
# EVIDENCE-BUILDING CAPACITY IN STATE WORKFORCE AGENCIES

## Insights from a National Scan and Two State Site Visits

NASWA
NATIONAL ASSOCIATION OF STATE WORKFORCE AGENCIES
Driving the National Workforce Agenda

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Thank you to the forty-one state workforce agencies and the many individual state agency staff who dedicated their time to provide the information contained in this report.

We thank especially the public servants in Ohio and Washington who facilitated or participated in interviews during our site visits to their states. The names of the individuals we interviewed are listed at the end of each of the two case studies. Keith Ewald, of the Ohio Department of Job and Family Services, and Cynthia Forland, of the Washington Employment Security Department, deserve special mention.

This study was conducted by Yvette Chocolaad, Policy Director, National Association of State Workforce Agencies (NASWA), and Stephen A. Wandner, Visiting Fellow at the Urban Institute, under a U.S. Department of Labor technical assistance grant (MI-26494-14-75-A-11) to NASWA's Center for Employment Security Education and Research. Ms. Chocolaad led development of the national scan and was lead author of Parts II and III of the report. Dr. Wandner led development of the state site visit guides and was lead author of Parts IV and V. Kevin Naud, NASWA Policy Analyst, was project research assistant and helped draft Part III of the report. Thank you to NASWA staffers Julie Squire, Jim Van Erden, Tim Griffith, Deja Morrison and Brooke Higdon for reviewing and helping produce the report.

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# Evidence-Building Capacity of State Workforce Agencies: Insights from a National Scan and Two State Site Visits

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| Abbreviations | |
|---|---|
| IT | Information Technology |
| LMI | Labor Market Information |
| SLDS | State Longitudinal Data Systems |
| TA | Technical Assistance |
| UI | Unemployment Insurance |
| USDOL | United States Department of Labor |
| WDQI | Workforce Data Quality Initiative |
| WIOA | Workforce Innovation and Opportunity Act |

# Part I—Summary and Introduction

## Summary

The U.S. Department of Labor (USDOL) funded the Center for Employment Security Education and Research (CESER), National Association of State Workforce Agencies (NASWA), to conduct a national scan to collect information on current research and evaluation capacity in state workforce agencies. The scan was released in June of 2016 to the fifty state workforce agencies plus the agencies in D.C., Guam, and Puerto Rico. The effort also included site visits to two states (Ohio and Washington) with substantial workforce research and evaluation capacity. The goals are (1) to understand the capacity in the state agencies, (2) to help agencies learn from other agencies' experiences and practices, and (3) to identify other mechanisms likely to enhance research and evaluation at the state level, and cross-state efforts, aligned with new federal workforce development legislation. This study presents the information gathered from both the national scan and the site visits.

State workforce agencies report policymakers in their states are asking important questions that workforce agency research and evaluations could help answer. However, the results from the national scan demonstrate many agencies lack the staff capacity and funding to implement a robust research agenda. Ohio and Washington are among the minority of agencies with significant workforce research and evaluation activity, backed by longitudinal administrative data sets. Although their models differ, both states have achieved substantial research accomplishments based on a long history of using evidence to support policy development, critical funding support, buy-in from agency heads and state leaders, and access to well-led, high-capacity research units.

## Findings on evidence-building capacity

Of the forty-one state workforce agencies participating in the national scan, all but one reports there is demand—from the governor's office, the legislature, or within the agency—for the kinds of information workforce research and evaluations can yield. We asked the agencies to list the most pressing workforce development research questions their states are facing. The agency responses, documented in the report, include some questions related to improving program administration and understanding customers and their barriers, but are heavily weighted toward: (1) understanding labor markets, (2) measuring program performance and outcomes, and (3) measuring program impacts and effectiveness (see Table II-1).

What is the capacity in the agencies to address this demand for information? Organizationally, three quarters of the agencies report there is at least one unit in the agency that initiates and advances research and evaluation efforts. Also, 80 percent of the agencies report partnering with or relying on outside researchers to conduct at least one research or evaluation effort from 2011 through 2015. We collected information on these internal research units and outside research partners, and present it in the report.

Findings on staff capacity and funding (the inputs), research and evaluation activity, and research and evaluation methods used (the products) were less encouraging. Evidence-building capacity varies tremendously by state, and, while some states published a large number of research products, half the states reported producing three or fewer in-house research and evaluation studies over the

five-calendar year (CY) period from 2011 through 2015. Looking at research and evaluation conducted with outside contractors or other partners, the median reported output was two research and evaluation products over this same period. In establishing a baseline, it is also worth noting that only a small number of agencies reported employing (directly or through contracts or partnerships) quasi-experimental (14 agencies) or experimental (7 agencies) research methods for one or more studies. To help create a database of recent research products, the state workforce agencies provided short summaries of their research and evaluation products, a web link to their online research publications, or a combination. This information is summarized in Appendices A and B of the report.

We asked the state workforce agencies to describe their current internal research and evaluation staff capacity, choosing from among five choices[1]. We made it clear the term "staff capacity" should take into account not only staffing levels, but also staff experience and research skills.

- Twenty percent of the agencies report their staff capacity is 'inadequate;'
- Forty-four percent report capacity is 'fair;'
- Twenty-nine percent report their research staff capacity is 'adequate;' and
- The remaining states were at either end of the spectrum – with 'nonexistent' (2 percent) or 'very adequate' (five percent) research staff capacity.

We collected information on the research and evaluation skill areas for which agencies report having sufficient capacity *or* a need for technical assistance or additional capacity. This information will help enable USDOL to design and deliver support and technical assistance to state agencies, and also help state agencies share practices and strategies with their peers. Across 15 skill areas, a minority of agencies (ranging from 10 to 44 percent) report having sufficient capacity. Depending on the skill area, at least 40 percent and up to 78 percent of the agencies report they would like some assistance or capacity (in the case of agencies with zero capacity) or more assistance or capacity (in the case of states with some but insufficient capacity).

Focusing on two research skill areas most often associated with evidence-based policymaking—conducting experiments and employing quasi-experimental designs—only a handful of the reporting agencies report having sufficient capacity, and about half the agencies report they either have zero capacity or do not know if they have capacity.

Looking more narrowly at staffing levels, most of the agencies were able to provide an estimate of the number of full-time equivalent agency staff currently working on research and evaluation projects.

- Three agencies report they have zero research staff;
- A quarter of the agencies report less than 1 full time employee (FTE) staff; and
- Half the agencies report 2 or less FTE staff.

[1] The choices were: very adequate, adequate, fair, inadequate, or nonexistent. These choices were all defined; for example, a "very adequate" response meant "we have substantial staff capacity and are able to implement a substantial majority of the priority research and evaluation efforts that serve the state workforce agency's mission."

We recognize these numbers do not paint a complete picture of staff capacity for agencies that rely on outside research partners or contractors to support their research activity. Outside partners can be an important supplement to internal capacity.

Considering federal, state and private funding sources, twenty percent of the 41 agencies report they spent zero dollars on research and evaluations in calendar year 2015. Another 20 percent report they spent less than $100,000, and 37 percent report spending more than $100,000. The remaining quarter of the agencies report spending some funds on research and evaluation in CY 2015, but did not provide an estimated spending level. While the scan responses to this and other questions show agency funding sources varied and some agencies drew upon a range of funding sources, the site visits and scan data also demonstrate that an important source of funding has been the U.S. Department of Labor's Workforce Data Quality Initiative (WDQI) grants, but some states have not received these grants and others have exhausted their funds. (A chart detailing WDQI funding by state can be found in Appendix C.)

Almost thirty percent of agencies report they consider their research and evaluation funding adequate. From the majority that report inadequate funding levels, we collected insights on the consequences of inadequate funding for customers and the workforce system more generally (see Table II-8), which included the following:

- "The system is less able to anticipate changes in trends and therefore remains reactionary. It reduces the ability to fulfill requests and for customers to make timely data-driven decisions;"
- "Harder to make sound policy decisions without proper research;"
- "Limited knowledge, unknown effectiveness, limited transparency, reduced consumer choice;" and
- "The extent of our research is limited by resources available; more resources would probably lead to more analysis, more innovation, and more robust 'evidence-based' decision-making."

Looking across all state workforce agency responses regarding staff capacity, funding, and research output from CY 2011 through 2015, the authors estimate roughly a third of the agencies appear to have had adequate or fair staff capacity and funding, and fairly active data development and research efforts.

## Findings from the Ohio and Washington site visits

Ohio and Washington are among the state workforce agencies that report substantial research and evaluation capacity, and are interesting case studies because their models differ. The Ohio Department of Job and Family Services works in partnership with Ohio State University, which oversees the longitudinal administrative data set, and other Ohio agencies, to produce research and evaluation products. Washington's Employment Security Department collaborates with an internal state entity, housed in the governor's office, which oversees the state's longitudinal administrative data set. Washington's workforce board, the Workforce Education and Training Coordinating

Board, also conducts research and evaluations. Common factors contributing to the substantial workforce research activity evident in Ohio and Washington are listed below.

- A history and culture in the government of using workforce research to inform policy and practice;
- Funding from federal WDQI and State Longitudinal Data Systems (SLDS) grants that seeded the development of the data infrastructure necessary to make research activity possible and efficient, and supported research activity;
- Development of a cross-agency longitudinal administrative data set covering a range of public programs and including Unemployment Insurance wage record data;
- A long history of sharing data between the state workforce development and education agencies;
- A neutral entity to collect data across agencies and govern the longitudinal administrative data set;
- The neutral entity governing the longitudinal data set employs staff with great knowledge of the individual agency data sets (e.g., former agency staff who have worked with the data for a long time);
- Washington has enacted legislation to institutionalize its cross-agency longitudinal administrative data set and the key roles and responsibilities for the entities engaged in data and research efforts; legislation is being pursued in Ohio in order to help institutionalize its model;
- Data governance, data access procedures, and security standards have been addressed and maintained as a high priority;
- Buy-in, leadership and support from the office of the governor and agency heads;
- Strategies to develop and maintain trust and information sharing among state agencies and their staff;
- Data and research staff work environments that are mission-driven, collegial, and allow research staff room to innovate, thus retaining talented staff; and
- Objective research products, produced in a politically-neutral environment, upon which policymakers can rely for information to inform decisions.

## Insights

Getting to the same point as Ohio and Washington will prove difficult for many state agencies that need assistance with seed funding and technical know-how. To promote state workforce agencies as learning organizations that use evidence to drive decision making, **federal leadership and support will be key to success for many states, given declining funding in the workforce system[2], research staff skills training needs, and the many new demands WIOA creates for data. Providing additional rounds of WDQI and SLDS grants, and supporting other targeted**

[2] Federal funding for the major workforce development grants supporting career services and training for dislocated workers and adult 'disadvantaged' workers has fallen by 30 percent or more in inflation-adjusted terms over the past 15 years. The more targeted USDOL core grants to states for the development of labor market information, tools, and analysis (The Bureau of Labor Statistics' *Federal/State Cooperative Programs* and the Employment and Training Administration's *Workforce Information Grants*) have also experienced reductions in inflation-adjusted terms. In this environment, the SLDS and WDQI grants have been an important source of support for the development of longitudinal administrative data sets and research and analysis.

**funding such as Workforce Information Grants, would greatly assist development and maintenance of longitudinal data sets and agency research capacity. State workforce agencies also seek training and technical assistance.**

**Beyond funding and technical assistance, consideration should be given to the question of how to both supplement and leverage individual state efforts.** Even in many of the workforce agencies with greater evidence-building capacity, capacity limitations were often noted. Research output alone is not adequate to address all information needs, especially for impact and effectiveness studies, much less to ensure routine replication. Our interpretation is that many, if not all, states would benefit from opportunities to work in multi-state environments that can efficiently support not only the needs of individual state workforce agencies, but also cross-state research and evaluation efforts and a national research agenda.

While the development of evidence-building capacity and a longitudinal administrative data set in Ohio and Washington relied on a long state history of using research to inform policy, staff from both states do not believe such a history is a necessary condition. They emphasized that **state workforce agencies in states that do not have a strong history of using research to inform policy can learn and borrow from the practices, experiences and successes of Ohio, Washington, and other states with research and evaluation capacity.**

**Agencies should focus on demonstrating data 'wins' that draw the support and engagement of key staff in the governor's office and legislature, thus creating a stronger culture in the state for workforce research and evaluation, one success at a time.** As the benefits of research and evaluation products become more obvious to policymakers, ongoing funding to maintain a longitudinal administrative data set and research staff capacity will also need to be addressed.

# Introduction to the National Scan and Case Studies

## Purpose

A technical assistance grant made by the U. S. Department of Labor (USDOL) to the Center for Employment Security Education and Research (CESER), National Association of State Workforce Agencies (NASWA), made this study possible. Under the grant, NASWA is working with several intergovernmental organizations on a range of technical assistance projects designed to help state and local governments implement new federal workforce development legislation, called the Workforce Innovation and Opportunity Act (WIOA, or 'the Act').

WIOA emphasizes the use of data to inform decisions. It calls for state policymakers and program managers to develop and use data to drive customer and frontline staff decision-making, to hold state workforce agencies and local workforce entities accountable for outcomes, and to inform program and policy development. The provisions in the law regarding the use of data to drive decision-making are buttressed by a requirement that State agencies use set-aside funds to conduct evaluations of their workforce development activities. USDOL has interpreted the various provisions in the law as supportive of a broad array of evaluation types and of the use of other funding sources, as can be seen in the regulations (Appendix D).

Systematic national information on the capacity of state workforce agencies to conduct research and evaluations does not currently exist. While a few agencies have significant research capacity, funding and staffing limitations appear to have impeded or even stalled research and evaluation activities in many. This effort is designed to help fill the knowledge gap by:

- Capturing information, through a national scan, on the current capacity of state workforce agencies to conduct research and evaluations [Part II of this report];
- Capturing information through the national scan on recent state research and evaluation products [Part III]; and
- Developing two case studies, based on in-depth, semi-structured interviews in two states (Ohio and Washington), which help illuminate some factors and practices that enable a high volume and broad range of workforce research and evaluation activity (Parts IV and V).

The information from this study will assist federal and state policymakers, workforce program leaders, and research staff interested in helping state workforce agencies expand their research and evaluation capacity. Specifically, it will:

- Enable agencies to learn about and draw on the strategies, assets and practices of their peer agencies around the country;
- Provide federal and state policymakers a list of state workforce agency research units and, where provided, their contact information;
- Provide states information on other states' recent state workforce research and evaluations; and
- Provide federal policymakers a realistic understanding of what is possible now and where states could use technical assistance and other support for capacity building.

## The national scan

The research team developed an initial draft scan based on input from the USDOL Employment and Training Administration (ETA)'s Office of Policy Development and Research (OPDR). The scan document was revised several times to reflect insights garnered from: (1) a discussion with state labor market information directors held during a NASWA Labor Market Information Committee meeting; (2) pilot tests in several state agencies; and (3) information, provided by OPDR, from other federal agencies on similar efforts. Before its release to the state workforce agencies, the scan underwent final in-house testing by the research team and NASWA, and a final review by OPDR. Findings from the scan are presented in Parts II and III of this report, and the scan questions are included at the end of the report (see Appendix M).

The national scan was released on June 16, 2016 via email to each of the 50 state workforce agencies, and the agencies in DC, Puerto Rico, and Guam (see Appendix E). These states and other jurisdictions are all members of NASWA and were thus highly likely to participate in the scan. Response to the effort was positive—41 state workforce agencies (roughly 80 percent) completed the scan. The eleven states and territories that did not complete the scan included two large states. In aggregate, the 41 responses provide a good national baseline for understanding capacity and recent research activity in the system.

To accomplish the near 80 percent response rate, the team conducted several waves of outreach. In conducting the outreach, the team emphasized the importance of achieving a high response rate and the value the final products would provide to individual agencies.

The agencies were asked to provide a primary contact for the scan and to coordinate one agency-wide response—since several units in the agency might engage in research and evaluation efforts. Agencies were also encouraged to share the scan with other state workforce entities engaged in workforce system research (such as the state board or another state agency), and to encourage any such entities to participate.

Appendix F provides information on the job positions of the primary contacts for the scan, and on the other state entities with which some states shared the scan. It appears that approximately 60 percent of the primary contacts are labor market information staff, and the remaining 40 percent are workforce program staff or state agency administrators. Nearly a fifth of the agencies shared the scan with another state entity, most often the state workforce board. In one state – Washington – the workforce board completed a separate scan. The diversity among the pool of primary contacts and the efforts made to include information from other state entities both suggest that many, if not all, states took seriously the request to capture an agency-wide perspective. However, we acknowledge that some states' responses might represent the limited perspective of the primary contact's work unit, rather than of the whole agency.

## Two case studies

Washington and Ohio were selected for site visits after considering a number of factors captured by the scan (see table I-1), including the research questions the state agency listed as important to policymakers; the organizational, staffing and funding environment for research; access to data sets that facilitate research; and, most importantly, the quantity and nature of research and evaluation products. Both the State of Ohio Department of Job and Family Services (JFS) and the Washington State Employment Security Department (ESD) have recently conducted a range of research and program evaluations, and have been key partners in their state's implementation of cross-agency state longitudinal administrative data sets. Several other states would have been good candidates for a site visit, as well, but we were limited by the project budget to two states.

The site visits spanned two full days and included interviews with the staff at the primary state entities that facilitate workforce development research and longitudinal administrative data sets. The interviews, supplemented with material available through the internet, formed the basis for the case studies that are presented in Parts IV and V of the report. The interviews were conducted using semi-structured guides customized for each state based on information collected through the scan responses and publicly-available information, or provided in advance by the agency staff coordinating our visits.

| Table I-1.<br>Factors in Site Selection | | |
|---|---|---|
| | **Washington Employment Security Department (ESD) *plus* Workforce Training and Education Coordinating Board (WTECB)** | **Ohio Department of Job and Family Services (JFS)** |
| **Research priorities in the state** | • What workforce development programs are working/not working?<br>• What are the return on investment for specific workforce development programs?<br>• Are we maximizing services across programs, particularly across multiple agencies? Identifying skills shortages | • K-12 education<br>• Higher education<br>• Workforce outcomes<br>• Human services |
| **State workforce agency units and/or outside partners involved in workforce research** | • Labor Market and Performance Analysis Division, ESD<br>• Research Unit, WTECB<br>• Partners: Education Research Data Center, U of Washington, Washington State, Upjohn Institute | • Workforce Analytics Unit, JFS<br>• Employment Services, JFS<br>• Health and Human Services, JFS<br>• Human Services Innovation, JFS<br>• Partners: Ohio Analytics (cross-agency), Ohio Education Research Council, Ohio Colleges of Medicine |
| **Number and nature of recent research products (CY 2011 through 2015)** | 53 in-house; 3 with partners (ESD)<br>12 in-house; 2 with partners (WTECB) | 15 in-house; more than 50 with partners |
| **Access to longitudinal data sets** | Yes | Yes |
| **Funding environment 2015** | Roughly $1.1 million | $600,000 |
| **In-house research staff capacity currently** | 12.5 (ESD and WTECB) | 4 FTE (JFS only) |

Source: Washington and Ohio scan responses.

In Ohio, the research team interviewed staff working at:

- the Department of Job and Family Services;
- the Ohio State University;
- the Office of the Governor; and
- other state agencies (education, higher education, vocational rehabilitation, housing finance, mental health);

In Washington, the interviews included staff from:

- the Employment Security Department;
- the Education Research and Data Center; and
- the Workforce Education and Training Coordinating Board.

# Part II — Findings from the National Scan: State Workforce Agency Evidence-Building Capacity

## Demand for workforce agency research

When asked if there is demand in the state for the types of information that workforce agency research and evaluations can produce—demand from inside the agency, the state legislature, or the governor's office—every state but one responded 'yes.'

To understand this demand, the scan captured information on the "most pressing questions" in the state that research and evaluations could help answer, and allowed each agency to list up to seven questions. Not surprisingly, the questions centered largely on program outcomes or impacts, and understanding the labor market in the state. Also, some agencies posed basic research questions aimed at better understanding customers and their barriers, and some included questions aimed at improving program operations and administration.

Table II-1 below includes examples of the questions submitted by the states; Appendix G includes the complete list.

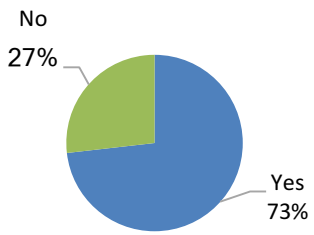
## Research agendas

At recent NASWA meetings, some state labor market information directors have reported they can react to some of the incoming requests for research and analysis but lack the budget and capacity to develop and follow through on a set of agency research priorities, whether developed informally or through a formal agenda-setting process. The scan asked agencies to share any research agendas developed over the past four years. Two states—Mississippi and Ohio—submitted research agenda documents, which we include as Appendices H and I.

## Agency research units

As Figure II-1 shows, nearly three quarters (73 percent) of state workforce agencies report they have one or more agency units that initiate or advance research and evaluation efforts. Appendix J provides a list of the state workforce agency research and evaluation units.

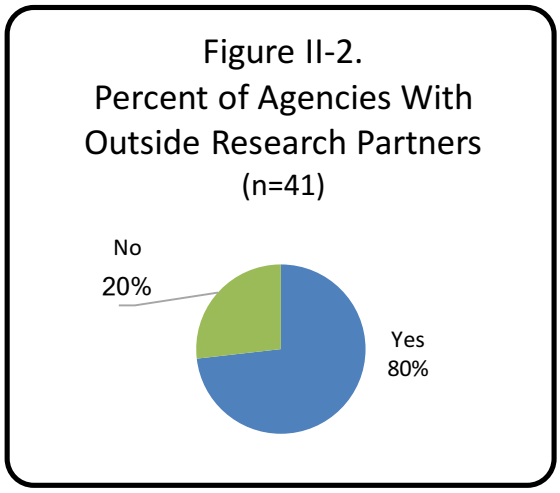
Figure II-1.
Percent of Agencies with a Research Unit
(n=41)



| Table II-1.<br>Examples of States' Most Pressing Questions for<br>Workforce Agency Research and Evaluation | |
|---|---|
| **Program impacts/ effectiveness** | • Are the educational programs provided to offenders by the state prison helpful in obtaining employment after release?<br>• What is the effectiveness of UI profiling?<br>• What are optimal policies or incentive mechanisms that encourage greatest return on investment?<br>• What is the relationship of TANF participation to successful workforce outcomes?<br>• What is the effectiveness of refugee training services? |
| **Program performance/ outcomes** | • Are participants making family-sustaining wages?<br>• What are the workforce outcomes from training programs?<br>• What are the employment and wage outcomes of degree and certificate program completers?<br>• What are the outcomes of Department of Labor and Department of Public Health and Human Services workforce programs (WIOA, RESEA, TANF)?<br>• What are the wage and employment outcomes of apprentices? Does the increase in wages result in sufficient tax revenue to justify an employer tax credit? |
| **Development of labor market data** | • How are demographic changes impacting the labor force?<br>• What are the demographics of minimum wage workers?<br>• Where can employers find qualified workers?<br>• What are the new industry clusters (e.g., advanced manufacturing)?<br>• Who are the long-term unemployed? |
| **Customers and their barriers** | • What can be done to encourage higher labor force participation rates in targeted populations?<br>• What tools should we create to evaluate client education and skills gaps?<br>• Why are participants not successful, or why do they drop out?<br>• What are the barriers to changing jobs for those currently employed?<br>• What can be done to improve commuter transportation issues? |
| **Program administration/ operations** | • What is the accuracy and utility value of WIOA performance measures?<br>• How do we address declining research budgets but increasing demand for data and insight?<br>• How can we build on programs that are working?<br>• Are we maximizing services across programs, particularly across multiple agencies?<br>• How can we increase the number of apprenticeships? |

## Outside research partners and contractors

A large majority of the state workforce agencies–80 percent—report they conducted, funded or participated in at least one research or evaluation project with a contractor or outside research partner between calendar year 2011 and today.




Appendix K provides an alphabetical list of the outside research entities and contractors with whom agencies have recently partnered. Agencies have partnered with a mix of state government entities, universities (only sometimes did states provide the names of the specific college or university research centers), and private research organizations. Relationships with state universities are very common. Links to websites for research entities have been added by the research team, where we could find them.

The scan asked a follow-up question to the eight agencies that did not partner or contract with outside research entities: what assistance would be most beneficial for developing relationships with contractors or outside research partners, given six response choices. (They could select more than one response.) Unlike most questions in the scan, this question did not require a response, and five states responded (see Table II-2). The choices were: (1) locating potential outside contractors/partners; (2) technical support implementing a contract relationship or partnership; (3) staff support to manage a contractor/partnership; (4) examples of how contractor relationships or partnerships have worked in other state workforce agencies; (5) none; and (6) other (write-in).

**Table II-2.**
**Five States' Technical Assistance Needs Related to Outside Research Support**

| State | Locating potential partners | Implementing a contract | Managing a partnership | Examples of partnerships in other states | None | Write-in |
|---|---|---|---|---|---|---|
| 1 | x | | | | | |
| 2 | | x | x | | | |

| Table II-2. Five States' Technical Assistance Needs Related to Outside Research Support | | | | | | |
|---|---|---|---|---|---|---|
| **3** | | | | | | Networking through participation in Workforce Data Quality Initiative and the NASWA Labor Market Information Committee has been useful. Workforce Data Quality Campaign has helped make contacts as well. |
| **4** | | x | | | | Funding for such relationships. |
| **5** | | | | | | Ongoing funding and support for projects and evaluations. |

## Internal agency staff capacity

### *Adequacy of staff capacity*

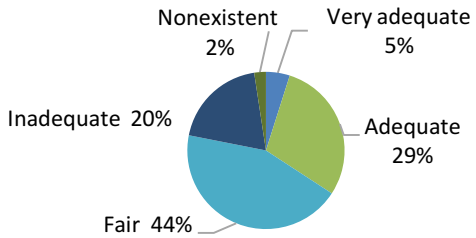
State workforce agencies were asked to describe the adequacy of their current staff capacity for conducting research and evaluation, *considering only internal agency capacity* and not taking into account outside partners and contractors. Agencies were instructed the term 'staff capacity' should encompass several factors, including staffing levels, the skill level of the staff, and the experience level of the staff. Ultimately, they had the discretion how to weight the three factors. For example, one state agency contact commented that while research staffing levels are low, the skill level of the staff is high. The contact was reluctant to report the agency staff capacity as "fair" or "inadequate" because of the high skill levels and out of concern for the staff, who were assisting with the scan. Likely, states were generous in their interpretations, although more in-depth interviews would be needed to shed light on this. The agencies were presented with five response options:

| |
|---|
| Very adequate: 'We have substantial staff capacity and are able to implement a substantial majority of the priority research and evaluation efforts that serve the state workforce agency's mission.' |
| Adequate: 'We have sufficient staff capacity and are able to implement many of the priority research and evaluation efforts that serve the state workforce agency's mission.' |
| Fair: 'We have some staff capacity and can implement some of the priority research and evaluation efforts that serve the state workforce agency's mission.' |
| Inadequate: 'We have very minimal staff capacity and can implement few of the research and evaluation efforts that would ideally serve the state workforce agency's mission.' |
| Nonexistent: 'We have no staff capacity and cannot implement any research and evaluation efforts at this time.' |

As Figure II-3 shows, one agency reports that staff capacity is nonexistent and, at the other extreme, two agencies report very adequate capacity. Nearly 30 percent report capacity is adequate, while

almost two-thirds of the agencies—64 percent—say staff capacity is inadequate (minimal capacity exists) or fair (some capacity exists).

Figure II-3.
Adequacy of Staff Capacity
(n=41)




## *Staffing levels*

Transitioning away from staff capacity, here we look more narrowly at staffing levels. The state workforce agencies were asked if they could estimate the number of full-time equivalent (FTE) agency staff currently working on research and evaluation projects (conducted with or without outside partners or contractors). Thirty-seven agencies provided an estimate. The median estimate is two FTE staff. Responses ranged between zero FTE staff (in 3 agencies) up to more than 50 FTE staff in a large state. In addition:

- Seven (7) agencies report less than 1 FTE staff;
- Twelve (12) agencies report one or two FTE staff;
- Seven (7) agencies report more than two and less than five FTE staff; and
- Seven (7) states report staffing levels of between 5 and 8 FTEs.

The research team emphasizes these estimates are impressionistic, as some agencies may have included staff performing traditional Bureau of Labor Statistics labor market information analyses in their calculations, and this may have inflated their estimates. On the other hand, because the estimates represent internal agency capacity only, in states where outside partners or other state agencies conduct some or all of the workforce research and evaluation activities, these estimates convey only part of the staffing picture.

## *Staff capacity trends*

As Figure II-4 shows, almost half (46 percent) of the 41 agencies report that research staff capacity (a term encompassing not only staff levels, but also skills and experience) is the same, below, or significantly below the levels of ten years ago. Thirty-two (32) percent of agencies report capacity is 'greater', and 17 percent report it is 'much greater'. Two agencies report they 'do not know.'

In all, trends appear to be highly variable across agencies. States were given an opportunity to comment on the trends, and the comments (all of which appear in Table II-3) help provide some context. States reporting greater capacity or much greater capacity often pointed to staffing levels and, especially, the importance of staff training and expertise. States with less or much less staff capacity tended to point to funding and staffing cuts.

Figure II-4.
Research Staff Capacity Trends Over Ten Years
(n=41)

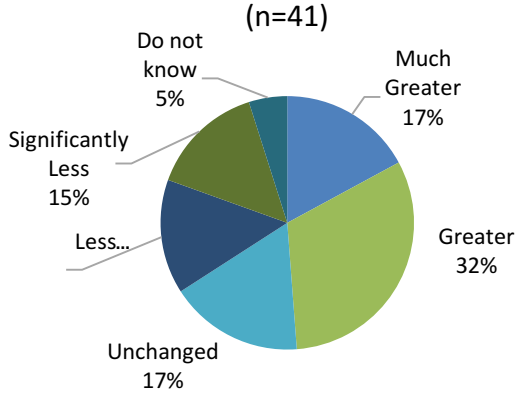



**Table II-3.**
**Agency Comments on Research Staff Capacity Trends**

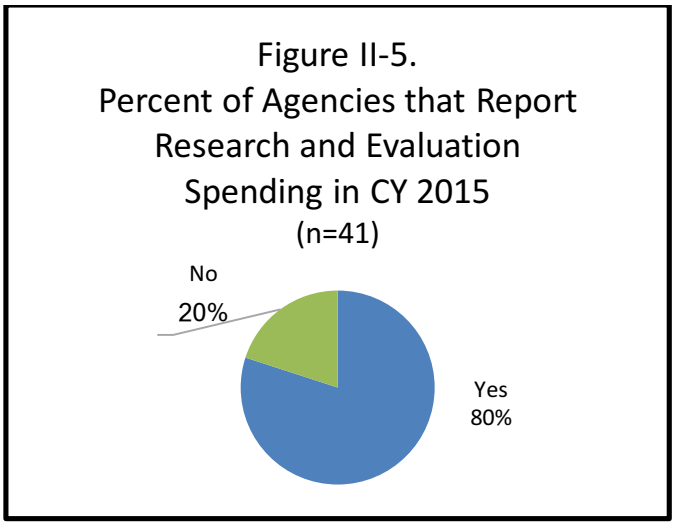
| Comment # | Staff capacity is… | |
|---|---|---|
| **1** | Much greater | In my experience, our ability to conduct evaluation is both about having sufficient staff and about having the right staff that can both carry out a research plan, and have initiative to develop evaluation without much guidance from program staff and IT. If you have to ask about the program and wait for guidance, the evaluation is unlikely to be finished. |
| **2** | Much greater | USDOL and state partners have provided training on many of these topics. Our Departments of Commerce and Labor have qualified economists to perform research and analysis. |
| **3** | Greater | The Survey and Applied Research Section members keep up with current industry best practices and research on survey methodology by regularly updating their training and knowledge base through trainings, webinars, and conferences. |
| **4** | Greater | The workforce agency would have to add additional FTE of upgraded skill sets to have even basic capacity. The labor market information agency would have much greater breadth of skill sets, but would need additional capacity to conduct program-specific research and evaluation. |
| **5** | Unchanged | The agency has staff with the skills to conduct research and analysis. The agency has that capacity. The agency lacks capacity when it comes to funds to conduct research and analysis. |

| Table II-3. Agency Comments on Research Staff Capacity Trends | | |
|---|---|---|
| **6** | Unchanged | Staffing levels are lower, but production quantity/quality is offset by improved skill level, talent and proficiency of current staff. |
| **7** | Unchanged | As of August 2016, the new Governor's Employment Opportunity Office will be charged with WIOA implementation, workforce data, and research. This Office will incorporate the current LMI entity, the Office of Employment and Population Statistics. |
| **8** | Less | Program funding levels have definitely decreased in the last 10 years. That decrease has made it necessary to decrease the number of staff hired for analytical purposes and to produce less printed materials; using electronic means for publishing. We are also producing less research than we did 10 years ago. |
| **9** | Less | Some experienced and skilled staff have retired or left the agency. |
| **10** | Significantly less | Far fewer staff due to much less funding. |
| **11** | Significantly less | Funding-related; the rules and regulations are more complex under WIOA. |
| **12** | Significantly less | Funding and staff cuts have resulted in diminished capacity. |

## Funding environment

### *Funding levels and sources*

As Figure II-5 shows, thirty-three (33) of the 41 responding state workforce agencies (80 percent) report spending federal, state or private funds on research or evaluations in calendar year 2015. Eight agencies (20 percent) report they spent no funds.




Twenty-three of the 33 agencies that did spend funds on research and evaluation in CY 2015 provided an estimate (usually 'rough'--see Table II-4) and ten agencies did not provide an estimate. Looking at the 23 estimates, it appears eight agencies spent less than $100 thousand; adding these

eight to the eight agencies that spent zero dollars means at least 40 percent of the 41 agencies from whom we received scan responses spent from zero to less than $100 thousand in CY 2015. Looking again at the Table II-4 estimates, it also appears that at least fifteen agencies (37 percent of the 41 responding agencies) spent more than $100 thousand on research and evaluations in CY 2015. Unfortunately, we cannot know how all these data would change if we could account for spending levels in the ten states that did not provide an estimate.

**Table II-4.**
**State Agency Estimates of CY 2015 Spending on Research and Evaluation[3]**

| | |
|---|---|
| 1. | $75,000. |
| 2. | $60,000. |
| 3. | $55,000 (outside research contract). |
| 4. | Unsure. Probably enough to fund 1.5 to 2 FTE |
| 5. | $666,239. |
| 6. | $400,000 (includes funds from the legislature for scholarship evaluation, UI, and WDQI funds). |
| 7. | 1/2 FTE ($50,000). |
| 8. | $900,000. |
| 9. | We were finishing up a WDQI Round 2 grant and starting a WDQI Round 4 grant both totals came to $2,060,000. Received state funding for pilot studies on labor availability and employer need totaling $320,000. This includes value of staff time. |
| 10. | $350,000. Includes staff time. We had no outside contributions. |
| 11. | $650,000+. |
| 12. | $1,000,000. |
| 13. | $65,000 plus a portion of Workforce Information Grant. This does not include the value of agency staff time to plan, contract with partners, and work with partners on completion of projects. The Department of Education contributed approximately $15,000. |
| 14. | $50,000. Includes staff time |
| 15. | A very rough estimate would be $600,000, which includes the cost of maintaining databases key to research and evaluation efforts and quite a bit of research that would be state-specific and not conducted in other states (nonresident worker research, primarily). |
| 16. | $600,000. |
| 17. | $50,000 toward a job vacancy survey. |
| 18. | $274,000 contractual to a state research center for the data quality initiative, which did include staff time. |
| 19. | WDQI only. |
| 20. | $700,000. |

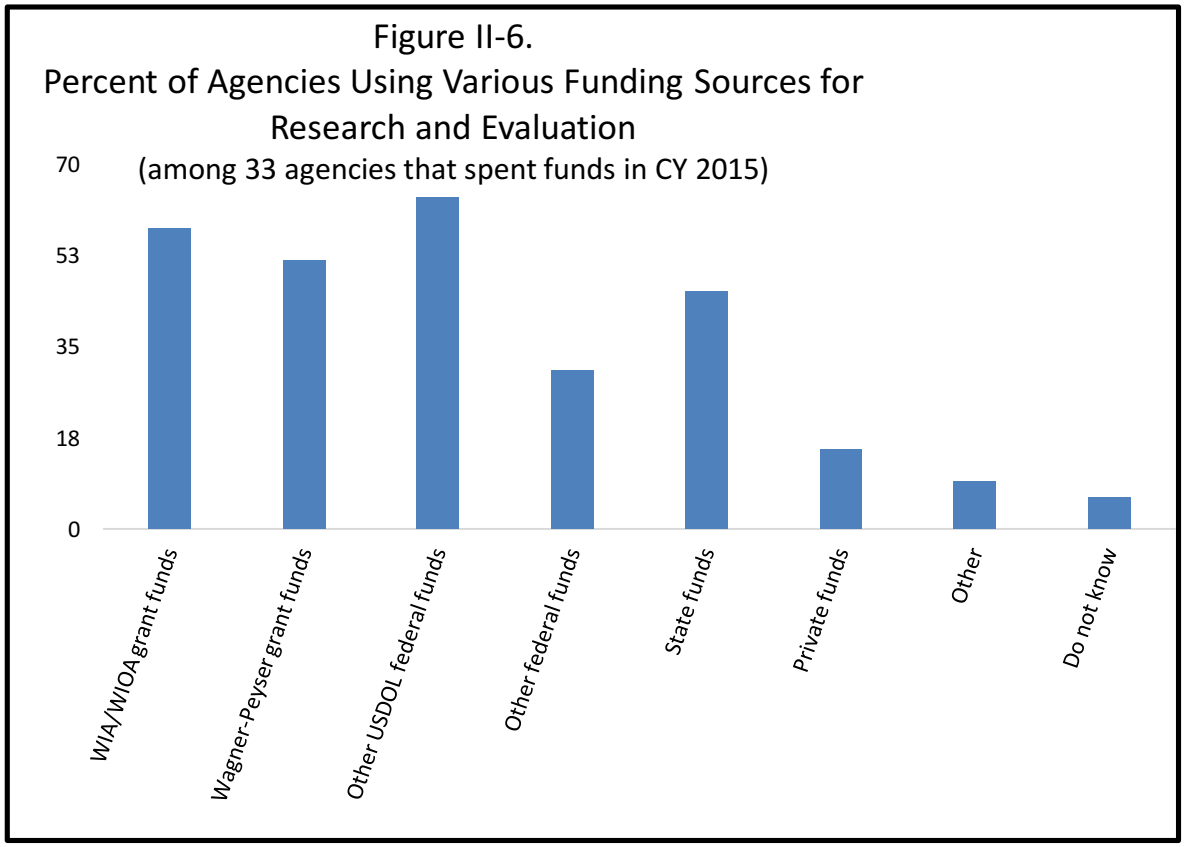
[3] Twenty three out of 33 agencies that spent funds provided an estimate. Does not include eight state workforce agencies that reported spending zero funds on research and evaluation in CY 2015.

| Table II-4.<br>State Agency Estimates of CY 2015 Spending on Research and Evaluation[3] | |
|---|---|
| 21. $331,000, includes the value of staff time and contributions from contractors. | |
| 22. About $450,000 state workforce agency funds. About $600,000 total with other funds (PY2015). | |
| 23. Approximately $900,000 to a state university research center. | |

State workforce agencies collectively draw upon numerous funding sources to support their research and evaluation efforts, including federal, state, and, to a lesser degree, private sources, as Figure II-6 shows.

