

Strategies for Connecting Unemployment Insurance (UI) Claimants to the Workforce System: Findings from the Implementation Study of the UI Workforce Connectivity Grant Program

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Executive Summary			
1.	Intr	oduction	10
2.	Background and Key Objectives of the UI Workforce Connectivity Project and Evaluation		
	2.1	Impetus for and Design of UI Workforce Connectivity Project	
	2.2	Study Methodology	15
3.	Launching the UI Workforce Connectivity Project		17
	3.1	DOL and NASWA Start-up Activities	17
	3.2	Planning and Start-up Activities in Mississippi	19
	3.3	Planning and Start-up Activities in New York	21
4.	Implementation of UI Workforce Connectivity Elements in Mississippi		23
	4.1	Timeline to Develop Systems	23
	4.2	Description of Transformational Elements	24
	4.3	Reported Outcomes	31
	4.4	Use of System and Further Development Plans	32
5.	Implementation of UI Workforce Connectivity Elements in New York		34
	5.1	Timeline to Develop Systems	34
	5.2	Description of Transformational Elements	34
	5.3	Reported Outcomes	47
	5.4	Use of System and Further Development Plans	48
6.	Key	Findings from the UI Workforce Connectivity Project	50
App	endices		54
App	endix A	a: Options for Evaluating the UI Workforce Connectivity Elements	55
Ann	endix B	: Additional IWR Screen Shots	59

Executive Summary

The country's workforce development system continually seeks to identify more effective strategies to connect job seekers to job openings and to facilitate rapid entry into suitable employment. In particular, the U.S. Department of Labor (DOL) is exploring several promising strategies to improve Unemployment Insurance (UI) claimants' access to employment services provided through the workforce system. This includes the Employment Service (ES), which traditionally provides job search assistance to UI claimants, and the American Job Centers (AJCs), which provide services to all job seekers, established by the Workforce Investment Act (WIA), now reauthorized as the Workforce Innovation and Opportunity Act (WIOA).

Because UI claimants currently apply for and maintain their benefits primarily via the internet or phone, many have become physically disconnected from the workforce system and are often unaware of how to access the range of reemployment, job search, career counseling, and training services available to them. Moreover, the automated systems for filing UI benefits claims and accessing employment services are often separate, with limited or no connections between them, making it cumbersome and sometimes confusing for individuals to navigate between the two systems. The challenge has been how to more effectively share customer-level data between mainframe systems, which are often separate and are costly and difficult to change. Sharing the data electronically would reduce data collection burden and duplication of effort for staff and workforce customers, and would also reduce the time it takes to provide information to job seekers to help them search for work.

To address these issues, in 2010 DOL established a workgroup composed of workforce leaders at the local, state, and national levels, and partnered with the National Association of State Workforce Agencies (NASWA) to develop a national vision for improved coordination between job seekers and the workforce system. This workgroup identified several "transformational" elements to improve connections between job seekers, particularly UI claimants, and employment services.

- The first element is an integrated workforce registration (IWR) system that would allow all individuals to register online, through a single process, for a range of workforce services, including UI benefits and WIA and ES services. This addresses the goal of offering each customer, whether they are seeking UI benefits and/or workforce services, with a "no wrong door" point of entry to register. The IWR is intended to streamline the registration process for the customer by eliminating the need for multiple entry of common data items across workforce programs. Common demographic and personal information that are used by all participating programs are collected from customers just once and shared across programs.
- The second element, real time triage, involves blending data from a variety of sources and integrating it in new ways to inform both workforce professionals providing guidance to jobseekers and to inform customer choice and decision-making about career direction and their own service delivery, including when that service delivery is virtual. Information collected through the IWR is used to complete an initial assessment of a customer's reemployment service delivery needs, which could include linking them to employment opportunities or introducing them to appropriate workforce services, training programs, and education opportunities. Information on the customer and current available services and employment opportunities is updated continuously at multiple points in time, so that data is available to both the customer and

the workforce system at every point in the service delivery cycle. This information should be used to inform decision-making on the next step in the reemployment process. Technology can be used to ensure that the most relevant information is collected at appropriate times during the service delivery cycle, and can operationalize the "triage" function by using data to automatically direct customers to services suitable for their situation.

The third element is **skills transferability**, which focuses on matching the experience, interests, and skills of job seekers to link them to job openings that match their background and skills or to help them to transition their skills to new occupations. At the point of intake and throughout the engagement of a customer with the workforce system, an automated tool uses customer data to provide relevant job matches. A key feature of the skills transferability component is that it helps job seekers better understand and consider other occupations based on their skills and background, which leads to a broadening of the range of job openings and skills upgrading that claimants and job seekers may consider.

In 2011, as part of its State Demonstration Projects in Providing Reemployment Services to UI Claimants (commonly known as the UI Workforce Connectivity Project), DOL provided three-year grants to Mississippi and New York to improve connections between job seekers and the workforce system using strategies based on the three transformational elements. At an operational level, the transformational elements required the design and implementation of two key automated systems. The first is the IWR system, where individuals can register for a range of workforce services, including UI and employment-related services, in one place. The IWR captures key demographic information and educational and employment history that is used by workforce programs to determine eligibility for services and benefits and provide connections to appropriate job openings. The second is the Workforce Integrated Profile Page (WIPP), often called the "landing page," where registered individuals can access a range of services online. The WIPP is used to launch the real time triage and skills transferability elements and may be known as and function as an "Integrated Service Delivery Hub." As part of the grants program, DOL sponsored an implementation study of the UI Workforce Connectivity Project and selected Abt Associates, in partnership with Capital Research Corporation and George Washington University, to conduct this study. One product of the study is this report, which documents the operational experiences and implementation of the grants in Mississippi and New York. Of particular interest was documenting and assessing how the pilots altered the way in which UI claimants, and job seekers in general, are served and connected to the full range of workforce services available through the WIA and ES programs, as well as other services available at AJCs.

