing among core producer agencies, and expanding collaboration to include others such as the U.S. Department of Education, National Science Foundation and the Internal Revenue Service.

Council Development of Recommendations

The Workforce Information Advisory Council accomplished its work following Federal Advisory Committee Act (FACA) procedures, including holding eight public Council meetings—July 2016, November 2016, January 2017 (virtual), February 2017 (virtual), June 2017, November 2017, and January 2018 (two virtual meetings), and posting meeting documents, written public comments, and related documents to the WIAC public website. The Council’s initial work involved identifying key opportunity areas for improvement to the workforce and labor market information system.

- Align Education and Workforce Training with Industry Needs
- Inform Career Decisions of Students and Workers
- Determine the Effectiveness of Workforce Training and Education Programs
- Understand the Characteristics of the Workforce
- Make Workforce and Labor Market Information More Accessible and Relevant to End Users
- Enhance Government Data Sharing, Collaboration, and Funding among Statistical Agencies

The Council submitted an informational report to the Secretary of Labor in July 2017 outlining these areas which were further examined through a subcommittee process established during the June 2017 WIAC meeting. Council subcommittees conducted a total of 36 work sessions to further the members’ understanding of specific WLMI areas of interest. Through subsequent Council and subcommittee meetings and deliberations, including discussions with subject matter experts, reviews of relevant programs and products and related materials, and consideration of public comments received, the Council more thoroughly examined key subjects, culminating in the adoption of its recommendations for improving the WLMI system.

Schematic of the WLMI System

The schematic on the following pages shows the primary federal and state agencies and programs in the WLMI system.

WLMI System Schematic – page 1

WLMI System Schematic – page 2

¹ [29 USC 491-2](#). The WLMIS is to include data on employment opportunities and conditions at the State and local level, including the demand for individual occupations.

² [WIAC Charter](#), July 20, 2017.

³ Alexander Acosta and Virginia Foxx, [“College isn’t always the best path for teens,”](#) *The Charlotte Observer*, November 9, 2017. “When Americans make career choices, they should be encouraged to consider a broad range of options that fit their diverse talents and interests. . . . We encourage leaders in middle school and high school education to reconsider the different ways they disproportionately judge student success through college acceptance rates. Instead, the priority should be putting students on a path to career success – whether that is a university degree, a community college, or a workforce program. We need to close the “career awareness gap.” Schools should show students the wide range of career options available to them, with details like salary information and educational requirements of those options. Students deserve a fuller picture when they make important career decisions.”

⁴ Secretary’s Message, [U.S. Department of Labor Fiscal Years 2018-2022 Strategic Plan, Draft](#), p. 1: “Currently, there are more than six million job seekers and more than six million job openings in our nation. Yet, we have a ‘skills gap’ – the difference between skills job creators need and the skills job seekers offer, leaving too many jobs open.”

⁵ [E.O 13801](#), Section 10(c): “The head of each agency administering one or more job training programs shall order, subject to available appropriations and consistent with applicable law, an empirically rigorous evaluation of the effectiveness of such programs, unless such an analysis has been recently conducted.” Secretary’s Message: “We must focus on outputs rather than inputs.” DOL Strategic Plan Objective 1.1: “ETA will collaborate with the Chief Evaluation Office to rigorously evaluate workforce and training programs and strategies and promote adoption of proven programs and strategies.”

⁶ Andrew Kreighbaum, [“DeVos says U.S. has emphasized four-year degrees at expense of work-force training,”](#) *Inside Higher Ed*, November 28, 2017. Louis Soares, Jonathan S. Gagliardi, Christopher J. Nellum, “The Post-Traditional Learners Manifesto Revisited: [Aligning Postsecondary Education with Real Life for Adult Student Success](#),” American Council on Education, December 6, 2017.

⁷ McKinsey Global Institute, [“Jobs Lost, Jobs Gained: Workforce Transitions in a Time of Automation,”](#) December 2017.