While 58 percent of the agencies that spent funds rely on WIA/WIOA funds, and 51 percent rely on Wagner-Peyser Act Employment Services funds, even more (64 percent) use 'other USDOL funding' sources[4]. Additionally, 30 percent rely on non-USDOL federal funds, 46 percent rely on state funds, and 15 percent rely on private funds.

The 'other' federal sources (USDOL and non-USDOL) state workforce agencies have accessed are listed in Table II-5.




[4] See footnote 3 for information on the funding environment.

| Table II-5.<br>'Other' Federal Funding Sources<br>(not WIOA or Wagner-Peyser Act) Used for Research and Evaluation |
|---|
| Affordable Care Act |
| Department of Education (Vocational Rehabilitation and Adult Education) |
| National Emergency Grant (NEG) |
| State Longitudinal Data Systems (SLDS) |
| Trade Adjustment Assistance Community College Career Training (TAACCCT) Grant |
| Unemployment Compensation for Ex-Service Members |
| Unemployment Insurance administration |
| Unemployment Insurance modernization |
| Workforce Data Quality Campaign (WDQI) |
| Workforce Information Grant (WIG) |
| Workforce Innovation Fund (WIF) |

The state funding sources the agencies have accessed to conduct research and evaluations appear in Table II-6.

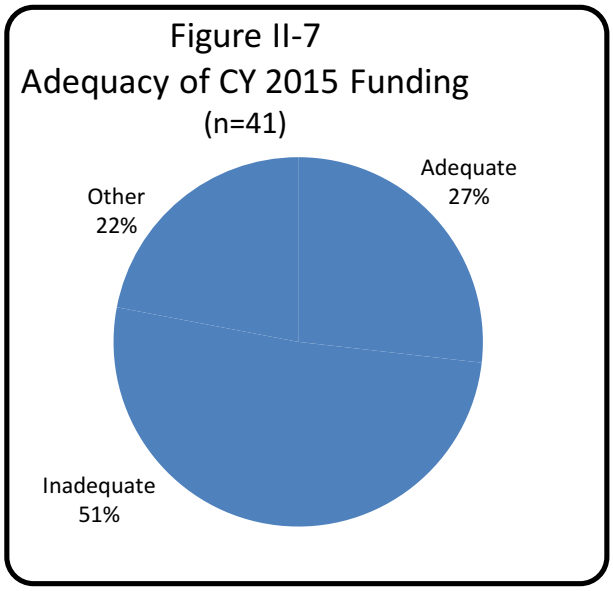
| Table II-6.<br>State Funding Sources Agencies Used for<br>Research and Evaluation |
|---|
| Core job development |
| Department of economic development |
| Department of education |
| Department of higher education |
| Economic development agency |
| New hire reporting |
| Reemployment |
| State general funds |
| Supplemental administrative funds |
| Temporary disability insurance |
| Unemployment insurance penalty and interest |
| Workers' Compensation |
| Workforce development and training fund |

The private funding sources accessed by 15 percent of states include fee-for-service funds and grant funds (e.g., Gates Foundation funding through the Western Intermountain Committee for Higher Education).

The range of 'other' funding sources suggests not only that many state workforce agencies provide research services to or are partnering with other paying governmental entities, but also that many must find and rely on supplemental funds from various grants and programs to perform their research and evaluation activities.

*Funding adequacy*

Figure II-7 shows that just over half (51 percent) the 41 agencies report that 2015 funding levels are inadequate, relative to needs. Another 27 percent (11) report funding levels are adequate. A large minority (nine) chose "other" to describe funding adequacy.




Agencies that responded "other" provided their insights, which are all included in Table II-7. These comments reveal that most states responding 'other' face funding challenges.

**Table II-7.**
**Comments from Agencies Reporting Funding Adequacy = 'Other'**

| Comment # | |
|---|---|
| 1 | We are working with other state agencies and outside partners to try to identify funds. |
| 2 | Adequate for on-going programs and contracts, not enough to fund special data requests and studies. |
| 3 | LMI does not normally have access to these types of funds so without these funds the ability to do this research is very limited. |
| 4 | Probably adequate, but "research and evaluation" is such a definition-hungry term; researchers' appetites for research funding is hard to satiate and [our state] is especially hungry for good research as it adjusts to new budget realities (the period when oil-related revenue paid almost all our bills is ending). |
| 5 | Projects not considered or discussed for funding. Consequence is inability to meet demands for information or make data-driven recommended changes to policies, programs, systems and tools to workforce and labor market challenges. |
| 6 | Our evaluation capacity is more than sufficient for managing program performance, [we] lack funding and FTE skill sets for program evaluation. |

| Table II-7. Comments from Agencies Reporting Funding Adequacy = 'Other' | |
|---|---|
| **7** | In order to be able to pursue additional research projects and apply new innovative techniques we would require more funding. |
| **8** | Currently adequate, but capacity [is] decreasing. |
| **9** | Some projects are fee for service based. |

Agencies that reported funding is 'inadequate' relative to need were asked to describe the consequences, if any, of funding inadequacy for the state workforce system and its customers. Table II-8 shares all the state responses.

| Table II-8. Agency Comments Regarding Consequences of Funding Inadequacy (from agencies reporting funding = 'inadequate') | |
|---|---|
| **Comment #** | |
| **1** | We don't know what works and what successes to build on. |
| **2** | The system is less able to anticipate changes in trends and therefore remains reactionary. It reduces the ability to fulfill requests and for customers to make timely data-driven decisions. |
| **3** | The extent of our research is limited by resources available; more resources would probably lead to more analysis, more innovation, and more robust 'evidence-based' decision-making. |
| **4** | We use Workforce Information Grant funds when the research fits into the scope of the grant, but this isn't always the case. Expectations are built around performing this research, but we can't always meet the expectations. The pattern of when we can and can't is confusing to our partners and in some cases seems to cause more problems than if we just didn't do any research. |
| **5** | The agency has never committed ES or WIA funds to evaluation. There is no empirical basis for program decision making. |
| **6** | We don't know what works and what successes to build on. |
| **7** | Little data and information to meet the evaluation requirement and [little] basis for system improvement. |
| **8** | We are unable to provide job demand / openings data. |
| **9** | Impeded ability to provide useful data, and limited insight for customers to use for decision making for individual, business and government stakeholders. |
| **10** | Without funds for evaluation, it is difficult to assess the outcomes of activities and whether objectives are being achieved. |
| **11** | The funding is inadequate for the LMI division to conduct research. There is other research being done by universities and private vendors that are hired by workforce boards, economic developers, etc. There is plenty of research that should be done to keep up with the needs of business, and to provide more information for economic developers. |
| **12** | Degradation of data quality, inability to successfully implement the Workforce Innovation and Opportunity Act. Relatively low impact in the short-term; likelihood of more severe impact in the long-term. |
| **13** | Limited capacity. |
| **14** | Research is limited. Scarce resources mean either less time overall to produce evaluations or long waiting times. In the long run, resources may be wasted on ineffective programs unknowingly. |
| **15** | Harder to make sound policy decisions without proper research. |

| Table II-8.<br>Agency Comments Regarding Consequences of Funding Inadequacy<br>(from agencies reporting funding = 'inadequate') | |
|---|---|
| **16** | Inefficient use of currently available (limited) resources, resulting in misallocation of training resources. |
| **17** | For the system, not being able to meet the needs of the customers. Thereby, the customers would turn to other private vendors for products that may not provide the level of accuracy to explain changes in the research. |
| **18** | Limited knowledge, unknown effectiveness, limited transparency, reduced consumer choice. |
| **19** | [Our state] receives no state funding. Consequences: unanswered questions from workforce development agency customers. |

## *Funding trends*

How is funding for state workforce agency research and evaluation trending? As Figure II-8 shows, 49 percent of agencies report funding levels are lower or much lower than in the past (27 and 22 percent, respectively). Twenty-two (22) percent report funding is unchanged, and 17 percent report greater or much greater funding (12 percent and 5 percent respectively).

Some agencies commented on the funding trends (Table II-9). The comments suggest that some agencies' budgets ebb and flow based on the availability of temporary, episodic federal grant funds and that core funding support is insufficient.

| Table II-9.<br>Agency Comments on Funding Trends | |
|---|---|
| **Comment #** | |
| **1** | Federal funding continues to decrease. |
| **2** | Carryover funding in the Workforce Information Grant allowed the opportunity to increase research project budget. |
| **3** | New administrator has made this a focus when it hasn't been in the past. |
| **4** | It is momentarily greater because of the WDQI award and because when the legislature had money, they funded us for program evaluation. Presently, the State of Wyoming is in financial difficulty and R&P has lost substantial resources. R&P is written into the WIOA Unified plan as the source of program evaluation... but we will see. |
| **5** | The 15% Statewide does provide the funds for PY 16 that was not available in previous PY's. |
| **6** | This will change once the WDQI funding is gone. |
| **7** | The research LMI has been able to do in the last five years could have never been done without the attainment of the ARRA grant to study green jobs. It provided additional funds for a period, which relieved our regular funds for additional research projects. Now all of those funds are dispensed, and we can no longer carry over large portions of our funding into the next year, so we spend each year exactly what we have and only carry over around 10 percent. We get no additional funds from any other workforce partners, which I'm sure LMI gets in other states. |
| **8** | Need funding to help with maintenance costs and upgrades. |
| **9** | Funding has declined precipitously in the past 10 years. |
| **10** | Impact will be loss of continued ability to provide innovative services to customers. |

## Data sets, tools and systems

### *Data sets*

Table II-10 below shows that access to data sets for conducting research and evaluations varies considerably across the 41 reporting state workforce agencies. As expected, all or nearly all responding agencies report they have access, for research and evaluation purposes, to the data the agency produces, including labor market information, UI wage record data, and other workforce system administrative data (such as UI benefits data, and WIOA and Wagner-Peyser Act Employment Services data).

Fewer but a majority of agencies report having access to Workforce Data Quality Initiative or other longitudinal administrative data sets (71 percent) and to administrative data from other public programs (61 percent).

States could report on access to 'other' datasets, and 37 percent of the states did. The data sets mentioned are listed in Table II-11.

**Table II-10.**
**Agency Access to Particular Data Sets**
**(n=41)**

| Data set | Percent |
|---|---|
| UI wage record data | 100 |
| Other workforce system administrative data (UI benefits, WIOA Title I, Wagner-Peyser Act/ES) | 93 |
| Administrative data from other public programs | 61 |
| WDQI or other longitudinal data sets | 71 |
| Labor Market (BLS) Information | 100 |
| Other | 37 |

**Table II-11.**
**'Other' Data Sets Mentioned by State Workforce Agencies**

| | |
|---|---|
| Primary data, such as survey data | Department of motor vehicles |
| Harvard cluster mapping | Bureau of Economic Analysis |
| Workers' compensation | Other states' UI wage records |
| DOT crash files | Public school student records |
| Health department vital records | Public school professionals' data |
| State incumbent worker grant | State employee data |
| Census Bureau data, including LEHD | Department of corrections |
| National Directory of New Hires | Higher education |
| Internal Revenue Service | Training institutions |
| EMSI (private vendor product) | Licensing board |
| Wanted Analytics (private vendor product) | |

### *Data tools*

All the agencies report having access to Excel as a tool for data analysis or data visualization. Agencies were also asked about SPSS (available to 49 percent of agencies), Tableau (46 percent), SAS (44 percent), R (41 percent), and STATA (24 percent). The scan did not gather information on whether agency staff have had formal or informal training on these tools, or have used the tools to produce research products.

Many agencies (18) report having access to 'other' tools. The agency-reported 'other' tools include:

- Data Zoa;
- SQL;
- Logi;
- FutureWorks Systems;
- Socrata;
- ArcMap;
- MS Access;
- ArcGIS;
- Clicdata;
- Java Script D3;
- Eviews;
- Highcharts;
- ArcView;
- NumberCruncher;
- Dimple;
- IMPLAN;
- Business Objects; and
- Crystal Reports

### *Data systems*

The state workforce agencies were asked to report what database management systems are available to them to facilitate research and evaluation efforts. The choices included Access, SQL and 'other.' Eighty-five (85) percent report that Access is available, and 78 percent have SQL. Twenty (20) percent of the agencies report having access to 'other' systems. The 'other' systems agencies self-reported include:

- Sequel;
- SAS BICC;
- DB2;
- FutureWork Systems, Inc.;
- Workforce Information Database;

- SAS BICC Data Warehouse;
- Arizona Workforce Connection;
- Oracle;
- SQL;
- America's One Stop Operating System;
- AWARE; and
- Connecting Colorado.

## Technical assistance and capacity needs by research skill area

The scan asked agencies to report on their desire for more in-house staff capacity, training, technical assistance or other support, across fifteen different research skill areas related to the production of research and evaluations. The goal is not only to understand agencies' needs, but also to understand which agencies have skill strengths from which other agencies might draw. It is important to note that some agencies rely on outside partners and contractors for research expertise, and that expertise (or lack of it) is not reflected in these responses.[5] Also, as one state commented, the estimation of needs is subjective and some states with robust research activity may be the most interested in additional research expertise.

For each of the 15 skill areas, agencies could respond in one of five ways:

1. We have sufficient capacity;
2. We have capacity, but would like more help/capacity;
3. No capacity, and would like some help/capacity;
4. No capacity, and not interested in help/capacity; and
5. Do not know.

Across all 15 skill areas, a minority of agencies (ranging from 10 to 44 percent) report having sufficient capacity. Table II-12 lists the percent and names of states reporting sufficient capacity in each area (columns 2 and 3). 'Performing regression analysis' is the area with the highest number of states reporting sufficient capacity, and 'conducting research using qualitative methods' is the skill area in which the fewest states (just 10 percent) report sufficient capacity.

The fourth and fifth columns list the percent of states reporting some or no capacity, for each of the 15 research skill areas.

Across all 15 skills areas, at least 40 percent and up to 78 percent of the agencies report they would like some or more help or capacity, depending on the skill area, as the last column in Table II-12 shows. Agencies could express a desire for technical assistance (TA) or capacity if they reported having just some or no capacity. These data suggest large unmet needs in many agencies for staff training or additional trained staff.

[5] See Appendix K for a list of state research partner entities, and also Part V for a state case study reflecting a state (Ohio) with extensive external research capacity based in a state university.

Table II-12 does not include 'don't know' responses, which were uncommon in all but four of the skill areas. Here are the four skills areas for which a significant number of states report they 'don't know' about their agency's capacity needs[6]:

Conducting experiments with random assignment…….. 17% (7 states)
Employing quasi-experimental designs…… 17
Developing or updating the UI profiling model…….. 17
Developing or updating the UI financing model/
conducting actuarial analysis…….. 17

It is worth focusing on two research skill areas most often associated with evidence-based policymaking—conducting experiments and employing quasi-experimental designs.[7] Only a handful of the reporting states report having sufficient capacity in these areas; about half the agencies report they either have zero capacity or "don't know" if they have capacity.

**Table II-12.**
**Agencies Report on Staff and Technical Capacity, by Research Skill Area[8]**
**(n=41)**

| | 'Sufficient Capacity' | | | | |
|---|---|---|---|---|---|
| **Research Skill Area** | **(%)** | **State** | **'Some Capacity' (%)** | **'No Capacity' (%)** | **Desire Some or More TA/Capacity[9] (%)** |
| **Performing regression analysis** | 44 | CT, DC, FL, ID, IL, KS, MA, MI, MT, NE, NM, OR, PA, UT, WA, WI, WV, WY | 34 | 15 | 46 |
| **Developing or updating the Unemployment Insurance profiling model [used to target reemployment services]** | 39 | AR, CT, DC, ID, IL, KS, MA, MI, ND, NJ, NM, PA, UT, WA, WV, WY | 32 | 12 | 41 |

[6] Advanced research skills and considerable resources are required to conduct experiments and to employ quasi-experimental designs. Likewise, developing or updating Unemployment Insurance (UI) profiling models, developing UI financing models, and conducing actuarial analysis all require special training or advanced skills. It is not clear if the 'don't know' responses reflect a lack of knowledge of these skill areas within the agency unit that was responsible for completing the scan, or across the whole agency (if the scan was broadly shared). If the scan was not shared with UI offices, for example, the responses may not incorporate the perspective and knowledge of the UI office staff.
[7] See the Washington case study (Part IV of this study) for information on quasi-experimental designs developed and used by Washington state staff.
[8] "Do not know" response counts are not included.
[9] Agencies could express a desire for TA or more capacity, if they had some or no capacity.

| Table II-12.<br>Agencies Report on Staff and Technical Capacity, by Research Skill Area[8]<br>(n=41) | | | | | |
|---|---|---|---|---|---|
| | 'Sufficient Capacity' | | | | |
| **Research Skill Area** | **(%)** | **State** | **'Some Capacity' (%)** | **'No Capacity' (%)** | **Desire Some or More TA/Capacity[9] (%)** |
| **Choosing the most appropriate research method/design** | 37 | CA, CT, DC, FL, IL, KS, MD, MI, MT, NE, OR, PA, UT, WA, WV | 49 | 15 | 61 |
| **Communicating research results in a way program administrators, policymakers or customers can understand and use** | 37 | AL, DC, FL, IL, KS, MD, MI, MT, ND, NE, NM, OR, PA, WI, WV | 59 | 5 | 63 |
| **Developing/managing relationships with research partners** | 37 | AL, AK, AR, CT, IA, IA, IL, IN, MD, ND, NE, NM, UT, PA, WA, WV | 46 | 10 | 56 |
| **Using 'other' statistical methods** | 37 | CT, DC, ID, IL, MI, MT, ND, NE, NM, OR, PA, UT, WA, WV, WI | 46 | 12 | 56 |
| **Developing a research agenda and budget** | 34 | AK, AR, CA, IA, IL, KS, MA, MI, NE, OR, PA, WA, WV, WY | 49 | 15 | 63 |
| **Technical writing of research and evaluation reports** | 34 | AL, CA, FL, ID, IL, KS, MI, MT, ND, NE, OR, PA, WA, WV | 46 | 17 | 63 |
| **Accessing and analyzing large data bases** | 32 | CA, DC, IL, KS, MI, MT, ND, OR, PA UT, WA, WV, WY | 51 | 17 | 66 |
| **Developing or updating the Unemployment Insurance program's financing model/ conducting actuarial analysis** | 32 | AK, CA, DC, ID, IL, KS, MA, ND, NE, NM, PA, WA, WV | 34 | 15 | 49 |
| **Conducting benefit-cost analysis** | 24 | DC, FL, GA, ID, IL, KS, NE, PA, UT, WA | 49 | 24 | 71 |
| **Conducting net impact analysis** | 22 | DC, ID, IL, MI, OR, PA, UT, WA, WI | 39 | 29 | 66 |
| **Employing quasi-experimental design** | 19 | IL, MI, MS, NE, PA, UT, WA, WY | 29 | 34 | 61 |

| Table II-12.<br>Agencies Report on Staff and Technical Capacity, by Research Skill Area[8]<br>(n=41) | | | | | |
|---|---|---|---|---|---|
| | 'Sufficient Capacity' | | | | |
| **Research Skill Area** | **(%)** | **State** | **'Some Capacity' (%)** | **'No Capacity' (%)** | **Desire Some or More TA/Capacity[9] (%)** |
| **Conducting experiments with random assignment** | 15 | CA, IL, ND, PA, WA, WY | 39 | 29 | 61 |
| **Conducting research using qualitative methods (interviews, field studies, etc.** | 10 | FL, IL, PA, ND | 39 | 44 | 78 |

# Part III —Findings from the National Scan: State Workforce Agency Research and Evaluation Products, 2011 through 2015

## Introduction

Collecting information on the level and nature of state workforce agency research and evaluation activity was a somewhat impressionistic exercise, as the scan relied on states to self-report. First, there is the question: what qualifies as research and evaluations?[10] We provided definitions for these terms in the scan instructions:

- *Public workforce research* is an empirical process by which data about workforce programs is used to develop descriptions, measurements, comparisons, and tests of hypothesized relationships.

- *Public workforce evaluations* are empirical analyses of program and other data to describe the operation of a program, measure the program impacts on outcomes of policy and program interest, and/or determine the cost effectiveness of the program.

However, the agencies were also encouraged in reminder emails to report information on special labor market research that would be of interest to other states. This definitional flexibility, which came about in response to an agency's inquiry and input back from USDOL, undoubtedly bolstered the amount of research activity reported.

On the other hand, some states may not have reported all of their research activity. This may have occurred if the scan was not coordinated agency-wide or the state workforce agency failed to include information on workforce research done with outside partners or by other state entities (such as the workforce board or another workforce agency in states where jurisdiction over WIOA programs is spread over more than one agency).

## Research volume and products

Thirty-eight of the 41 responding workforce agencies (93 percent) conducted, funded, or otherwise participated in one or more research or evaluation efforts over the period covering 2011 through 2015. Included were in-house-only efforts (studies conducted without a contractor or partner) and studies that involved a contractor or research partner. Three state agencies reported they conducted no research and evaluations over the period.

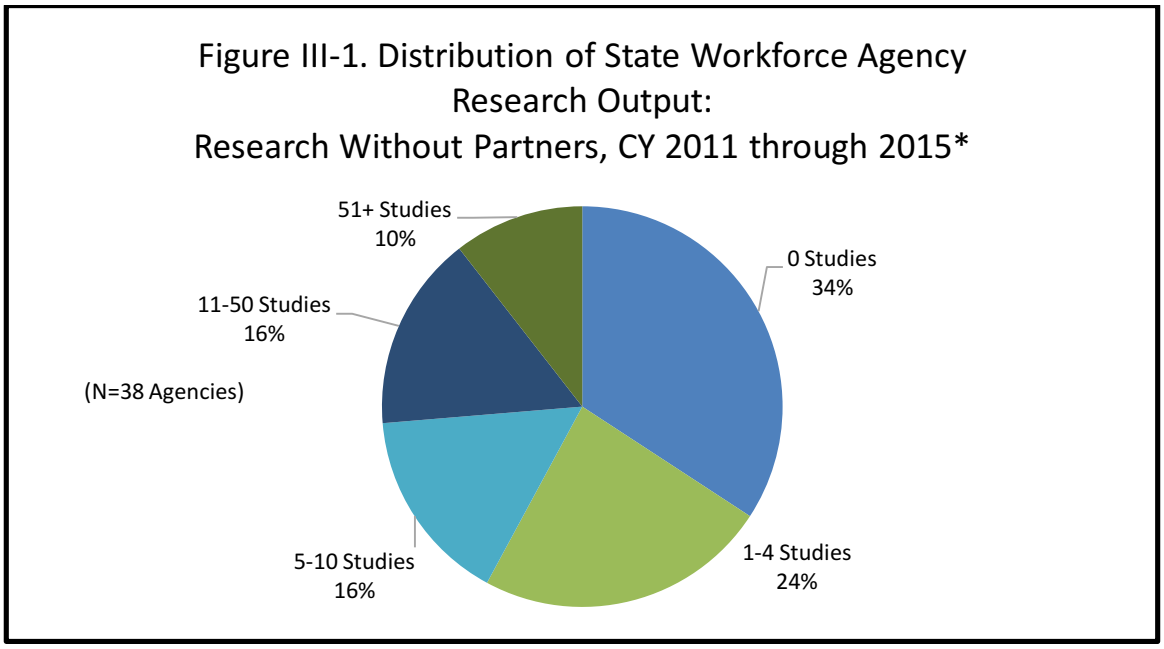
[10] Please note that these definitions were developed prior to the publication of WIOA regulations which (at § 682.220 as found in Appendix D) use a broader approach to defining evaluations. They may include "process and outcome studies, pilot and demonstration projects that have an evaluative component, analyses of administrative and programmatic data, impact and benefit-cost analyses, and use of rigorous designs to test the efficacy of various interventions." The regulations further note that evaluations can involve "multiple phases and such tasks and activities as necessary for an evaluation, such as a literature or evidence review, feasibility study, planning, research, coordination, design, data collection, analysis, and report preparation, clearance, and dissemination. Also, the preamble to the regulations notes that research and demonstration projects can be conducted "as an allowable statewide activity" but that various requirements applicable to evaluations, such as coordination with other state agencies and making reports publicly available, do not apply.

The state agencies provided summaries of their research and evaluation products and/or links to websites where research and evaluation publications are housed. This information is summarized below in Appendices A and B.

About 70 percent of the 41 agencies (28 agencies) responding to the scan conducted at least one project over this period in-house—without a research partner or contractor. Eighty (80) percent of the 41 agencies (33 agencies) conducted at least one project with a contractor or outside research partner.

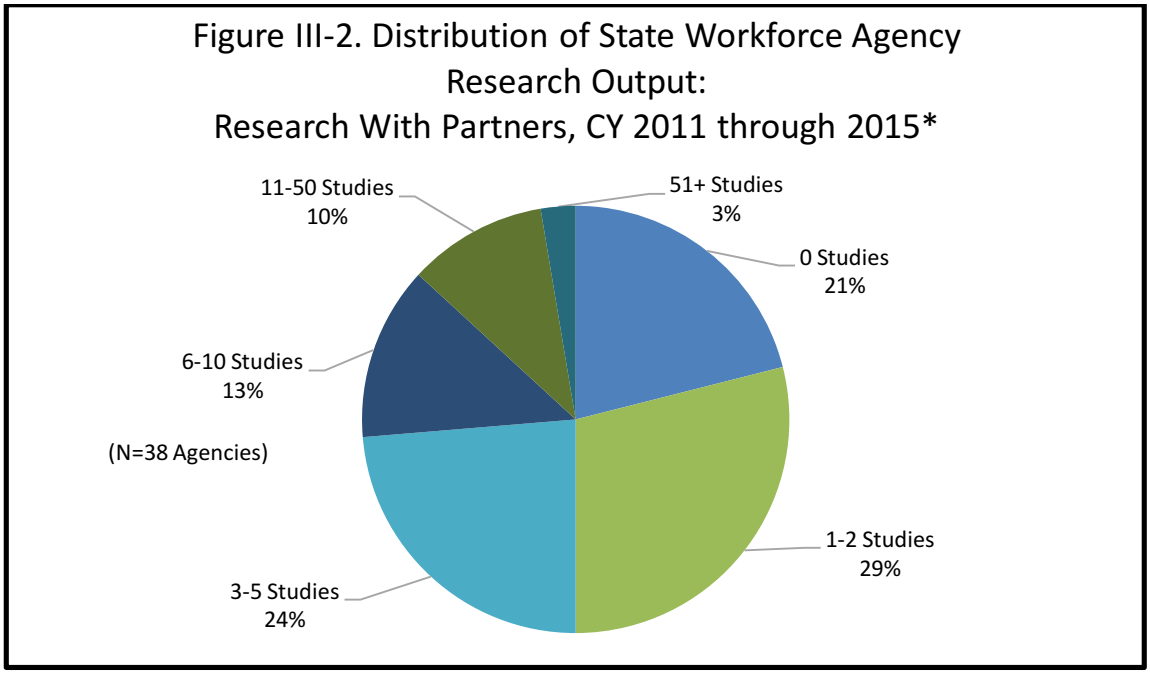
| **Table III-I. Breakdown of Agencies Reporting In-House vs. Partnered/Contractor Studies** | | |
|---|---|---|
| Number of agencies that responded to scan | 41 | 100% |
| Number of agencies that conducted one or more studies, CY 2011 through 2015 | 38 | 93% |
| # of agencies that conducted one or more studies w/o a partner or contractor (in-house studies) | 28 | 68% |
| # of agencies that conducted one or more studies w/ a partner or contractor | 33 | 81% |

Of the 38 agencies that provided an estimate of the number of studies they conducted *without* contractors or outside partners, agency output over the period ranged from zero (in 13 agencies) to 200 studies. Over half of the 38 reporting agencies conducted 3 or fewer studies. Thus, while a few agencies reported a great deal of in-house research and evaluation output, many more agencies produced only several if any reports. (Again, in some agencies, estimated research output may be high if traditional LMI products were included.)




*Includes data from 38 of the 41 agencies. Three agencies that reported conducting at least one study did not provide an estimate.

Of the 38 agencies that provided an estimate for studies conducted *with* contractors or outside partners, the height of the range was 50 reports with eight states reporting zero studies and half of states reporting two or fewer studies. This similarly reflects the largely unequal degrees of research output among the state agencies.



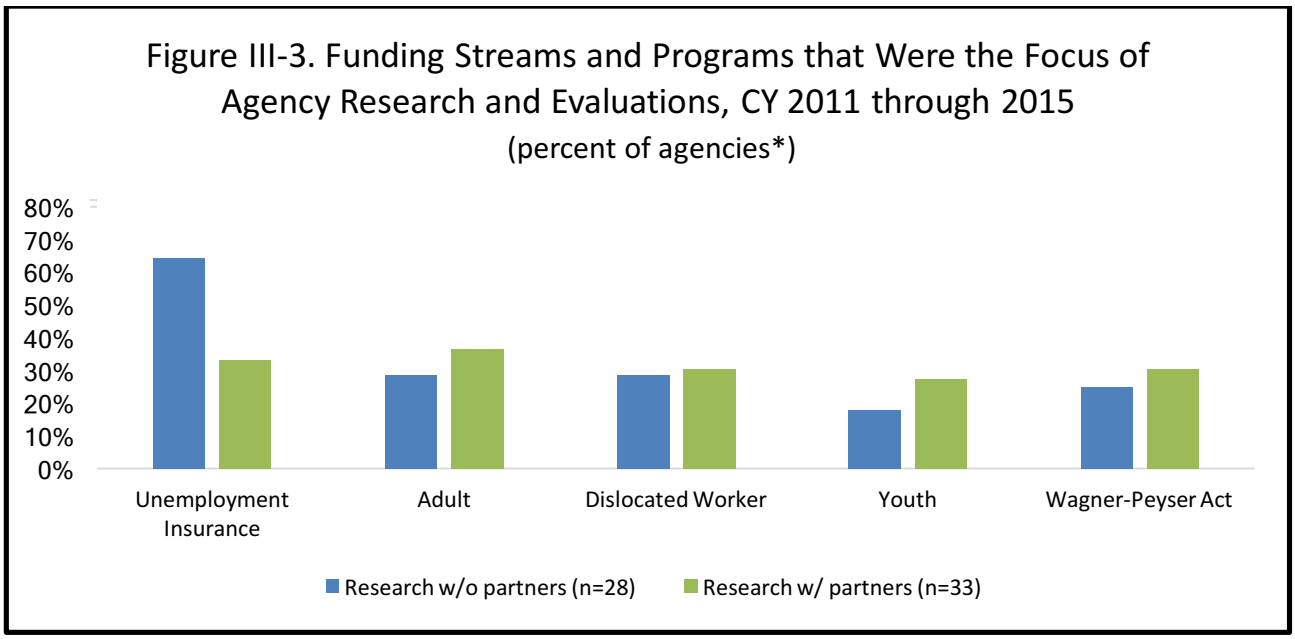

*Includes data from 38 of the 41 agencies. Three agencies that reported conducting at least one study did not provide an estimate.

## Focus and use of research

### *Funding streams and programs*

We asked agencies whether specific workforce programs/funding streams were the focus of any of their research from 2011 through 2015. Agencies reported separately on research conducted without partners or contractors (in-house research) and research conducted with contractors or partners. Figure III-3 shows that a substantial majority (64 percent) of the 28 agencies that conducted one or more in-house studies focused on some aspect of the Unemployment Insurance program. In addition, approximately a quarter of these agencies reported conducting in-house research on WIA Adult (29 percent), Dislocated Worker (29 percent), and Wagner-Peyser Act (25 percent) programs.

The 33 agencies that conducted research *with* contractors or other partners were much less likely to have focused on the UI program for their contractor/partner research (33 percent did). All of the major workforce program funding streams were pretty equally likely to have been the focus of contractor or partner research efforts: WIA Adult (36 percent), Unemployment Insurance (33 percent), WIA Dislocated Workers (30 percent), Wagner-Peyser Act (30 percent), and WIA Youth (27 percent).




*The denominator includes agencies that both responded to the scan (41 agencies) and reported conducting at least one study of the type described.

Many of the agencies that conducted one or more research and evaluations from CY 2011 through 2015 reported focusing on "other" programs and funding streams, which we list in Table III-1.

**Table III-1.**
**Other Programs and Funding Streams that Were the Focus of Agency Research Efforts**

| | |
|---|---|
| Apprenticeships | National Emergency Grants |
| Bureau of Labor Statistics | ARRA (Recovery Act) grant money for green jobs research |
| Competitive Grants | Other workforce partners/programs |
| Career and Technical Education | Post-Secondary/Secondary Education |
| Departments of Education and Higher Education | Refugee Cash Assistance |
| Development of planning regions for local workforce development areas | Sector Strategies |
| Discretionary Funds from Governor's Office | State Board |
| Employment and Training Administration (USDOL) | State funding |
| WIA/WIOA Eligible Training Providers | State Longitudinal Data Systems (SLDS) grant funds |
| Evaluation of employer tax incentive programs (Legislative Audit Committee) | State training programs |
| Supplemental Nutrition Assistance Program | Supply and Demand Analysis |
| Foreign Labor Certification | Trade Adjustment Assistance Community Career College Training Grant |
| General reports about the labor market or economy | Temporary Assistance to Needy Families |
| Green jobs | Temporary Disability Insurance |
| Individuals served by Adult Education and Literacy Program | Understanding workforce participants |
| Individuals served by Vocational Rehabilitation | USDOL Grant |

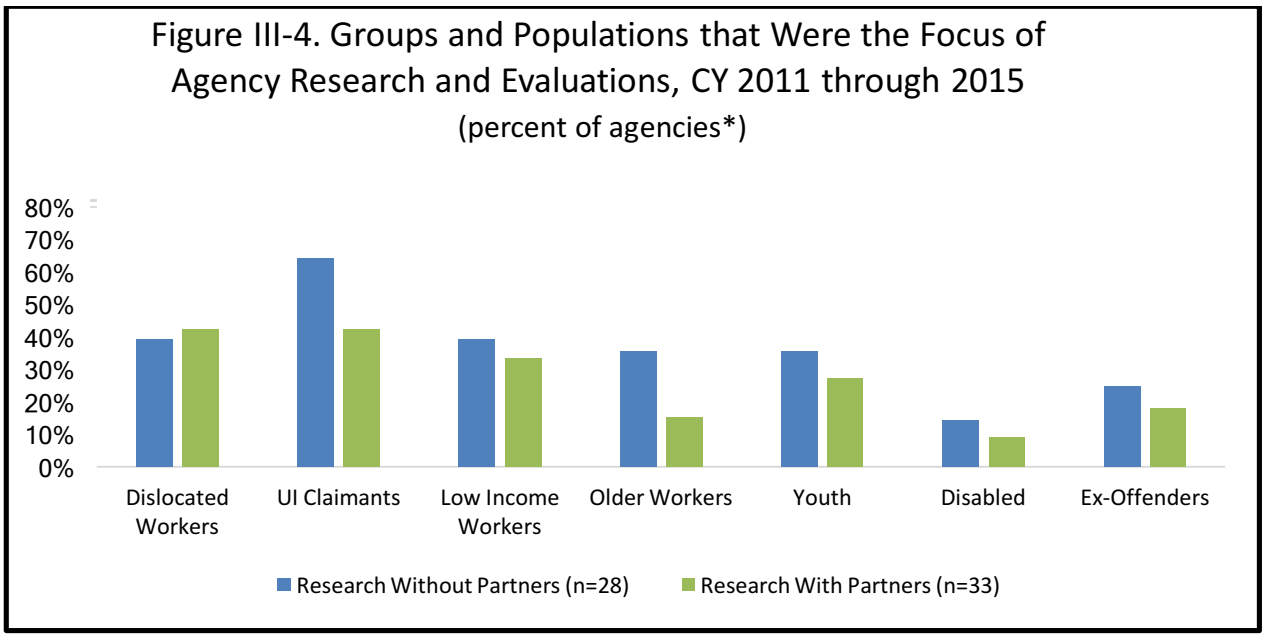
| Table III-1.<br>Other Programs and Funding Streams that Were the Focus<br>of Agency Research Efforts | |
|---|---|
| program | |
| Job openings from *Help Wanted OnLine* | Veterans |
| Job vacancy | Workforce Data Quality Initiative |
| Jobs First Employment Service/Welfare to Work | Workforce Information Council Research Budget |
| Labor Availability, Employer Needs and Skill Gaps studies | Workforce Innovation and Opportunity Act |
| Labor force sub-groups (older workers, women, etc.) | Workforce Innovation Fund Grant |
| Medicaid Expansion | Workforce Investment Fund |
| Minimum wage | |

## *Groups and populations*

We also asked agencies which particular groups or populations were the subject of any of their research efforts. As Figure III-4 shows, looking at research done *without* contractors or partners, over 64 percent of the 28 agencies reported conducting research on UI claimants (which coincides with the number of agencies reporting in-house research focused on UI programs in Figure III-1)[11].