This study found that grantees reported a range of benefits resulting from the initiative. These include a reduction in duplicative data entry; the availability of job referrals and other training and reemployment services that were tailored to UI claimants' interests, capabilities, and needs when they apply for UI online; and the development real time triage and skills transferability capabilities that significantly improved the timeliness of job leads and their alignment with job seekers' skills and interests. Moreover, the tools developed could be useful to other states in developing stronger

¹ Oregon also received a grant but dropped out of the project early on and is not included in this evaluation and report.

connections between job seekers and the workforce system, particularly given increased focus given to this issue under WIOA.

Grantees also experienced some challenges in developing the online tools. Several of the key steps in the development of the web-based systems ultimately took longer than originally anticipated, leading to delays in the implementation of the IWR. In part due to the complex nature of the systems, the IWR and related systems were not developed until about two years into the grant period, which gave the grantees limited time to integrate the tools into their current systems and launch the elements. At the time of this report, Mississippi had finished development and implementation of the WIPP and was piloting the IWR as well as the real time triage and skills transferability elements in select AJCs. New York had a prototype of the IWR ready for pilot-testing but it had not been made available to the public.

Data for the project was collected through in-person interviews with state-level staff several times during the grant period. This summary first discusses the role of DOL and NASWA in the project and their activities under the grant. It then describes the activities each state undertook to develop the IWR, real time triage, and skills transferability. It concludes with key findings from the grantees' experiences.

Launching the UI Workforce Connectivity Project

When the grants were awarded to Mississippi and New York in 2011, the web-based systems needed to operationalize the three transformational elements was not yet designed. Thus, the first step in the project was to develop the system's requirements and establish the content and functionality of the systems, particularly the IWR and the WIPP, that the grantees would eventually put it place. DOL partnered with NASWA's Information Technology Support Center (ITSC) to serve in a coordination role on the UI Workforce Connectivity Project. NASWA/ITSC managed the overall workflow of the UI Workforce Connectivity Project and leveraged their UI and IT expertise to serve as a liaison among states, DOL, and subcontractors.

Early in the grant period, it was determined that the project's approach to the IWR would be to develop a common system that all of the grantee states would implement. Further, it was determined that a subcontractor would be hired to develop the IWR, and eventually the WIPP. To reach this goal, DOL and NASWA/ITSC undertook a significant amount of front-end planning and coordination with the states to come to agreement on the states' needs, the data elements to be collected, and the design of the system. NASWA/ITSC also managed the RFP processes to identify contractors for the tasks of conducting requirements gathering and developing the IWR. The grantees collaborated closely with the contractors to ensure that the IWR would reflect Mississippi and New York's needs, as well as the potential needs of other states that may implement the system in the future. During planning conversations, the idea for a "landing" page that customers would be brought to after registering for workforce services through the IWR was also developed. This would provide a profile page to display the services and job openings that were appropriate for the individual and serve as the launching point for accessing both.

Overall, the planning and design period took longer than anticipated, and development of the IWR and WIPP was not completed until about two years into the thee-year grant period. While DOL provided a one-year extension to the grants, the time remaining in the grant period for Mississippi and New York to integrate the new systems into their current systems was shorter than originally

envisioned. Several of the key steps in the start-up process that are described above contributed to the delays, particularly the selection of a vendor to develop the IWR and time needed to complete its development, the focus on developing a system that would be usable by all states, and the added development of the WIPP. As described below, once these activities were completed by NASWA/ITSC, Mississippi and New York began to work to integrate the new tools into their existing systems.

Implementation of UI Connectivity Elements in Mississippi

In Mississippi, the UI Workforce Connectivity grant was awarded to the lead workforce agency in the state, the Mississippi Department of Employment Security (MDES). MDES operates all federal workforce programs, including UI, WIA, and ES. Approximately three years prior to this grant, MDES consolidated the automated systems used to access a range of employment services, including WIA and ES into one, known as WINGS. The state is also part of a three-state consortium working to modernize their UI system (moving it from a "legacy" mainframe to a web-based system), known as ACCESS MS. Building on previous accomplishments and advancements, Mississippi's goal for the grant was to increase the use of ES for UI claimants through the IWR, while also creating one online location that customers could visit for all services, including the WIPP that would display job openings and other useful information (in Mississippi, customers register in-person at an AJC for WIA.)

Integrated workforce registration. Development of the IWR system, which would simultaneously enroll individuals in ES when they register for UI, was the primary focus of grant activities for the UI Workforce Connectivity project in Mississippi, and along with the WIPP constituted the core of the system developed through this grant. Prior to the grant, Mississippi had developed a single sign-on feature for the two systems, but individuals still had to access the two systems separately and answer two sets of registration questions. Through the IWR developed under the grant, customers can now register for both UI and ES programs through a single enrollment process and access both systems simultaneously through the newly developed WIPP. The IWR also facilitates the sharing of data across the two data systems, WINGS (ES and WIA) and ACCESS MS (UI).

Real time triage. As discussed, the real time triage transformational element, where appropriate job matches are provided immediately upon registration, is housed within the WIPP. Using data collected through the IWR, the WIPP home page displays up to 10 relevant job matches. These initial matches use recent work experience and occupational interest information collected during the registration process. Once in the WIPP, customers are encouraged to update their work history and enter additional personal information beyond what is collected in the IWR, as the more information provided, the better the job matches and real time triage will be. To facilitate the collection of additional personal information, the job matching graphic tool also builds in prompts suggesting that the customer update their education profile, skills profile, or work history. In order to optimize the job matching and real time triage, the new system collects information on the customer's most recent job and what jobs they are interested in pursuing.

Skills transferability. As with the real time triage, the skills transferability element in Mississippi is housed in the WIPP. Mississippi's key skills transferability feature is a job matching graphic that helps customers determine which of their current skills may be applicable to a different occupation and assesses whether the customer has an appropriate level of experience and education for the job.