⁸ [ETA FY2016 Congressional Budget Justification](#)

⁹ [Credential Engine](#)

¹⁰ [The Rise and Nature of Alternative Work Arrangements in the United States, 1995-2015](#), Lawrence Katz and Alan Krueger

¹¹ [Ultimate Guide to Gig Economy Data: A Summary of Every Freelance Study We Can Find](#), Nation1099

¹² [Technology Vison 2017](#), Accenture

¹³ Highlighted WIOA text of mandated uses of “in-demand occupations and industries” and other WLMI is available [here](#). Implementation of Education Secretary DeVos’s [Proposed Priority 3](#) for discretionary grants—Fostering Flexible and Affordable Paths to Obtaining Knowledge and Skills—is to be determined by “employment in an in-demand industry sector or occupation (as defined in section 3(23)(A) of the Workforce Innovation and Opportunity Act of 2014).”

¹⁴ Annual tables on Workforce Information Grants to States from PY2001 to PY2017, by state, are available [here](#). Data on annual BLS labor force statistics grants to states was provided by the BLS budget analyst. According to the Price Indexes for Gross Value Added by Sector from the U.S. Bureau of Economic Analysis, the price index for state and local government was \$86.266 on average over the first three quarters of 2015 and \$118.899 on average over the first three quarters of 2017 (with 2009 = 100), leading to inflation of 37.8 percent over the period.

¹⁵ “The Congress and the President should enact statutory or other changes to ensure that state-collected administrative data on quarterly earnings are available solely for statistical purposes. The data should be available through a single federal source for solely statistical purposes. . . . Creating a single system to which states report UI wage record data could reduce the burden on states, who currently report the same data to multiple entities, and could reduce the burden on federal agencies that spend a significant amount of resources negotiating

multiple agreements and memoranda of understanding with the states. A single system also could streamline access to this highly valuable data source for statistical activities, while enhancing the security and privacy of the data through development of standardized procedures for data submission and access.” Commission on Evidence-based Policymaking, “The Promise of Evidence-based Policymaking,” September 2017, pp. 44-45.

¹⁶ “The NSDS [National Secure Data Service] should . . . have the capacity to provide technical services such as secure data linkage and analytical services on a fee-for-service basis for states, local governments, and other jurisdictions. While technical and analytic services should not be an initial priority for the NSDS, a basic level of such services may be both necessary and desirable in the long term to *help improve the capacity for evidence building throughout the nation and to encourage collaboration across levels of government.*” *Ibid.*, p. 83 (emphasis added).

¹⁷ Secretary Acosta’s draft strategic plan states: “Implement evidence-based programs and strategies – ETA will collaborate with the Chief Evaluation Office to rigorously evaluate workforce and training programs and strategies and promote adoption of proven programs and strategies.” U.S. Department of Labor, [Fiscal Years 2018-2022 Strategic Plan, Draft](#), October 30, 2017, p. 8. President Donald Trump, Executive Order 13801, “[Expanding Apprenticeships in America](#),” June 15, 2017 – “Sec. 10. Improving the Effectiveness of Workforce Development Programs.”

¹⁸ “The Commission on Evidence-Based Policymaking . . . envisions a future in which rigorous evidence is created efficiently, as a routine part of government operations, and used to construct effective public policy.” Commission on Evidence-based Policymaking, *op.cit.*, p. 1.

¹⁹ See [29 USC 491-2\(a\)](#) – WLMI System Content.

²⁰ See [29 USC 491-2\(b\)](#) – WLMI System Responsibilities – and [29 USC 491-2\(e\)](#) – State Responsibilities.

²¹ Highlighted WIOA text of mandated uses of “in-demand occupations and industries” and other WLMI is available [here](#).

²² According to 29 USC 491-2(a), “The Secretary . . . shall oversee . . . a nationwide workforce and labor market information system that includes . . . statistics on . . . current and projected employment opportunities, wages, benefits (where data is available), and skill trends by occupation and industry, with particular attention paid to State and local conditions”