Roughly 35-40 percent reported studies on dislocated workers, low-income workers, older workers and youth. For research conducted *with* contractors or partners, the 33 agencies reported focusing on UI claimants and dislocated workers (42 percent for each) in addition to low income workers (33 percent) and youth (27 percent). UI claimants and older workers were more likely to have been the focus of one or more in-house research efforts than research efforts conducted with contractors or partners.

[11] This is not surprising because the UI program is by far the biggest program in dollars (and participants). Also, during this period many policymakers were interested in understanding how the UI program was impacted by and helpful in addressing the Great Recession.




*The denominator includes agencies that both responded to the scan (41 agencies) and reported conducting at least one study of the type described.

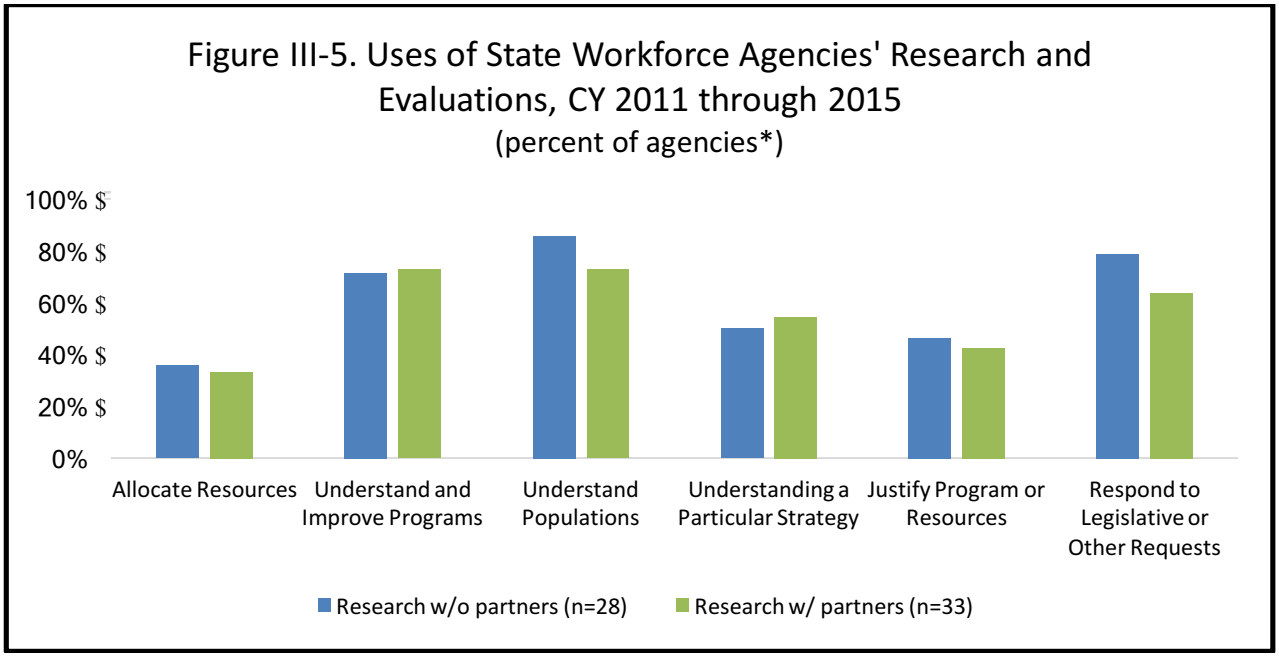
Many agencies that conducted one or more studies listed "other" groups and populations, which can be found in Table III-2 below.

**Table III-2.**
**Other Groups and Populations that Were the Focus of Agency Research Efforts**

| | |
|---|---|
| Aging of workforce by industry | Industry clusters or trends |
| Agricultural workers | Job vacancies by industry and occupation |
| Apprenticeship outcomes | Labor dynamics |
| Child Care Workers | Local level labor Force Participation Rates |
| College graduates | Long Term Unemployed |
| College Student Survey | Medicaid expansion recipients |
| Demographic Effects on Workforce | Middle-Skill Jobs |
| Direct Care Givers | Minority Population |
| Employee turnover | Multiple job holders |
| Employers | New and reentrants to the workforce, |
| Graduate employment outcomes | Nurses |
| Green Jobs | Paramedics |
| High Wage—High Demand—High Skill Jobs (H3) | Programmable Logic Controller Technicians |
| In-demand occupations | Reemployment Services |
| Incarcerated Veterans | Regional Analysis Studies |
| Incumbent workers | Veterans |
| Individuals in some form of connection with formal education | |

### *How research and evaluations were used*

How did state workforce agencies use the results of their research and evaluations? Most commonly, they used research products to help understand populations, understand and improve programs, and respond to specific requests from the legislature or others (Figure III-5). The agencies were more likely to have relied on in-house research to respond to legislative and other requests and to understand particular populations.

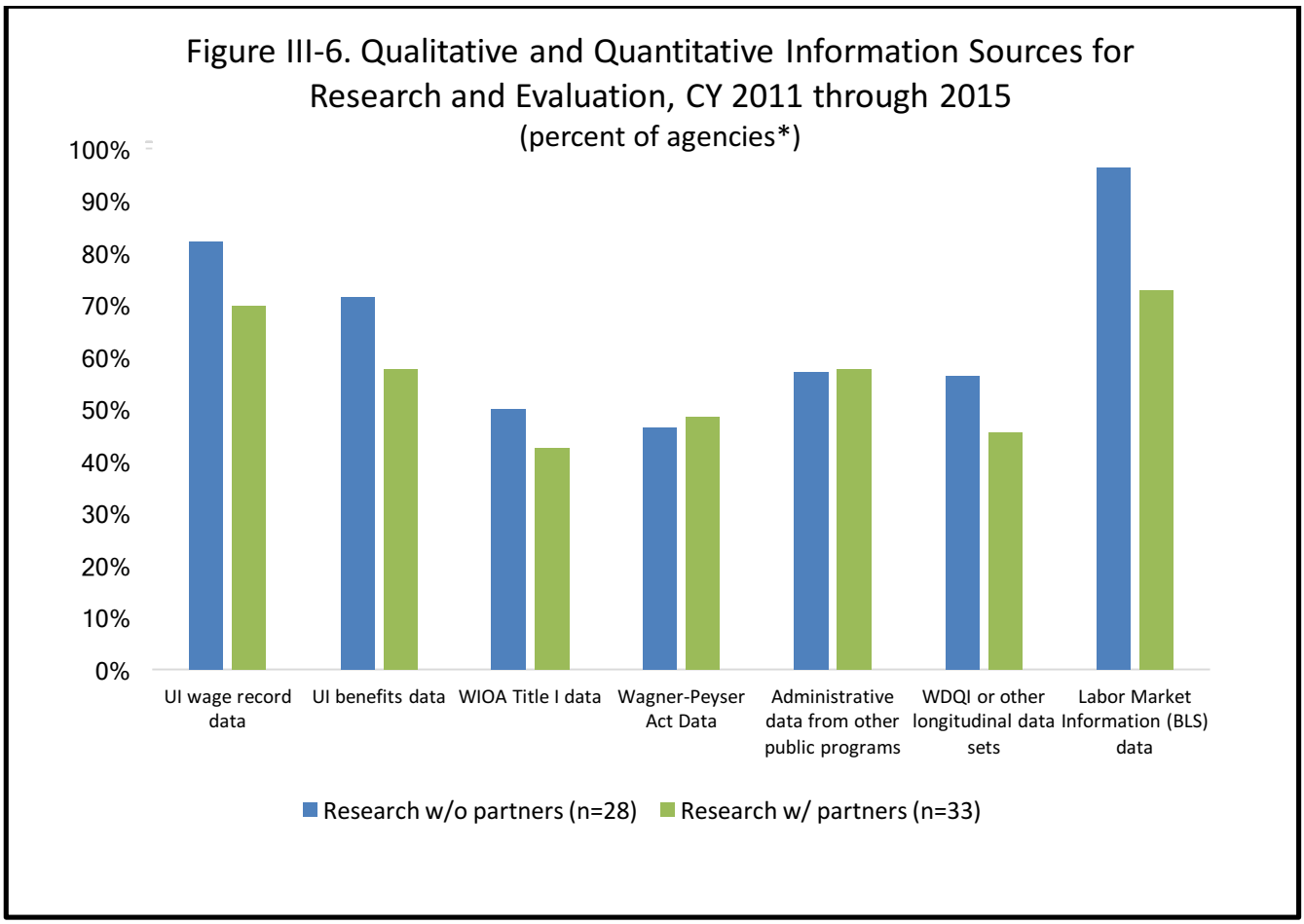



*The denominator includes agencies that both responded to the scan (41 agencies) and reported conducting at least one study of the type described.

## Data and research methods used

### *Qualitative and quantitative information sources for research and evaluation*

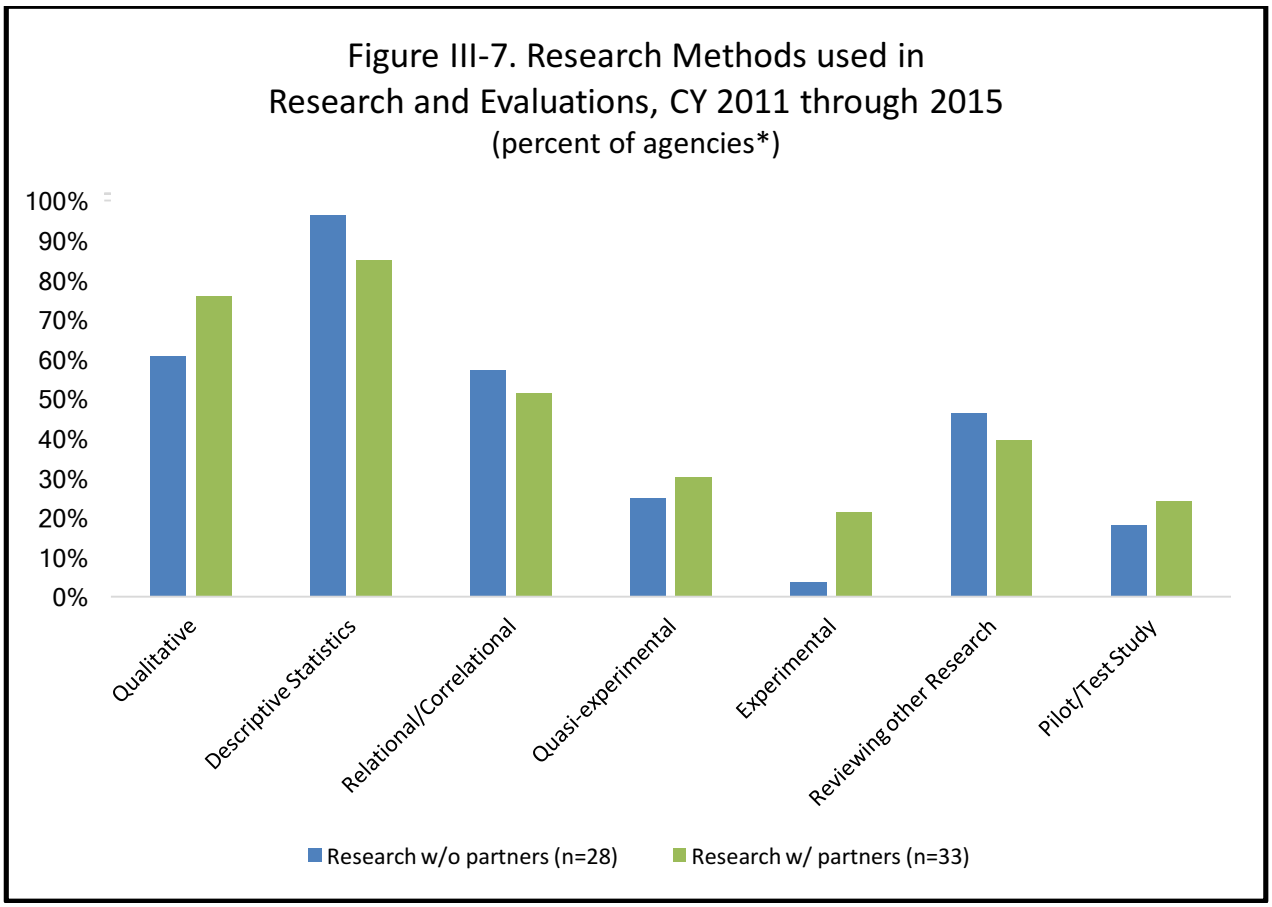
The scan asked state workforce agencies what quantitative and qualitative information they relied on for research, looking across all studies and evaluations conducted over 2011 through 2015. Nearly all (96 percent) of the 28 agencies conducting in-house studies reported using LMI data for the in-house studies, and 73 percent of the 33 agencies conducting studies with contractors or other partners reported using LMI data for such studies. UI wage and benefit data was also often reported for both in-house and partnered research. Roughly half the states in each category reported use of other workforce administrative data, administrative data from other public programs, and longitudinal data sets. This shows reasonable levels of state workforce agency access to non-workforce data and longitudinal data, at least among agencies that conducted studies.




*The denominator includes agencies that both responded to the scan (41 agencies) and reported conducting at least one study of the type described.

## *Research methods*

When asked to detail the research methods used across all studies during the 2011 through 2015 time-period, the agencies overwhelmingly reported utilizing descriptive statistics for both in-house and partnered research. Figure III-7 shows the agencies reported utilizing six other research methods at roughly similar levels regardless of whether the study was conducted independently or with a partner, except it is notable that experimental research methods were much more highly used in partnered studies, though infrequently used overall.




*The denominator includes agencies that both responded to the scan (41 agencies) and reported conducting at least one study of the type described.

We aggregated the data in Figure III-7 to understand how many of the 38 agencies that conducted research and evaluations from CY 2011 through 2015 employed the various research methods in at least one study, considering both in-house-only and partnered/contracted research:

**Table III-3. Agency Use of Various Research Methods, Considering Both In-House and Partnered/Contracted Research**

| Method | Number of agencies | Percent of agencies |
|---|---|---|
| **Total** | **38** | **100** |
| **Qualitative** | 30 | 79 |
| **Descriptive** | 33 | 87 |
| **Relational/Correlational** | 24 | 63 |
| **Quasi-experimental** | 14 | 37 |
| **Experimental** | 7 | 18 |
| **Review of Other Research** | 18 | 47 |
| **Pilot/Test Study** | 9 | 24 |

## Future plans for research

To assess the future prospects for research and evaluation in state workforce agencies, the scan asked the 38 agencies that reported conducting research during calendar years 2011 through 2015 how likely it is that the agency will initiate new studies with or without partners from 2016-2018. Of the 28 agencies that reported conducting research without partners, 84 percent indicated it was either somewhat or very likely they would initiate new research. Similarly, of the 33 agencies that reported conducting research with partners, 82 percent indicated they were somewhat or very likely to initiate new research. Thus, while a great majority of the more active agencies will likely continue some level of research and evaluation effort, the data also signals a drop-off in that a significant minority of agencies that had been conducting research are either not very likely or not likely at all to continue to conduct research and evaluations over the next few years.

# Part IV—State of Washington Research Capacity: A Case Study

## Table of Contents



## Reference Information

*Abbreviations*

| | |
|---|---|
| ADARE | Administrative Data Research and Evaluation project |
| CWBH | Continuous Wage and Benefit History |
| ERDC | Education Research and Data Center |
| ESD | Employment Security Department |
| FEDES | Federal Employee Data Exchange System |
| LMPA | Labor Market Performance and Analysis |
| OFM | Office of Financial Management |
| SEAP | Self-Employment Assistance Program |
| WIB | Workforce Investment Board |
| WRIS | Wage Record Interchange System |
| WTECB | Workforce Training and Education Coordinating Board |

*Web links*

| | |
|---|---|
| https://www.esd.wa.gov/ | Employment Security Department |
| http://www.erdc.wa.gov/ | Education Research and Data Center |
| http://wtb.wa.gov/ | Workforce Training and Education Coordinating Board |
| http://www.workforcedqc.org/state-solutions/washington | WDQI—Washington Summary |

# Introduction

Washington has a long history of conducting research and evaluations using both its own staff and contractors, as well as participating in national studies funded by the federal government.

## *Longitudinal administrative data systems*

Washington has long and extensive experience in developing and using longitudinal administrative data bases for research and evaluation purposes starting in the 1970s, continuing in the 1990s, and expanding sharply in the last decade. All of these efforts have placed a great deal of emphasis on data systems that can inform program improvement and policy making.

On the workforce side, Washington has participated in all of the major U.S. Department of Labor (USDOL) data-building efforts over the past four decades. In the late 1970s and early 1980s, Washington was one of 16 states that developed UI data systems funded by USDOL. Washington was the only Continuous Wage and Benefit History (CWBH) state to maintain its CWBH system after USDOL withdrew funding. Washington went on to add Employment Service and training data to their longitudinal data system.

Washington was one of 8 states that participated in the USDOL-funded Administrative Data Research and Evaluation (ADARE) initiative starting in the mid-1990s. The other states were Florida, Georgia, Illinois, Maryland, Missouri, Ohio, and Texas. The ADARE states improved their existing longitudinal data systems and participated in a number of multi-state research and evaluation projects.[12]

## *Three research and data organizations*

Washington state government has three different organizations, all of which conduct research and evaluations dealing with workforce programs, but which play different roles. The Employment Security Department (ESD) has been a strong participant in data collection and research and evaluation for many decades. The Education Research and Data Center (ERDC, or the Center) is a relative newcomer, but the scope of its data collection is very wide. Finally, the Workforce Training and Education Coordinating Board (WTECB) is the state workforce investment board; its scope is broad with respect to performance measurement and research and evaluation. Below are highlights of some of the research and evaluation functions of each of these three entities:

Employment Security Department (ESD)

- Collects all data relating to workforce programs.
- Shares this data with ERDC and WTECB, as well as other agencies.
- Conducts research about workforce programs.
- Uses its own data to conduct research and evaluations that deal with its own workforce programs. It also receives other education and training data from ERDC.
- Conducts a number of types of research and evaluations.

[12] (Stevens 2014).

Education Research and Data Center (ERDC)

- Collects data on education and other programs, including workforce data.
- Conducts research on education and workforce programs.
- Makes data available to state agencies and other researchers.

Workforce Training and Education Coordinating Board (WTECB)

- Mostly a data-using organization.
- Gets program data from ESD and ERDC.
- Conducts program evaluations based on statutory mandate.
- Program evaluations have mostly used outside researchers.

Sections B through E will discuss the work of each of these entities.

### *Participating in national research projects*

Washington is one of the states with a history of participating in rigorous evaluations sponsored by federal agencies. Washington acknowledges the benefits of learning from major national research and evaluation studies. In particular, it is one of the states that is most likely to participate in rigorous controlled random trial (CRT) experiments.[13] Among the Employment and Training Administration's projects in which Washington participated were reemployment bonus and self-employment assistance experiments.

### *Summary*

Washington uses a multi-agency approach to research and evaluation. It has long placed emphasis on evidence-based policymaking. As a result, it has been heavily involved in building data systems for research and evaluation, as well as in conducting rigorous research and evaluations. In recent years, it has benefited in its data development efforts by making use of highly skilled staff and by receiving a substantial amount of federal data development grants.

## Washington Employment Security Department (ESD)[14]

The Washington Employment Security Department is the state workforce agency. It operates a number of workforce programs, including Workforce Innovation and Opportunity Act (WIOA), Employment Service (ES), and Unemployment Insurance (UI) programs. Research for ESD is conducted by the Labor Market and Performance Analysis (LMPA) Division of ESD.

[13] (Greenberg and Schroder 2004).

[14] This chapter is largely based on December 5, 2016, interviews with ESD staff, including Gustavo Aviles, Cynthia Forland, Neil Gorrell, Jeff Robinson, Nick Streuli, and Scott Wheeler. It also makes use of the website: https://esd.wa.gov/labormarketinfo.

## *Data systems*

### Unemployment Insurance data

The Labor Market and Performance Analysis Division (LMPA) has access to the full array of Employment Security data, including UI, ES and training (e.g., Job Training Partnership Act (JTPA)/WIA/WIOA) data. For many years, UI data came from the old UI Guide operating system, but the data was moved to a new system in January 2017. The UI wage data includes employment, hours, and wages. Washington is one of the few states that collects hours worked from employers as part of their quarterly UI wage system.

There has not been much change in Washington UI wage and hour data definitions in the past 10 or so years, although there have been some coding changes, and it is important to understand those changes when using the data for research purposes. The UI data is available back to 1987 for wages and back to 1990 for benefits. Older UI data are stored in an archive system that can be retrieved as needed.

For many years, LMPA has provided the UI data in response to a variety of requestors for use in performance, research and evaluation purposes. The data is also used by LMPA itself to conduct research and evaluations.

### Other workforce data

To conduct the program evaluations, LMPA uses a variety of data sources. It makes use of its own program data, including training and employment service data, but supplements that data with data from other agencies, e.g., self-employment data. For example, the LMPA descriptive training benefit annual report makes use of data from post-secondary institutions in Washington State.

LMPA has the greatest flexibility in using its own data for analysis and research and evaluation purposes. By contrast, it has difficulty obtaining data from some other agencies because of confidentiality restrictions. For example, it can only receive Washington post-secondary education data that is de-identified. When using post-secondary education data, LMPA sends it data to ERDC and then receives back a data set that merges its data with the education data. LMPA staff can then conduct their own data analysis, but if they want to update the study in the future, there is no way to update the de-identified data set. Even after receiving additional, liberalizing guidance from the U.S. Departments of Education and Labor, Washington state education data can still not be obtained by LMPA as an identifiable data set.

## *Review of research using outside data*

From years of experience, the LMPA staff have great expertise regarding ESD program data. They also provide this data to other Washington state agencies and outside researchers. To ensure that the data is used properly, LMPA staff review studies by other agencies that use ESD data. At the same time, if LMPA staff use data obtained from other agencies, they submit their reports to the data-supplying agencies for a 10-day technical review by all entities whose data they have used.

## *Data sharing*[15]

ESD encourages the sharing of all of its data, both public and confidential. Public data is available to everyone, while access to confidential data is strictly controlled.

### Public data

Public data provided by ESD include:

- Aggregated information where individuals and businesses can't be identified
- Industry information
- Total wages for groups or industries
- Taxable wages for groups or industries
- Information obtained during hearings and appeals decisions

### Confidential data

ESD also encourages the use of its confidential data, but access to that data is restricted to certain entities (listed here) for research and evaluation, and use is in accordance with Federal and state parameters for use of such data.

- Local, state or federal public officials
- Local, state or federal governmental agencies for official purposes
- WorkSource partners
- Private contractors/researchers hired by the U.S. Department of Labor to evaluate OMB-approved unemployment-insurance or Workforce Investment Act programs
- Private contractors/researchers hired by ESD (informed-consent release required)
- Private organizations or individuals or an agent/attorney for an individual or employer (informed-consent release required)
- Anyone seeking aggregated information about groups or industries that does not identify individuals or businesses

In the course of administering unemployment-insurance programs and benefits, ESD collects information from individuals, employers and WorkSource service providers. Some of that information is public; most is confidential. Information that identifies a person or an employer is protected by ESD in accordance with stringent state and federal laws. Those laws allow ESD to release some confidential information if the request or requestor meets specific requirements.

[15] Much of the information in this section comes from: **https://esd.wa.gov/newsroom/data-sharing**

Confidential information that ESD collects includes:

- Social Security numbers; other state and federal identification numbers
- Names of individuals and businesses
- Addresses of individuals and businesses
- Wages paid to individuals

### Data sharing requests

Data requests must follow a standard data-sharing process. ESD refers requestors to the data-sharing request form available from ESD's website https://esd.wa.gov/newsroom/data-sharing. Data sharing requests involve four steps. First, the requestor completes and submits an online request. Second, LMPA sends the requestor an email acknowledgement when it receives the request. Third, LMPA reviews the request to determine if it may legally provide the requested information. Fourth, if approved, LMPA sends the requestor a data-sharing contract to be reviewed, signed and returned within 30 days. Alternatively, if the request is denied, LMPA sends a denial email within 30 days.

### Data security

Data security is assured by the ESD IT shop. File transfer is conducted using the File Transfer Protocol, providing standards for any requestor receiving files. ESD requires the signing of a nondisclosure agreement – a requirement imposed by USDOL. A review is conducted before the data is released, ensuring that the data meets requirements such as minimum cell size standards.[16] The confidentiality provision also must meet the requirements of Washington state law regarding confidential personally identifiable information. Requestors must agree to destroy the data after use. ESD does not have an Institutional Review Board requirement (but ERDC does).

### Data sharing with state agencies

LMPA continues to conduct UI wage matching on request for a number of state agencies, especially for performance measurement purposes. LMPA does not charge for this data sharing. There is some exchange of data between agencies, so LMPA also may obtain some data from other agencies.

In general, LMPA does not charge for data sharing even with outside research firms. They have found charging not to be cost effective, because of the effort required to bill and collect for the data.

## *Program analysis*

Some of LMPA's analyses deal with how to better serve ESD customers in a changing environment. In these cases, they tend to conduct short-term analyses based on data about customers and the services they receive. Their analyses include assessing particular workforce services to determine if they work, examining services by geographic area and by cohort. LMPA has developed a user-

[16] This requirement is not in effect if ESD shares confidential data under a data-sharing agreement.

friendly performance dashboard that provides performance measures for each of the 12 Washington workforce areas. They widely distribute the dashboard monthly.

Some of the program analysis done by LMPA deals with specific issues such as:

- How ESD can increase market share of workers served by job search assistance relative to private providers. While targeting all workers -- whether high school graduates, college graduates or incarcerated individuals -- ESD wants to have the same functionality as private providers but at no cost to employers.
- Analysis of the impact of co-enrollment, e.g., between the Employment Services and WIOA.
- Analysis of all customers: ES, WIA, Vets, TAA, WorkFirst (SNAP and TANF).

## *Projections*

Annually, LMPA makes industry and occupation short-term and long-term projections. LMPA develops industry projections and then converts them to occupations based on BLS staffing patterns derived from occupation employment statistic (OES) surveys. The occupations-industry matrix displays the Washington State and workforce development areas' occupational compositions for each industry. The matrix is created for occupational projections and is based upon an occupational employment statistics (OES) survey.

## *Program evaluations*

LMPA conducts a wide variety of program studies for services provided by ESD. It conducts a much smaller number of rigorous program evaluations, some required by the state legislature. Below is a brief review of three major, recent evaluations of training benefits, self-employment assistance, and job search assistance programs.

*Net Impact Study of Annual Earnings for the Training Benefits Program 2002 through 2012 (*Aviles et al. 2015*)* analyzes the net impact and cost-benefit of the Training Benefits Program on the employment, earnings and unemployment benefits receipt of program participants. The Training Benefits (TB) Program provides extended UI benefits to qualifying UI claimants who are determined to need training to change occupations. The program provides income support while participating individuals are in training, but does not cover the direct costs of training. The benefits are paid out of the Washington state account in the Unemployment Trust Fund. This study uses a comparison group methodology to compare the earnings of UI claimants who participated in the Training Benefits Program to the earnings of claimants who were eligible for the program but chose not to participate. Data used in these reports came from three sources: 1) ESD's administrative records, 2) a survey of program participants conducted by ESD, and 3) training data from the State Board for Community and Technical Colleges.

*Self-Employment Assistance Program Net Impact Study* (Avilés et al. 2015) examines the effects of the Self-Employment Assistance Program (SEAP) training on participants' self-employment, wage and unemployment benefits. The study uses two statistical techniques – fixed effects regression models and survival models – to determine the effects of participation in SEAP. Data used for the report include business income, covered employment wages, unemployment benefits and demographic

characteristics of SEAP-eligible claimants from 2007 through 2012. The data sources are from ESD and the Department of Revenue (DOR). To determine the effect of SEAP participation on self-employment, the authors use a specified fixed effects model to determine the likelihood of reporting business income in any year after SEAP participation, and, the annual average of reported gross business income after SEAP participation. They also specify a fixed effects model to estimate the effects of SEAP on average annual wages and unemployment benefits received after SEAP training ends. (This net impact study was a legislative report, prepared in accordance with the Revised Code of Washington, section 50.20.250.)

*Assessment of the Effect of WorkSource JobSearch Services* (Stromsdorfer et al. 2013) evaluates job search services provided by the Washington WorkSource program during the study period beginning with the fourth-quarter of 2005 through the second-quarter of 2009. Job search services include job referrals that connect participants with prospective employers, as well as other services, including résumé writing assistance and job-interviewing techniques. The study used three databases: 1) the ESD UI wage file, 2) the UI benefits file, and 3) SKIES – the Service, Knowledge & Information Exchange System. The UI Benefits File was used to select the individuals analyzed. It also provided additional variables, including age, gender, race/ethnicity, education, and employer location. The study used a comparison group methodology comparing WorkSource participants who received job search services to a statistically matched group of participants who did not receive those services. The analysis estimated the social return on investment (ROI), analyzing the costs of the program to determine the social ROI. ESD estimated that the average cost of providing WorkSource Services during the period covered by the analysis was $340 per person. The evaluation found that assuming a service cost per individual of $500, social ROI was substantial -- 12 percent for men and 16 percent for women per year.

LMPA regularly conducts net impact studies, but it has a limited capacity to conduct these long-term, staff-intensive evaluations. LMPA staff believe that the research and evaluation requirements outlined in WIOA are unrealistic in the current environment, assuming states can conduct far more net impact studies than are possible.

### *Surveys*

LMPA used to conduct many surveys, but now only conducts one survey – an annual wage and employment agricultural survey. Because of the high cost and staffing intensity, LMPA has moved away from conducting surveys and instead mostly makes use of administrative data. These administrative data come from ESD, but research and evaluation is also highly dependent on data from ERDC, such as post-secondary education data.

While ESD has the technical capacity to conduct its own surveys, it has been relying on the University of Washington to conduct surveys because of a lack of resources. Using the university is a cost-effective alternative, according to LMPA staff, because the rates are reasonable.

### *Review of own projects*

LMPA conducts an extensive technical review of its own research and evaluation projects. There is peer review by other members of the LMPA staff with respect to methodology and results. Peer review is conducted by staff with statistical and coding knowledge. Sometimes the review includes

replication to verify the results. The results are also presented at conferences, including at the Pacific Northwest Regional Economic Conference, where they may also receive feedback and discussion.

### *Computer systems and software*

ESD has a centralized computer system that adequately serves the need to conduct research and evaluation. Although LMPA does not have really massive data sets that are being used by some researchers, it does have millions of records. LMPA does not feel constrained by its computer system.

Mostly, LMPA uses open source software that staff members develop themselves, making use of their own data. Staff members develop their own software for at least two reasons. First, for transparency. They don't use software such as SAS because they do not know what is running in the background. Using their own software better allows them to explain their results, rather than having the result seem to emerge from a black box. Second, software is costly, and the agency cannot afford some packages. Staff members find that their own software is efficient and speedy, especially making use of some econometric models. They also make use of data mining with open source software. (Despite a centralized state computer shop, ESD has its own IT Division that assists the LMPA analysts.)

### *Staffing*

LMPA believes it has a strong staff for conducting research and evaluation. Staff members have the capacity to conduct econometrics and statistical analyses, as well as to develop software and write computer code. Leadership hires individuals with the capacity to do that work, stressing skills not education. New hires also need to be able to review peers, have the motivation to learn, have project management skills, and have communication and writing skills because LMPA products need to serve two audiences – the state legislature and the technicians who will read technical reports.

LMPA has been able to hire new staff as needed, even though the private sector pays higher salaries than the state government. (LMPA has been trying to get higher pay for economic analysts but has not been successful.) A number of factors have helped them to hire and retain employees, including the work environment and unit leadership (singled out for high praise by staff during our visit), the perceived importance of the work, and the room for professional development (LMPA staff like challenging projects).

### *Program and budget environment*

Since the end of the Great Recession, the number of local WorkSource office customers has been declining as unemployment has declined. In addition, the agency is focused on ensuring high-quality public information is available to jobseekers as private sector job search services continue to proliferate.

In 2007, local offices had about twice the annual number of customers than they have now, declining from 300,000 to about 150,000 today. However, unemployment durations have been

longer for many workers, and long duration unemployed workers tend to come in to the local offices more frequently and need a great deal more assistance than other unemployed workers. Since 2010, there has been a decline in participation of approximately 18 percent per year.

Most of Washington's workforce funding is used for non-training purposes. As in most other states, a small portion of the Washington workforce funds are used for training. For example, in the Seattle-King County area, approximately 2 percent of workforce funds are devoted to training. This allocation is largely due to the lack of funding to pay for expensive training programs, relative to other services that tend to be much less expensive. It is also due to the judgment of local ESD staff that the "skills gap" is not real in Washington, and that workers' most important needs are assistance with job searches and job search skills.

Overall Washington workforce funding has been flat, and the LMPA division mostly gets its funding from the federal administrative funds provided for the major workforce programs. ESD management determines the level of LMPA funding, as they allocate federal administrative grant funds between LMPA and the UI, WIOA, and TAA programs. The main reason LMPA is funded by federal money is that federal funds are the main source – 86 percent – of total ESD funding.

LMPA has had some funding from the Workforce Data Quality Initiative grants from USDOL. The WDQI grants were based on applications by ESD and the awards come through ESD. The funds provided by USDOL for two rounds of Workforce Data Quality Initiative grants were shared between ESD and ERDC. The 2015 WDQI funds were shared about 50-50 (more information appears in the ERDC section below). LMPA has conducted a number of WDQI-funded studies, and LMPA staff are involved now in a number of WDQI-funded studies.

### *Champions of workforce research and evaluations*

The main reason for the great emphasis on data collection, performance measurement and research and evaluation is the culture throughout the state of Washington. The culture is and has been for a long time one of evidence-based policymaking. Governors, legislators, and ESD Commissioners have been strong supporters, encouraging and requiring increased effort.

Washington state governors have traditionally supported evidence-based policy development and called for strong performance measurement and research evaluation. That includes the current governor, Jay Inslee, and past governors, including Christine Gregoire, Gary Locke, and Mike Lowry, among others. Governors have tended to pay close attention to progress made regarding specific performance measures and the resulting performance outcomes. They have sometimes also wanted to review the results of research and evaluations.

The state legislature also places a heavy emphasis on performance measurement and research and evaluations. An example is the reporting requirements related to the UI Training Benefits Program (discussed above) that provides extra weeks of benefits for UI claimants participating in training. The legislature has required a descriptive report every year (now required every five years).

For a long time, the legislature made clear its expectation that it will be provided with accurate and timely data to make their decisions. When executive branch directors from all agencies appear before the legislature, they are expected to rely heavily on data in their presentations.

The ESD Commissioners have traditionally placed great stock in evidence-based policymaking and have expected a great deal of input from LMPA. For the first time, the current Commissioner, Dale Peinecke, has placed the director of LMPA, Cynthia Forland, on the ESD Leadership Council, and she reports directly to the Commissioner.

## *Relationship with Education Research Data Center (ERDC) and Workforce Training and Education Coordinating Board (WTECB)*

ESD collects and maintains data related to workforce programs, including UI, ES, and WIOA. For a long time, ESD has shared UI wage information with other state entities to develop performance measures. It continues to provide and receive data from its partner organizations that are involved in research and evaluation – ERDC and WTECB.

### Education Research Data Center

ESD was a founding member of ERDC, which was established by statute in 2007. ESD supplies data to ERDC. At first, ESD shared historical wage and hour data with ERDC. Now, ESD also shares UI benefits and workforce program data. Initially, historical data was delivered. Now, ESD provides ERDC with data each quarter.

With ERDC's expanded legislative authority, LMPA is subject to new rules about gaining access to non-workforce data. ERDC receives non-workforce data first from a number of state agencies, then LMPA can request these data from ERDC. LMPA depends more on ERDC these days because ERDC can match data using robust matching algorithms across the various data sources. However, LMPA holds its own workforce data and also uses it directly, without going through ERDC.

### Washington Training and Education Coordinating Board

WTECB is the state WIOA Workforce Investment Board. It is responsible for WIOA performance data analysis and, as a result, it is the Washington Performance Accountability and Customer Information Agency (PACIA) receiving aggregate wage record data from other states for performance purposes.[17] These data cannot be used for research purposes. WTEBC is now developing revised performance data measures that are consistent with WIOA. The new system is called the Washington Next Generation Performance Accountability System. The new measures will focus on customers: workers, employers, jobseekers and students. Previous performance measures focused on programs rather than people.

[17] Under the Workforce Innovation and Opportunity Act (WIOA), state wage record microdata can only be shared between state workforce agencies for reporting and performance purposes for USDOL programs. This exchange of data is governed by the Wage Record Interchange System (WRIS). Broader data sharing is permitted in aggregate format for the 45 states participating in WRIS2. This aggregate data can be shared with any Third-Party Entities, consisting of any public body, agency or private career school required by law to meet state and/or federal performance measures. Under WRIS2, aggregate data can be requested by state Performance Accountability and Customer Information Agencies (PACIA) from state organizations that hold UI data (State Unemployment Insurance Agencies (SUIA)).

WTECB obtains employment and earnings data for federal civilian and military personnel from the Federal Employee Data Exchange System (FEDES) for performance measurement purposes. Because only one agency per state can receive FEDES data, WTECB then shares that data with ESD. ESD, however, cannot use the FEDES data for research purposes.

Because interstate data is only available for UI benefit payment and performance measurement purposes, ESD does not have interstate data for research and evaluation purposes. Prior to the establishment of WRIS2, ESD was obtaining wage data from Idaho and Oregon. ESD is now trying to obtain interstate microdata from WRIS2.