Using the Occupational Information Network (O*NET) occupational code system and the personal information entered in the IWR, the skills transferability element seeks to provide high quality job matches based on an assessment of the individual's skills and job experiences. The new tool compares the skills associated with the job the customer has been performing with the skills required for the job of interest, and if the skills match up to 50 percent or more, it will recommend that the customer apply for the job. If the customer lacks the skills and/or education to fill at least 50 percent of the prerequisites necessary for the job, the system indicates where there are deficiencies and how they could be addressed. The tool provides a detailed list of the skills required for the job of interest, and indicates which ones the customer does and does not meet.

Outcomes and future plans. By March 2014, MDES had piloted the IWR at three AJCs across the state; the pilot was expanded to nine additional AJCs by February 2015. The skills transferability and real time triage elements of the grant were available to both new and existing customers registered in the workforce system. Due to other systems changes occurring within MDES, a full rollout of the IWR across the state had not been scheduled. While not formally evaluated, staff reported that customers found the new IWR system easy to use and that it subsequently reduced the amount of time staff spent with customers during the UI and ES enrollment process.

Implementation of UI Workforce Connectivity Elements in New York

The New York State Department of Labor (NYSDOL) oversees and administers workforce programs in the state, including UI, ES, and WIA. Currently, two separate online systems are used for customers who want to register for employment services (ES and WIA) and customers who want to file a claim for UI benefits. Customers who file a UI claim are not required to register for ES and WIA until about one month after filing, when they attend an initial in-person appointment at an AJC. Prior to the UI Workforce Connectivity grant, NSYDOL had undertaken several initiatives aimed at improving UI claimants' connections to employment services provided by the workforce system. One project sought to better engage UI claimants in reemployment services from the point at which they filed a claim and to allow for easy transmission of data on each claimant between the AJCs and the UI program. NYSDOL was also interested in improving assessment of customers' skills and automating the process of job matching, and contracted with a private sector firm to obtain a software tool that scans a job seeker's resume and analyzes the job seeker's work experience, skills, and abilities to make immediate job matches. Through the UI Workforce Connectivity grant, NYSDOL hoped to better integrate the UI and ES/WIA systems and share data collected through a common registration process to link UI claimants to employment services more quickly. NYSDOL also wanted to build upon earlier initiatives related to real time triage and skills transferability.

Due to a number of factors- particularly added time needed to develop, test, and implement the IWR and to customize the WIPP to operate on the state's mainframe system – the timeline for full implementation of all components to be developed under the grant was delayed. The factors that promoted and impeded each state in implementing the IWR, real time triage, and skills transferability components under the UI Workforce Connectivity grant are discussed later in this report (see Sections 4 and 5 of the report). The IWR and WIPP were not yet operational at the time of this report; the description below of how job seekers will interact with the IWR and WIPP is based on a prototype. Enhancements to real time triage and skills transferability tools made under the grants, which are independent of the WIPP, are also described.

Integrated workforce registration. As a result of the UI Workforce Connectivity grant, NYSDOL established an IWR that will allow for sharing of data between the UI system and software applications for ES/WIA and AJC customers. For example, data collected during the process of filing a UI claim will be automatically shared through the IWR when a job seeker registers for ES/WIA to conduct a job search, develop or refine a resume, or obtain online career planning services. As envisioned, when an individual files a UI claim, the data entered will automatically be pre-populated into the ES system. Similarly, if a job seeker registers for ES services prior to filing a UI claim, relevant data from the ES registration will be pre-populated into the claim so that rather than reentering this core set of data, the claimant can easily edit and update data that appears in the application.

Real time triage. As of February 2015, the state was still engaged in constructing and pilot-testing the WIPP prototype. As envisioned, the WIPP will provide the user with between three and five realtime job openings matched to the job seeker's interests, qualifications, and experience each time he or she logs on to the page. The WIPP will also alert the user to how his or her specific skills could be upgraded by obtaining additional education or training. The other real-time features supported by the landing page will be a messaging capability that will notify the individual of upcoming appointments and provide a capability for customers and NYSDOL to send and receive messages.

Prior to receipt of its connectivity grant, NYSDOL had established a customer service model based on four principles aimed at providing real time triage for customers of the workforce system: (1) expeditious entry to the system; (2) identification of customer needs (triage/assessment); (3) development of a service plan; and (4) continuous engagement. The UI Workforce Connectivity grant helped NYSDOL to continue along this pathway of providing real time labor market information and triage. Independent of the WIPP, three key features of the real time triage in New York have been enhanced through the DOL grant: an earlier initial assessment for UI claimants, earlier availability of a resume score for AJC staff, and provision of real time job leads using resumebased job matching.

Skills transferability. Prior to receipt of its DOL grant, NYSDOL offered job seekers and UI claimants a well-developed, staff-assisted, skills transferability tool, SMART. The UI Workforce Connectivity grant was instrumental in enhancing the SMART application and making the tool available to job seekers and UI claimants as a self-service tool. SMART, a proprietary software application developed by Burning Glass Technologies, provides job seekers and claimants with a tool with real-time, high quality matches between a job seeker's skills/experience (as reflected in the job seeker's resume) and the job postings available on NYSDOL's JobZone system. As of February 2015, the SMART tool was accessible as a self-service tool via the state agency's main webpage. Once the IWR is implemented, individuals registering through the IWR will enter information on work history, job duties, and skills. This will enable them to begin receiving job matching results immediately (displayed on the WIPP), as well as allow for more detailed searching of available job listings.