### *Research plans*

LMPA has developed research plans to address a number of types of research. These plans include: projects required by state law; reports that are deliverables under the WDQI grants; and the development and enhancement of program performance dashboards. Many of the research projects are more descriptive and less likely to be net impact evaluations. While LMPA conducts net impact studies, resource limitations restrict the number that are conducted.

The state legislature regularly mandates research and evaluations, requiring them through annual budgets and program statutes. For example, ESD is currently conducting a study about incarcerated individuals that was required in a recent budget. ESD has two to three legislative requests for reports every year. Usually the state legislature provides no funding for these required studies. An exception that sometimes occurs is funding for first-time studies, e.g., the first of a series of green jobs studies to be delivered to the legislature.

Research plans have been developed to carry out the two Workforce Data Quality Initiative (WDQI) grants. Washington has received two grants from two of the five rounds of WDQI grants—the second and fifth.

### *Management's perception of research*

Making use of evidence-based policy making is part of the culture of ESD, as it is of the legislature and the Governor's office. While evidence-based policy making has been key to ESD for many years, it has been made more central under the current ESD Commissioner, Dale Peinecke. He has elevated the director of LMPA to be a member of the ESD executive leadership. As a result, he has made LMPA a part of almost all decision-making. The ESD emphasis has been on building up the abilities of LMPA, since ESD generally believes that contracting out research and evaluation does not work.

While ESD executive leadership looks closely at program data, program analysis, and program research and evaluation, ESD is acutely aware that other organizations are also examining workforce data. Among those who look at ESD data are:

- The AFL-CIO and Chamber of Commerce
- Governor's office staff
- Some legislators and legislative staff

ESD wants to be seen as "violently neutral" when it supplies data and data analysis. ESD wants to be trusted and to be able to stand behind any information it provides. One reason ESD has a good relationship with research customers is that customers trust what is given to them in the form of data and analysis. Sometimes research customers ask about assumptions behind analyses or estimates, and they may seek further analysis with changed assumptions. ESD management wants to know what works and what does not. They are willing to deal with unexpected or negative results.

One result of the trust that has been built between LMPA and research customers is that agency research has been centralized under LMPA, and there are not separate and conflicting sets when there is a request for data. Credibility is a key concern for ESD, and credibility is accomplished by having every response to a request for data taking the form of "here is the data, and here is our best estimate, with our assumptions." To protect this trust and serve the public interest, there is a refusal to push/inflate data.

ESD management wants to obtain as much research and analysis as possible within existing resources. That is one of the reasons why research is concentrated in LMPA within ESD. It also means that management takes care to develop research priorities. To prioritize the available labor resources, management focuses on the most important questions and is specific in requests made.

## Education Research and Data Center (ERDC)[18]

### *Introduction*

ERDC was established by the Washington legislature in 2007[19] under the Office of Financial Management with the aim of making education data available to the legislative budget and education committees for making decisions and informing policies, while also protecting the privacy of students. ERDC's legislative mandate has been expanded twice because state policymakers want more data and more analysis. At the same time, there have been a variety of new requirements and reports imposed on ERDC by statute and through budget mandates.

Concern about knowing the program performance of Washington state agencies also has resulted in requirements to develop and maintain new state performance dashboards using ERDC data. The concern about program performance has resulted in *Results Washington,* a dashboard that addresses five goals, one of which deals with workforce issues.

### *Budget and sustainability*

From its inception though the present, ERDC has received funding from the Washington state general fund. The original funding level was minimal, providing for only two and half staff members and no funding to create a data warehouse, but funding has increased over time.

[18] This chapter is largely based on material presented during an interview with ERDC staff, including Marc Baldwin, Melissa Beard, Tim Norris, and Jim Schmidt. It also makes extensive use of the ERDC website.
[19] See Washington statute RCW 43.41.400.

As directed by the Legislature, ERDC looked for additional funding in the form of federal grants. Washington was fortunate that both the U.S. Departments of Education and Labor were providing grant to states to develop educational and workforce longitudinal data systems. ERDC applied for and received a State Longitudinal Data Systems (SLDS) grant from the U.S. Department of Education, an American Recovery and Reinvestment Act[20] (ARRA) SLDS grant of $17.3 million. This grant was used to build a P-20W data governance structure, perform research and build the data warehouse. The SLDS grant allowed ERDC to build the infrastructure for ERDC. When the grant ended, the Legislature increased state funding to ERDC to continue and enhance the functions associated with identity resolution, loading new source data, and additional increased data availability.

ERDC also received funding from two U.S. Department of Labor Workforce Data Quality Initiative grants in 2011 and 2015 – the second and fifth rounds of WDQI grants – called WDQI 2 and WDQI 5. (Funding from the WDQI grants has been shared between ERDC and ESD, as noted above.) The funds have enabled ERDC to incorporate workforce data into its data system and to conduct research and evaluations using workforce data.

### Table IV-1. Federal Grants to Washington State from State Longitudinal Data Systems (SLDS) and Workforce Data Quality Initiative (WDQI) Grants (in $ millions)

| Grant | Grant Amount |
|---|---|
| SLDS 2009 | 5.9 |
| SLDS (ARRA) | 17.3 |
| WDQI 2 | 1.0 |
| WDQI 5 | 1.1 |

Source: Workforce Data Quality Campaign at http://www.workforcedqc.org/state-solutions/washington

ERDC applies for federal funding to support additional research and create additional on-line reports and dashboards. ERDC receives state funding for linking data, research, and loading the data warehouse.

## *Organization and staffing*

ERDC is a part of the Office of Financial Management (OFM). OFM is split into a number of divisions, each with an assistant director. ERDC is part of the Forecasting Division. While the Forecasting Division's staffing is at approximately 48 full-time equivalent (FTE) positions, ERDC has 9 FTE.

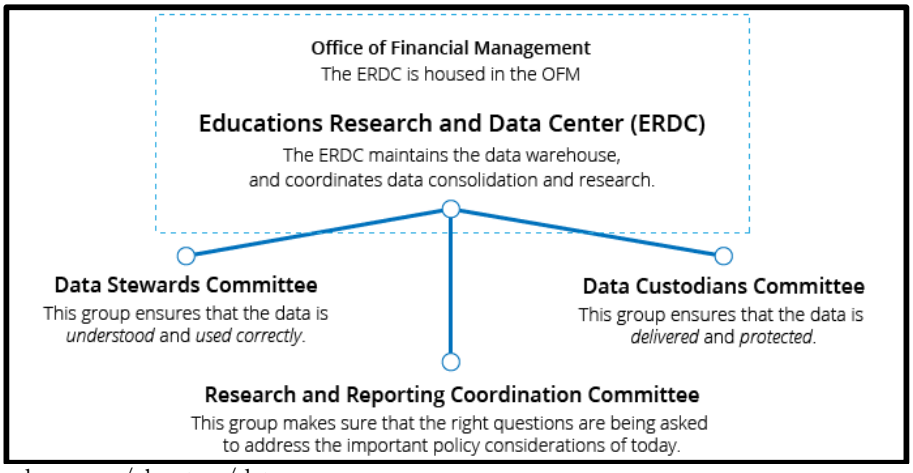
[20] The American Recovery and Reinvestment Act of 2009 was a fiscal stimulus program that was enacted in February 2009 at the beginning of the Obama Administration in response to the Great Recession.

Washington has a centralized information technology agency. (Formerly, OFM had its own IT staff, but they were transferred to the Washington central IT agency.) The central agency supports ERDC, but must respond to numerous entities' needs. Last year, five IT positions were dedicated to Forecasting and ERDC, and those positions are being supported through Washington state general funds. ERDC could use additional IT support, especially IT staff with skills to support their longitudinal administrative data systems.

### *Governance structure*[21]

ERDC operates through a data governance structure that includes all data contributors, representatives from local education agencies, and data users. By statute[22], ERDC performs a number of coordination and collaboration activities, working with three governance groups. (The State of Ohio has adopted much of this approach to the governance of its longitudinal administrative data set—see Part V.)

Figure IV-1. The ERDC Data Governance Structure




Source: http://erdc.wa.gov/about-us/data-governance.

#### Data Stewards Committee

This committee ensures that data is understood and used correctly. It includes staff and researchers from data contributors who are directly familiar with the data contributed by their agencies, as well as researchers at the ERDC. These data experts help to ensure that the data they contribute is understood both by the ERDC and by the researchers who request data from the ERDC. They also help to maintain consistent data definitions and make recommendations regarding who should collect the data needed to answer new questions. In the future, this committee may create policies and procedures related to data stewardship in a preschool through workforce (P-20W) data system.

[21] Much of this subsection is taken from: http://www.erdc.wa.gov/about-us/data-governance.
[22] See RCW 43.41.400.

Data Custodians Committee

This committee ensures that data is delivered and protected. It includes technical experts from both the contributing organizations and the ERDC. It is responsible for the technical delivery of data to and from the data warehouse. Technical experts from contributing agencies coordinate on how the data is exchanged between their agencies and the data warehouse, and how the data are stored and protected. In the future, this committee may create policies and procedures related to individual agency's data systems and how they interact with ERDC's longitudinal P-20W system.

Research and Reporting Coordinating Committee

This committee ensures that the right questions are being asked to address the important policy considerations of today. It includes staff from the ERDC as well as representatives of various agencies and stakeholder organizations. The representatives are either decision-makers within their organizations or individuals who interact with decision-makers on a regular basis. Based on their understanding of the policy questions and needs of their organizations, they make recommendations regarding ERDC's research focus and priorities, and coordinate with the other committees to make sure that ERDC has the data it needs to carry out those priorities. The people on this committee are also policy matter experts and comment on data requests coming into the ERDC. The majority of the work of this committee is providing advice to data requestors on their research questions and priorities. This committee also updates policies and procedures related to data sharing.

## *Champions*

The early champions of the ERDC were members of the state legislature, especially those who knew that they wanted access to data that was linked across the education and employment agencies and saw that the way to obtain longitudinal information was to create a data warehouse.

## *Data partners*

To obtain data, ERDC collaborates with a wide range of education, workforce, and related agencies and organizations. These data partners include the: Department of Early Learning, Office of Superintendent of Public Instruction, Washington Student Achievement Council, Council of Presidents (public four-year higher education institutions), State Board for Community and Technical Colleges, Workforce Training and Education Coordinating Board, Employment Security Department, and Legislation Evaluation and Accountability Program. ERDC has entered into a Memorandum of Understanding with all the education and workforce data contributors.

## *The data warehouse: The ERDC P20W longitudinal data system*

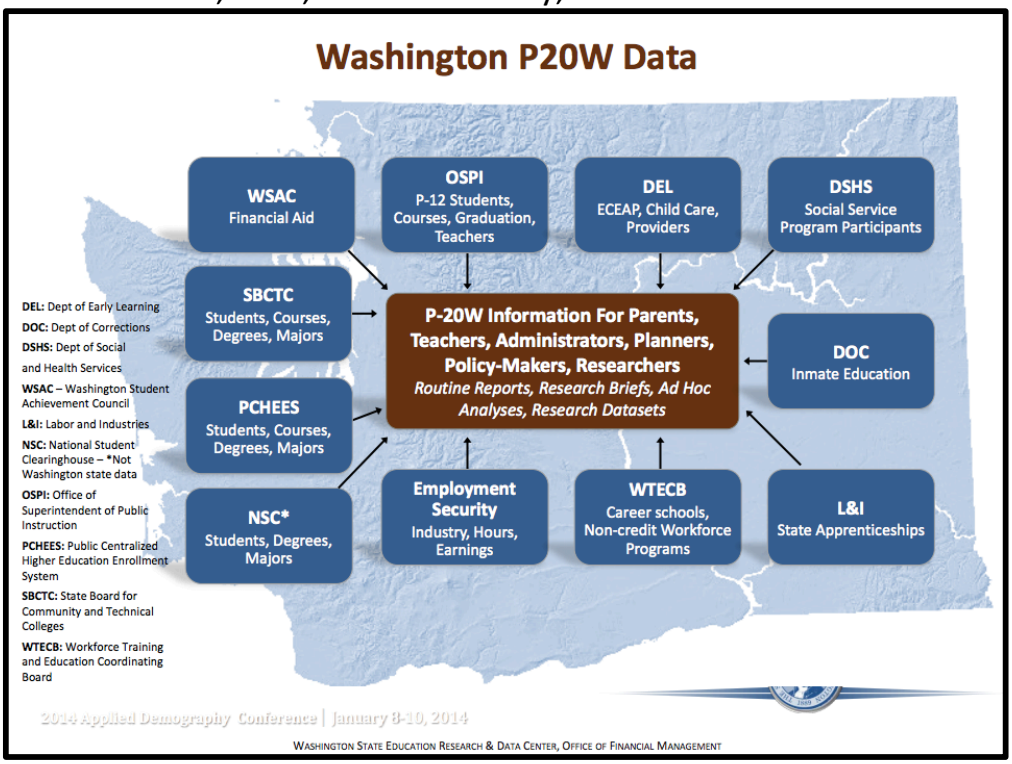
The ERDC builds and maintains a P20W longitudinal data system in partnership with data contributors throughout the state, including ESD. The data warehouse includes de-identified data about K-12 education, higher education, workforce development programs, workforce experience (e.g., employment and earnings), and the performance of state programs. In 2009, the legislature expanded ERDC's mission to include identifying critical research and policy questions and leading

P20W data governance. Federal grants from the Departments of Education and Labor have been critical to ERDC's work, and ERDC continues to seek grants to fund operations and services.

The scope of ERDC data is wide and has been growing. ERDC started creating an education data base but the types and amounts of data collected, and the number of participating agencies that supply data, has been increasing. The fact that the data system is called "P20W" reflects that the data collected involves all of an individual's education and work life history – from pre-school through work up until retirement.

With respect to workforce data, the ERDC website states that under federal grants, one target is to "[e]xpand ERDC's data to include workforce programs, meaning that ERDC could track workforce program participants to school and back to the workforce."

Figure IV-2. Washington Data System under ERDC: Pre-K, K-12, Post-Secondary, and Workforce Data

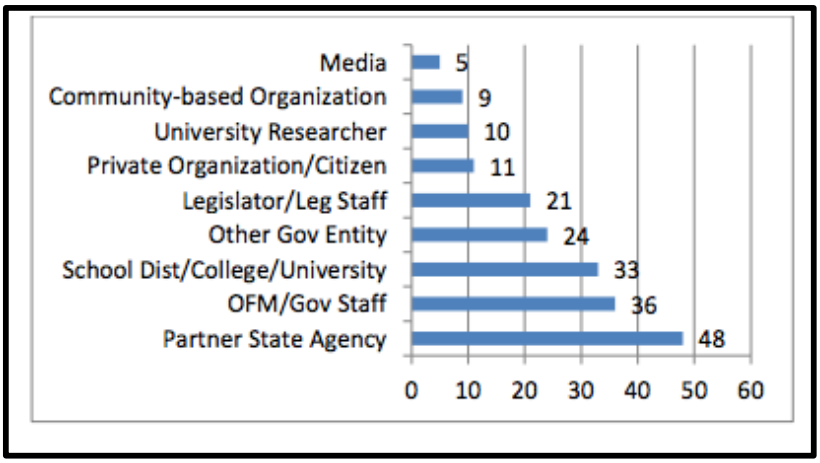



Source: http://demographics.texas.gov/Resources/Presentations/ADC/2014/ADC2014_2D_Hough.pdf

## *Data requests and data sharing*

ERDC shares it data with a wide range of customers. Figure IV-3 below shows that by far the most numerous source of requests is from state government agencies and educational institutions. A much smaller number of requests come from private organizations/citizens, university researchers, community-based organizations and the media. The small number of requests which come from private organizations/citizens, community-based organizations, and the media is likely due to the fact that ERDC maintains a comprehensive research data system, and these organizations are more likely to request more limited data directly from the operating agencies.

Figure IV-3. ERDC Data Requests by Customer 2013-2014




Source:http://www.nascio.org/portals/0/awards/nominations2014/2014/20140602WA_NASCIO_Award_Nomination.pdf

## *ERDC as a research data base*

The ERDC research database is not transactional or a real-time database. ERDC allows research on a wide range of education and workforce topics. The goal is to link ERDC to a wide variety of other programs, including, for example, Temporary Assistance for Needy Families (TANF) and Supplemental Nutritional Assistance Program (SNAP). Through external matching for specific projects, the interrelationship between education, work and government programs can be studied. ERDC is still at the stage of building capacity to allow future researchers to answer more questions to which Washington policy makers want answers.

## *Development of ERDC*

ERDC is a work in progress with respect to technology issues. As it accumulates more data, it will have to be concerned about the need for additional computing resources. ERDC has to determine where to store data, whether on Washington state computers or in the cloud. ERDC, thus, must deal with a variety of security and privacy issues. The Office of Financial Management pays for ERDC computer services on the Washington central computer system.

ERDC has developed through a number of phases. When it began in 2007, it had limited resources and had a long way to go before it could create a research data warehouse. ERDC then needed to show what it could do that would be of use to the contributing agencies. Proving itself was necessary because of the nature of Washington state government: the Governor has limited power over the education agencies and cannot just issue executive orders because they are not all part of the cabinet. State agencies with separately-elected officials have a great deal of independence.

As a result, ERDC first addressed governance and research issues, before completing work creating a data warehouse. This meant an early emphasis on developing relationships, especially with the state education agencies, because ERDC needed their cooperation.

The ERDC statute names state agency partners that must participate, i.e., contribute their data. ERDC spent a year developing the governance structure and convincing the contributing agencies that ERDC would be of value to them. ERDC had to understand the agency data and how to use it. Next, staff members began to conduct research, and then, finally, they developed the data warehouse. Engaging the agencies and obtaining their buy in, including a variety of educational institutions and the Employment Security Department, were key to its success.

The reason for the location of ERDC in the Office of Financial Management is that the legislature wanted to create an entity that could focus on transitions between the education sectors.

The ERDC has become involved in the creation of state performance dashboards that are helpful to the state agencies, and this has made it easier for agencies to manage their programs. These efforts were designed to gain further buy-in for the ERDC. The emphasis of the ERDC has been to achieve a balance--obtaining data from contributing agencies but also providing data back to them. Among the agency questions ERDC has been able to answer are: 'How many of our participants in various programs are high school graduates?'; or 'What happens to graduates 16 months after graduation?'

## *Data collection and data access*

### Collection

ERDC regularly collects data from the participating agencies. Each contributing agency decides how frequently to contribute data. The primary and secondary education agencies usually contribute data twice a year. Colleges and ESD generally provide data quarterly. Workforce data from ESD is critical, and employment and wage data from the UI program are key to tracking outcomes.

Gaining access to interstate data is a problem, and ERDC is working on a multistate data exchange project with other western states. Washington is trying to create a process for exchanging data with neighboring states and Hawaii.

### Access

ERDC provides access to participating state agencies' linked education and employment data. Thus, ERDC merges agency data and gives back agency data as de-identified data sets. ERDC also often develops reports for local education agencies. For ESD, other participating state agencies and other research agencies, ERDC provides de-identified data sets for research efforts.

Reports provided by ERDC are varied. For example, a "high school feedback report" provides one-year follow up on what happens to high school students after leaving high school. The ERDC data also allows for multiple years of follow up and data regarding whether high school graduates go to college, choice of college majors, and college graduations.

Key to success is that ERDC can link data from contributing agencies. It also helps that the data and ERDC research are provided to the agencies at no charge. ERDC also has conducted some research for nonprofit organizations at no charge.

ERDC works to educate partners about the data and to explain what it means. ERDC also tries to make transmission of data to the state agencies more automatic by developing agency-specific performance dashboards and other tools. However, the agencies tend to come back with more and varied requests.

### Requests for Data

ERDC makes data available for non-government use to applicants. Outside access to data is often restricted, particularly data from the education agencies, in line with applicable statutes and to maintain confidentiality. When data access is permitted, ERDC makes available a de-identified research data set.

ERDC has an open data policy for legitimate data requests. Each request, even from state agencies, must go through an Institutional Review Board (IRB) process, in order to ensure the integrity of the data use. ERDC belongs to the Washington state IRB that is run by a state agency. ERDC tries to make data as widely available as possible but it must assure data confidentiality and the time-consuming data sharing process can cause resource problems for ERDC.

In recent years, there has been an exponential increase in data requests. For example, economists want different kinds of data so that they can run regressions. For many external requests for data, researchers request a great deal of data. ERDC requires submission of a research plan that justifies the data elements that are requested; ERDC will not provide a 'data dump.' All bona fide researchers can request data. Graduate students can be approved for data access, but must meet security requirements, and they must have the support of faculty advisors.

### Review of Research

Research products using data from ERDC are reviewed by ERDC and the agencies that contributed data, which has ten days to provide comments and feedback before products are released. State agencies and other researchers have a great deal of independence in conducting research and releasing the results. However, if ERDC provides comments on the research results, agency researchers generally take the advice given to them. ERDC does not review agency research with respect to policy issues and findings, only for technical issues.

## *Research and evaluation*

Most of ERDC's research and evaluations focus on education programs. Staff members have been conducting a number of WDQI-funded research and evaluation projects that examine employment outcomes for education programs. To conduct these analyses, ERDC has been developing methods that involve comparison groups for net impact evaluations. These studies have been expanding to a

wide variety of education institutions, including community colleges, K-12, and colleges and universities. A key issue is examining post-secondary education outcomes regarding earnings by type of degree.

ERDC is generally very interested in employment outcomes, and has also been conducting workforce studies with WDQI funding. While there is widespread understanding that changes in employment and earnings are key outcomes of workforce and other government programs, there is also heightened interest in employment issues because a number of ERDC staff members (including Marc Baldwin, Tim Norris, and Greg Weeks) formerly worked at ESD.

Here are two recent examples of ERDC publications:

*Earnings Premium Estimates by Gender and Race Category for STEM Bachelor's Degrees in Washington State* (Paterson and Weeks 2015). This report is the third in a series that provides information on the economic returns to postsecondary education in Washington State using data from ERDC. The U.S. Department of Labor has funded state Workforce Data Quality Initiative grants to promote the inclusion of unemployment insurance earnings and employment data. This educational study was funded by the Washington state WDQI grant. The study demonstrates the value of connecting micro-level education data with micro-level workforce data.

*Post-secondary Education Assessment in Washington State: Earnings Premium Estimates for Associate Degrees* (Paterson and Weeks 2015). This report is the second in a series that provides information on the economic returns to postsecondary education in Washington. It specifically examines the net earnings impacts of attaining a terminal associate degrees from a public community college in Washington. The terminal associate degree earners are compared to students who complete their high school diploma from a Washington public high school, but do not participate in any postsecondary education.

## *Institutionalizing the ERDC*

There are a number of factors that underlie the institutionalization of the ERDC. The key factor is that ERDC is embedded in state law. The legislative mandate for ERDC's continued existence, however, depends on legislators and legislative staff remaining satisfied with ERDC's service and products. There is a steady flow of requests to which ERDC responds, and ERDC responds quickly to the requests. Another key to keeping legislators satisfied is to be objective in its work--ERDC is expected to remain politically neutral. In a state that wants evidence based policymaking, it is critical that ERDC be considered beyond reproach. ERDC also sustains its relationships with the state legislature by meeting with new members and staff.

Beyond building support from the legislature, ERDC also needs the support of influential partner agencies. ERDC also requires dedicated IT staff. The fact that it was able to obtain funding for IT staff last year is a positive step, but future funding will be necessary to serve additional customers and create more products.

ERDC will ultimately be judged by the quality of its data and research products. For example, the legislature is keen to have robust dashboards displaying program outcomes, and the outcome measures must be consistent to provide confidence in the numbers.

### *Future of ERDC*

A key future concern is to find new supplemental funding. The SLDS and WDQI grants have been critical to establishing ERDC. ERDC now hopes to obtain new federal grants to do new work. If not, ERDC will maintain operations with current state funding.

The strength of the ERDC is its staff. There is great demand on the staff to provide more data and research, especially to provide research and analysis to contributing agencies. Resource levels will have to increase if it is to meet growing demand. Currently, ERDC has limited resources, and the list of potential issues to study are many. ERDC is collecting a list of priority issues to be explored with new research. When it receives new grants, it will pursue these issues.

As noted in the prior section, ERDC must be as responsive as policy as these new policy issues arise. A major current issue is improving early childhood learning. ERDC is supporting this effort by providing research and analysis. Other new demands are related to statewide initiatives, such as the K-12 initiative associated with the "Every Student Succeeds Act." There is more demand to analyze the success of efforts to help the homeless and ex-service members, to examine different cohorts and demographics, and to examine the relationship between programs and populations served across various agencies (for example, the relationship between cash or food assistance programs and other programs).

ERDC's scope will grow as new state agencies contribute data. The juvenile justice agency has been the latest to become a participating member of the ERDC.

ERDC's work flow and budget will have to remain balanced between developing "wholesale" products, such as dashboards that are maintained and used over time, and "retail" products such as one-time research and evaluation projects. It must manage its finite staff capacity and other resources to ensure it can deliver important retail products to its customers.

## Workforce Training and Education Coordinating Board (WTECB)[23]

### *Overview*

The Workforce Training and Education Coordinating Board (WTECB) is Washington's state workforce investment board (WIB), but its role goes far beyond the traditional WIB functions outlined in federal law. Because WTECB's purpose includes the traditional functions of a state workforce investment board, and additional functions, it has been grandfathered in as the state WIB under both the Workforce Investment Act and the Workforce Innovation and Opportunity Act. It has operated since 1991, when the legislature sought to establish a more accountable workforce system by eliminating four state boards that supervised the state's tangled training system, replacing them with the WTECB, and creating a coordinated performance measurement system.

[23] This chapter is largely based on interviews with WTECB staff on December 6, 2016, with Eleni Papadakis, Dave Pavelchek, Dave Wallace, and Jeff Zahir. It also makes extensive use of the WTECB website.

The WTECB has three broad responsibilities. It advises the Governor and legislature on workforce development policy; ensures that the state's workforce programs and organizations work together, and evaluates the performance of Washington's key workforce programs. The law creating the WTECB states that the purpose of the board is to provide planning, coordination, evaluation, monitoring, and policy analysis for the state's training system as a whole.

More specifically, the WTECB operates to carry out the state's strategic plan, *Talent and Prosperity for All*, which describes opportunities and challenges to achieve a highly skilled workforce that meets the needs of business and industry. The board also develops performance reports that are used to enforce strict accountability measures that go beyond federal requirements, attempting to ensure that Washington State's education and training programs: 1) receive an objective evaluation, 2) meet Washington's high performance goals, and 3) offer a return on investment for taxpayers. Thus, in this regard, the WTECB performs a dual role: it works to improve the program performance of Washington's workforce and education programs and it conducts research and evaluation.

Under the WTECB enabling legislation, the "training system" is defined very broadly to include a range of state and federal training programs and other education programs as well:

> "Training system" means programs and courses of secondary vocational education, technical college programs and courses, community college vocational programs and courses, private career school and college programs and courses, employer-sponsored training, adult basic education programs and courses, programs and courses funded by the federal workforce investment act, programs and courses funded by the federal vocational act, programs and courses funded under the federal adult education act, publicly funded programs and courses for adult literacy education, and apprenticeships, and programs and courses offered by private and public nonprofit organizations that are representative of communities or significant segments of communities and provide job training or adult literacy services.

WTECB is a partnership of nine Governor-appointed voting members from business, labor, and government. Non-voting members also participate. The agency's executive director, currently Eleni Papadakis, is the chief executive officer of the Board. Her responsibilities are to carry out the Board's legislative mandate, manage the Board's personnel, and utilize staff of existing operating agencies "to the fullest extent possible." Dave Pavelchek is the Deputy Director; he has an extensive background in performance measures and workforce training results.

While the WTECB currently has 26 employees (according to the Board's website staff list accessed 12/15/2016), each specializing in a specific subject area, plus one information technology staffer. The research arm of the Board has four staff members total: three Research Investigators and one Research Director (Dave Wallace).

## *History of performance measurement and performance reporting*[24]

Washington has taken a leadership role in the development, application and use of performance measures for education and training programs. The scope of performance information collected and analyzed by WTECB is very broad and includes federal and state-funded programs. Program managers are expected to develop process measures that are correlated with subsequent outcomes, but are available sooner than post-program participant outcomes that typically take between one and two years to occur, be reported and then analyzed. Ideally, analyzing both outcome and process measures enables better understanding of what drives outcomes.

By 1997, WTECB had built a system of core outcome measure performance reporting applied consistently across the training system, and it continues to operate this system independently of ERDC. The performance reporting system is an operational system for Title I management purposes, and thus Title I measures are collected quarterly (the ERDC collects data annually and uses the data for more research purposes).

Other state innovations include standards for the Eligible Training Providers List, CareerBridge.wa.gov, which provides post-secondary education performance results to the public, and Results Washington, a public-facing dashboard that monitors progress toward five "goal areas" of the Governor, one of which focuses on education.

### Integrated Performance Information (IPI) Measure: Standards for Eligible Training Providers

Starting in 2003, the WTECB's then deputy director, Bryan Wilson, was heavily involved in national efforts to bring interested states together to develop model measures for participant performance outcomes that could be applied across a wide range of programs. The resulting model measures were very similar to the ones adopted by WTECB in 1996, and are known as the Integrated Performance Information (IPI) measures.

The passage of the Workforce Investment Act (WIA) in 1998 was a major step toward service coordination and integration of federal programs. WIA revised the measures that had been used under the Job Training Partnership Act, and also included some additional direction to states in the area of performance measurement.

Under WIA, WTECB created and maintains Washington State's performance-based Eligible Training Provider List. Provider programs are required to meet certain completion, employment and earnings thresholds to be listed and remain on the list, and thus eligible for federal Title I training dollars. Training providers have been able to achieve eligibility in either of two ways: by meeting either unadjusted standards or alternative adjusted standards. The alternative adjusted standards, developed using a regression model, take into consideration participant demographics and the economic conditions of the locality in which the training provider operates. WTECB developed

[24] Much of this section is adapted from: WTECB (no date), "Performance Accountability: An Overview of Washington's Workforce Development Accountability System — from the Creation of the State's Workforce Board to WIOA Implementation."

Washington's regression model for the alternative standards, making it easier to compare performance across service providers who serve different populations that also face different labor market conditions.

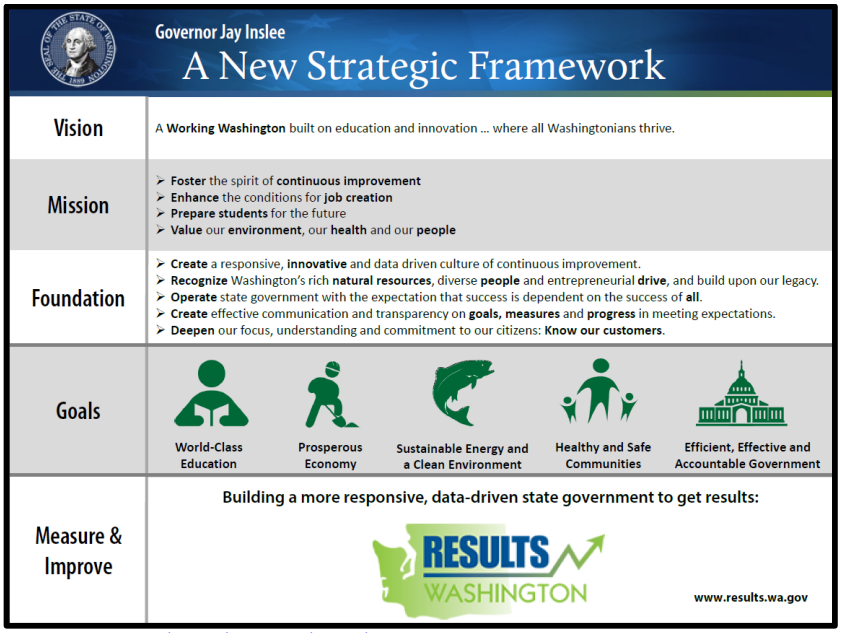
## Career Bridge Web Site and Results Washington

In 2009, WTECB launched CareerBridge.wa.gov, a comprehensive, publicly-available website that provides performance results directly to the general public. Not only could job counselors see whether an education program led to living-wage jobs, but so could jobseekers, students, and anyone else interested in the return on investment for thousands of Washington education programs. In 2010, Career Bridge won a national award from the Council of State Governments for providing this detailed "consumer report card" to Washington residents.

CareerBridge.wa.gov features over 6,500 education programs, primarily certificates and two-year associate's degrees, but including some four-year degrees and a few master's level programs. The site also features registered apprenticeships. Currently, performance results are limited to the roughly 2,300 programs that provide student records to the WTECB for inclusion on the state's Eligible Training Provider List. The Career Bridge site includes programs that are not on the state's ETPL in order to provide the public with a more comprehensive overview of available education and training programs in Washington. In 2016, the site recorded over 6.8 million page views.

Some Career Bridge information is fed into a broader performance dashboard called Results Washington, which can be found at http://www.results.wa.gov/. The Dashboard includes a 'World Class Education' section that shows measures of access and success at three levels: early learning, K-12, and post-secondary.

### Figure IV-4. Results Washington Strategic Framework




Source: http://www.results.wa.gov/sites/default/files/NewStrategicFramework_1.pdf

## *Setting performance standards under WIA/WIOA*

Under WIA, Washington used regression models to develop standards for both WIB and service provider performance, and used them during negotiations with the USDOL regional office on WIA Title I annual state performance. Washington State has had an interest in understanding how the economy and demographics impact projected performance results, and has evaluated whether additional factors impact performance outcomes, such as education.

Since 2014, when WIOA was enacted, WTECB has had a major role in developing and implementing the state's WIOA plan and performance measures, having been designated the lead WIOA planning agency by the Governor. WTECB finds that WIOA, the first federal reform of the workforce system in 15 years, promises a better-integrated, more coordinated system.

WTECB is trying to decide the appropriate level of effort to devote to statistical approaches to targets and alternative measures under WIOA—it is not clear whether alternative, regression-adjusted standards will provide insights and help with negotiations with USDOL. Regression adjustment for WIOA will be difficult to carry out until there is a significant amount of real experience with outcomes for participants in multi-agency integrated service delivery. Washington is currently piloting Title I and Title III co-enrollment and will not have historical information by which to develop adjusted standards for at least a year, so there will be more uncertainty ahead when negotiating with USDOL. The most recent 'actuals' will provide the best available information for setting standards, but service delivery is expected to be continually changing over the next few years.

WTECB staff members find that the enactment of WIOA has created challenges. WIOA itself requires numerous performance reporting changes that the staff must complete in order to be able to calculate the WIOA measures. In addition, the Board and Governor have directed the staff to go beyond WIOA in terms of the span of performance measures and the approach to target populations. As a result, WTECB now plans to measure performance across a wider variety of programs than either the WIOA core or the scope of the previously state-defined "workforce training system". They are also being asked to analyze problem areas for performance. One key issue is the need to collect more information on participants with disabilities, minorities, and other groups, and to analyze the issue of unequal access to services.

## *Evaluations*

### Periodic program outcome evaluations

The WTECB is responsible for ensuring that common data elements are collected for programs that operate portions of the "state training system," and that operating agencies conduct biennial evaluations. Specifically, WTECB must:

- Develop requirements for minimum common core data in consultation with the Office of Financial Management and the operating agencies of the training system.

- Establish minimum standards for program evaluation for the operating agencies of the state training system, including, but not limited to, the use of common survey instruments and procedures for measuring perceptions of program participants and employers of program participants, and monitor such [operating agency] program evaluation.

Then, these data elements must be used to regularly assess program outcomes including "scientifically based outcome evaluations of the state training system, including, but not limited to, surveys of program participants, surveys of employers of program participants, and matches with Employment Security Department payroll and wage files."

The first of these biennial program evaluations was completed in 1996. Some of the components of these evaluations are now updated annually.

## Rigorous program evaluations

WTECB has a legislative mandate to rigorously evaluate a wide variety of federal- and state-funded training programs ever five years. Specifically, it must "[e]very five years administer scientifically based net-impact and cost-benefit evaluations of the state training system." WTECB, rather than the operating agencies, is responsible for conducting these evaluations. Because of the wide scope of the WTECB mandate, these rigorous evaluations cover many state and federal training programs.

The last several of these evaluations have been conducted under contract by the W.E. Upjohn Institute for Employment Research. The latest study (Hollenbeck and Huang 2016) estimated the net impacts and private and social benefits and costs of 12 state and federal workforce development programs administered in Washington State. Six of the programs serve job-ready adults:

- Workforce Investment Act (WIA) Title I-B Adult programs;
- WIA Title I-B Dislocated Worker programs;
- Community and Technical College Workforce Education;
- Community and Technical College Worker Retraining;
- Private Career Schools;
- Aerospace Training, and;
- Apprenticeships

Three of the programs serve adults with employment barriers: Community and Technical College Basic Education for Adults (BEdA), Community and Technical College Integrated Basic Education Skills Training (I-BEST), and Division of Vocational Rehabilitation programs. The other two programs serve youth: WIA Youth programs and Secondary Career and Technical Education.

Hollenbeck and Huang (2016) found that the benefit-cost analyses for all of the programs have discounted future benefits that greatly exceed the costs for participants in both the first 10 quarters following program exit and over the workers' average lifetime. However, for the public, only four of 11 programs have benefits that exceed costs in the first 10 quarters, whereas the public ultimately receives a positive return for 9 of the 11 over the average participant's working lifetime.

The 2016 study was the latest of several studies of training programs conducted for WTECB by the Upjohn Institute With the retirement of lead-researcher Kevin Hollenbeck of the Upjohn Institute in December 2016, WTECB staff are considering doing more of the work in-house in the next iteration of that evaluation.

### Other research and evaluations

WTECB conducts other research.[25] Staff want to increase overall in-house research efforts. In any case, major surveys will continue to be contracted out, because the agency's in-house capacity is concentrated on analysis and reporting.

## *WTECB funding*

WTECB receives a portion of WIOA Title I funding, a portion of Perkins funding, and some state general funding. Funding has not been increasing. The agency's annual Perkins funding has been flat for two decades, while Title I money has ebbed and flowed with availability and workload. State general fund money sometimes increases, but other than some inflation adjustments, only with earmarks that require new work products.

## *WTECB and its relationship to ERDC and other state agencies*

The relationship between WTECB and ERDC is evolving. Staff report that WTECB and ERDC collaborate more today than in the past, and have a good working relationship and new MOUs.

Responsibilities are largely complementary since WTECB focuses on workforce training and education, including mid-career/incumbent worker training, and quarterly performance measurement, and ERDC focuses on research data sets for K-12 and higher education initial preparation of workers. Some of the workforce programs covered by WTECB are not included in the ERDC data, while some of the education programs covered by ERDC are outside of WTECB's scope.

WTECB had hoped ERDC would be a data warehouse for participant data needed by the Board. In that case, ERDC would collect, unduplicate, match and store the data, and the Board would do the analysis. However so far, the scope and focus of the two organizations do not overlap sufficiently for that to be the case. ERDC does not currently house all the data needed by WTECB, nor operate on a schedule that would support federal reporting requirements. WTECB does not expect that this situation will change substantially in the near future given the heavy demand for ERDC products from the data it currently has available.

ERDC has done some one-time studies regarding the programs for which WTECB is responsible, but they are not conducted regularly. By contrast, WTECB must examine program performance on a regular basis and serve as a source of frequent analysis of program outcomes.

[25] See http://www.wtb.wa.gov/Pubs_Publications.asp

ERDC has been helpful to increasing the data analysis capacity of WTECB. ERDC coordinated distribution of federal SLDS funds which included support for WTECB establishment of a dedicated SQL server for storing participant records and conducting studies and simulations.

Additional issues arise that add to the WTECB workload, often through legislative mandates. For example, the state legislation has required the Workforce Board to study 'green jobs,' the health care personnel shortage, and the Opportunity Internship Program.

WTECB has a close working relationship with state operating agencies, like ESD, and the operating agencies hold a significant number of the seats on the Board. WTECB does not conduct many joint research or analysis projects—but relies on its own analytic staff in most cases. Nonetheless, staff members work closely with researchers at ESD and other organizations. When WTECB staff conduct analysis with operating agencies' data, they routinely confer with the agencies on the use of the data, the analytic approach and the interpretation of results.

WTECB has protocols for data sharing, and has been using UI wage records and educational enrollment data for over 20 years. WTECB staff have extensive experience using UI wage records, and have consistent protocols for aligning UI data with post-program enrollment data, for example.

## Summary

Washington State has a robust system of data collection, research and evaluation. It is due to a combination of factors including:

- A statewide commitment to evidence-base policy making with support in state statutes
- Skilled research, data systems and IT staff
- Funding provided by the state and by grants provided by the federal Departments of Education and Labor
- A long history of developing data systems and conducting research and evaluation
- Recognition of the value of data and data analysis by the Governor, state agencies and the state legislature

Washington has three agencies – the Employment Security Department, the Education Research and Data Center, and the Workforce Training and Education Coordinating Board – dedicated to workforce research and evaluation. These agencies complement each other, and each agency increases the capacity of the state to conduct research and evaluation. Washington is well positioned to continue to develop and utilize their longitudinal data systems and conduct research and evaluation. The one question mark for the future is how to replace or expand the funding that federal education and workforce grants have provided for the most recent wave of system expansion and improvement.

## Washington Research Organizations and Individuals Interviewed

**Employment Security Department**
Gustavo Aviles: Manager of Program Evaluation, Research and Analysis
Cynthia Forland: Director, Labor Market Performance and Analysis
Cindy Fulton: Management Analyst
Neil Gorrell: Director of Employment System Policy and UI
Jeff Robinson: Manager of UI Research and Forecasting
Ernst Stromsdorfer: Retired
Nick Streuli: Legislative and Executive Operations Director
Scott Wheeler: System Performance Manager

**Education Research and Data Center**
Marc Baldwin: Assistant Director, Forecasting Division, Office of Financial Management
Melissa Beard: Data Governance Coordinator
Tim Norris: Senior Forecast Analyst
Jim Schmidt: Director, Senior Forecast Coordinator
Greg Weeks: Education Research Analyst

**Washington Training and Education Coordinating Board**
Eleni Papadakis: Executive Director
Dave Pavelchek: Deputy Director
Dave Wallace: Research Unit Manager
Jeff Zahir: Labor Economist

# Part V—State of Ohio Research Capacity: A Case Study

## Table of Contents



## Reference information

### *Abbreviations*

| | |
|---|---|
| ADARE | Administrative Data Research and Evaluation project |
| CHRR | Center for Human Resource Research (OSU) |
| DMHAS | Department of Mental Health and Addiction Services |
| GOWT or OWT | Governor's Office of Workforce Transformation |
| NDNH | National Directory of New Hires |
| NLS | National Longitudinal Survey |

| | |
|---|---|
| O*NET | Occupational Information Network |
| ODE | Ohio Department of Education |
| ODHE | Ohio Department of Higher Education |
| ODJFS or JFS | Ohio Department of Job and Family Services |
| OERC | Ohio Education Research Center (OSU) |
| OHFA | Ohio Housing Finance Agency |
| OLDA | Ohio Longitudinal Data Archive |
| OOD | Opportunities for Ohioans with Disabilities |
| OSU | The Ohio State University |
| SWEAP | State Workforce Education Alignment Project |

*Web Links*

| | |
|---|---|
| http://www.chrr.osu.edu/ | Center for Human Resource Research |
| https://chrr.osu.edu/projects/ohio-longitudinal-data-archive | Ohio Longitudinal Data Archive |
| https://jfs.ohio.gov/ | Ohio Department of Job and Family Services |
| http://ohioanalytics.gov/index.stm | Ohio Analytics |
| http://www.workforcedqc.org/state-solutions/ohio | Workforce Data Quality Campaign—Ohio Summary |

## Introduction

The state of Ohio has substantial capacity to conduct workforce development research, evaluations and analysis using longitudinal administrative data. While the state has a long history of allowing the use of administrative data for research and analysis, the capacity for a cross-agency longitudinal data set was built beginning in 2003 and much enhanced beginning in 2010, when Ohio received a Workforce Data Quality Initiative grant from the U.S. Department of Labor (USDOL). The grant funded the establishment of the infrastructure for what is known as the Ohio Longitudinal Data Archive (OLDA) located at the Ohio State University (OSU).

In conjunction with the establishment of OLDA, the State of Ohio and Ohio State University have developed procedures such that OLDA can be used for a wide variety of purposes by Ohio state agencies, OSU researchers, other Ohio university researchers, and a wide variety of outside researchers. As exhaustion of federal funding approached in early 2016, Ohio began developing a new governance structure to manage the research and data effort.

This paper reviews the development, content, operation, and governance of OLDA and the use of OLDA data by a wide variety of users for research, evaluation, and analysis purposes. Among those purposes is 'performance measurement;' however, in the case of OLDA, the focus of performance

measurement is not compliance with federal performance accountability requirements. Rather, the focus is on developing data for decision-making[26].

We start with the history of longitudinal administrative data before OLDA.

## Early history of the development of Ohio longitudinal administrative data

### *Ohio workforce program administrative data before 2000*

Since a change in state law in the 1980s, Ohio laws and policy have allowed the use of program administrative data for more than reporting and performance accountability purposes. Thus, even before the creation of OLDA, there was a long history of using unemployment insurance (UI) and other workforce development administrative data for research, evaluation, and analysis. Ohio's workforce development agency, the Ohio Department of Job and Family Services (JFS), executed numerous data sharing agreements for performance measurement, economic development, program research and evaluation, and other purposes permitted under Ohio state law. JFS also received many requests for access to its data.

### *ADARE lays a foundation for OLDA[27]*

Ohio began developing a workforce program longitudinal data base when it joined a consortium of states participating in the USDOL-funded Administrative Data Research and Evaluation (ADARE) project in 2003. ADARE was a federal research and evaluation project that coordinated individual state efforts, conducting studies that were of use to both the individual states and to USDOL. Partners of the ADARE consortium included Florida, Georgia, Illinois, Maryland, Ohio, Texas, and Washington.

The ADARE consortium had already been established when discussions about Ohio's participation began in mid-2003. The ADARE project director, David Stevens of the University of Baltimore, approached JFS and OSU's Center for Human Resources Research (CHRR). A data sharing agreement was developed between JFS and CHRR for the creation of a longitudinal administrative data system. The agreement was facilitated by the long history of JFS and its predecessor agency's sharing of wage record, ES-202 and other confidential data, facilitated by the change in state law in the 1980s. Under the previous arrangements, the data sets, developed for specific uses, would have to be destroyed after each use. What was new about the ADARE initiative was that it would permit Ohio to create a permanent longitudinal data archive that could be used for a wide range of purposes.

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[26] For example, current objectives related to 'performance measurement' have been to (1) align data across workforce programs to compare outcomes, (2) develop tools that aid program operations, (3) promote transparency through public-facing information on programs and their outcomes, and (4) inform strategic planning and policy.

[27] Stevens, David. 2004. "Responsible Use of Administrative Data Records for Performance Accountability: Features of Successful Partnerships." Baltimore, MD: University of Baltimore (April) pp. 28-30. http://www.jacob-france-institute.org/documents/dol_guide_rev_draft_1-5-03.pdf

The initial data sharing agreement for the ADARE initiative covered all available historical files for UI wage records, ES-202 employer data, UI claims data, Employment Service applicant data and WIA participant data. The initial agreement between OSU and JFS was signed in 2004. The signing of the agreement was facilitated by Dixie Somers, who was working for CHRR and had previously worked for JFS, including as the Labor Market Information (LMI) director. Ohio began building a longitudinal administrative data system during its participation in the ADARE effort, but was able to fully build its system after receiving funding from USDOL's Workforce Data Quality Initiative (WDQI).

### *State longitudinal data system (SLDS) for education data*

Ohio received three State Longitudinal Data System (SLDS) grants from the U.S. Department of Education to, among other things, establish an education longitudinal administrative data system. The grants amounted to $13.8 million and were made beginning in 2006 (see Table1 below). Ohio's education data system was established as a separate system from Ohio's workforce data system, and remains separate today from OLDA. However, the education data system does share its data to OLDA to be used for research purposes. (See the discussion on the challenges using education data for research purposes, under *Challenges with OLDA*.)

## Establishment of the Ohio longitudinal data archive (OLDA) using Workforce Data Quality Initiative (WDQI) funding

### *The JSF-OSU partnership yields OLDA*

Both before and after the development of ADARE, JFS supported other Ohio agencies by providing workforce data, but did not always have sufficient resources to meet all of the data requests—they had to be handled by JFS staff, and large numbers of requests tended to exceed the staff's capacity to consider them fully. Ohio realized there had to be a more systematic way to deal with the workforce data and research needs of the workforce agency, other state agencies, and other data users, including outside researchers.

Much of the impetus for creating the OLDA system came from three individuals—Keith Ewald at JSF, and Randall Olsen and Joshua Hawley at OSU. They recognized the need for a more systematic approach and also an opportunity to meet it by securing two WDQI grants from the USDOL in 2010 and 2013.

- Until 2011, Keith Ewald was the Labor Market Information Director at JFS. He has since been Project Manager, Workforce Analytics, for JFS, Office of Workforce Development.

- Since 2015, Randall Olsen has been Senior Research Scientist/Professor Emeritus at OSU. From 1987 to 2015 he was a professor of economics and Director of OSU's Center for Human Resource Research (CHRR). He is an econometrician and labor economist with his main project being the National Longitudinal Surveys of Labor Market Experience (NLS), but he also has been active in developing OLDA. He was a Principal Investigator of

the Workforce Data Quality Initiative grant that funded the establishment of the OLDA as well as an NSF Big Data grant that provided additional support for the OLDA.

- Since 2000, Josh Hawley has been Associate Professor at OSU, Director of the Ohio Education Research Center (OERC), and Associate Director of the CHRR. He was also a Principal Investigator of the Workforce Data Quality Initiative grant.

The two WDQI grants totaled $2.1 million. These funds were provided to OERC for the development of OLDA. WDQI funds have been the main source of funding for OLDA, through early in 2016. OERC also received some funding for OLDA from the U.S. Department of Education's Race to the Top program.

Table V-1.
Federal Grants to Ohio from State Longitudinal Data Systems (SLDS) and Workforce Data Quality Initiative (WDQI) Grants
(in $ millions)

| Grant | Amount |
|---|---|
| SLDS 2006 | 5.7 |
| SLDS 2009 | 2.9 |
| SLDS ARRA | 5.1 |
| WDQI 1 | 1.0 |
| WDQI 3 | 1.0 |

Source: Workforce Data Quality Campaign at http://www.workforcedqc.org/state-solutions/ohio.

### *Developing the Ohio Longitudinal Data Archive*

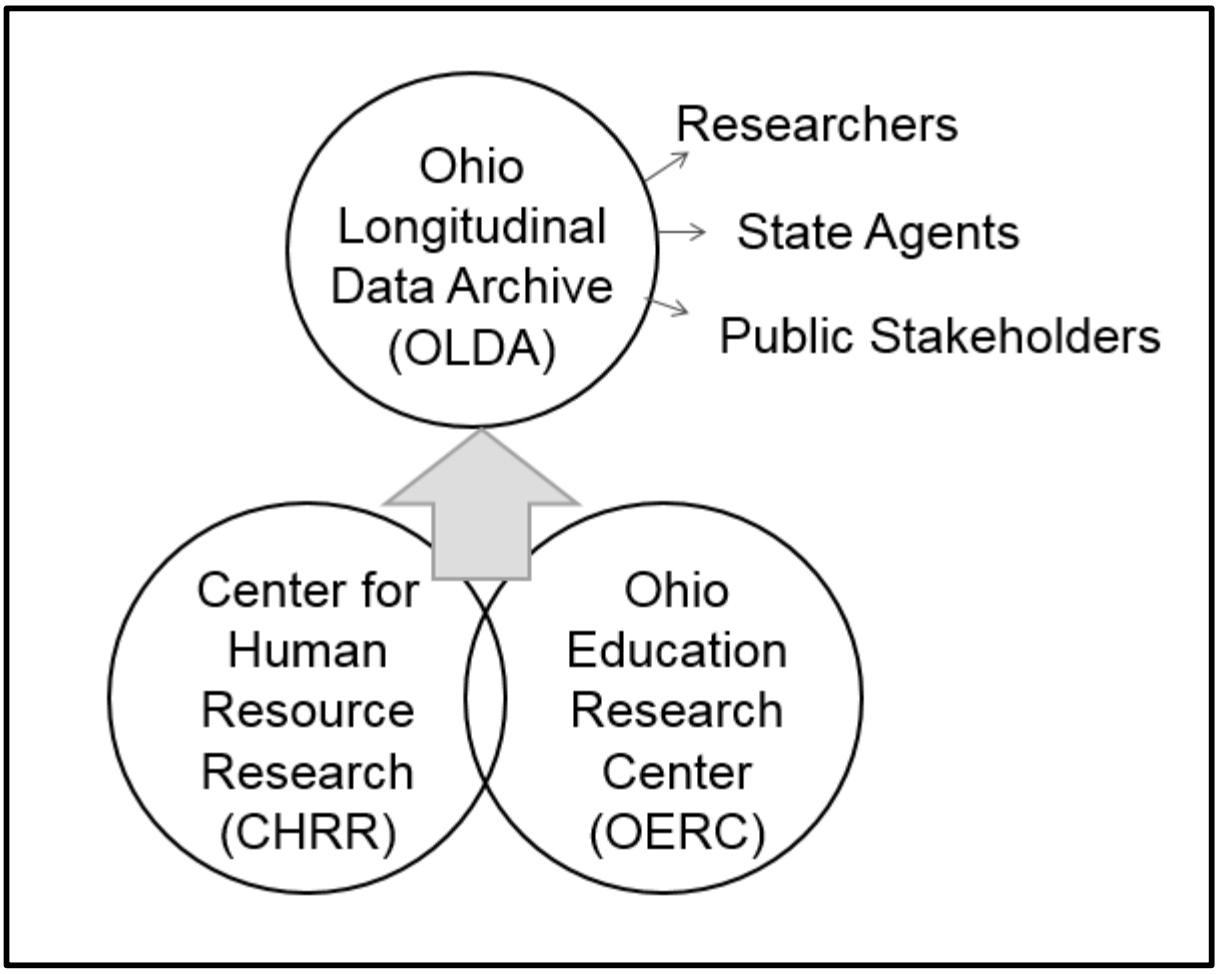
Building OLDA was made easier by JFS' experience developing a longitudinal data system under the ADARE project, and JFS' ADARE partners at OSU became its partners on OLDA. For JFS, OSU's CHRR was the logical organization with whom to partner for several reasons, not only because of the successful ADARE experience. CHRR had the technical expertise to provide both the information technology, security, and research support that have been critical to the success and security of OLDA. CHRR had been successfully operating the well-known National Longitudinal Surveys (NLS) for several decades for the USDOL's Bureau of Labor Statistics (BLS). Operating the NLS requires strong security, in the form of rigorous BLS security standards and staff committed to observing them.

Also, OLDA data at CHRR would be protected from Freedom of Information Act (FOIA) requests that could jeopardize the confidentiality of the data. This protection exists because Ohio law says research data are not subject to FOIA and also because OSU is not treated as a state agency, even though OSU employees are state employees.

Within CHRR, the Ohio Educational Research Center (OERC) has operated OLDA from the beginning. Because OERC Director Hawley is also the Associate Director of CHRR, a close relationship exists between the two entities. Meanwhile, JFS has been the fiscal agent for OLDA.

JFS was responsible for financing during the period of the WDQI grants and continues to be so. As part of his role as JFS' OLDA Director, Keith Ewald is the state's fiscal and project officer for OLDA.

Figure V-1. Ohio Longitudinal Data Archive (OLDA) Partnerships




Source: OSU PowerPoint titled "Ohio Longitudinal Data Archive (OLDA)," shared by Lisa Nielson, Center for Human Resource Research, through email on October 21, 2016.

OSU staff maintain the OLDA system, review requests for data access, and make use of the data themselves. OSU staff are divided into IT staff who maintain the system and researchers who review data requests and conduct analysis using the data.

### *Bringing on partner agencies*

OLDA initially only included workforce development data. It has grown to include data from other JFS programs as well as from partner agencies, including education, higher education, and vocational rehabilitation.

OLDA was established despite some initial concerns from JFS and, later, the three other participating state agencies, about turning data over to an outside organization and possibly 'losing control' of the data. That concern has been addressed and problems avoided by setting up the OLDA infrastructure so that agencies own their data residing in OLDA. All requests for use of the OLDA data are submitted to the agency whose data is requested, and that agency must agree to each request.

Nonetheless, achieving a multi-agency OLDA system and having it share data widely has required a long development process, and continuous improvements. In particular, OLDA staff at JFS and CHRR have invested considerable time and moved carefully to build relationships and establish trust among and with participating agencies. For example, the state agencies would not have been willing to participate if they did not have final sign-off authority for data requests. Also, training is essential for new agencies joining OLDA—agency staff face a steep learning curve about the process and the efforts needed to develop data and maintain the archive. It also is important to build the confidence of the participating state agencies in the high level of security that is provided by CHRR for OLDA. Important to addressing these challenges have been the OLDA governance structure, which is described in more details in a section below. Each state agency has had a representative on the OLDA "Data Stewards" committee that has developed guidance and approaches for establishing and operating OLDA. The result is that, over time, a number of state agencies have been convinced of the benefits of OLDA to the agencies, including the high level of security, and the need to financially support the OLDA effort.

### *Data available in OLDA*

Currently there are four partner agencies involved in OLDA: the Ohio Department of Job and Family Services (ODJFS), the Department of Education (ODE), the Department of Higher Education (ODHE), and the Opportunities for Ohioans with Disabilities (OOD).

- ODJFS contributes data from UI wage records, UI benefits, the Quarterly Census of Employment Wages, Workforce Investment Act/Workforce Innovation Opportunity Act, Job Seeker, and RAPIDS data.

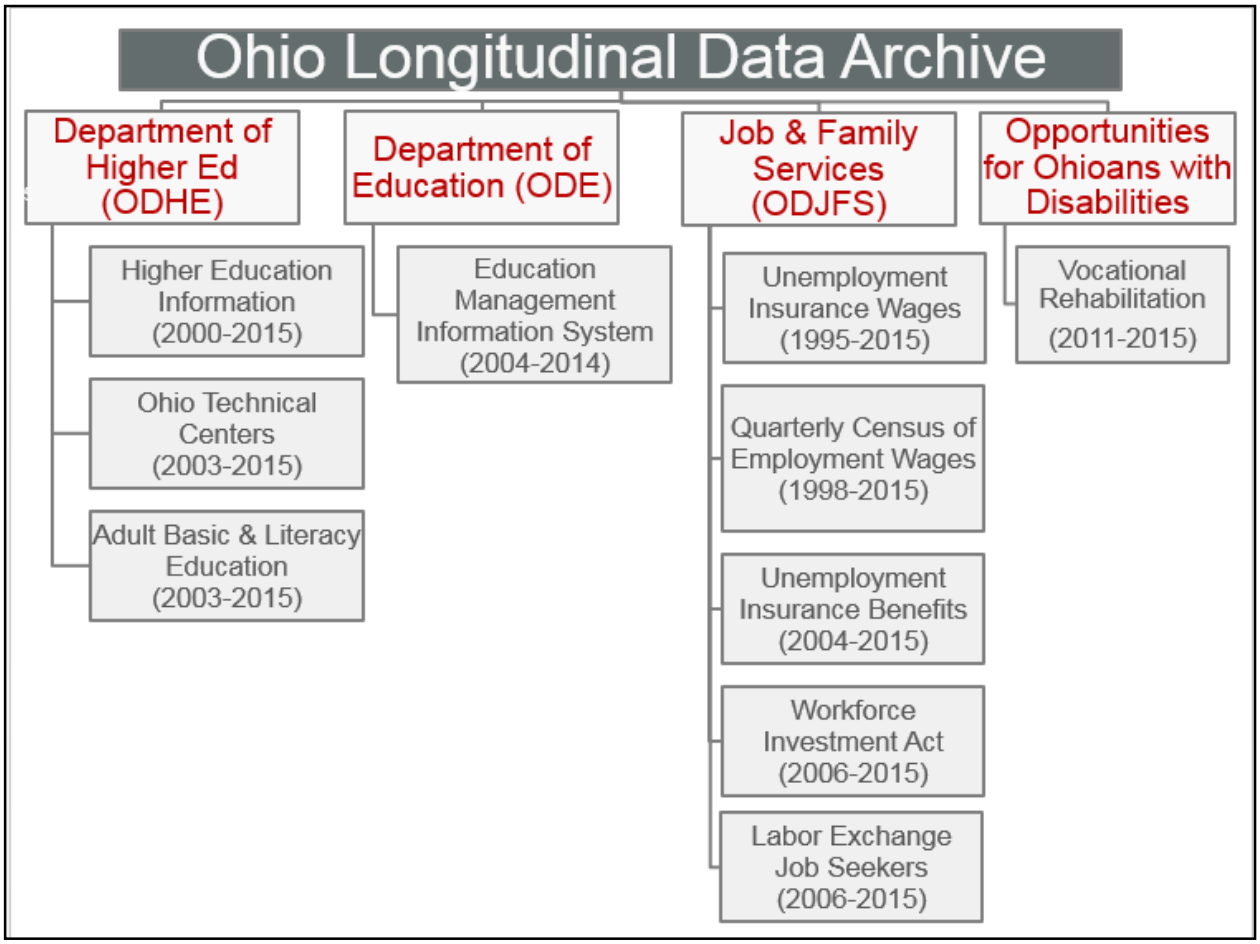
- ODE contributes data from its Education Management Information System.

- ODHE contributes data from the Higher Education Information System, Ohio Technical Centers, and Adult Basic and Literacy Education records.

- OOD contributes Vocation Rehabilitation data.

In addition, the Ohio Housing Finance Agency and the Department of Mental Health and Addiction Services are considering participation.

Figure V-2. Data in the Ohio Longitudinal Data Archive
and Years of Data Coverage




Source: OSU PowerPoint titled "Ohio Longitudinal Data Archive," shared by Lisa Neilson, Center for Human Resource Research, through email on October 21, 2016.

### *Challenges with OLDA*

Ohio State University staff identify two major challenges with OLDA. These are impediments to data access because of state or federal confidentiality rules and policy that constrain the scope of OLDA.

The first issue pertains to lack of access to individual identifiers for K-12 student data. OLDA has to work in tandem with the separate longitudinal data system maintained by the Ohio Department of Education (ODE). ODE is prohibited by statute from having names or Social Security Numbers (SSNs) in its data systems. It can only identify individuals with pseudo-identifiers – protecting the confidentiality of the data. [28] Without names and identifiers, K-12 student data cannot be matched with data from other programs (and then de-identified) to track outcomes as

[28] ODE does some analysis and develops its own performance dashboards using its administrative data set, but uses the OLDA for research and evaluation projects. ODE also contracts out a substantial amount of research.

students leave school or when they go on to higher education. One workaround for some studies has been to match data available at the school district rather than state level, because some individual Ohio school districts collect SSNs and are willing to match the data with workforce data. Local school districts are not subject to state restrictions. The only exception is where transcripts are carried forward for those enrolled in postsecondary institutions where the SSNs are available.

The other problem is a lack of access to interstate UI wage record data. Wage data for unemployed workers who receive reemployment services or training, students who leave school, and others cannot be accessed in cases where individuals leave the state of Ohio. Interstate data would permit the development of more comprehensive outcome and impact analyses. These data exist in national longitudinal data sets, including the Longitudinal Employer-Household Dynamics (LEHD) data and the National Directory of New Hires (NDNH), but because of statutory provisions that limit access, they are not currently available to the state agencies for research purposes.

## *Institutionalizing OLDA*

OLDA is the result of a learning process taking place over many years. It is a permanent data sharing agreement between participating agencies. As such, it avoids the complication of agencies having to negotiate new data sharing agreements each time a research and analysis project uses data from multiple agencies. Agency use of OLDA simply involves completing an application that is sent to a CHRR research supervisor (currently Lisa Neilson). Although each data request must be approved by the agency providing data, the process operates smoothly and rapidly as the state agencies develop long relationships with CHRR.

The OLDA infrastructure has not been enshrined in state legislation, which presents risks. The main risks are that state agencies could terminate participation in OLDA or that there could be turnover in leadership of key OLDA staff at JFS or OERC/CHRR. Educating and training new staff requires considerable work by key JFS staff, and while staff changes have been relatively smooth to date, risks of losing important institutional knowledge remain.

## *Role of the Governor's Office*

The Governor's office under Governor Kasich has been very active in conducting data analysis, developing unique state performance measurement systems, and requesting research and evaluation. Most notably, Governor Kasich has created the Governor's Office of Workforce Transformation (GOWT) that has supported OLDA and has made numerous requests for analysis that relies on the OLDA data. CHRR has also developed and supported a GOWT's workforce success measures dashboard that reports on the performance of state, local, and institutional (in the case of education providers) workforce programs using state measures. As a result of its interest, GOWT has been a strong supporter of expansion and funding of OLDA, and has encouraged state agency participation.

## State financing of the OLDA data and research system after WDQI

Ohio's WDQI funds were exhausted in early 2016. Anticipating the end of federal funding, OLDA needed to become state financed. The state agencies were discussing how to fund OLDA after WDQI funds ran out, but it was the Governor's Office of Workforce Transformation that resolved the issue of state funding to allow OLDA to become self-sufficient.

Since the Governor's office has been highly supportive of the efforts to develop, maintain, expand and make use of the OLDA data system for analysis, research, and evaluation, and the state performance dashboard, and to expand OLDA to new agencies, it intervened to establish a new funding mechanism beginning in 2016. The Governor's office asked for an estimate of what it would cost to operate OLDA with the four partner state agencies. The answer was $800,000. As a result, the Governor's office determined that each of the four partner agencies should contribute $200,000 per year for OLDA. For that flat fee, OSU receives, prepares and archives each agency's data. OSU researchers also provide research services to each agency, up to a reasonable level of effort. For additional or large projects, the agencies pay for research and analysis.

The current OLDA funding allows an adequate level of effort to maintain OLDA at OSU. Each agency's contribution of $200,000 pays for approximately one full-time equivalent staff member, as well as support for developing and maintaining the data system, and a certain amount of research and analysis by CHRR IT and research staff.

The short-term outlook for OLDA is promising. State agency participation in OLDA has been increasing. It houses data on WIA, ES, UI benefits and wage records, education, higher education, Ohio Technical Centers, and Adult and Basic Education Literacy. It has been collaborating with Medicaid as well as mental health and housing agencies. If and when an agency becomes a full-fledged partner they are asked to contribute to funding OLDA, which expands the range of research and analysis that can be conducted.

One adverse impact that flows from state financing is a reduction in the amount of outside research and evaluation. After WDQI funding was exhausted early in 2016, fulfilling data requests from non-state researchers became a secondary priority. OLDA-participating agencies began expressing greater concern that proposed research should be aligned with the research interests of the state agencies. There also is increased concern about the limits of resources for OLDA and the need to prioritize data requests. Nonetheless, the current use of OLDA is extensive.

With the institutionalization of OLDA and the shift in financing from federal to state funding, the partnership between the public agencies and OERC that oversees the development, maintenance and use of OLDA has been given a name – Ohio Analytics (the longitudinal administrative data set retains the name OLDA). The entire effort has a new governance structure (more below in the governance section).

## Research, evaluation, and data analysis: Using the Ohio Longitudinal Data Archive

### *OLDA encourages research activity*

Ohio Analytics has encouraged the use of the OLDA data in a manner that is rare among state longitudinal data systems. The portion of the Ohio Analytics website dealing with data access begins with the following statement:

> Welcome, Future OLDA Researcher. The OLDA data repository is comprised of public administrative records for all Ohio residents, and offers a unique opportunity to analyze education, work, and training experiences of individuals over time. We encourage you to make use of this powerful resource!
> (See: http://www.ohioanalytics.gov/dataaccess/pdf/dataaccess.stm)

Ohio Analytics simplifies the process of applying for data to conduct research by laying out research priorities and the entire application process at http://www.ohioanalytics with information on: research priorities, a list of recently completed research, frequently asked questions, data access, data types, and data security.

### *Accessing OLDA*

OLDA data can only be accessed by going through a highly structured and rigorous process. The data request and approval process is the same for all requesters, whether they are state agencies, OSU researchers or outside researchers. To assure that the research is rigorous and meets research standards, each requester is required to go through an Institutional Review Board (IRB) or equivalent review process. Data provided to outside state agencies and outside researchers are only provided as de-identified data. If matching of data sets is required, CHRR does the matching. Outside researchers must pay for the cost of creating such a research data set.

Because of the wide range of longitudinal administrative data available from OLDA, many outside researchers want to obtain the data. CHRR uses the "Investigator," a public facing metadata system (that was built and used prior to OLDA for the NLS and other projects), to assist in preparing OLDA requests. There is a formal process for approval, including for agencies and OSU. There are contracts for all research no matter who makes the request, including state agencies and OSU researchers.

Data is provided through a bilateral contract between the data requester and OSU. The contracts make use of a template. The requester must accept the contract as it is written with little or no changes. For the requester, the contract terms and conditions are generally 'take it or leave it' with respect to OLDA standards. CHRR in turn has agreements with each partnering agency for maintaining OLDA and managing research requests. All agencies whose data are requested review the research proposals and must approve them before they can go forward.

Some researchers have requested all of the data in OLDA for a given subject, but OLDA does not allow that. Rather, researchers must do their homework. They must examine the OLDA data and

make requests for specific data elements for specific time periods. These requests must be appropriate for the research project they propose.

Not all projects are approved. Although projects are not required to directly relate to state agency operations, they must focus on issues of interest to agencies, e.g., "What has happened to workers who have been unemployed for more than a year?" In general, requests must be policy-oriented, fit with an agency goal, or otherwise be of interest to the agency. OLDA participating agencies have gradually been developing their own research plans and priorities. Outside projects are more likely to be approved if they align with these research plans.

See http://www.ohioanalytics.gov for more information on accessing OLDA data by research investigators.

## *Ohio Analytics research plan*

The Ohio Analytics annual research plans summarize current priorities of the participating agencies and OECR/CHRR. Each agency develops its own plan (OERC/CHRR conducts most of the projects in these plans).

The most recent list of *Ohio Analytics Research Priorities* was updated on March 1, 2015. It covers three organizations and reads as follows[29]:

[29] See http://www.ohioanalytics.gov/priorities/researchpriorities.stm.

## OHIO ANALYTICS RESEARCH PRIORITIES

**Ohio Department of Job and Family Services**

- What are the long-term employment outcomes of different job training programs (i.e., the number of jobs obtained, job retention, wages, industry match between training and employment)? How do these outcomes vary by length and type of training, provider type, and participant characteristics?
- How do higher education programs affect long term earnings?
- How do self-sufficiency outcomes differ for specific groups?
- What are the career trajectories of job training program participants?
- Do they return to their sponsoring employers upon completing training?
- Do they make steady progression to better jobs over time, or do they stagnate in entry-level or minimum-wage type positions?
- What are the long-term trends in generational poverty in Ohio?

**Ohio Department of Higher Education**

- Remediation: Update to the 2011 report which includes verification of courses and levels at 2-year schools and the results of remediation education courses at 4-year schools.
- Dual Enrollment: Impact of Achievement, college enrollment and completion, student demographics and financial structures on dual enrollment.
- Advanced Placement Courses: Impact of college coursework and completion, student demographics and financial structures on advancement placement courses.

**Ohio Education Research Center**

- Provide timely and high quality evaluation and research products for state, federal and private agencies as well as other policy informing organizations;
- Maintain a research data base that includes restricted administrative records in a secure environment, while also increasing researcher access to data;
- Serve as a bridge to education practitioners, researchers and policymakers translating the needs of practitioners into the research agenda and research into actionable practice improving policy at all levels of education; and
- Bring together diverse resources on education throughout the state to improve access to high quality knowledge. See http://oerc.osu.edu/researc/research-products for more detailed research agenda.

What is particularly interesting is the broad scope of research described by OERC in its first priority, "covering state, federal and private agencies as well as other policy informing organizations." Most states restrict the scope of their research to issues more directly of interest to the program operations of their state and its agencies.

### *Recent research, evaluation and analysis using OLDA*

OLDA is available for use by the participating state agencies, Ohio State University, other Ohio and out-of-state universities and private researchers. It has been used for 54 projects in the past three years (See Figure V-3). OLDA encourages use by all bona fide researchers and research institutions. As noted above, all users must go through an application process, even Ohio state agencies and OSU researchers at OERC and CHRR. Research has to meet criteria set by OLDA and the Ohio state agencies. Researchers must observe strict confidentially provisions and agree to destroy the de-identified data they receive at the end of their projects. Among the researchers recently making use of OLDA are researchers and analysts from:

- Ohio state agencies: JFS, ODHE, ODE;
- Ohio State University: many studies have been conducted by OERC and CHHR for Ohio state agencies and for other purposes;
- Other Ohio state universities: Bowling Green, Columbus State Community College, Ohio Wesleyan, Wright State;
- Other universities: Cornell University, University of Illinois, Northwestern University, Ohio University, University of Oklahoma, Princeton University, Stanford University, University of Washington, University of Wisconsin; and
- Private researchers: American Institutes for Research, IMPAQ International, Research for Action.

For a complete list of current and recent Ohio Analytics studies see: www.ohioanalytics.gov/Reports/Project-Status-Report.stm, updated 3/15/2016.

OERC and CHRR expend considerable effort conducting their own research and evaluations. For example, CHRR staff conduct program evaluations of state agency programs, including conducting net impact analyses using pre- and post-intervention employment and earnings data. (They do not develop operational measures for the agencies, such as measures related to federal performance accountability systems—see Introduction.) CHRR conducts studies for agencies within JFS, such as Ohio's Unemployment Insurance (UI) program, and for other OLDA partners. Some of these OLDA research products are not publishable, but are developed only for internal agency use.

CHRR conducts a wide range of other data work and analysis for the State of Ohio—providing data to the participating agencies and for the Governors' workforce success measures dashboard. Examples include:

- Higher Education Outcomes Using Visualization Software
- Analysis of the Central Ohio Compact
- Governor's Workforce Success Measures Dashboard

- Workforce and Higher Education Outcomes Reports
- State Workforce and Education Alignment Project (SWEAP)

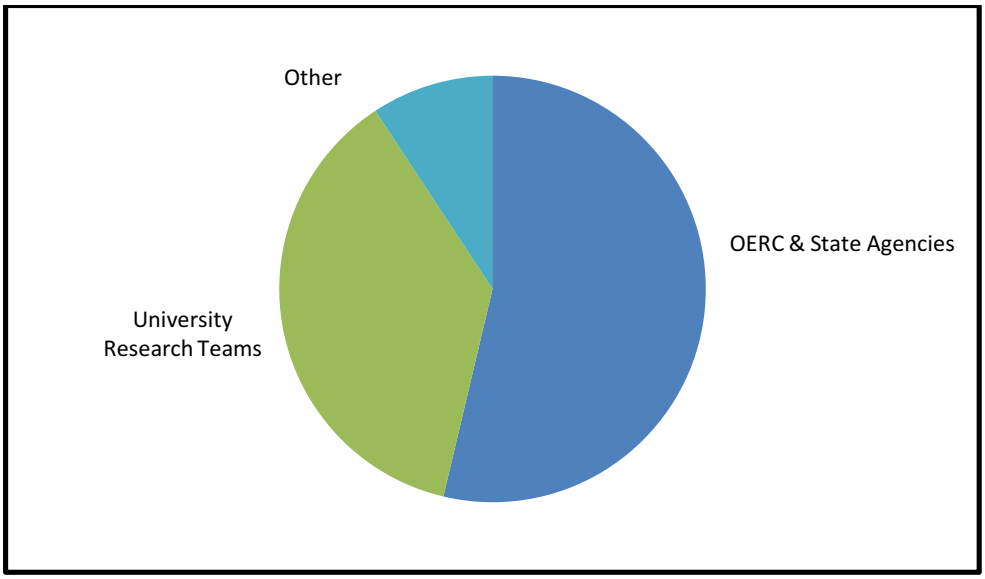
Because of limited resources, CHRR has been concerned with efficiency in developing dashboards, reports, and other products. Staff sometimes do analyses by themselves, avoiding the ongoing cost of expensive software. CHRR staff also use statistical packages when necessary. For example, CHRR has a SAS server especially for analytics that allows them to open giant data sets.