Outcomes and future plans. The skills transferability and real time triage features developed by NYSDOL under the grant are already in use by customers. It is anticipated that sharing of data between workforce programs and systems--in conjunction with the skills transferability software already deployed and regularly used for AJC customers (SMART) and the upcoming implementation of the IWR and WIPP – will make it possible for UI claimants to be matched with available job

openings immediately upon filing a UI claim. Prior to this grant, it took about one month (until claimants met with local office staff for an interview) for local office staff to conduct an assessment, and then input data necessary to provide claimants with job matches. Though optimistic about eventual full-scale implementation of the IWR in 2015, state administrators identified several issues that still needed to be resolved regarding the IWR prototype before the application could be made available to the public. State officials indicated that they planned to pilot-test the IWR as a cloud/internet-based application initially, but that it was possible (given security and performance factors) that in the future the state could redesign the IWR to operate on the state's mainframe system (rather than as a cloud application).

Key Findings from the UI Workforce Connectivity Project

Through its UI Workforce Connectivity Project, the DOL aims to develop automated systems to improve UI claimants' access to employment services provided through the workforce system. Overall, Mississippi and New York made significant strides in terms of development and pilot-testing the IWR and WIPP, and the states involved in the UI Workforce Connectivity grants identified a number of important benefits of their grant-funded effort:

- Reduction in duplicative data entry by UI claimants, ES registrants, job seekers, and agency staff. Once the IWR system is fully operational in Mississippi and New York, if a job seeker files a UI claim, relevant information from the UI claim will automatically be available to the ES system, and vice versa. The DOL grant has been an important impetus for the two states to increase sharing of data across UI and other workforce data systems, which according to staff in both states will save substantial time and effort for claimants, job seekers, and agency staff in terms of reducing duplicative entry of common data items.
- Claimants receive job referrals and other training and reemployment services that are tailored to their interests, capabilities, and needs when they apply for UI online. The sharing of data between UI and other workforce programs and systems—in conjunction with the skills transferability software—makes it possible for claimants to be matched with available job openings immediately upon filing a UI claim. Job matches will also be refreshed each time the job seeker logs onto the system.
- The skills transferability capability can be used as a staff-assisted or self-service tool to provide claimants and other job seekers with real-time job leads tailored to their skills and interests. Workforce agency customers can use the enhanced skills transferability tools updated and refined by the grant to automatically match job seekers with available job orders based on skills, interests, and past work experience instantaneously (real time). In New York the skills transferability tools also helps customers develop resumes or upload pre-existing resumes. The skills transferability software is intended to broaden the range of jobs and occupations that claimants and other job seekers consider, as well as to provide up-to-date information on training opportunities that could make the difference in expanding career choices and lifetime earnings.
- The real time triage capabilities will significantly improve the quality and timeliness of job leads provided to job seekers. The concept behind real time triage is to continuously (behind the scenes) electronically assess the claimant or job seeker's skills, experience, and interests in relation to dynamic changes in available job openings and training opportunities. Where before

job leads may have been provided based on an initial point-in-time assessment (e.g., at the time of intake or at subsequent meetings between the claimant and workforce agency staff), the IWR and WIPP and skills transferability software in combination allow for ongoing job matching and provision of job listings based on the most current information available.

Development of tools that will be useful to other states in developing stronger connections between job seekers and the workforce system. A benefit to the workforce system more broadly is that other states will be able to adopt the IWR and WIPP developed under the grant and use these pre-existing tools to better integrate their IT systems. The recently authorized Workforce Innovation and Opportunity Act provides additional opportunity for states to integrate their systems with its goal of providing comprehensive, integrated and streamlined services by linking and aligning different one-stop partners.

Future efforts may also be informed by the challenges encountered in the UI Workforce Connectivity Project. New York and Mississippi experienced design challenges and delays in the original schedule for IWR implementation. Once the IWR and WIPP were designed, Mississippi was able to pilot it in two to three months in several locations in the state and, as of April 2015, Mississippi was closer to full-scale implementation than New York. New York planned to roll out the IWR in the coming months for pilot-testing, but the state was still working on design of the WIPP. State administrators identified two main challenges with their UI Workforce Connectivity grants:

- The design process for the grant-funded states was substantially complicated and delayed by the need to take into consideration IWR system requirements and varying IT mainframe systems in each of the grant-funded states, as well as the requirements of DOL and other states that might implement the IWR prototype in the future. State administrators in Mississippi and New York indicated that it would have taken substantially less time and the design process would have been considerably less complicated had each state been designing an IWR that would meet their state's requirements only. Many discussions over an extended period of time were conducted to come up with the desired data elements and structure of the IWR that would meet grantee states' and DOL's requirements, as well as anticipate the requirements and system capabilities of other states that might be interested in implementing the IWR in the future.
- The change in the original scope of work under the grant to include development, pilot-testing, and implementation of a WIPP as a feature of the IWR resulted in a significant delay in implementing the IWR. The original scope of the project did not include incorporation of a WIPP, but once the design work was underway the participating states, DOL, and NASWA/ITSC determined that the WIPP was a critical feature that would bring real-time job leads, training opportunities, and messaging capability that would make the IWR substantially more userfriendly and useful to claimants and other customers. NASWA/ITSC and the participating states spent much additional time and effort in designing, developing, and pilot-testing the WIPP.

The experiences of the states involved in the UI Workforce Connectivity grants suggests that the amount of time it takes to implement an IWR will vary from state to state depending on a given state's capacity to design and refine, pilot-test, and fully implement such an enhancement to existing IT systems. States will need to carefully assess the extent of integration of existing UI and other workforce data systems and ability to make the necessary programming changes to these systems in order to implement an IWR and WIPP.

Overall, while there appear to be clear benefits of the IWR, the skills transferability, and real time triage provided by the project, further evaluation is needed to determine if the impacts of providing these services result in an expedited return to work, increased earnings and job retention, and a decreased duration of UI benefit receipt among UI claimants.²

² An appendix to the report discusses potential evaluation options.

1. Introduction

The country's workforce development system continually seeks to identify more effective strategies to connect job seekers to job openings and to facilitate rapid entry into suitable employment. In particular, the U.S. Department of Labor (DOL) is exploring several promising strategies to improve Unemployment Insurance (UI) claimants' access to employment services provided through the workforce system. This includes the Employment Service (ES), which traditionally provides job search assistance to UI claimants, and the American Job Centers (AJCs), which provide services to all job seekers, established by the Workforce Investment Act (WIA), now reauthorized as the Workforce Innovation and Opportunity Act (WIOA). Because UI claimants currently apply for and maintain their benefits primarily via the internet or phone, many have become physically disconnected from the workforce system and are often unaware of how to access the range of reemployment, job search, career counseling, and training services available to them. Moreover, the automated systems for filing UI benefits claims and accessing employment services through workforce systems are often separate, with limited or no connections between them, making it cumbersome and sometimes confusing for individuals to navigate between the two systems.

To address these issues, in 2010, DOL established a workgroup composed of workforce leaders at the local, state, and national levels, and partnered with the National Association of State Workforce Agencies (NASWA) to develop a national vision for improved coordination between job seekers and the workforce system. This workgroup identified several "transformational" elements to improve connections between job seekers, particularly UI claimants and the employment services.

- The first element is an **integrated workforce registration** (IWR) system that would allow all individuals to register online, through a single process, for a range of workforce services, including UI benefits and WIA and ES services. This addresses the goal of offering each customer, whether they are seeking UI benefits and/or workforce services, with a "no wrong door" point of entry to register. The IWR is intended to streamline the registration process for the customer by eliminating the need for multiple entry of common data items across workforce programs. Common demographic and personal information that are used by all participating programs are collected from customers just once and shared across programs.
- The second element, real time triage, involves blending data from a variety of sources and integrating it in new ways to inform both workforce professionals providing guidance to jobseekers and to inform customer choice and decision-making about career direction and their own service delivery, including when that service delivery is virtual. Information collected through the IWR is used to complete an initial assessment of a customer's reemployment service delivery needs, which could include linking them to employment opportunities or introducing them to appropriate workforce services, training programs, and education opportunities. Information on the customer and current available services and employment opportunities is updated continuously so that data is available to both the customer and the workforce system at every point in the service delivery cycle. This information should be used to inform decision making on the next step in the reemployment process. Technology can be used to ensure that the most relevant information is collected at appropriate times during the service delivery cycle, and can operationalize the "triage" function by using data to automatically direct customers to services suitable for their situation.

The third element is **skills transferability**, which focuses on matching the experience, interests, and skills of unemployed workers to link them to job openings that match their background and skills or to help them to transition their skills to new occupations. At the point of intake and throughout the engagement of a customer with the workforce system, an automated tool uses customer data to provide relevant job matches. A key feature of the skills transferability component is that it helps job seekers better understand and consider other occupations based on their skills and background, which leads to a broadening of the range of job openings and skills upgrading that claimants and job seekers may consider.

In 2011, as part of its State Demonstration Projects in Providing Reemployment Services to UI Claimants (commonly known as the UI Workforce Connectivity Project), DOL provided grants to Mississippi and New York to improve connections between job seekers and the workforce system using strategies based on the three "transformational" elements. With the three-year grants, the states were to design and implement a web-based IWR that would allow for a common registration process for a range of workforce programs as well as develop online systems to promote real time triage (quickly providing appropriate job matches and services to customers based on up-to-date customer information) and promote skills transferability assessments (assessing individuals' skills and background to identify job openings, potentially in new occupations).³

DOL sponsored an implementation study of the UI Workforce Connectivity Project and selected Abt Associates, in partnership with Capital Research Corporation and George Washington University, to conduct this study. The goal of the study is to document grantees' experiences implementing grant activities, including participating in the IWR planning and development processes with DOL, NASWA, and other grantees; integrating the IWR with existing state systems; and developing statespecific real time triage and skills transferability strategies. Of particular interest was documenting and assessing how the pilots altered the way in which UI claimants, and job seekers in general, are served and connected to full range of workforce services available through the WIA and ES programs, as well as other services available at AJCs. A second goal of the study is to provide information to program administrators and policymakers in other states interested in implementing the IWR or similar system changes.

This report documents the operational experiences and implementation of the grant in Mississippi and New York. Overall, several of the key steps in the development of the web-based systems ultimately took longer than originally anticipated, leading to delays in the implementation of the IWR. In part due to the complex nature of the systems, the IWR and related systems were not developed until about two years into the grant period, which gave the grantees limited time to integrate the tools into their current systems and launch the elements. At the time of this report Mississippi had finished development and rolled out the IWR as well as the real time triage and skills transferability elements on a limited basis for use in select AJCs. New York had a prototype of the IWR ready for pilottesting but was still involved in designing a component related to real time triage and skills transferability elements and thus had not yet gone live to the public. Nevertheless, the two states have made significant progress in designing and implementing the three transformational elements.

³ The states received one-year extensions for the grants.

The report begins with a description of the UI Workforce Connectivity Project sponsored by DOL and the evaluation design and data sources. The report then describes: (1) the role of DOL and NASWA in the project as well as grantee objectives and start-up activities, (2) Mississippi's grant activities and implementation experiences, (3) New York's grant activities and implementation experiences, and (4) key lessons based on the grantees' experiences. Appendix A provides an assessment of evaluation options for measuring outcomes of similar grant-funded efforts. Appendix B provides additional screen shots of the step-by-step process of customer registration in each state using the IWR.

2. **Background and Key Objectives of the UI Workforce Connectivity Project and Evaluation**

The State Demonstration Projects in Providing Reemployment Services to Unemployment Insurance Claimants, better known as the UI Workforce Connectivity Project, were established and funded by the Employment and Training Administration (ETA) at DOL. ETA works in partnership with the National Association of State Workforce Agencies (NASWA) and NASWA's Information Technology Support Center (ITSC) in overseeing the implementation of the grant activities. This section describes the origins and elements of the UI Workforce Connectivity Project and also discusses the methodology and data sources for the implementation study.