CHHR also assists outside groups and independent researchers. For example, an approved outside project, "Further Education During Unemployment," was conducted by Pauline Leung and Zhuan Pei (Cornell). This project focused on the education and re-training undertaken by unemployed workers and their employment and earnings outcomes.

A second example is USDOL-funded research, *Using Workforce Data Quality Initiative Databases to Develop and Improve Consumer Report Card Systems* conducted by Scott Davis (IMPAQ International), Louis Jacobson and Stephen Wandner (consultants to IMPAQ). The report focuses on the WDQI efforts of a select number of states and describes a "Scorecard II" project in Ohio that compares training performance measures using state data and the National Directory of New Hires (NDNH), with particular emphasis on the difference between the data sets and the effect of adding interstate employment and earnings outcomes from NDNH.

For outside users, CHRR charges a fee based on standard hourly rates to develop a research data set. As noted earlier, Ohio Analytics has encouraged outside researchers to use OLDA, but now that encouragement is becoming more restrained because of the higher priority given to use by Ohio State University (on behalf of state agencies) and there may be longer wait times for outside researchers.

Figure V-3. OLDA Data Users
(54 Active or Completed Projects, 2013-2016)




Source: Center for Human Resource Research, The Ohio State University, The Ohio Longitudinal Data Archive (PowerPoint presentation), October 2016.

## Lessons learned from CHRR: Information technology

The CHRR information technology (IT) staff have identified a number of factors that help make OLDA work. First is having advocates for the system, and key advocates are the agency Data Stewards and other agency staff. Having an ongoing relationship with cross-agency subject matter experts builds trust and buy-in to OLDA and makes it easier to create and maintain enthusiasm for OLDA in the state agencies and in CHHR.

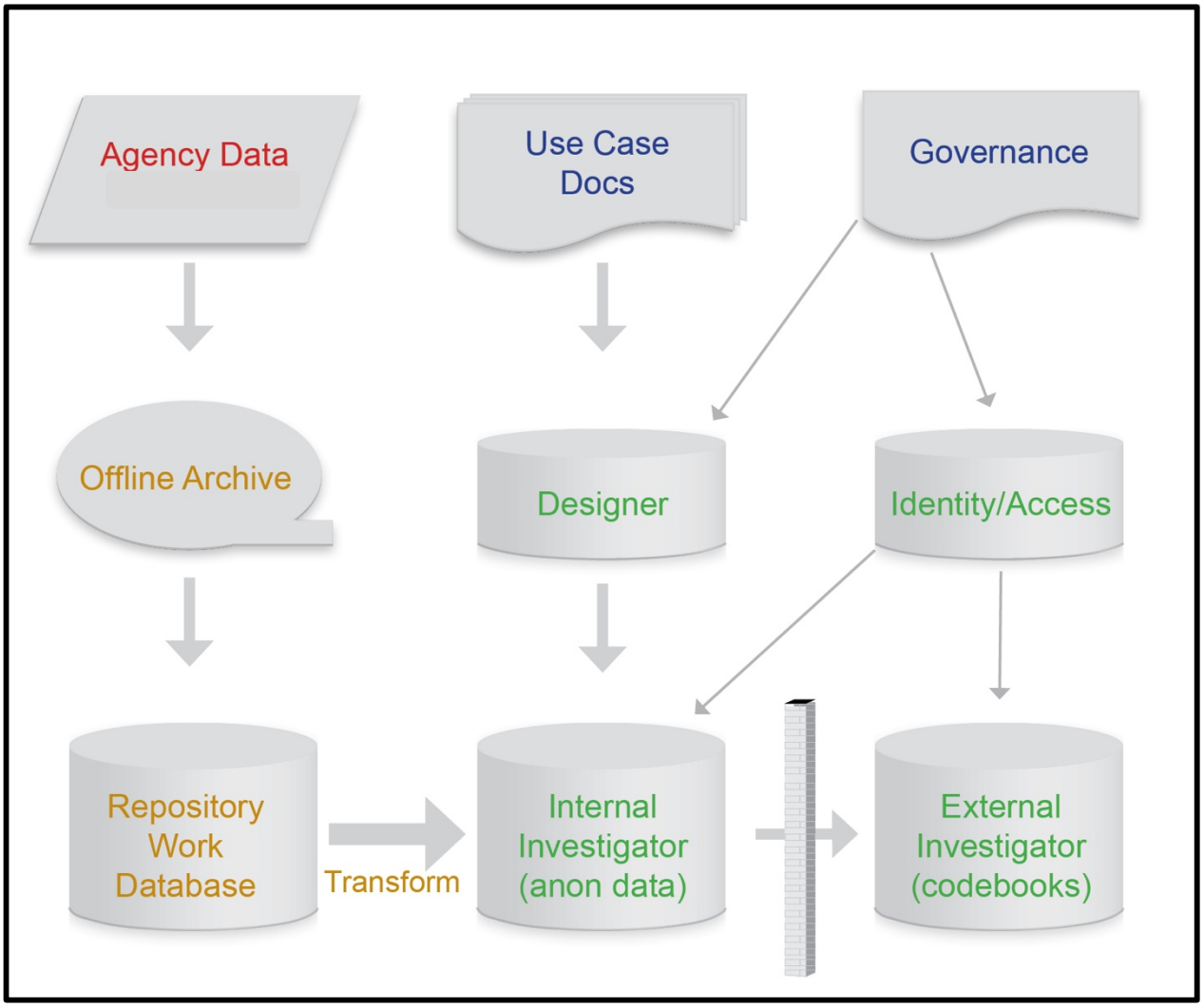
Early on, CHRR had a history of working with state agencies, but most of those efforts were ad hoc. Receiving the federal WDQI grant allowed CHRR to gather data more systematically and longitudinally. Establishing the large and expanding OLDA was a challenge of scale, but it could be overcome with the resources from the WDQI grant. The CHRR staff, however, had to learn about the state agency programs and data since CHRR had little content expertise prior to the establishment of OLDA, having previously worked primarily on the NLS survey data.

For the data archiving process, there have been problems of limited documentation. In some cases, the agencies had no data handbook, and handbooks had to be created working with agency staff. Because CHRR staff are working with on-going program data, they find that agency data definitions for a given data element can change over time with developments in policy and legislation. CHRR has to identify changes and mistakes in the data system. CHRR was able to figure out what had happened, but only with the help of agency program and IT staff.

Data security has been a big factor in how OLDA operates. OLDA follows the Federal Information Security Management Act (FISMA) compliance standards, in accordance with the Office of Management and Budget's (OMB) oversight authority over federal agency information security practices. For example, with respect to the FISMA data-handling protocol, no portable devices can be used, and data transmission must use the Secure File Transfer Protocol (SFTP) – a standard network protocol used to transfer computer files between a client and server on a computer network. Maintaining the confidentiality of OLDA data is achieved by having CHRR merge OLDA and incoming data sets and only transmitting a de-identified research data to investigators. Figure V-4 provides the OLDA data flow by systems.

Security is ensured by a rigorous but streamlined and standardized process. The process includes use of memoranda of understanding (MOU) and IRBs. The CHRR staff apply standardized criteria to outside researchers in determining who can access the data on a project-specific basis. Some types of entities, such as advocacy entities, cannot access the data.

Figure V-4. Ohio Longitudinal Data Archive (OLDA) Data Flow: Systems



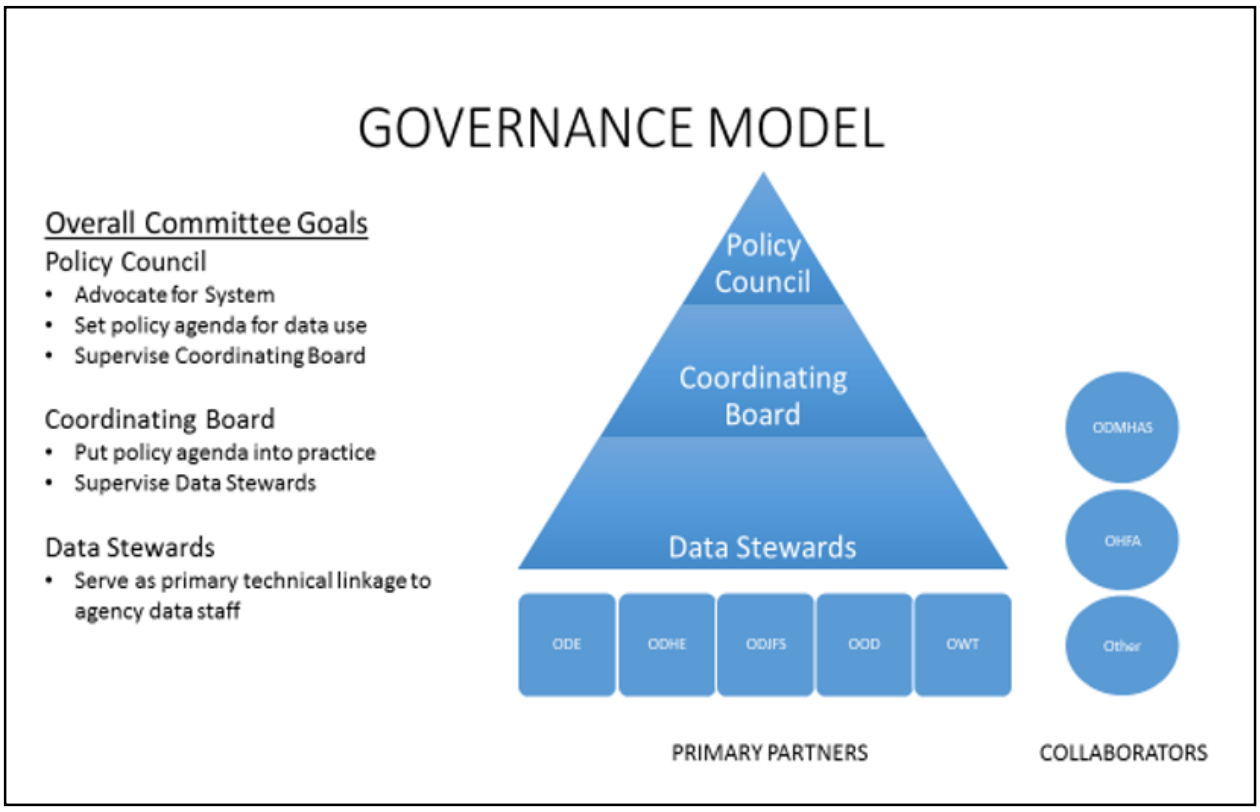

Source: OSU PowerPoint titled "Data Archive (OLDA) Data Flow: Systems" by Lisa Neilson, Center for Human Resource Research, through email on October 21, 2016.

## Governance of the state-financed OLDA system

As noted earlier, governance of OLDA is evolving under the new state financing system. The new governance system for OLDA began in September. (Ohio has developed a draft governance document, but it is expected to be revised—See Appendix L.) Under the proposed new system, the development, maintenance and use of the OLDA system by the partnership of state agencies (JFS, ODE, OOD, ODHE) and OERC has been named Ohio Analytics. The state agencies which finance OLDA are very involved in the system, both with the governance and in the use of the data.

Ohio Analytics is to be governed with a three-tier organization: a Policy Council, a Coordinating Board, and Data Stewards.

Figure V-5. Ohio Analytics: Proposed Governance Structure




Source: Ohio Analytics Governance Manual, Version 1.3, July 2016.

As noted earlier, prior to 2016 the governance of OLDA was much simpler. The JFS representative was the fiscal agent for OLDA and gave direction to OERC/CHRR at OSU. The WDQI director at OERC, Professor Joshua Hawley, directed the OLDA effort, particularly with respect to managing approved projects. Data Stewards from each participating agency were involved in the day-to-day operation of the OLDA.

The new governance structure provides for more delineation between advocacy roles (the Policy Council), implementation roles (the Coordinating Board), and the details of managing the day-to-day application of data (the Data Stewards Committee). Through the new governance structure there is now a direct reporting link to agency directors both on outcomes and fiscal status.

### *Data stewards*

"Data Stewards" is the term for the information technology staff in each state agency who have given guidance and developed approaches for operating OLDA. They have: 1) acted as sounding boards; 2) thought out how to set up research application, approval, and data release policy (the Data Stewards can veto use of their agency's data); and 3) played, and continue to play, a critical role as the internal champions of OLDA within the state agencies. With the increased interest in state agency participation, Ohio Analytics has brought Data Stewards from new state agencies into the Ohio Analytics process to prepare them for full participation and to learn the data needs of their agencies.

Data Stewards will continue under the new Ohio Analytics governance structure but are likely to be more involved in ongoing OLDA operations, because OLDA is now more established. Formal meetings are likely to take place once a month, rather than weekly as previously. The Data Stewards will be chaired by agency members as rotating chairs, having previously been chaired by CHRR.

Data Stewards will continue to work with their agencies to prevent problems. For example, they are expected to provide feedback to their agency's representatives on the Policy Council.

### *Policy Council*

The new Policy Council deals with broad policy issues and also develops an annual research plan. The Policy Council 1) acts as an advocate for the Ohio Analytics system, 2) sets a policy agenda for data use by the system, and 3) supervises the Coordinating Board. It consists of representatives of the participating agencies. It will be chaired by agency members with a rotating chair. (There was an earlier policy council that was chaired by CHRR.) The Policy Council is likely to revise the draft governance document.

### *Coordinating Board*

The Coordinating Board puts the policy agenda into practice and supervises the Data Stewards. It will consist of three individuals: Keith Ewald, the JFS Director of OLDA, Josh Hawley, the OSU Director of OLDA/OERC, and Erin Joyce, Associate Director of OLDA/OERC, recently hired to coordinate with state agencies. The Coordinating Board will take care of the fiscal side of operating OLDA as well as directing research activity. The Coordinating Board functions to implement the objectives of the partnership and the policy objectives of the Policy Council. It also assures that coordination and communication across the governance structure proceeds smoothly.

### *Role of the Ohio Department of Job and Family Services*

JFS will continue to be the fiscal agent for OLDA because one agency needs to direct OLDA and be the fiscal agent. Under the new governance system, there is a fiscal agreement between the participating state agencies. Funding now is transferred from the state agencies to JFS for management of the OLDA.

## Agency perspectives and participation in OLDA

The authors had the opportunity to meet with representatives of the state agencies that are currently participating in OLDA and others that are preparing to become participants or have only recently begun to participate. They also met with the Governor's Office of Workforce Transformation.

## *Agencies currently participating in OLDA*

### Ohio Department of Education (ODE)

Through substantial allocations of Ohio's federal Race to the Top funds, ODE was a primary partner in the formation of both OERC and OLDA. Since the inception of OERC, an annual slate of ODE-funded research and evaluation projects has helped support the continued development of OLDA. ODE values OLDA as a "research-optimized" archive of the state's administrative data for K-12 public education, which includes the knowledgeable staff of CHRR who maintain the data and consult with OERC members and other researchers to understand feasible and appropriate uses of the data. The OERC network, with many researchers versed in OLDA, has been an asset to ODE in providing timely, objective analytics.

OLDA has been leveraged to conduct numerous education-related studies, including those commissioned by ODE and those initiated by other parties (with ODE approval) such as university researchers and national foundations. As a statewide repository of nearly all EMIS data elements, OLDA is a rich source for generating comparison groups for quasi-experimental research designs. Projects have included small scale and statewide educational analyses; and over the past few years, OERC has worked with ODE to design the first programmatic application of K-12 data in OLDA— a Student Support Dashboard that many districts are implementing to help prevent school dropout and guide student progress.

While data from separate state agencies are not linked within OLDA to ODE, ODE appreciates that the existence of OLDA facilitates cross-agency analyses on a project-by-project basis. State law prohibits ODE from having student identifiers such as SSN, name or address. ODE uses a pseudo identifier, the State Student Identifier (SSID). This same SSID is used to some extent by a few other state agencies. However, in order to link K-12 public education records with workforce data, a researcher would need to work directly with an entity (such as a high school or a program provider) that maintains both SSID and a student's name and/or SSN. Employment and wage variables represent important outcome measures, of high interest to both ODE and individual districts, for understanding what primary and secondary school programs are effective. For Career and Technical Education (CTE) in Ohio, the ability to systematically link workforce data to Perkins program participants could result in large efficiencies and savings for the schools required to track these students post-graduation.

Several challenges remain (e.g., current data sharing restrictions, SSN not collected in many districts, access to workforce data sets beyond Ohio, etc.), but ODE intends to continue exploring how OLDA might be leveraged for more extensive linkages and better insights into K-12/workforce relationships.

### Ohio Department of Higher Education (ODHE)

ODHE is interested in making use of OLDA data and data analysis for a wide variety of purposes, including improving higher education data, making data publicly available, and evaluating higher education programs.

- *State Workforce and Education Alignment Project (SWEAP)*

The largest single effort by ODHE using OLDA is the State Workforce and Education Alignment Project (SWEAP), funded by a grant from the National Skills Coalition (NSC) to implement new higher education and workforce data tools. Participating states are California, Mississippi, Ohio, and Rhode Island. This project fits with the priorities of the Ohio Board of Regents which supports the development of system-wide data and information about the activities and outcomes of workforce education and training programs. For Ohio, it is hoped that the development of better data tools can help to design policies that close skills gaps, create more equitable, efficient and aligned state workforce development and education systems. ODHE is enthusiastic about SWEAP, as is the Governor's office.

Under the leadership of Josh Hawley, Director of OERC, the Ohio SWEAP project is expected to access ODHE data and information that will assist the ODHE staff to make data-driven decisions on policy and long-term investments in higher education. As part of SWEAP II, the OERC is developing a state dashboard, career pathway 'evaluators', and workforce supply and demand tools. It is also expected that SWEAP II efforts will assist Ohio state officials develop legislation and other policy materials that will be guided by new data tools developed under the grant.

ODHE believes that it received the SWEAP grant at least partially due to the OLDA data system. With the SWEAP tool, higher education graduates are being linked with zip code and occupations. The interactive tool shows outcomes of employment and wages two and four quarters after exiting the program. In addition, school districts receive useful aggregate data.

SWEAP is designed to help policymakers better understand demand occupations, making use of O*NET occupational data, employment levels (from BLS' Occupational Employment Statistics data), and supply data for recent graduates. SWEAP also looks at the unemployment history of graduates, making use of UI claims by occupation to examine the potential supply of workers by occupation. This interactive website is designed to be useful for employers, showing them where there is a potential supply of new workers, and by showing which institutions produce graduates in occupations in which they wish to hire workers, e.g., financial analysts, welders. SWEAP data are also designed to show the relationship between supply and demand by Ohio region. At present, not included is information on apprenticeships because most apprenticeship data are held in a national system not readily available to the states. JFS recently negotiated to receive individual record data for Ohio from the national system for use in the future.

- *Other ODHE Uses of OLDA Data*

Other ODHE projects mostly make use of OLDA by conducting third party research and evaluations, such as the future evaluation of Innovation Grants and an evaluation of the new Ohio dual enrollment program called College Credit Plus. In general, this helps extend the capacity at ODHE to conduct policy related research.

In general, ODHE finds that participating in OLDA has been a plus for the agency. There has been a collaborative learning process, by working more closely with staff throughout OERC and other participating state agencies. ODHE has learned how its data is used by the other participating Ohio state agencies, and how its research and policy priorities relate to other agencies' initiatives.

Working with OLDA saves ODHE time by having OERC respond to data requests by outside researchers. ODHE still has to approve data requests, and review and approve research products produced with OLDA data.

ODHE staff report the biggest shortcoming of OLDA is that it does not have interstate data. In following up on higher education graduates that leave Ohio, outcomes are difficult, if not impossible, to track.

For further information on ODHE see www.Ohiohighered.org.

## Opportunities for Ohioans with Disabilities (OOD)

OOD has only recently fully joined OLDA under the new state funding and state governance procedures that were introduced in 2016. OOD started its participation in OLDA 18 months ago. It has been trying to be forward thinking, preparing to implement the WIOA disability provisions. Youth with disabilities are separated out from older individuals with disabilities under WIOA. OOD seeks to measure the employment outcomes for youth with disabilities starting at age 14. The evaluation has already begun, with OOD submitting youth data to OLDA which will be used for a youth with disabilities evaluation.

OOD wants to use OLDA for a variety of purposes. To improve employment outcomes for youth with disabilities, OOD recently implemented partnerships with career technical education centers through an agreement with ODE, known as the Ohio Transition Services Partnership (OTSP). OTSP currently serves several thousand students. They are working in school districts with students as young as 14 to provide career counseling services, bridging the individualized education plans (IEP) to individualized plans for employment (IPE). OLDA will be an invaluable resource in assessing the short and long-term impacts of OTSP.

The Director of OOD wants to conduct analyses on a variety of their programs. OOD has been proceeding on a program evaluation on youth with disabilities that began prior to WIOA. It is working with Mathematica Policy Research to study barriers to employment for workers with disabilities. About 1,000 individuals in Ohio are being surveyed, and 900 individuals have given permission to follow up on their outcomes. The study is trying to answer the following question: What happens to participating individuals, especially with respect to employment? Mathematica is using UI wage record data and also wants to use data on use of cash assistance through the TANF (Temporary Assistance for Needy Families) program.

OOD wants to look at its data by type of disability, by county, to discern the need for services locally. Staff also are looking at opportunities to use LMI data to connect those individuals with disabilities who want to work with employment opportunities.

OOD develops its own performance measures and program reporting, but does not have dedicated resources to conduct in-depth research. While the agency is focused on data-driven decision making, it would like to conduct more research on its own. With just a couple individuals responsible for data and analysis, OOD does not have a formalized research unit to conduct the level of analysis that the OLDA partnership can provide. Priority areas for research are related to employment, both the employer and job-seeker side. The agency staff are interested in using regression analyses to

determine which factors help get individuals back to work, using employment, education, and higher education data. Also of interest is research on strategies that help individuals with disabilities live independently. The agency will likely rely on OSU staff for this research, because of the expertise of their senior-level researchers and access to OLDA.

More information about OOD is available at: www.ood.ohio.gov.

### Ohio Department of Job and Family Services

In the view of JFS staff, the State of Ohio has made a dramatic change over last decade, moving to more cross-agency data sharing. Before, data was placed in a data warehouse but not used much for research and evaluation, although there was some sharing of UI wage records and other data on a cost-recovery basis (data sharing costs could be fairly high because no archive existed for efficiently meeting the needs of researchers, and response times could be longer than ideal because of other agency priorities). A gradual expansion of data sharing occurred based on needs. For example, the vocational rehabilitation agency wanted data from JFS that was necessary to secure additional federal funding. While data was given to OSU to facilitate any cross-agency data sharing, the sharing was one-off and limited in the content of data shared.

The situation has changed with the development of OLDA. Under OLDA there is a new ability for JFS to gets answers to more of its program and policy questions. Because outside researchers can examine workforce and social programs by accessing OLDA data, JFS also gets answers to other questions of interest to both outside researchers and JFS.

The process for JFS is made easier because OSU does most of the work: it develops and maintains OLDA and vets each application. JFS is happy with the current system that uses OSU staff who know all of the data and definitions and have senior research capabilities.

The price of OLDA is also very reasonable because OLDA supplements OSU funding but doesn't have to pay for all the infrastructure (such as the important security infrastructure OSU built up based on its work with the NLS).

OLDA has been a success for the existing participating agencies, and the system is likely to expand because more state agencies want to participate. There are also many out-of-state requests for use of the data, including universities and private research institutions, that will continue to highlight OLDA's value.

## *Agencies considering or beginning participation in OLDA*

### Department of Mental Health and Addiction Services (DMHAS)

DMHAS is considering joining OLDA. CHRR staff have been working with DMHAS to plan how to facilitate participation. DMHAS is examining how to meet patient health data security concerns, while meeting the needs for data analysis to assess and improve programs. The agency is determining how to address patient data related to patients in mental institutions, individuals with

drug addiction issues, and the severely mentally ill. DMHAS has determined that data regarding Medicaid can be provided to OLDA.[30]

Nonetheless, DMHAS participation is important because DMHAS works to help individuals with mental health and addiction problems find employment, and it needs to measure employment success. DMHAS expects to create performance measures and evaluations, and the agency has been collecting data from 2006 on and will soon have data on all participating individuals.

With respect to connecting individuals to the workforce, DMHAS is trying to measure factors and services related to successfully promoting initial employment, as well as how to help individuals move into better paying jobs. Of particular concern is connecting individuals ages 18-25 to the labor force. One early finding has been a labor force attachment rate of 38 percent - higher than expected. However, jobs obtained by participants were found to be heavily part-time and generally not sufficient to move workers out of poverty. DMNAS wants to find strategies that improve employment outcomes, and that get individuals into better paying jobs.

DMHAS is interested in studying a number of other issues: mental health; the homeless; supportive employment programs; and others. DMHAS' approach will continue to rely on the OLDA data resource to conduct these studies, whether through their own research staff or in contracting with others.

## Ohio Housing Finance Agency (OHFA)

OHFA membership in OhioAnalytics is currently pending approval from its board. Relevant OHFA program data consists of basic information on tenants residing in roughly 90,000 units of active subsidized housing. The primary funding source is the federal Low-Income Housing Tax Credit (LIHTC), which is subject to Internal Revenue Code regulations ensuring tenant eligibility and requires data to be reported to HUD. OHFA has been refining its data storage and analysis capabilities, but would like to do more to help people become self-sufficient and move out of subsidized housing.

Upon joining OhioAnalytics, OHFA plans to merge its data with UI wage records and education data. This will allow OHFA to learn more about residents in properties it has funded and the challenges they face. In turn, this information will allow the Agency to develop new programs and refine existing guidelines that help tenants improve their lives.

In addition, OHFA's Director of Research and Strategic Planning, Dr. Holly Holtzen, is the principal investigator on a study funded by the MacArthur Foundation of the federal Hardest Hit Fund (HHF). HHF was developed in 2010 by the Department of the Treasury as a response to the foreclosure crisis in the 18 states most affected, assisting homeowners in danger of losing their homes due to unemployment or other hardships. (Later, HHF was expanded to provide funding for blight elimination.) As part of this research, OHFA is combining administrative records on the

[30] The Health Information Portability and Accountability Act (HIPAA) was enacted in 1996. It is enforced by the Office of Civil Rights of the United States government. It is a set of federal standards created to allow employees to take their medical insurance with them if they leave an employer, allow people access to medical insurance despite pre-existing conditions (under some conditions), and to establish privacy standards for a patient's health information.

nearly 25,000 homeowners assisted by the program with UI records within OLDA to determine whether HHF assistance led to beneficiaries re-entering the workforce.

## *Governor's Office of Workforce Transformation*

Governor Kasich created the Governor's Office of Workforce Transformation (OWT) by executive order in 2012 to grow Ohio's economy by developing a skilled and productive workforce, promoting effective training programs, and connecting Ohio employers with qualified workers. OhioMeansJobs.com is an online career counseling center that provides free career services to all Ohioans, including both employers and job seekers. OhioMeansJobs.com reflects Governor Kasich's interest in creating resources that are useful to businesses and individuals in Ohio, and making sure all initiatives are data-driven to allow more frequent evaluation and improvement. In 2017, Governor Kasich's budget will include a number of proposals to improve Ohio's workforce and data systems.

To do so, a number of tools have been developed:

- The Governor's Office of Workforce Transformation sent a survey to over 2,000 businesses to forecast their current and future hiring needs.
- OWT, in partnership with the Ohio Department of Job and Family Services and the Ohio Department of Higher Education, developed and released a Workforce Supply Tool, which is housed on OhioMeansJobs.com and allows businesses to search for talented workers as they graduate from Ohio's higher education institutions.
- A Workforce Success Measures Dashboard is available on the OWT website, workforce.ohio.gov, and is currently being re-developed for increased user-friendliness and increased use of data.

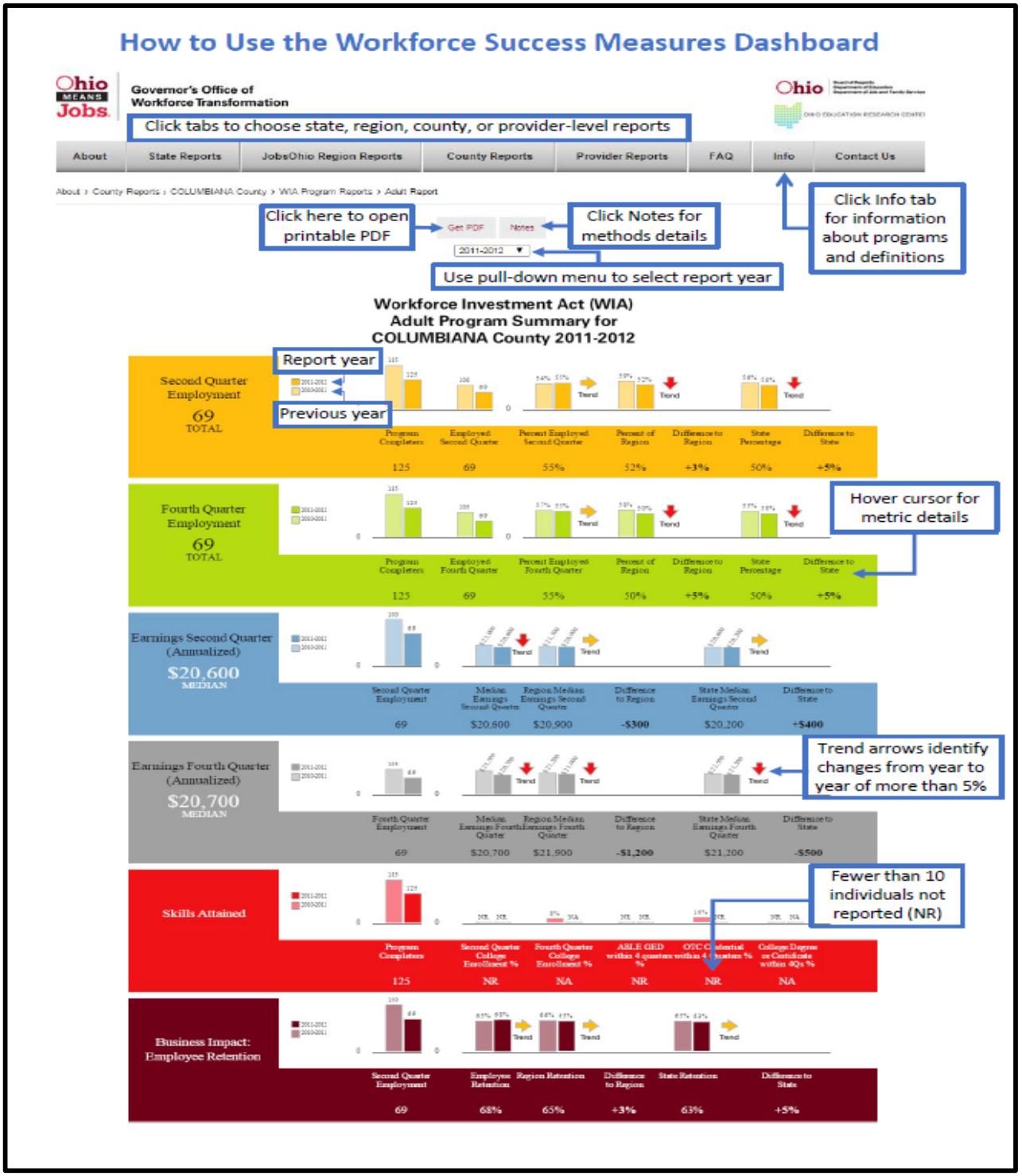
In order to continuously improve the workforce system, the Office of Workforce Transformation must support all programs with data to benchmark progress. Data outputs are collected by county commissioners at the local level, and by cabinet directors at the state level. OWT aims to help state agencies collaborate and continuously find more effective ways to use data.

The goal of the Workforce Success Measures Dashboard is to develop an aligned view of performance measures across various state workforce programs. The Governor and OWT want to know how many individuals are being served, and how much they are benefitting from the services they receive. The dashboard was developed by CHRR with WDQI funds and is now focused on assisting the state in achieving successful outcomes under WIOA and other statewide workforce development and education programs. The dashboard measurements are meant to be rigorous measures of program performance and market penetration. (In the case of OLDA data, the focus of 'performance measurement' is not compliance with federal performance accountability requirements. Rather, the focus is on developing data for decision-making.[31]) In order to achieve this rigor, OWT is looking at methods to possibly change the denominator used to calculate program outcome measures from just WIOA participants. The goal of this change is to shift focus and create

[31] For example, current objectives related to 'performance measurement' have been to (1) align data across workforce programs to compare outcomes, (2) develop tools that aid program operations, (3) promote transparency through public-facing information on programs and their outcomes, and (4) inform strategic planning and policy.

a global outlook to assist and ensure service to as many individuals as possible, through both staff-assisted services and self-service.

Figure V-6. Guide to Workforce Success Measures Dashboard



## Why OLDA works

OSU staff have considered why and how the OLDA effort achieved such success to date. They place great emphasis on the active participation of state agency staff and their buy-in to OLDA and to the analytical power of research and analysis making use of its data. They describe these extensive relationships as a web of contacts.

The state agencies have a strong need to participate in OLDA because, except for ODE, they don't have the resources or people or structure to create data archives, and all the participating agencies rely on OLDA staff to analyze the data. The state agencies appreciate the OSU data and research capacity, particularly because of OSU's long experience with NLS and operating the ADARE data system.

Critical to OLDA's success was the receipt of grants, particularly the two WDQI grants that funded its establishment. The system could have failed, however, once the federal funding was exhausted in early 2016. It was critical that four participating agencies wanted to continue the archive and were willing to pay for its operation. It also was critical that the Governor's office played a role in ensuring the funding was provided by the state agencies.

Also important to OLDA's success was the fact that OSU CHRR operates the NLS for BLS. Annual BLS funding was used to establish and enhance the infrastructure of the NLS data system and to provide funding for its continuing operation. OLDA did not have to contribute to the already existent security infrastructure at OSU, only cover the marginal costs for developing and operating the ongoing OLDA system.

The people at the heart of OLDA were also critical to its success. The State of Ohio's OLDA lead is a JFS employee who was formerly LMI director and has worked with longitudinal data for many years. The Ohio State University's two leads are experienced researchers who direct OERC and CHRR. These three researchers and their staff have built relationships of trust and mutual respect, which was evident when they were interviewed.

The alternative to a centralized infrastructure like OLDA would be a system distributed across agencies that would be difficult to develop and maintain. The state agencies do not have sufficient staff to operate such a distributed system, and they could not duplicate the high degree of security that the CHRR has to offer.

OLDA could be better established to ensure a more smoothly operating system. For example, at present, OLDA relies on separate legal agreements between participating agencies, OSU, and outside researchers. It is difficult for the OLDA director at JFS to work with all of the participating parties to keep existing agreements in alignment and up to date. It would facilitate a more stable organizational relationship to have a single statewide agreement, with signoff by individual agencies. In some states, legislative mandates have promoted such data systems.

The organizational change in moving from WDQI to the Ohio Analytics governance structure was needed because WDQI terminated. The shift represents a transition from a federal grantor to a state-only governance structure. Ohio Analytics' goals include good accountability and gaining individual state agency director buy-in. During the period of WDQI funding, rules were established

and products were developed that demonstrate feasibility and value. Now the governance process is being revised, to provide direct accountability to the state with the goal of providing stability to the state-only funded system.

For now, OLDA is self-funding with participating agencies providing $200 thousand each per year. The hope is that Ohio Analytics will continue to be self-financing, with a new OLDA agreement expected in 2017. If more state agencies become participating members and users, then the program could more easily remain self-sufficient.

## Key issues in replicability of OLDA

For reasons discussed below, Ohio staff recognize that replication of the OLDA model in other states would likely be difficult. They believe a number of things would help replication:

### *Technical capacity*

The key to developing a system like OLDA is strong technical capacity and a strong interest. State agencies rarely have enough needed technical and human resources capabilities. As a result, Ohio found that using a major research university as a partner was key, and that is the route most states with successful systems have used. The problem is there are not many state research universities that have the research capacity to partner in this way. Combining the technical capacity of Keith Ewald at JFS with the technical capacity of Josh Hawley, Randy Olsen, and other staff at OSU yielded the initial vision for and development of OLDA, and their enthusiasm and technical capacity drove the effort forward as opportunities presented themselves.

### *State agency buy-in for OLDA products*

Key to making an OLDA-like system work is to develop products that state agencies want. It is not enough to produce good data. The data has to be used by partner state agencies, and the products that are produced have to be products that cannot be produced without these data. Nonetheless, even good products may not be well-received if state agencies are concerned that state performance dashboards or evaluations could suggest negative results and result in all-or-nothing funding, as opposed to a focus on continual improvement. For that reason, it helps to sell the data system by developing products that point to best practices to improve programs.

Examples of products the state or its individual agencies need include:

- Program evaluations that cannot be produced without longitudinal administrative data.
- The adoption of regression-adjusted performance measures that make adjustments for factors (such as the economy or disasters) that can influence performance.
- Training provider scorecards that are difficult and costly to produce by local service providers, such as community colleges, but that OLDA can produce using UI wage records for much less burden.

### *Champions*

It helps a great deal if the data and research system has one or more champions in high-level positions of leverage. In Ohio, the support has come from the very top–the Governor's office and, in part by this influence, the heads of agencies.