2.1 Impetus for and Design of UI Workforce Connectivity Project

The UI Workforce Connectivity Project grew out of several changes in the workforce system that began in the mid-1990s. First, the UI system began to transition from requiring in-person filing for UI benefits at local UI and ES offices to allowing applications to be filed over the phone or via a website. In addition, the workforce system transitioned from focusing on staff-provided assistance and services to focusing on self-directed job search and self-service tools. As a result, UI claimants became physically disconnected from the workforce system and often were not aware of how to access the range of reemployment, job search, career counseling, and training services that are available. While some programs are attempting to reestablish linkages—primarily the Worker Profiling and Reemployment Services, the Reemployment and Eligibility Assessment program, and the Reemployment Services grants provided through the American Recovery and Reinvestment Act many UI claimants do not have a clear linkage to the employment and training services provided through the AJCs or other parts of the workforce system.

Another issue that weakens the connection between UI claimants and workforce services is that the web-based systems for claiming UI benefits and for accessing employment services are often separate and unconnected, making it cumbersome and sometimes confusing for individuals to navigate between two systems. This separation and lack of sharing of data between systems can result in substantial duplication of data entry for claimants and data collection for agency staff. At the state level, the challenge has been how to more effectively share customer-level data between mainframe systems, which are often in separate systems that are costly and difficult to change. Sharing the data electronically could reduce data collection burden and duplication of effort for staff and workforce customers, and could also reduce the time it takes to provide information to job seekers to help them search for work.

To improve the connections between UI and workforce systems, in 2010 ETA established a UI Connectivity Workgroup composed of workforce leaders at the local, state, and national levels, and partnered with NASWA to develop an "Emerging National Vision" for improved systems coordination.4

⁴ A National Call for Innovation: Rethinking Reemployment Services for UI Claimants, A Report of the Unemployment Insurance and Workforce System Connectivity Workgroup. U.S. Department of Labor Employment and Training Administration, September 2010.

We envision a system that is driven by an Integrated Workforce Customer Registration as the entry to the nation's "reemployment system" – and offers a coordinated customer-centric focus with full partner access. The UI claimant process is seen as a part of the broader "job seeking" process and customers are treated as job seekers (their UI claim being just one aspect of the services available to job seekers). Services are available via the Internet as well as other means but the Internet access is supported by dynamic social networks linking customers, career counselors, employers and educators. Integrated service delivery is focused on customer outcomes. The system is focused on skills transferability, is data driven, measureable and accountable (both to the law and to customer needs).

The establishment of the UI Connectivity Workgroup and development of the Emerging National Vision for improved systems coordination built on a series of regional stakeholder forums and a national summit on reemployment held in 2008 and 2009, when ETA initiated the collaborative effort to explore and articulate ways of better integrating the ES and WIA systems in providing reemployment services to UI claimants and job seekers more generally. The workgroup met several times both virtually and in-person, and in addition to developing a national vision statement for improving connections between the systems, the workgroup identified several transformational elements to improve connections between job seekers and the workforce system that defined the national vision and became the foundation for the UI Workforce Connectivity Project.⁵ The elements are:

- Integrated Workforce Customer Registration. The goal is that all customers, including UI claimants, enter the integrated workforce system through a common online registration system. This common "front door" would enable UI claimants to access key workforce system programs, specifically UI, WIA, and ES and the system would be used to support the eligibility determination for different programs, to register for job banks, and to access information on employment services provided through the workforce system. This system would eliminate the redundancy of collecting personal and demographic information from a customer multiple times.
- Real Time Triage. To inform decision-making about the appropriate employment-related services for UI claimants, this element focuses on ensuring that the most current and relevant information concerning a customer's work history and skills are available so that appropriate matches can be made to job openings, training opportunities, and other appropriate services. Real time triage involves an automated and continuous assessment of customers' reemployment options, using upto-date information on their education, skills, and work experience to link them with appropriate services, job prospects, and training opportunities.

⁵ A final transformational element focuses on using social media tools to provide new opportunities to modify service delivery strategies and processes, such as outreach, connecting job seekers and employers, and networking among similar types of job seekers. The Idaho Department of Labor, the Minnesota Department of Employment and Economic Development, and NYSDOL received grants to pilot social media strategies. A separate report was completed on implementation of the social media activities. See: K. Martinson, J. Hamadyk, T. Moazed, J. Trutko, and B. Barnow, "Experiences of Three States in Developing Social Media Strategies for Employment Assistance Programs," Abt Associates, Inc., submitted to U.S. Department of Labor, Employment and Training Administration, 2015.

Transferability of Skills. The focus of this element is the use of automated tools to link job seekers to employment opportunities based on a skills match. The goal is to assess unemployed workers on a number of factors including education, experience, current and past occupations, specific skills, and training to link them to job openings or to help them to transition their skills to new occupations. Automated tools such as mySkills myFuture, part of ETA's CareerOneStop.org suite, facilitate the job matching process by identifying jobs that match a customer's work experience.

To develop and pilot the national vision, ETA and NASWA issued a call for expressions of interest in launching pilot projects in April 2011, with awards issued in October 2011. The Mississippi Department of Employment Services (MDES) and the New York State Department of Labor (NYSDOL) received grants to pilot the three transformational elements.⁶

At an operational level, the transformational elements required the design and implementation of two key automated systems. The first is the Integrated Workforce Registration (IWR) system, a webbased system where individuals can register for a range of workforce services, including UI and employment-related services in one place. The IWR captures key demographic, educational and employment information that can be used by workforce programs to determine eligibility for services and benefits and provide connections to appropriate job openings. The second is the Workforce Integrated Profile Page (the WIPP), where registered individuals can access a range of services online. The WIPP is used to launch the real time triage and skills transferability elements and may be known as and function as an "Integrated Service Delivery Hub." Rather than having each state design the system for itself, as discussed below, NASWA led the design of the IWR and WIPP, in collaboration with the grantees, with the goal of developing a system that was flexible enough to be adopted by other states.

2.2 Study Methodology

The UI Workforce Connectivity Project implementation study has two components; the first focuses on the experiences of the grantees (Mississippi and New York) in implementing three transformational elements (IWR, real time triage, and transferability of skills), and is the subject of this report. The second documents the experiences of grantees implementing the social media element; these findings are discussed in a previous report. The implementation study of the three transformational elements uses a multi-phase interview process based on site visits to each of the

⁶ Oregon originally received a grant under the initiative but ended participation midway through the grant period and thus is not included in this assessment. In December 2014, the New Jersey Department of Labor joined the project to implement the IWR and the WIPP. NJ DOL is working closely with NASWA and US DOL to implement the key features that were developed under the UI Connectivity grant, including the single sign-on, IWR, and the WIPP. Under the timeline for this replication project, it is anticipated that the IWR (including the single sign-on and the WIPP) will be fully pilot tested by August 2016 and ready for statewide implementation by September 2016. Hence, it is anticipated that New Jersey will be able to incorporate all features (without substantive changes) of the IWR into its mainframe system and fully implement the IWR statewide within a 9-month period. Due to its late start participating in the UI Connectivity pilot, this report does not document NJ DOL's grant activities.

⁷ Martinson et al., 2015

grantees. The study is designed to provide a detailed understanding of the state context of each grantee, including previous initiatives related to the DOL grant, and document and assess the implementation experiences and lessons from the development and operation of the elements.

As noted, the primary data collection activity for the project was site visits to grantees, during which the study team conducted interviews with state and local agency staff. Interviews at both the state and local level were guided by structured discussion guides. The study team conducted in-person interviews with state administrators in Mississippi and New York at different times throughout the project.

- Pre-implementation site visits were conducted to document and assess the status of the states' UI, WIA, and ES systems prior to the grant, as well as to document the objectives, the organizational and program context prior to the grant, and plans to introduce changes in IT systems, processes, and customer services under the grant. The study team conducted pre-implementation site visits to Mississippi in May 2012 and to New York in July 2012.
- Early implementation visits, soon after the IWR and the WIPP were operationalized, documented initial implementation. The study team returned to Mississippi for this visit in July 2014. However, because New York had not yet pilot-tested or implemented the IWR and WIPP by the end of the study, the research team conducted a site visit in February 2015 focused on documenting the state's progress toward developing these systems and state administrators' perspectives on likely effects of the IWR once it is implemented.
- To capture the *later stages of implementation*, a site visit to Mississippi was conducted in April 2015. Given the delays in implementation, the study team was not able to conduct a third visit in New York prior to the end of the evaluation.

During these site visits, the study team spent approximately one day at the state workforce agency conducting interviews with a variety of staff and leadership, both those directly involved in the UI Workforce Connectivity Project and those responsible for programs and processes that would be affected by implementation of the IWR. During the second site visit to Mississippi the study team also visited three AJCs in different localities to observe how they had made changes to systems, processes, and services as a result of the transformational elements implemented under the pilot.

In addition to conducting site visits, members of the study team attended relevant sessions of the conferences for grantees throughout the study period and collected and reviewed pilot site grant applications, technical assistance materials, and additional background documentation provided by ETA and the grantee states. The evaluation team attended sessions of the system requirements gathering conferences held by Gartner, Inc. in January/February 2012 where the grantees were involved in intensive design and planning discussions.

3. Launching the UI Workforce Connectivity Project

When the grants were awarded to Mississippi and New York in 2011, the web-based system needed to operationalize the three transformational elements was not yet designed. Thus, the first step in the project was to establish the content and functionality of the systems, particularly the IWR and the WIPP, which the grantees would eventually put in place. This section first describes the role of DOL and NASWA in the UI Connectivity Project and their key role in the planning process, leading the design of the initiative and working closely with the grantees. It then provides background on Mississippi and New York's state workforce agencies and the systems in place prior to the UI Workforce Connectivity grant. As discussed, each grantee had some experience in developing systems to improve connections between UI claimants and the workforce system prior to the grant, and their grant activities built on their previous systems work.

3.1 **DOL and NASWA Start-up Activities**

DOL partnered with NASWA's Information Technology Support Center (ITSC) to serve in a coordination role on the UI Workforce Connectivity Project. NASWA/ITSC led the development of the IWR, convening regular working sessions that included representatives from each state grantee, DOL staff, and subcontractors. NASWA/ITSC's role on the project grew out of their existing involvement in developing the Emerging National Vision—during the earlier phase of the project NASWA/ITSC had convened the UI Connectivity Workgroup and worked with DOL to identify state and local representatives to serve as part of the workgroup. For the next phase of the project, piloting the transformational elements in grantee states, NASWA/ITSC managed the overall workflow of the UI Workforce Connectivity Project and leveraged their UI and IT expertise to serve as a liaison among states, DOL, and subcontractors.

Early in the grant period, it was determined that the project's approach to the IWR would be to develop a common system that all the grantee states would implement. Further, it was determined that a subcontractor would be hired to develop the IWR, and eventually the WIPP. To reach this goal, DOL and NASWA/ITSC undertook a significant amount of front-end planning and coordination with the states to reach agreement on the states' needs, the data elements to be collected, and the design of the system. From the outset, NASWA/ITSC organized frequent communication among grantees, both in-person and through teleconferences, to provide input into the vision and design of the IWR. NASWA/ITSC also managed the Request for Proposals (RFP) processes to identify contractors for the tasks of conducting requirements gathering and developing the IWR. The grantees collaborated closely with the contractors to ensure that the IWR would reflect Mississippi's and New York's needs, as well as the potential needs of other states that may implement the system in the future.