It has helped that Governor Kasich's is very interested in workforce issues and the use of data for evidence-building and government program accountability, which are demonstrated by his commitment to achieving strong state workforce performance results, in addition to developing state and local WIOA targets under the new federal performance accountability system.

### *Access and transparency*

Governor Kasich also issued an Executive Order creating the Governor's Office of Workforce Transformation, with OLDA reporting progress periodically to this Office, which includes leadership from several state agencies. OLDA has done well because its system administrators have had the opportunity to keep state agency leaders briefed on the direction, progress and research outputs of OLDA. The result is that Ohio officials have been receptive to participating in supporting the OLDA infrastructure and have asked for products that they need.

### *Phased approach*

Ideally, a longitudinal data set would not be built over night but would be developed in stages. It helps to make enhancements as needs and opportunities (such as funding or interest to participate from additional state agencies) are evident, and to rely on best practices in other states. In considering both a governance structure and data access and other procedures for OLDA, staff at JFS and OSU relied on some existing practices from the State of Washington, for example.

### *Governance*

Adopting a formal governance structure like the new Ohio Analytics is an important goal. In Ohio, the governance structure during the period of WDQI funding was informal, because funding was external and temporary. Under the first WDQI grant, OLDA developed mostly through a working relationship between two individuals, Keith Ewald and Josh Hawley. The structure started to formalize after Ohio received its second WDQI grant in 2013 and as more state agencies began to participate in OLDA. The change continued as the Governor's Office of Workforce Transformation became more involved with OLDA and with development of products for the Governor.

## The future of OLDA and Ohio Analytics

Looking to the future, OLDA needs to continue to prove itself if it is going to survive and thrive. There is considerable pressure to enhance OLDA and its byproducts. For example, the Governor's Office of Workforce Transformation wants to change and improve the Workforce Success Measures program. Higher Education officials want to drive a research agenda forward, which

means their data has to be made ready for these needs. Many agencies are interested in UI wage record data to understand the effectiveness of their programs and services for individuals they serve who move to other states.

New agencies are likely to participate in OLDA. The Ohio Housing Finance Agency is expected to join. Another interested agency includes Ohio Youth Services. The Department of Mental Health and Addiction Services has collaborated with OLDA for quite some time. TANF and SNAP would be an ideal addition but face unique legal issues and administrative policy issues.

The governance document for OLDA is in draft status. It is expected to be completed soon and to be executed. Over the next two years, a consolidated agreement may be developed for member agencies. Such an agreement would help to institutionalize OLDA, making the data sharing process more efficient and showing an increased level of commitment. It would be signed by a senior agency official, making it easier to retain state agency commitment after changes in state agency leadership. It also would get more people committed throughout each agency: executives, IT managers, and program managers.

OLDA and its capabilities also need to be made more visible to state policymakers and the public. Project outcomes should be made public, to have more effect on policy and programs, and there also should be formal reporting on financial statements. OLDA and the related research infrastructure should be seen as efficient and well-executed, living within participating agencies' cost constraints and delivering products government needs for decision making and to help citizens.

OLDA should develop analyses that apply data across all programs. Conducting analysis of this breadth means that CHRR staff need to understand all participating programs. The capability to perform these analytics should be developed at CHRR and informed by the expertise in the state agencies, so that the agencies receive the high-quality analysis they need. In Ohio, it is not realistic to expect the agencies to develop enough of their own analytic capacity because of the limited current staff capacity and the high degree of technical skill needed for most analysis. As a result, the agencies will continue to rely on CHRR staff to both archive and analyze the data.

It is critical for each state agency to continue to own its own data and have the final approval on new projects using that data. This approach has made agencies far more willing to participate in OLDA.

An important strength of OLDA is the continuity at CHRR. CHRR has a low turnover among its staff. It also has low-cost research support from graduate students who provide lots of effort. In addition, OSU has strong institutional relations with other universities across the country. CHRR can attract students writing dissertations and hire post-doctoral candidates.

On the other hand, a problem with OLDA is that academics want to conduct their own research and publish it, and the proposed research does not always conform to state agency priorities.

It helps to have OLDA at a neutral research entity—in this case a university—because it provides both known expertise and a reputation for being objective. The mission of a research organization such as CHRR fits with tasks required to operate OLDA. Also, the price is right because OSU is a

non-profit and charges are modest. A major additional benefit at OSU stems from the data security infrastructure CHHR developed to operate the National Longitudinal Survey, which OLDA relies on.

A data security breach would be a serious problem, but the risk is low in the CHRR environment based on the security infrastructure. It is also less of an issue since CHRR staff use due diligence based on both university and BLS standards.

The legal structure for data sharing presents some challenges. Differences in confidentiality rules by departments at the federal and state levels is a continuing problem as is informed consent. It is difficult to overcome these issues without better coordination of policy among departments, and without new efforts to guarantee confidentiality while encouraging the use of data for research and evaluation.

For OLDA, there is also risk of loss of funding. This risk will be reduced if more agencies join OLDA. Additional funds also would allow CHRR to conduct more research per agency. A test of this will occur when the Ohio Housing Financing Agency becomes an OLDA participant.

## Ohio Research Organizations and Individuals Interviewed

**Ohio Department of Jobs and Family Services**
Keith Ewald: Project Manager, Workforce Analytics
Bruce Madson: Assistant Director
John B. Weber: Deputy Director, Office of Workforce Development

**Center for Human Resource Research, The Ohio State University**
Frank Bell: Lead Archivist
Kristin Harlow: Research Associate
Josh Hawley: Ohio Education Research Center Director/Associate Professor
Lisa Neilson: Research Scientist
Randy Olsen: Senior Research Scientist/Professor Emeritus
Jaron Shook: Senior Database Administrator/Team Coordinator
Brian Stamper: Data Manager

**Governor's Office of Workforce Transformation**
Jonathan Bocanegra: Business Engagement Manager
Ryan Burgess: Director

**Ohio Department of Education**
Heather Boughton: IT Project Manager 3
Eben Dowell: Data Administration Manager 2
Emily Passias: Director, Office of Career-Technical Education
Erica Weaston: Data Administration Manager 2

**Ohio Department of Higher Education**
Jill Dannemiller: Director, Data Management and Analysis
John Magill: Assistant Deputy Chancellor Economic Advancement
Cheryl Rice: Associate Vice Chancellor, Higher Education Workforce Alignment

**Opportunities for Ohioans with Disabilities**
Pamela Laing: Program Administrator 3
Raivo Murnieks: Deputy Director, Division of Performance and Innovation
Steven Tribbie: Program Administrator 3

**Ohio Housing Finance Agency**
Bryan Grady: Research Analyst

**Ohio Department of Mental Health and Addiction Services**
HelenAnne Sweeny: Health Services Policy Supervisor

# Appendices

# Appendix A: State Workforce Agency Publication Websites Collected Through the National Scan

(see also Appendix B; for some agencies, all or additional studies are listed there)

**Alaska**

- http://labor.alaska.gov/research/index.htm

**Alabama**

- www.labor.alabama.gov/lmi

**California**

- http://www.labormarketinfo.edd.ca.gov/
- http://www.labormarketinfo.edd.ca.gov/Publications_Library.html
- www.cwdb.ca.gov

**Colorado**

- https://www.colorado.gov/pacific/cwdc/colorado-talent-pipeline-report

**Connecticut**

- http://www1.ctdol.state.ct.us/lmi/index.asp

**District of Columbia**

- http://does.dc.gov/page/labor-statistics

**Florida**

- http://www.floridajobs.org/labor-market-information

**Hawaii**

- http://labor.hawaii.gov/
- www.hiwi.org
- www.greenjobshawaii.org

**Idaho**

- http://labor.idaho.gov/dnn/idl/Publications.aspx#ptitle-resrch
- https://labor.idaho.gov/dnn/wia/WorkforceProfessionals/AnnualReports.aspx

**Indiana**

- http://www.incontext.indiana.edu/
- http://www.hoosierdata.in.gov/infographics/

**Kansas**

- www.KansasRegents.org
- Klic.dol.ks.gov

**Maryland**

- https://mwejobs.maryland.gov/gsipub/index.asp?docid=413

**Missouri**

- www.MissouriEconomy.org

**Montana**

- http://lmi.mt.gov/Publications/PublicationsContainer/ArtMID/34826/ArticleID/4113/Labor-Market-Outcomes-for-Missoula-College

**Nebraska**

- https://neworks.nebraska.gov/vosnet/gsipub/documentview.aspx?enc=VSv720Lz/Ap0vkKK/nC5eQ

**Ohio**

- http://oerc.osu.edu/publications
- www.OhioMeansJobs.com
- http://ohiolmi.com/research/research.htm
- http://ohiolmi.com/wa/waJobsOhio.html
- http://ohiolmi.com/OhioShale/OhioShale.htm
- http://www.ohioanalytics.gov/Reports/ReportsSynopsis.stm
- http://www.ohioanalytics.gov/Reports/Project-Status-Report.stm

**Oklahoma**

- https://www.ok.gov/oesc_web/Services/Find_Labor_Market_Statistics/index.html

**Oregon**

- https://www.qualityinfo.org/

**Pennsylvania**

- www.workstats.dli.pa.gov

**Rhode Island**

- http://www.dlt.ri.gov/tdi/URIStudyonTCI.htm

**South Carolina**

- www.scworkforceinfo.com

**South Dakota**

- http://dlr.sd.gov/graduate_outcomes/

**Utah**

- http://jobs.utah.gov/wi/pubs/specialreports.html
- http://socialwork.utah.edu/research/social-research-institute/reports-and-publications/department-of-workforce-services-dws-reports/

**Virginia**

- https://data.virginialmi.com/vosnet/Default.aspx

**Washington**

- https://esd.wa.gov/labormarketinfo/report-library

**Wisconsin**

- http://worknet.wisconsin.gov/worknet/

**Wyoming**

- http://doe.state.wy.us/LMI/

# Appendix B: State Workforce Agency Research Studies and Evaluations (CY 2011-2015) Collected Through the National Scan

(see also Appendix A; for some agencies, all or additional studies are listed there)

| State | Title | Author(s) | Date of publication or completion | URL |
|---|---|---|---|---|
| **AK** | Alaska students' pathways from high school to postsecondary education and employment | Havala Hanson Ashley Pierson | 2016 | https://ies.ed.gov/ncee/edlabs/projects/project.asp?projectID=336 |
| **AL** | The Greener Side of Alabama's Workforce | ADOL, LMI Division | 2011 | http://www2.labor.alabama.gov/workforcedev/Green_Alabama%20Benefits%20Survey%202011%20FINAL%20REPORT.pdf |
| **AL** | 2013 Alabama Skills Gap Survey | Alabama Department of Labor | 2013 | http://www.dashhound.net/alskills/ |
| **AL** | Alabama's Green Economy | The University of Alabama, Center for Business and Economic Research, Institute for Social Science Research | 2011 | http://www2.labor.alabama.gov/workforcedev/Green_Alabama%20Benefits%20Survey%202011%20FINAL%20REPORT.pdf |
| **AL** | Alabama Department of Industrial Relations Employer Benefits Survey 2011 Report | Center for Business and Economic Research and Institute for Social Science Research University of Alabama | 2011 | http://www2.labor.alabama.gov/workforcedev/RevisedBenfit.pdf |
| **AL** | Underemployment in Alabama Workforce Investment Advisory Areas | Center for Business and Economic Research, Institute for Social Science Research, University Center for Economic Development, University of Alabama | 2013 | http://www2.labor.alabama.gov/workforcedev/Alabama%20Underemployment%20Report.pdf |

| State | Title | Author(s) | Date of publication or completion | URL |
|---|---|---|---|---|
| **AL** | Investigating the Feasibility of Forecasting Underemployment in Alabama | Center for Business and Economic Research, University of Alabama | 2013 | http://www2.labor.alabama.gov/workforcedev/Underemployment%20Forecasts.pdf |
| **AL** | Alabama State of the Workforce Report | Center for Business and Economic Research, Institute for Social Science Research, The University of Alabama | 2016 | http://www2.labor.alabama.gov/workforcedev/WorkforceReports/Alabama.pdf |
| **AR** | 2016 Economic Security Report | Arkansas Research Center | 2016 | http://dws.arkansas.gov/News/PDF/Act%20852%20Economic%20Security%20Report.pdf |
| **AZ** | Economic environment, existing and emerging industries | Office of Employment and Population Statistics | 2015 | https://des.az.gov/content/arizona-state-plan |
| **AZ** | Economic Data to Guide Discussion on Forming Workforce Regions | Office of Employment and Population Statistics | n/a | |
| **CA** | The Equal Employment Opportunity Analysis Project Analysis of 2012-2013 outcome data to determine non-discrimination and equal opportunity in the Unemployment Insurance and Workforce Services Programs. | EDD Survey and Applied Research Section | 2014 | |
| **CA** | Annual Unemployment Insurance Customer Satisfaction Survey | EDD Survey and Applied Research Section | Conducted Annually | |

| State | Title | Author(s) | Date of publication or completion | URL |
|---|---|---|---|---|
| **CO** | Colorado Talent Pipeline Report | Colorado Workforce Development Council in partnership with the Department of Higher Education, the Department of Education, the Department of Labor and Employment, and the Office of Economic Development and International Trade, with support from the Office of State Planning and Budgeting and the State Demography Office at the Department of Local Affairs. | 2015 | https://www.colorado.gov/pacific/cwdc/colorado-talent-pipeline-report |
| **CT** | Jobs First Employment Services (JFES) Enhancement Workgroup Recommendations | CT Employment and Training Commission | 2011 | https://www.ctdol.state.ct.us/OWC/CETC/Committees/Career/JFESEnhancementWorkgroupRpt10-28.pdf |
| **DC** | Understanding Raising the minimum wage | Urban Institute | 2014 | http://does.dc.gov/sites/default/files/dc/sites/does/Understanding%20the%20Implications%20of%20Raising%20the%20Minimum%20Wage%20in%20the%20District%20of%20Columbia.pdf |
| **DC** | District of Columbia High Demand, High Wage Occupations | Office of Labor Market Research and Information (OLMRI) | 2014 | http://does.dc.gov/sites/default/files/dc/sites/does/publication/attachments/High%20Demand%20High%20Wage%20Publication-OLMRI.pdf |

| State | Title | Author(s) | Date of publication or completion | URL |
|---|---|---|---|---|
| **DC** | Private Sector Net Job Creation in DC: DOES Firm Size Matter? | Office of Labor Market Research and Information (OLMRI) | 2014 | http://does.dc.gov/sites/default/files/dc/sites/does/publication/attachments/Private%20Sector%20Net%20Job%20Creation%20in%20DC-DOES%20Firm%20Size%20Matter.pdf |
| **DC** | DC Labor Market Analysis | BW Research group | 2014 | http://does.dc.gov/sites/default/files/dc/sites/does/page_content/attachments/BW%20Research%20-%20Labor%20Market%20Analysis%20-%20DOES%20Report%20Final.pdf |
| **HI** | Unemployment Insurance Fact Book | Research & Statistics, Operations Management Information Staff | 2015 | http://labor.hawaii.gov/rs/files/2012/12/FB2014.pdf |
| **HI** | Updating the Baseline: Hawaii's Clean Energy Jobs | Research & Statistics Staff | 2015 | https://greenjobshawaii.hirenethawaii.com/admin/gsipub/htmlarea/uploads/Clean_Energy_Report_FINAL.pdf |
| **HI** | Soft Skills Survey | Research & Statistics, Labor Market Research Staff | 2015 | https://www.hiwi.org/admin/gsipub/htmlarea/uploads/Soft_Skills_Survey_Results_and_Analysis-2015.pdf |
| **HI** | Predicting the Future of Hawaii's Most Essential Industries | Research & Statistics Staff | 2013 | https://www.hiwi.org/admin/gsipub/htmlarea/uploads/Predicting_the_Future_of_HI's_Most_Essential_Industries.pdf |

| State | Title | Author(s) | Date of publication or completion | URL |
|---|---|---|---|---|
| **HI** | Hawaii Labor Market Dynamics | Research and Statistics, Labor Market Research Staff | 2015 | https://www.hiwi.org/admin/gsipub/htmlarea/uploads/Predicting_the_Future_of_HI's_Most_Essential_Industries.pdf |
| **IA** | Statewide Laborshed Study | Iowa Workforce Development | 2016 | https://www.iowaworkforcedevelopment.gov/laborshed-studies |
| **IA** | Workforce Needs Assessment Survey | Iowa Workforce Development | 2015 | https://www.iowaworkforcedevelopment.gov/iowa-workforce-needs-assessment |
| **IA** | Community College Program Outcomes | Iowa Workforce Development & Iowa Dept. of Education | 2016 | https://www.educateiowa.gov/iowa-community-college-program-outcomes |
| **IA** | Iowa College Student Survey | Iowa Workforce Development | 2013 | https://www.iowaworkforcedevelopment.gov/iowa-college-student-analysis |
| **IA** | Iowa Paramedic & EMT Labor Market Analysis | Iowa Workforce Development | 2015 | http://www.iemsa.net/pdfs/Iowa_Paramedic_and_EMT_Labor_Market_Analysis_(January_2015).pdf |
| **IA** | Iowa Registered Apprenticeship Employment and Wage Report | Iowa Workforce Development | 2014 | http://portal.iowaworkforce.org/SkilledIowaLinks/IowaRegisteredApprenticeship_01.14.pdf |
| **IA** | Electrolux Manufacturing | Iowa Workforce Development | 2014 | |

| State | Title | Author(s) | Date of publication or completion | URL |
|---|---|---|---|---|
| **IL** | Green Jobs Survey | Dave Bieneman | 2011 | http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/419477/2713126/200-923e440d6304550f9f1523473f49e58d_Green_Survey_report+FINAL.pdf |
| **IL** | Analysis of Illinois' enlisted Veterans' Military skills and Postsecondary Education | Dave Bieneman | 2012 | http://www.ides.illinois.gov/IDES%20Forms%20and%20Publications/Veterans_Education_Report2012.pdf |
| **IL** | The Transition of Illinois Veterans from Military Discharge to Stable Civilian Employment | Dave Bieneman | 2012 | http://www.ides.illinois.gov/IDES%20Forms%20and%20Publications/VeteransTransition.pdf |
| **IL** | Winning Job Opportunities | Ron Payne | 2015 | http://www.ides.illinois.gov/IDES%20Forms%20and%20Publications/RESPWinningJobOpportunities.pdf |
| **MD** | Maryland Areas of Substantial Unemployment (ASU's) | Division of Workforce Development and Adult Learning; Office of Workforce Information and Performance; Carolyn J. Mitchell, Director | 2015 | https://mwejobs.maryland.gov/admin/gsipub/htmlarea/uploads/ASU_PY15-AnnualReport.pdf |
| **MD** | Maryland's Economic and Labor Market Analysis | Office of Workforce Information and Performance; Division of Workforce Development and Adult Learning; Maryland Department of Labor, Licensing and Regulations | 2014 | https://mwejobs.maryland.gov/admin/gsipub/htmlarea/Uploads/EconAnalysis_2014.pdf |

| State | Title | Author(s) | Date of publication or completion | URL |
|---|---|---|---|---|
| **MD** | Hot Jobs Now | Department of Labor, Licensing and Regulation; Division of Workforce Development and Adult Learning; Office of Workforce Information and Performance | 2015 | https://mwejobs.maryland.gov/admin/gsipub/htmlarea/uploads/HotJobs_Brochure.pdf |
| **ME** | Job Vacancy Survey | Ruth Pease | | www.maine.gov/labor/cwri/jvs.html |
| **MI** | Michigan Earn and Learn | Social Impact Research Center | 2014 | http://socialimpactresearchcenter.issuelab.org/resource/michigan_earn_and_learn_an_outcome_implementation_evaluation_of_a_transitional_job_and_training_program |
| **MO** | Missouri's Wagner-Peyser Program, the Great Recession and Program Reform: An Analysis of Client Services | Peter Mueser and Kyung-Seong Jeon | 2014 | missourieconomy.org/pdfs/WDQI_MissouriReport_WagnerPeyser_WorkOutcomes.pdf |
| **MO** | In-State Employment Outcomes for Graduates from Missouri's Public Higher Education Institutions; Wage Premiums by Degree Level and Field of Study | Mark Ehlert and Jiaxi Li | 2014 | missourieconomy.org/pdfs/WDQI_MissouriReport_PublicEduc_WorkOutcomes.pdf |
| **MO** | Training Program Impacts and the Onset of the Great Recession | Peter Mueser and Kyung-Seong Jeon | 2014 | missourieconomy.org/pdfs/WDQI_MissouriReport_TrainingProgramImpacts_WorkOutcomes.pdf |
| **MO** | Serving Public Education: Employment of Graduates from Missouri Public Higher Education Institutions in Missouri's Public Schools | Mark Ehlert and Jiaxi Li | 2014 | https://www.missourieconomy.org/pdfs/WDQI_MissouriReport_PublicEduc_WorkOutcomes.pdf |

| State | Title | Author(s) | Date of publication or completion | URL |
|---|---|---|---|---|
| **MT** | Labor Market Outcomes for Missoula College | Amy Watson, Barbara Wagner, Kirk Lacy, Erik Rose | 2016 | http://lmi.mt.gov/Portals/135/Publications/LMI-Pubs/Labor%20Market%20Publications/MC%20Report%20FINAL_8.0.pdf |
| **NE** | Nebraska Workforce Trends | LMI | Monthly publication | https://neworks.nebraska.gov/vosnet/gsipub/documentview.aspx?enc=VSv720Lz/Ap0vkKK/nC5eQ |
| **NE** | Nebraska Labor Availability and Employer Needs Studies | LMI | | https://neworks.nebraska.gov/vosnet/gsipub/documentview.aspx?enc=VSv720Lz/Ap0vkKK/nC5eQ== |
| **NJ** | Green Talent Research Initiative | NJLWD and Heldrich Center | 2011 | http://lwd.dol.state.nj.us/labor/lpa/content/GreenJobsNJ.html |
| **NJ** | Evaluation of Workforce development Services in New Jersey | Heldrich Center for Workforce Development | 2015 | |
| **OR** | Endangered: Youth in the Labor Force | Nick Beleiciks, Andrew Crollard, Graham Slater, Carlee Justis, Martin Kraal, Jessica Nelson, Jill Cuyler, Mark Miller, Tracy Morrissette, Kathi Riddell, Amy Vander Vliet | 2014 | https://www.qualityinfo.org/documents/10182/13336/Endangered+Youth+in+the+Labor+Force?version=1.3 |
| **OR** | What Employers Need: Workforce Challenges Among Fabricated Metal Manufacturers in Marion, Polk and Yamhill Counties | Brooke Jackson | 2012 | https://www.qualityinfo.org/documents/10182/13336/What+Employers+Need+Workforce+Challenges+Among+Fabricated+Metal+Manufacturers?version=1.2 |

| State | Title | Author(s) | Date of publication or completion | URL |
|---|---|---|---|---|
| **OR** | Oregon's Falling Labor Force Participation: A Story of Baby Boomers, Youth, and the Great Recession | Nick Beleiciks | 2014 | https://www.qualityinfo.org/documents/10182/13336/Oregon%E2%80%99s+Falling+Labor+Force+Participation+A+Story+of+Baby+Boomers%2C+Youth%2C+and+the+Great+Recession+2014?version=1.1 |
| **OR** | Oregon's Minimum Wage Jobs: Facts, Figures, and Context | Nick J. Beleiciks | 2016 | https://www.qualityinfo.org/documents/10182/13336/Oregon%E2%80%99s+Minimum+Wage+Jobs+Facts%2C+Figures%2C+and+Context |
| **RI** | Education Pipeline-Where are RI's 2005 8th Graders | | 2015 | http://ridatahub.org/datastories/education-career/1/ |
| **RI** | Rhode Island's Young Adult Workforce | | 2014 | http://ridatahub.org/datamart/rhode-islands-young-adult-workforce/ |
| **RI** | Launching the Rhode Island Temporary Caregiver Insurance Program (TCI): Employee Experiences One Year Later | Submitted by the University of Rhode Island on behalf of the RI Department of Labor and Training | 2016 | http://www.dlt.ri.gov/tdi/pdf/RIPaidLeaveFinalRpt0416URI.pdf |
| **SC** | 2015 Economic Analysis | Alan Davis | 2016 | www.scworkforceinfo.com |
| **SC** | South Carolina Talent Pipeline Project | Maher & Maher | 2015 | |
| **SC** | 2015 SC Job Skills Gap Update | Alan Davis | 2016 | www.scworkforceinfo.com |
| **SC** | Local Workforce Investment Area Reports | Alan Davis | 2015 | www.scworkforceinfo.com |

| State | Title | Author(s) | Date of publication or completion | URL |
|---|---|---|---|---|
| **SD** | Growth and Change in South Dakota Labor Markets: An Assessment of the State's Labor Market Imbalances in a Weak National Recovery | Neeta P. Fogg and Paul E. Harrington | 2014 | http://southdakotawins.com/images/data/files/sd_labor_markets_may2014.pdf |
| **SD** | Governor's Workforce Summits | Accenture | 2014 | http://southdakotawins.com/images/data/files/summits_final_report.pdf |
| **UT** | Is Job Training Justified? | John Krantz and Carrie Mayne | 2011 | http://jobs.utah.gov/wi/trainingstudy/trainingstudy.pdf |
| **UT** | Meeting Welfare's Work Participation Requirements and Transitioning into the Labor Market | John Krantz and Natalie Torosyan | 2012 | http://jobs.utah.gov/wi/pubs/specialreports/tanfreport092012.pdf |
| **UT** | Public Assistance Usage and Employment Patterns in Utah's Refugee Population | Natalie Torosyan | 2014 | http://jobs.utah.gov/wi/pubs/specialreports/refugee14.pdf |
| **UT** | Palmer Count Employment Pilot—Baseline Study | Mary Beth Vogel Ferguson | 2011 | http://socialwork.utah.edu/wp-content/uploads/sites/4/2015/09/Baseline-Data-Report.pdf |
| **UT** | Humanitarian Center Program: Year One Evaluation | Mary Beth Vogel Ferguson | 2011 | http://socialwork.utah.edu/wp-content/uploads/sites/4/2015/09/HumanitarianCenterOneyearEvaluation.pdf |
| **UT** | Humanitarian Center Program: Year Two Evaluation | Mary Beth Vogel Ferguson | 2012 | http://socialwork.utah.edu/wp-content/uploads/sites/4/2015/09/Humanitarian-Center-Two-Year-Evaluation.pdf |

| State | Title | Author(s) | Date of publication or completion | URL |
|---|---|---|---|---|
| **UT** | Palmer Court Employment Pilot Development & Implementation Overview | Mary Beth Vogel Ferguson | 2012 | http://socialwork.utah.edu/wp-content/uploads/sites/4/2015/09/Martha-Toll-Report_Final.pdf |
| **UT** | Family Employment Program (FEP) Redesign Study of Utah 2012: Wave 1 | Mary Beth Vogel Ferguson | 2012 | http://socialwork.utah.edu/wp-content/uploads/sites/4/2015/09/DWS_2012_FEPRedesignReport.pdf |
| **VA** | Commonwealth of Virginia Job Vacancy Survey | VCU | 2016 | https://data.virginialmi.com/gsipub/index.asp?docid=311 |
| **VA** | The Long-Term Unemployed in VA | William & Mary | 2012 | https://data.virginialmi.com/gsipub/index.asp?docid=311 |
| **WI** | Analysis of US United Way Campaigns | Dennis Winters, Tom Pethan, Tom Michels, Dan Younan | Ongoing | |
| **WI** | Little Evidence of a Middle Skills Gap in Wisconsin | Daniel Younan | 2016 | |
| **WI** | Wisconsin's Creative Economy: An Employment Report | Blania Calderon, Daniel Younan | 2016 | |
| **WI** | Analyzing the Direct Impact of the Final Rule for Overtime Exemption on Wisconsin Workers | Daniel Younan | 2016 | |
| **WI** | Northeast Wisconsin Manufacturing Alliance Vitality Index | Jeffrey Sachse | 2015 | http://newmfgalliance.org/media/1561/vitality-study.pdf |

Source: NASWA scan

# Appendix C:
# Workforce Data Quality Initiative (WDQI) Grant Funding in U.S. Dollars by State

| State | Round 1--2011 | Round 2--2012 | Round 3--2013 | Round 4--2014 | Round 5--2015 | Total WDQI Funding |
|---|---|---|---|---|---|---|
| **Alabama** | | | | | | 0 |
| **Alaska** | | | | | 912,478 | 912,478 |
| **Arizona** | | | | | | 0 |
| **Arkansas** | | 928,796 | | | 1,064,377 | 1,993,173 |
| **California** | | | | | | 0 |
| **Colorado** | | | | | | 0 |
| **Connecticut** | | | | 823,791 | | 823,791 |
| **Delaware** | | | | | | 0 |
| **District of Columbia** | | | | | | |
| **Florida** | 1,000,000 | | | | | 1,000,000 |
| **Georgia** | | | | | | 0 |
| **Hawaii** | | 999,200 | | | | 999,200 |
| **Idaho** | | 1,000,000 | | | | 1,000,000 |
| **Illinois** | | 1,000,000 | | | | 1,000,000 |
| **Indiana** | | | | 1,089,913 | | 1,089,913 |
| **Iowa** | 1,000,000 | | | | | 1,000,000 |
| **Kansas** | | | 1,156,117 | | 1,115,773 | 2,271,890 |
| **Kentucky** | | | | 908,285 | | 908,285 |
| **Louisiana** | 999,863 | | | | | 999,863 |
| **Maine** | 1,000,000 | | | | 1,112,888 | 2,112,888 |
| **Maryland** | 1,000,000 | | | | | 1,000,000 |
| **Massachusetts** | 1,000,000 | | | | | 1,000,000 |
| **Michigan** | | 1,000,000 | | | 1,088,282 | 2,088,282 |
| **Minnesota** | 1,000,000 | | | | | 1,000,000 |
| **Mississippi** | | | | 967,975 | | 967,975 |
| **Missouri** | 890,000 | | | | | 890,000 |
| **Montana** | | | | | | 0 |
| **Nebraska** | | 1,000,000 | | 1,065,992 | | 2,065,992 |
| **Nevada** | | | | | | 0 |
| **New Hampshire** | | | | | | 0 |

| State | Round 1--2011 | Round 2--2012 | Round 3--2013 | Round 4--2014 | Round 5--2015 | Total WDQI Funding |
|---|---|---|---|---|---|---|
| **New Jersey** | | 996,660 | | 1,089,869 | | 2,086,529 |
| **New Mexico** | | | | | | 0 |
| **New York** | | | | | | 0 |
| **North Carolina** | | | 1,156,348 | | | 1,156,348 |
| **North Dakota** | 1,000,000 | | | | | 1,000,000 |
| **Ohio** | 1,000,000 | | 1,052,024 | | | 2,052,024 |
| **Oklahoma** | | 1,000,000 | | | | 1,000,000 |
| **Oregon** | | | 1,155,233 | | | 1,155,233 |
| **Pennsylvania** | | 1,000,000 | | | | 1,000,000 |
| **Rhode Island** | | 1,000,000 | | | 1,091,635 | 2,091,635 |
| **South Carolina** | 289,417 | | | | | 289,417 |
| **South Dakota** | | 946,900 | | | | 946,900 |
| **Tennessee** | | | | | 1,082,185 | 1,082,185 |
| **Texas** | 997,014 | | | | 1,116,191 | 2,113,205 |
| **Utah** | | | | | | 0 |
| **Vermont** | | | | | | 0 |
| **Virginia** | 1,000,000 | | 1,155,323 | | | 2,155,323 |
| **Washington** | | 1,000,000 | | | 1,116,191 | 2,116,191 |
| **West Virginia** | | | | | | 0 |
| **Wisconsin** | | | | | | 0 |
| **Wyoming** | | | 722,717 | | | 722,717 |

Source: U.S. Department of Labor at https://www.doleta.gov/performance/workforcedatagrant09.cfm

# Appendix D:

**§ 682.220 What are States' responsibilities in regard to evaluations?**

(a) As required by § 682.200(d), States must use funds reserved by the Governor for statewide activities to conduct evaluations of activities under the WIOA title I core programs in order to promote continuous improvement, research and test innovative services and strategies, and achieve high levels of performance and outcomes.

(b) Evaluations conducted under paragraph (a) must:

(1) Be coordinated with and designed in conjunction with State and Local WDBs and with State agencies responsible for the administration of all core programs;

(2) When appropriate, include analysis of customer feedback and outcome and process measures in the statewide workforce development system;

(3) Use designs that employ the most rigorous analytical and statistical methods that are reasonably feasible, such as the use of control groups; and

(4) To the extent feasible, be coordinated with the evaluations provided for by the Secretary of Labor and the Secretary of Education under WIOA sec. 169 (regarding title I programs and other employment-related programs), WIOA sec. 242(c)(2)(D) (regarding adult education), sec. 12(a)(5), 14, and 107 of the Rehabilitation Act of 1973 (29 U.S.C. 709(a)(5), 711, 727) (applied with respect to programs carried out under title I of that Act (29 U.S.C. 720 *et seq.*)), and the investigations provided by the Secretary of Labor under sec. 10(b) of the Wagner-Peyser Act (29 U.S.C. 49i(b)).

(c) States must annually prepare, submit to the State WDB and Local WDBs in the State, and make available to the public (including by electronic means) reports, containing the results, as available, of the evaluations described in paragraph (a) of this section.

(d) States must cooperate, to the extent practicable, in evaluations and related research projects conducted by the Secretaries of Labor and Education under the laws cited in paragraph (b)(4) of this section. Such cooperation must, at a minimum, meet the following requirements:

(1) The timely provision of:

(i) Data, in accordance with appropriate privacy protections established by the Secretary of Labor,

(ii) Responses to surveys,

(iii) Site visits, and

(iv) Data and survey responses from local subgrantees and State and Local WDBs, and assuring that subgrantees and WDBs allow timely site visits;

(2) Encouraging other one-stop partners at local level to cooperate in timely provision of data, survey responses and site visits as listed in paragraphs (d)(1)(i) through (iv) of this section; and

(3) If a State determines that timely cooperation in data provision as described in paragraph (d)(1) of this section is not practicable, the Governor must inform the Secretary in writing and explain the reasons why it is not practicable. In such circumstances, the State must cooperate with the Department in developing a plan or strategy to mitigate or overcome the problems preventing timely provision of data, survey responses and site visits.

(e) In fulfilling the requirements under paragraphs (a) through (c) above, States are permitted, but not required, to:

(1) Conduct evaluations that jointly examine title I core program activities and activities under other core programs in titles II-IV, as determined through the processes associated with paragraph (b)(1) of this section;

(2) Conduct any type of evaluation similar to those authorized for, or conducted by, the Department of Labor or the Department of Education under the laws cited in paragraph (b)(4) of this section, including process and outcome studies, pilot and demonstration projects that have an evaluative component, analyses of administrative and programmatic data, impact and benefit-cost analyses, and use of rigorous designs to test the efficacy of various interventions; and

(3) Conduct evaluations over multiple program years, involving multiple phases and such tasks and activities as necessary for an evaluation, such as a literature or evidence review, feasibility study, planning, research, coordination, design, data collection, analysis, and report preparation, clearance, and dissemination.

(f) In funding evaluations conducted under paragraph (a), States are permitted, but not required to:

(1) Use funds from any WIOA title I-IV core program to conduct evaluations, as determined through the processes associated with paragraph (b)(1) of this section; and

(2) Use or combine funds, consistent with Federal and State law, regulation and guidance, from other public or private sources, to conduct evaluations relating to activities under the WIOA title I-IV core programs. Such projects may include those funded by the Department of Labor and other Federal agencies, among other sources.

# Appendix E:
# Outreach Email Requesting Participation in National Scan

The email was addressed to several top officials in each state agency, including the top administrator(s), employment and training program directors, and labor market information directors. The email included an electronic link to the scan and also a hard copy of the scan, which was included to make it easy for state staff to share the scan and vet information prior to filling out the electronic version. The scan remained open to states through August, several weeks later than the original estimated timeline. Given that agencies were busy implementing the new WIOA legislation, having an extended timeline allowed the research team to achieve a higher response rate.

**Dear NASWA Administrators, LMI Directors, and Employment and Training Directors:**

Don't miss out! As part of our effort to support state workforce agencies in their implementation of WIOA-mandated innovations, NASWA is conducting a baseline scan of state workforce agencies' research capacity and recent research studies. Please coordinate one agency response and submit it by July 15th—you can help ensure an excellent response rate so the information reflects research capacity and studies across the entire system. (Traditionally, near 90 percent of NASWA member agencies respond to efforts such as this.) We look forward to sharing the information back with you! Thankfully, NASWA LMI and E&T Committee members have helped inform this effort and we will draw on their expertise, as needed, to analyze the information we collect and determine the best format for sharing it back with you.

**Goals and Scope**
WIOA requires state workforce agencies to conduct research and evaluations. While a few agencies appear to have significant research capacity, many informally report that funding and staffing limitations have impeded or even stalled research and evaluation activities. Our goal with this scan is to:

- enable states to learn from states that have capacity and practices;
- provide state and federal policymakers a list of state research staff and contact information;
- provide states a compendium of recent state workforce agency research and evaluations, including information on contractors and other research partners; and
- ensure federal policymakers have a realistic understanding of what is possible now and where states could use support for capacity building.

To accomplish this, we need your help answering questions about your agency's organizational, staffing and funding environment for workforce research. We also want to know about your recent research and evaluation efforts—if there are any—and whether your state could use more staff capacity, training, technical assistance or other support.

**Some Details**

· Click here to access the NASWA National Scan of State Workforce Agency Research Capacity

- Attached is a WORD document that contains the full set of questions in the scan—Note that for many states, a significant number of the questions will remain hidden when you fill out the scan because the scan expands and contracts based on answers to prior questions
- The scan contains instructions and a few definitions. Please review these before beginning.
- You may save your input and return to finish the scan later. To do so, go to the top and click "Save and continue later." You will receive a link via email that will enable to access your scan later.
- If more than one unit in your agency conducts, funds, or participates in research and evaluation activities, please coordinate one agency-wide response—your state's response should reflect an agency-wide perspective.

Please reach out if you have questions or technical issues to report. Thank you.

# Appendix F:
# Job Positions of Primary Contacts for the National Scan

| STATE | PRIMARY CONTACT | SHARED OR WORKED WITH…. | | | | |
|---|---|---|---|---|---|---|
| | | | Type of Entity | | | |
| | | Name of Entity | State Board | Other Unit(s) or Agency | Other Agency | Cross Agency Entity |
| AK | Chief, Research and Analysis, Administrative Services Division, Department of Labor and Workforce Development | | | | | |
| AL | Assistant Director, Labor Market Information, Department of Labor | | | | | |
| AR | Grants and Resources Administrator, Employment Assistance, Department of Workforce Services | | | | | |
| AZ | Workforce Policy & Support Team Manager, Employment & Rehabilitative Services, Department of Economic Security | Commerce Authority; Office of Employment and Population Statistics, ADOA | | X | | |
| CA | Chief, Labor Market Information Division, Employment Development Department | Workforce Development Board, Policy, Accountability and Compliance Branch | X | | | |
| CO | Director, Workforce Development Programs, Department of Labor and Employment | Workforce Development Council | | | | X |
| CT | Employment Operations Division, Department of Labor | State Board; Department of Labor, Office of Research | X | X | | |
| DC | Associate Director, Office of Labor Market Research and Information, Department of Employment Services | | | | | |
| DC | Associate Director, Office of Labor Market Research and Information, Department of Employment Services | | | | | |
| FL | Chief, Bureau of Labor Market Statistics, Workforce Services, Department of Economic Opportunity | | | | | |
| GA | Director, Workforce Solutions, Department of Labor | | | | | |
| HI | Research and Statistics Officer, Research and Statistics Office, Department of Labor and Industrial Relations | | | | | |
| IA | Director, Labor Market Information, IA Workforce Development | | | | | |
| ID | Research Analyst, Communications and Research, Department of Labor | | | | | |

| STATE | PRIMARY CONTACT | SHARED OR WORKED WITH…. | | | | |
|---|---|---|---|---|---|---|
| | | | Type of Entity | | | |
| | | Name of Entity | State Board | Other Unit(s) or Agency | Other Agency | Cross Agency Entity |
| **IL** | Director, Labor Market Information, Economic Information and Analysis, Department of Employment Security | Department of Commerce and Economic Opportunity | | | X (1) | |
| **IN** | Business & Workforce Studies Manager, Research & Analysis, Department of Workforce Development | | | | | |
| **KS** | LMI Services Division, Department of Labor | Department of Commerce, Workforce Services Division | | | X | |
| **MA** | Research Director, Department of Unemployment Assistance, Executive Office of Labor and Workforce Development | | | | | |
| **MD** | Director, Office of Workforce Information and Performance, Division of Workforce Development and Adult Learning, Department of Labor, Licensing and Regulation | | | | | |
| **ME** | Deputy Director & Chief Economist, Center for Workforce Research, Department of Labor | | | | | |
| **MI** | Director of Research, Bureau of LMI and Strategic Initiatives, Department of Technology, Management and Budget | Workforce Development Agency; UI Agency | | X | | |
| **MO** | Performance Research Manager, Division of Workforce Development, Department of Economic Development | Department of Economic Development, Missouri Economic Research and Information Center | | X<br><br>Research Division | | |
| **MS** | Deputy Executive Director/COO, Operations and Information Technology, Department of Employment Security | | | | | |
| **MT** | Chief, Research and Analysis Bureau, Workforce Services Division, Department of Labor and Industry | | | | | |
| **ND** | Workforce Development Director, Workforce Programs/Systems Management, Job Service ND | | | | | |
| **NE** | Commissioner, Department of Labor | | | | | |
| **NH** | Director, Economic and Labor Market Information Bureau, New Hampshire Employment Security | | | | | |
| **NJ** | Director, Division of Workforce Research and Analytics, Office of Research and Information | | | | | |
| **NM** | Deputy Cabinet Secretary, New Mexico Department of Workforce Solutions | | | | | |

| STATE | PRIMARY CONTACT | SHARED OR WORKED WITH…. | | | | |
|---|---|---|---|---|---|---|
| | | | Type of Entity | | | |
| | | Name of Entity | State Board | Other Unit(s) or Agency | Other Agency | Cross Agency Entity |
| OH | Project Manager, Workforce Analytics, Office of Workforce Development, Department of Job and Family Services | -- | | | | |
| OK | Director, Economic Research and Analysis, Employment Security Commission | | | | | |
| OR | Interim Director, Workforce and Economic Research, Employment Department | | | | | |
| PA | Director, Center for Workforce Information & Analysis, Department of Labor & Industry | | | | | |
| RI | Assistant Director, Employment and Training Programs, Workforce Development, Department of Labor and Training | | | | | |
| SC | Director, Business Intelligence Department, Department of Employment and Workforce | | | | | |
| SD | Director, Workforce Planning, Policy & Public Affairs, Department of Labor and Regulation | | | | | |
| UT | Chief Economist and LMI Director, Workforce Research and Analysis, Department of Workforce Services | | | | | |
| VA | Director, Economic Information and Analytics, Virginia Employment Commission | | | | | |
| WA | Director, Labor Market & Performance Analysis, Employment Security Department | Workforce Training and Education Coordinating Board | X (1) | | | |
| WI | Policy Initiatives Advisor, Division of Employment and Training, Department of Workforce Development | | | | | |
| WV | Director, Research, Information and Analysis, WorkForce West Virginia | | | | | |
| WY | Manager, Research and Planning, Department of Workforce Services | | | | | |

(1) = Encouraged by state workforce agency to submit own response. Washington's Workforce Training and Education Coordinating Board submitted a separate response.

Source: NASWA scan

# Appendix G:
# Pressing Questions for
# State Workforce Agency Research Units

| Labor Market | |
|---|---|
| How many jobs have been created? | Unemployment rate by race |
| What are industry and occupation job projections? | Labor availability |
| What is the level of workforce supply and readiness? | Top employers by geography |
| What is the supply and demand for job skills? | Occupational wages |
| Skills gaps | Industry employment & wages |
| Employment change compared to other states | Jobs of the future |
| Industry growth by area | Skills gaps |
| Defining new industry clusters (ex. Advanced Manufacturing) | Job vacancies |
| Available labor force for new or relocating employers | Special population data, such as ex-offenders, youth, older workers, veterans |
| Industry and occupational projections related questions | Is there a shift in the characteristics of people served under WIA and who is served under WIOA? |
| Establishment by size class | Nonresident employment |
| What occupations are in demand? | General economic metrics (job growth, unemployment rate, etc.) |
| What skills are employers looking for in their employees? | Are workforce participants working in a field/occupation related to their training? |
| Where can employers find qualified workers? | How do we count industry-recognized credentials? |
| Meeting employer demand | Workforce training alignment |
| Jobs by industry | Sector strategies |
| Industry and occupational projections | Demographic constraints to growth |
| Wages by occupation | Workforce trends within our state |
| Demographic information on unemployed residents | Knowing when demands for training opportunities shift |
| Labor force demographics | Underemployed |
| Education and training needs for in demand jobs | Discouraged workers |
| Demographics of minimum wage workers | Job vacancies |
| Largest employers in state | In-demand occupations and industries |
| How are educational institutions, particularly higher education, meeting labor demand needs? | Required skill level for occupations |

| | |
|---|---|
| How are demographic changes impacting the labor force? | Workforce soft skill level |
| Are there skills gaps impacting the efficiency of the labor market? If so, what are they? | Employee benefits |
| How do disasters impact state and local businesses and workforce? | Talent pipeline metrics across regions |
| Supply and demand | Re-employment opportunities for UI claimants, particularly long term unemployed |
| What talents/skills do the employers need? | Job-to-job movement between industries |
| What types of training will we need in the future to meet demand down the road? | Establishment by size class |
| What industries will be affected most by retirements? | How well are employer needs being satisfied relative to the need for skilled workers |
| Job demand/openings | Is the state training enough people to meet present and future job demands? |
| Who are the long term unemployed? | What are the skills that employers are requiring? And what are the past comparisons? |
| What jobs are in most demand? | Analysis of occupations and wages and how they have changed over the years. |
| Most in demand skills | How can we prepare for meeting projected occupational demand with reductions in population and labor force participation in some age groups less than age 55? |
| Are education programs meeting the needs of employers? | What can be done to encourage higher labor force participation rates in targeted populations? |
| Understanding demand and supply of labor | How can we get access to timely labor force information including participation rates by age, education attainment and skill levels for at state and sub-state geographic levels? |
| Labor force | |

| **Program Outcomes or Impacts** | |
|---|---|
| Are the programs working and meeting their intended purpose? | Training program employment and wage outcomes |
| Predictive analytic strategies (machine learning, data mining) to identify which programs are likely to be the most effective for which One-Stop clients. | What are the short and long-term net impacts of workforce education and training? |
| Program assessment. | How can we better target our investments? |
| What are evidence-based practices that should be adopted because they work at achieving high outcomes? | Are participants making family sustaining wages? |
| What are optimal policies or incentive mechanisms that encourage greatest return on investment? | Measuring employment and wage outcomes of degree and certificate program completers |
| Effectiveness of job training programs. | Measuring employment and wage outcomes of training program completers |
| Effectiveness of refugee training services. | Where are our graduates finding employment? |
| Effectiveness of state's career and technical education system. | How much are graduates earning? |

| | |
|---|---|
| Impact evaluation of a State merit-based post-secondary scholarship program for the legislature. | Are workforce participants working in a field/occupation related to their training? |
| The extent to which UI provides a safety net for the unemployed. | Are people employed in what they were trained for? |
| The effectiveness of UI profiling. | What value does a higher level of education have relative to expected lifetime income? |
| The effectiveness of WIA/WIOA. | Workforce outcomes related to training and education |
| Return on investment when training individuals. | Expand what is measured in all E&T programs to include additional factors such as demographics, geographic location, occupations, and interaction with the UI program over time as a robust longitudinal study. |
| Whether reemployment activities or interventions result in employment or improved wages for participants. | What workforce development programs are working/not working? |
| Effective evaluation of training programs. | What are the return on investment for specific workforce development programs? |
| Unemployment and workforce program evaluations. | Are individuals becoming employed after services? |
| Methods to evaluate the workforce system and partners. | Where are clients finding employment (industry/occupation)? |
| Questions about the performance evaluation of the various workforce training programs in the state. | To what extent are clients finding employment out-of-state? |
| Success of people into workforce after training. | What types of jobs are clients finding? (job characteristics - pay, relevance to training, opportunity for advancement) |
| What programs are most effective and why? | What are the employment outcomes of education and training participants? |
| How do variations in the service delivery at the local level impact outcomes and the efficacy of programs? | What have we learned from the REA and RESEA programs to improve job and skill matching? |
| | TANF participation and its relationship to successful workforce outcomes. |
| **Barriers to Client Success** | |
| Why are participants not successful, or why do they drop out? | Why do claimants exhaust? |
| What are the barriers for those currently employed to change jobs | What are the characteristics of postsecondary students making the most progress toward degree completion? |
| Developing solutions to the challenges of rural demographics and developments. | How to reach and best support disconnected youth. |
| What can be done to improve commuter transportation issues? | What can be done to support employers hiring long term unemployed? |
| **Operational Issues** | |
| What kinds of training are available in my local area? | Does physical co-location of programs in a service center impact the dual enrollment of participants in those programs? |
| Assessing the timeliness and quality of wage records collection and storage. | Tools to evaluate client education and skill gaps |

| | |
|---|---|
| Evaluating the accuracy and utility value of WIOA performance measures TEGL 26-15. | Attracting and retaining talent in the state |
| Documenting and evaluating the agency practices in the transition from WIA to WIOA | How will the new overtime regulations, and other federal policies, impact the state? |
| For youth workforce development programs, what are additional measures that can be used? | How can we develop a competent and highly-skilled workforce? |
| Expansion and promotion of the Temporary Caregiver Program | What will it take to bring those not in the labor force to enter or reenter? |
| How does the state and local areas attract businesses to create jobs? | Are we maximizing services across programs, particularly across multiple agencies? |
| Developing data driven approaches to solve challenges | Duration of services provided to workforce customers. |
| **How to Scale Up** | |
| How can we build on programs that are working? | How can we increase the number of apprenticeships? |
| **Business Services Outcomes** | |
| What is our true employer engagement and what are the long-term outcomes with these employers? | How effective are business services for employers? |
| **Institutional Barriers to Performing Research** | |
| How can we evaluate long-term outcomes when funding is time-limited? | Declining research budgets but increasing demand for data and insight |
| **Making Work Pay/Promoting Self-Sufficiency** | |
| Improving low wages | How can we help our citizens become self-sufficient? |
| What is economic self-sufficiency of our customers over time? | |

Source: NASWA scan

## Appendix H:
## Research Agenda Submitted by Ohio in Response to National Scan


### OERC Research Agenda
### FY 2015-16 (Update May 2016)

**Overview**
The Ohio Education Research Center pursues four major strands of research: K-12 Education, Higher Education, Workforce Outcomes, and Health and Human Services.

**K12 Education:** The OERC research agenda for 2015-16 is focused on extending prior research on educational delivery options, school innovation, and teachers and leaders (human capital). An additional major focus is to finalize and roll-out the Student Success Dashboard, a tool funded by the Ohio Department of Education, that enables districts to identify and assist students at risk of dropping out, repeating a grade or not graduating on time. We have added two new short-term projects with ODE, including a study of career interventions and a study of gifted education services.

**Higher Education:** The OERC research agenda for 2015-16 is focused on extending prior research on workforce matching for the department, providing targeted evaluation services on the State Workforce and Education Alignment Project (SWEAP) initiative, and serving as a resource for the LUMINA project. We have added an evaluation for the GEAR-UP project with ODHE.

**Workforce Outcomes:** The OERC research agenda for 2015-16 is continuing work with the Governor's Office of Workforce Transformation, as well as providing core data matching services to agencies (ODHE etc.) that expect to receive wage data for research and evaluation purposes. We have added the Opportunities to Ohioans with Disabilities (OOD) as data member of the OLDA. During 2016-17 we will add two new projects: an evaluation of Wage Pathways with ODIFS, and an independent evaluation of the comprehensive case management services with funding from the Arnold Foundation.

**Human Services:** The OERC research agenda for 2015-16 involves a diverse area of work including: following up with the Governor's Office of Human Service Innovation on potential projects, working with the Ohio Housing Finance Authority on a study, and supporting studies of the workforce outcome of Community Mental Health providers for the Ohio Department of Mental Health and Addiction Services. We have added a significant project with ODJFS, helping staff Child Protective Services review panels.

## Research Priorities (2015-16)

The primary research projects for the 2015-16 FY include the following anchor projects.

**K-12 Education**

1 Ohio Education Research Center Funding
The Ohio Department of Education has requested targeted research and policy evaluation work during the fiscal year. The work includes the continued development of the Student Success Dashboard (Randall Olsen [OSU], Jill Lindsey [WSU] and Erin Joyce [BFK]); a set of new studies on school innovation (Sam Stringfield [UC] and Stephane Lavertu [OSU]); an evaluation of the John Peterson Project (Kathleen Carr [SRG] and Matt Brock [OSU]); continued work on Teacher Evaluation and Professional Development (Ani Ruhil and Marsha Lewis [OU]); and offered new projects on gifted education (Marsha Lewis [OU]) and career interventions (Sunny Munn [Consultant] and Erin Joyce [BFK]).

2 Early Learning Challenge Grant
As part of the Race to the Top funding we are continuing to study the implementation of the new professional development system across state early childhood systems. (Debby Zorn [UC] and Lauren Porter [OSU/OERC]).

3 Ohio Appalachian Collaborative (OAC) Dashboard
With BFK, the OERC is doing the data analysis to construct a dashboard with information on post-secondary and employment success for schools in the OAC (Josh Hawley and Kristin Harlow [OSU/OERC]).

**Higher Education**

1. State Workforce and Education Alignment Project
The OERC is providing data and analytical support for ODHE in refining a method for linking supply and demand models for workforce and economic development and providing regular reports for the ODHE on employment outcomes of higher education (Josh Hawley, OSU).

2. Compact Dashboard
The OERC is working with Columbus State Community College (CSCC) to design and implement a dashboard showing K-12 and higher education progress on education and employment outcomes (Josh Hawley and Julie Maurer [OSU/OERC] and Erin Joyce [BFK]).

3. Ohio Tech Net Evaluation
The OERC/CHRR is providing data and evaluation services to 11 community and technical colleges in Ohio implementing programs for Trade Adjustment Assistance (TAA) workers (Julie Maurer and Lisa Neilson [OSU/OERC]).

**Workforce Outcomes**

1. Workforce Success Measures
   The OERC built and is continuing to manage a dashboard used by local education, workforce, and higher education constituencies. This project has changed in 2015-16 to include the Opportunities for Ohioans with Disabilities Department (Josh Hawley and Lisa Neilson [OSU/OERC]).

2. Ohio Longitudinal Data Archive (OLDA)
   With core funding from ODJFS, and supplementary funding from OOD and ODE, improvements to the OLDA continues on both data coverage and data access. During the 2015-16 FY we expect to archive a range of new files, including Rehabilitation Services from OOD, Apprenticeship Files from ODJFS, and National Clearinghouse files from ODE (Randy Olsen and Lisa Neilson [OSU]).

3. Wage Pathway
   With funding from ODJFS we will be designing a collaborative evaluation of the Workforce Innovation grant that the department received from the USDOL. During this coming year the evaluation will be carried out in conjunction with the New Growth Group from Cleveland (Randy Olsen [OSU], Rebecca Kusner [New Growth]).

4. Comprehensive Case Management
   With funding from the Arnold Foundation, the OLDA/OERC group will be designing a new evaluation of case management services (Josh Hawley [OSU]).

**Human Services**

1. Ohio Housing Finance Authority
   Employment outcomes of mortgage assistance programming are being studied by a team from OSU (Stephanie Moulton) and the OHFA (Holly Holtzen).

2. Ohio Department of Mental Health and Addiction Services
   Development of work history profiles of individuals who are diagnosed with severe mental illness and who receive publicly-funded mental health services (Bob Gitter [OWU]).

3. Ohio Department of Job and Family Services
   In collaboration with the College of Social Work at OSU (Linda Helm and Katie Maguirejack) and the Mandel School at Case Western (Claudia Colton) we are staffing Citizen Review Panels for the Child Protective Services system. Randy Olsen is the lead PI for the effort.

# Appendix I:
# Research Agenda Submitted by Mississippi in Response to National Scan

In 2011, the Mississippi Department of Employment Security (MDES), responsible for Unemployment Insurance (UI) programs in Mississippi, began a multi-year project to change both its official and cultural orientation away from conceptualizing its task as unemployment services to *reemployment* services. This reorientation coincided with a series of research projects that culminated in the establishment of the State Longitudinal Data System (SLDS) project in Mississippi and its data portal, Lifetracks. The logical model of all UI research undertaken by MDES and in the SLDS (figure one) relies on the key role that unemployment wage records play in establishing whether any activity or intervention results in employment or improved wages for participants. Wage data is the key to all impact studies, effectiveness studies, and return-on-investment studies conducted to enable research-based policy recommendations for education, training, employment, and economic development programs.

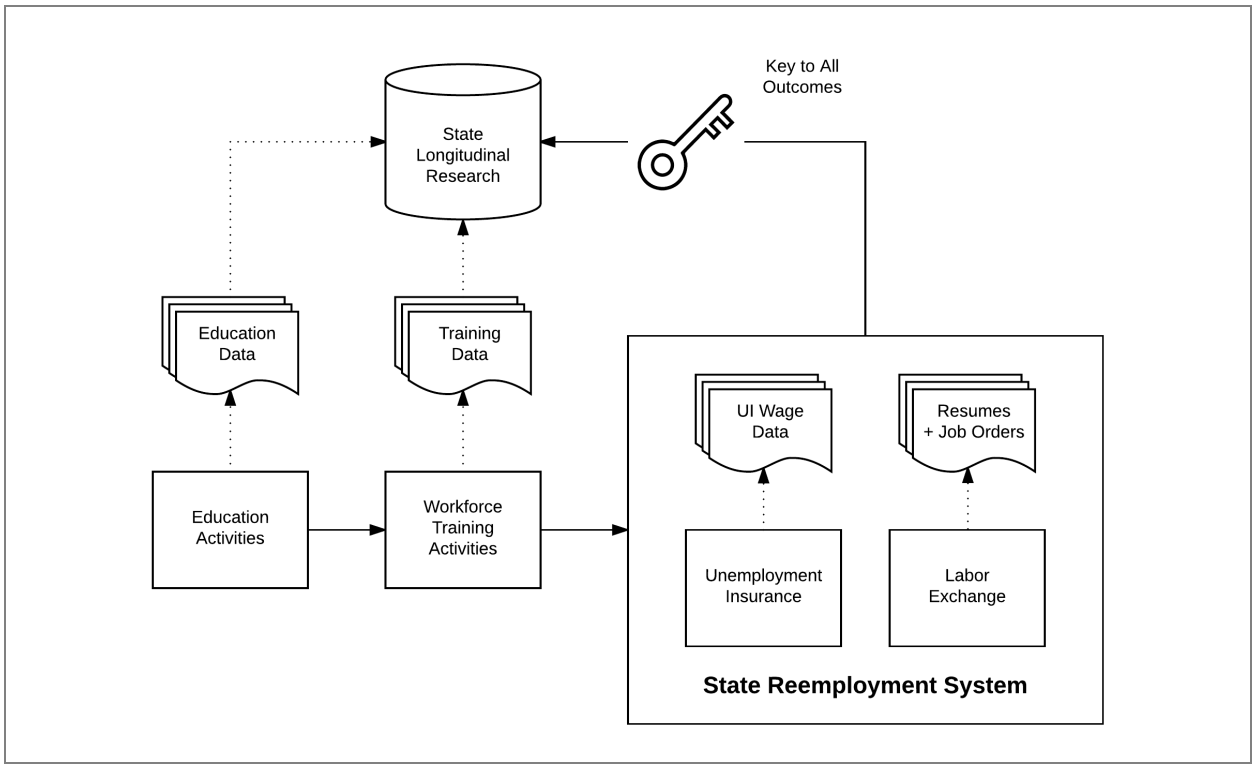



Figure One: UI Research in the Context of SLDS

Not only has SLDS research proven beneficial for informing education and training providers about what kind of preparation results in positive employment outcomes, but it has informed the way MDES approaches reemployment. Understanding outcomes is key to understanding what career pathways are successful in preparing a candidate to meet employer needs. This, in turn, informs the process by which MDES does intake and evaluation of candidates at local job

centers to help them regain employment either more quickly (reducing the length of UI benefits spells) or by ensuring that participants training funds are used to build skills that will reduce the chances of needing UI in the future (reducing a return to UI benefits in the future).
Several research projects highlight Mississippi's reemployment oriented approach to UI:

## Workforce Data Quality Initiative Grant

The Mississippi workforce economy, into which MDES must prepare UI recipients to enter, features a demand for middle-skill workers undersupplied by nearly 30%. Middle-skill occupations require highly trained trade and technical workers whose preparation consists of coursework, apprenticeships, on-the-job training, and assessments to earn certifications. MDES was awarded a Workforce Data Quality Initiative (WDQI) grant in 2015 to study and understand middle-skill pathways, develop resources to help job seekers pursue those pathways, and lay the foundation for a research-based badge system to promote a common understanding of the value and content of middle-skill preparation. Through the research phases of this project, UI wage data formed the foundation for linking the training and preparation of successfully hired individuals to the industry and occupations that resulted from various training pathways. This allowed for the isolation of successful pathways to inform reemployment services designed to connect UI recipients with the resources needed to enter the middle-skill job market.

## WIOA Planning and Implementation

The Workforce Innovation and Opportunity Act, signed into law in July of 2014, required all states to evaluate the workforce context both statewide and regionally. This analysis was to form the basis for a plan for addressing workforce needs to be drafted through a process of collaboration by all state agencies, local partners, the State Workforce Investment Board, and the Governor's office in each state. Mississippi's advanced ability to perform longitudinal analysis informed the decision to include UI as a partner program in a "Combined Plan," one of two optional plan types that required a more significant integration of a greater number of partners than the "Unified Plan" option. As a full partner in WIOA, UI activities in Mississippi will be coordinated with education, workforce training, rehabilitation, adult basic education, and social service activities to serve customers through a framework for reemployment known as the "Mississippi Works Smart Start Career Pathway Model." The success of this model for producing positive outcomes in terms of reemployment will depend upon three analytical uses of data for case management, performance improvement, and outcomes reporting. All three of these uses of data depend upon UI wage data to establish effectiveness based on the most important outcome of all, whether WIOA participants enter employment or increase wages.
The Mississippi WIOA plan, the first Combined Plan to be granted acceptance by the Department of Labor and other federal partners, may be accessed at www.mississippiworks.org.

## Lifetracks Research Studies

The Mississippi SLDS board oversees a research process designed to answer critical policy questions relevant to education, workforce, and economic development. Questions arise, either from data-contributing partners such as community colleges or policy makers such as

state legislators, and these questions are refined into peer-reviewed research projects conducted by the state data clearinghouse under the oversight of a peer review research committee. Reports are then released after a vetting process that involves any agency whose data contributed to the production of the longitudinal analysis.
Several Research studies highlight the key role that UI program data plays both in helping other partners understand the real outcomes of their work and in feeding back to UI reemployment efforts:

- *Professional and Performance Outcomes of Mississippi Public University Education Graduates* - This study was designed to seek information on students who receive an education degree from any of Mississippi's public universities. The study examines five cohorts of students who graduated in academic years 2006-2010. Of particular interest to the study was whether those graduating with education degrees ended up employed in Mississippi as teachers. This question relied heavily on UI wage data to determine outcomes and salary levels for teachers entering the profession from various educational or certification routes.
- *Value of Vocational Rehabilitation Services* - This study examined the return on state and federal investments (ROI) in vocational rehabilitation services provided by Mississippi Department of Rehabilitation Services. Key outcomes examined were the entry into the labor market of adults 18 to 65 with disabilities. This study showed the positive impact of rehabilitation services and provided findings helpful to MDES's reemployment efforts for UI recipients with disabilities.
- *What is the Value of Community Colleges to Mississippi Taxpayers?* - This study provided a comprehensive examination of different educational career pathways to assess the overall ROI of the community college system in Mississippi. Calculation of key employment outcomes such as lifetime earnings and starting salary relied upon the correlation of the community college cohort with UI wage data. As a key training partner under WIOA Title I Adult, Youth, and Dislocated Worker training programs, Mississippi's Community College system is central to MDES's reemployment efforts and research of this type expands MDES's understanding of a key training partner.

These LifeTracks research studies and other research relevant to UI and reemployment conducted by the State Longitudinal Data System Board in Mississippi may be downloaded from lifetracks.ms.gov.

# Appendix J: State Workforce Agency Research Units

| State | Unit Name |
|---|---|
| **AR** | Employment Assistance |
| **AR** | Temporary Assistance for Needy Families |
| **CA** | Policy, Research, & Legislation |
| **CA** | Equity, Climate, & Jobs |
| **CA** | Labor Market Information |
| **CA** | Survey and Applied Research Section |
| **CO** | Workforce Development Programs |
| **CO** | Labor Market Information |
| **CO** | Colorado Workforce Development Council (state board) |
| **CT** | Office of Research |
| **CT** | Office of Workforce Competitiveness |
| **DC** | Office of Labor Market Research and Information |
| **FL** | One Stop Support |
| **IA** | Labor Market Information |
| **IA** | Labor Market Information |
| **ID** | Office of the Director |
| **ID** | Labor Market Information |
| **ID** | Fiscal and Actuarial Services, Office of UI |
| **ID** | Career Information System |
| **ID** | Regional Labor Economists |
| **IL** | Economic Information and Analysis |
| **IN** | Indiana Network for Knowledge |
| **IN** | Indiana Business Research Center |
| **KS** | Employment Services |
| **ME** | Center for Workforce Research |
| **MO** | Performance Research and Planning |
| **MO** | Missouri Economic Research and Information Center |
| **MS** | Office of Job Connections |
| **MS** | Office of Grants Management |
| **MS** | Office of Reemployment Assistance |
| **MT** | Research & Analysis |
| **MT** | Workforce Services Division |
| **MT** | Unemployment Insurance Division |
| **ND** | Labor Market Information |
| **ND** | Systems Management |
| **NE** | Labor Market Information |
| **NE** | UI Research and Analysis Unit |
| **NH** | Economic and Labor Market Information Bureau |

| State | Unit Name |
|---|---|
| **NJ** | Workforce Research and Analytics |
| **NM** | Economic Research and Analysis |
| **OH** | Employment Services |
| **OH** | Health and Human Services |
| **OH** | Human Services Innovation |
| **OR** | Unemployment Insurance Analysis |
| **PA** | UI Research & Legislative Analysis |
| **PA** | Workforce Information Services |
| **PA** | Occupational & Workforce Analysis |
| **PA** | Workforce Program Performance |
| **RI** | Labor Market Information |
| **RI** | Unemployment Insurance |
| **RI** | Workforce Development Services |
| **SD** | Employment Services |
| **SD** | Unemployment Insurance |
| **SD** | Workforce Training |
| **UT** | Workforce Research and Analysis |
| **UT** | Workforce Development Program and Training |
| **WA** | Labor Market and Performance Analysis |
| **WI** | Workforce Information and Technical Services |
| **WI** | Labor Market Information |
| **WI** | Office of Economic Advisors |
| **WY** | Research & Planning |

Source: NASWA scan

# Appendix K: State Workforce Agencies' Research Partners/Contractors, CY 2011-Present

| Name of partner/contractor | State(s) | | | |
|---|---|---|---|---|
| ABT Associates | WI | | | |
| Accenture | SD | | | |
| Acuitas Economics | SC | | | |
| Arkansas Research Center, Arkansas Commission for Coordination of Educational Efforts | AR | | | |
| AZ Office of Employment and Population Statistics | AZ | | | |
| Brandon Roberts & Associates | RI | | | |
| Brandt Information Services | ME | AL | FL | |
| Bureau of Business Research, University of Nebraska Lincoln | NE | | | |
| Bureau of Sociological Research, University of Nebraska | NE | | | |
| Burns & Associates | AZ | | | |
| BW Research Group | DC | | | |
| Catch Intelligence | NE | | | |
| Connecticut Women's Education and Legal Fund (CWEALF) | CT | | | |
| Cross Sector | CT | | | |
| California State University at Northridge | CA | | | |
| Davis Innovations, Inc. | NM | | | |
| Deloitte Consulting LLP | RI | PA | | |
| Drexel University | SD | | | |
| Education Northwest | AK | | | |
| Erica Von Nessen | SC | | | |
| Flathead Valley Community College | MT | | | |
| Great Falls College | MT | | | |
| IBRC (Indiana Business Research Center) | IN | | | |
| Idaho State Board of Education | ID | | | |
| Illinois State University | IL | | | |
| Iowa Board of Nursing | IA | | | |
| Iowa Department of Education | IA | | | |
| Iowa Economic Development Authority | IA | | | |
| Iowa State University | IA | | | |
| IRG (Wage Explorer) | MO | | | |
| John J. Heldrich Center for Workforce Development, Rutgers University | NJ | | | |
| Kansas State University | KS | | | |
| Keystone Research Center | PA | | | |
| Maher & Maher | MO | SC | | |
| Mathematica Policy Research | SD | GA | CT | MI |
| MDRC | GA | | | |
| Monster Government Solutions | NJ | | | |
| MT Department of Corrections | MT | | | |
| MT Department of Public Health and Human Services | MT | | | |
| MT Office of the Commissioner of Higher Education | MT | | | |

| Name of partner/contractor | State(s) | | | |
|---|---|---|---|---|
| National Strategic Planning and Development Research Center (NSPARC) at Mississippi State University | MS | | | |
| Next Job | MS | | | |
| Ohio Colleges of Medicine Government Resource Center | OH | | | |
| Ohio Education Research Center, Ohio State University | OH | | | |
| Oppenheim Research | FL | | | |
| Pennsylvania State Data Center | PA | | | |
| Prov Plan | RI | | | |
| Public Works | CT | | | |
| Rutgers University | CO | | | |
| Saxton Consulting | ID | | | |
| Sheila Murphy LLC | AZ | | | |
| Social Impact Research Center | MI | | | |
| Social Research Institute | UT | | | |
| Social Research Policy | SD | | | |
| U.S. Department of Employment and Training Administration | SD | | | |
| U.S. DOL, Office of Apprenticeship | IA | | | |
| UC Berkeley Labor Center | CA | | | |
| University of Alabama, Center for Business and Economic Research | AL | | | |
| University of Baltimore -Jacob France Institute | MD | | | |
| University of Connecticut | CT | | | |
| University of Kansas | KS | | | |
| University of Missouri | MO | | | |
| University of Northern Iowa | IA | | | |
| University of Rhode Island | RI | | | |
| University of Washington, Social Research Division | WA | | | |
| Urban Institute | DC | | | |
| Virginia Commonwealth University | VA | | | |
| Washington State University, Extension Energy Program | WA | | | |
| Washington State University, Social & Economic Sciences Research Center | WA | | | |
| Wichita State University | KS | | | |
| William & Mary | VA | | | |

Source: NASWA scan

# Appendix L: OLDA and OERC Draft Governance Manual

OHIOANALYTICS GOVERNANCE MANUAL

VERSION 1.3
JULY 2016

Center for Human Resource Research and John Glenn College of Public Affairs
The Ohio State University

Ohio Department of Job and Family Services

Ohio Department of Higher Education

Ohio Department of Education

Opportunities for Ohioans with Disabilities

# INTRODUCTION

The Ohio Education Research Center (a project of the Center for Human Resource Research and the John Glenn College of Public Affairs) is a college level research center at the Ohio State University. OhioAnalytics is collaboration between the OERC and the State of Ohio to centralize state administrative data into a single data repository, the Ohio Longitudinal Data Archive (OLDA), for education and workforce research. The OLDA is maintained by The Ohio State University's Center for Human Resource Research (CHRR). The Ohio Department of Job and Family Services (ODJFS) retains ownership and control of the OLDA.

The OLDA was created in 2010 under a Workforce Data Quality Initiative (WDQI) grant that was competitively awarded to ODJFS by the United States Department of Labor (DOL). A second round WDQI grant was awarded to ODJFS in 2013 to expand and enhance the OLDA.

The OLDA contains individual-level data from ODJFS, the Ohio Department of Education (ODE), the Ohio Department of Higher Education (ODHE) and Opportunities for Ohioans with Disabilities (OOD). The OLDA allows researchers to analyze the education and work history of individuals to more accurately assess the effectiveness of workforce and education programs, services, and policies and to identify gaps that can be addressed for the overall improvement of Ohio's workforce and education systems

To support the OhioAnalytics initiative, the Ohio Housing Finance Authority (OHFA) and the Ohio Department Mental Health and Addiction Services (OMHAS) provide limited access to files for studies.

The OERC was founded in 2012 by a group of researchers from Ohio universities and organizations under the initial charge of the Ohio Department of Education's Race to the Top program (RttT). The OERC focuses on developing and implementing a coherent research agenda through collaboration with state agencies. OERC research topics are guided by agency priorities.

The OERC reports to the OERC Policy Council, which is comprised of senior staff from the state agencies participating in the OhioAnalytics initiative. The OERC Policy Council has authority over the use of the data contained in the OLDA.

The Coordinating Board oversees the routine daily operations of the OLDA in collaboration with the OERC.

The Data Stewards Advisory Committee is comprised of key technical staff from the state agencies participating in the OhioAnalytics initiative and has oversight of the technical aspects on the use of the data housed in the OLDA.

With the conclusion of the WDQI and RttT grant periods, operations are sustained through agreements with state agencies.

## MISSION

The mission of the OhioAnalytics initiative is to develop and implement a statewide, preschool-through-workforce research agenda that addresses critical issues of education and workforce policy and practice.

The OLDA enables the expansion of research-based knowledge by improving the quality and accessibility of administrative data from Ohio's public agencies for use in policy and programmatic decision-making.

## OBJECTIVES

- Respond to the needs of Ohio's policymakers and practitioners;
- Produce high-quality evaluation and research products for local, state and federal agencies in formats that facilitate transparency and accountability and aid decision-making;
- Translate research and evaluation findings into materials, products and tools that improve policy, practice, and outcomes;
- Communicate research findings broadly, through multiple platforms and networks;
- Identify and share successful education and workforce practices;
- Increase access for state research priorities to data for longitudinal and cross-agency analysis by archiving agency program and service records within a secure environment while maintaining confidentiality of personal information; and
- Provide a means for coordinating data management across state agencies and local governments.

## OVERVIEW

This manual details the policies and processes that govern the OhioAnalytics initiative and the use of the OLDA and defines the roles and responsibilities of the Policy Council, the Coordinating Board and the Data Stewards Advisory Committee.

The Policy Council will set the overall vision, provide the Policy Agenda guiding use of the OLDA, and serve as the primary connection between the OLDA staff, state agencies and other interested parties. The Coordinating Board will be responsible for overseeing the day to day work of the OLDA, and ensuring that the Policy Agenda is carried out by the staff. The Coordinating Board also serves as the primary linkage to the Office of Workforce Transformation and the Agency Directors for financial and progress reporting. The Data Stewards Committee provides technical leadership on data acquisition, data matching, and reporting review.

Given the fact that the OhioAnalytics initiative has a very broad Policy Agenda and that Ohio State University maintains the OLDA and OERC, the governance system must be a multi-organization system. ODJFS retains ownership and control of the OLDA. The primary agencies that contribute data (Education, Higher Education, ODJFS, and OOD) are fundamentally responsible for the development and oversight of the structure, with each agency maintaining ownership and controlling access to their data. Additionally, the governance structure

incorporates the interests and needs of other agencies. Administrative oversight will evolve to reflect changes in agency partnerships and work requirements over time.