The following provides a description of the activities that took place during the grant period leading up to the implementation of the IWR by state grantees.

Working meetings among grantees, DOL, and NASWA/ITSC. Over the course of the grant period, the grantees came together for in-person meetings several times and participated in regular planning calls facilitated by ITSC. The in-person meetings were held in Washington DC and several team members from each state attended.

- Requirements gathering by subcontractor Gartner, Inc. Early in the grant period, the grantee states participated in discussions with Gartner, Inc., an information technology research company hired by DOL to conduct requirements gathering for the IWR. The requirements gathering process began when states were awarded the grants and was completed in February 2012. Gartner was tasked with conducting two requirements gathering sessions in Washington DC, with the grantees, NASWA/ITSC, and DOL. These sessions took place in-person in January 2012 and February 2012, with follow-up sessions conducted through teleconferences. Gartner conducted a site visit to each of the grantee states to document the states' workforce systems. All requirements documents developed by Gartner, Inc. were included in the RFP released to select the subcontractor that would build the IWR (GCOM).8
- Addition of WIPP to the scope of work. During planning conversations, the state grantees developed the idea of a "profile" or "landing" page that customers would be brought to after registering for workforce services through the IWR. It would provide a profile page to display the services and job openings that were appropriate for the individual and serve as the launching point for accessing services and appropriate job openings (in essence operationalize the real time triage and skills transferability elements), and thus was known as the Workforce Integrated Profile Page (WIPP). NASWA/ITSC brought in a vendor (Direct Employers) to build the WIPP, again with the goal of developing a system that could be used by both grantees and potentially other states. Development of the WIPP was ultimately shifted to the scope of work of GCOM, the IWR development contractor. NASWA/ITSC and the participating states spent much additional time and effort in designing, developing, and pilot-testing the WIPP.
- Development of IWR and WIPP by GCOM. A Request for Proposals (RFP) to build the IWR software application was released by NASWA/ITSC in September 2012. Four vendors submitted proposals and GCOM was selected after a formal review process by the pilot states, DOL, and NASWA/ITSC to build the IWR software application. GCOM was awarded the contract to build the IWR in November 2012 and began work with the project team starting in December 2012. In addition to the IWR, GCOM's scope of work also included development of the WIPP. GCOM finished its development in September 2013, at which point the grantees could start working on incorporating the IWR and WIPP into their existing systems and processes. State grant administrators indicated that the state's IT staff had to hold off on state programming activity to support integration of the IWR and WIPP while NASWA/ITSC completed its design and pilottesting of the WIPP. Although both states acknowledged that the idea of a WIPP greatly increased the utility and functionality of the IWR for claimants and other job seekers – particularly by providing customers with real-time job leads and information about training opportunities tailored to each individual's interests and capabilities – the design and testing of the WIPP added substantial delays to the roll-out of the IWR and eventually both New York and Mississippi decided to develop their own WIPP.

Overall, the planning and design period took longer than anticipated, and the development of the IWR and WIPP was not completed until about two years into the three-year grant period. In particular, the

⁸ Request for Proposals: Unemployment Insurance/Workforce System Connectivity Project: Integrated Workforce Registration (IWR) System. http://www.itsc.org/itsc%20public%20library/vco/RFP IWR 120925.pdf

design process for the grant-funded states was substantially complicated and delayed by the need to take into consideration IWR system requirements and varying IT mainframe systems in each of the grant-funded states, as well as the requirements of DOL and other states that might implement the IWR prototype in the future. State administrators in Mississippi and New York indicated that it would have taken substantially less time and the design process would have been considerably less complicated had each state been designing an IWR that would meet its requirements only. Many discussions over an extended period of time were conducted to come up with the desired data elements and structure of the IWR that would meet grantee states' and DOL's requirements, as well as anticipate the requirements and system capabilities of other states that might be interested in implementing the IWR in the future. Even with considering other states, the process of identifying data elements and developing screens was difficult and time-consuming for the participating states given their varying IT structures, extent of integration between the state mainframe systems, differences in program structures and customer flow, and substantial concerns over maintaining system security.

While DOL provided a one-year extension to the grants, the time remaining in the grant period for Mississippi and New York to integrate the new systems into their current systems was a shorter period than originally envisioned. Once NASWA/ITSC and its contractors completed the prototype for the tools, the grantees needed time to work on the back-end programming to integrate the IWR with their existing systems. As described below, given the delays, achieving full implementation of the IWR and the WIPP within the grant period was a challenge for grantees.

3.2 Planning and Start-up Activities in Mississippi

This section describes the context in which the UI Workforce Connectivity grant was implemented in Mississippi, particularly the organizational structure of their workforce programs and their previous experience in working on issues related to the project. It then describes their rationale and goals in applying for the grant, and describes how this grantee staffed the technically complex initiative.

Background and Context

Mississippi's workforce programs (including UI, WIA, ES, Trade Adjustment Assistance (TAA), and veteran services) are all housed in the same state agency, the Mississippi Department of Employment Security (MDES). Mississippi's work under the UI Workforce Connectivity grant represents another step in the state's continued efforts to better integrate its IT systems and connect job seekers to services through online registration. Approximately three years prior to the receipt of its Connectivity grant, MDES consolidated three separate mainframe data systems (for WIA, ES, TAA) into one, known as WINGS. The state has also modernized its UI mainframe data system, moving it from a mainframe to a web-based system, known as ACCESS MS. 10 Individuals apply for UI benefits either online or by phone through one of the state's call centers. All employment services provided through

⁹ The Trade Adjustment Assistance (TAA) Program is a federal program that provides employment services to US workers who have lost their jobs as a result of foreign trade. The TAA program seeks to provide these trade-affected workers with opportunities to obtain the skills, resources, and support they need to become reemployed.

¹⁰ Mississippi is participating in a consortium with Maine and Rhode Island to further develop the modernized UI system into one that can be adopted by the other states.

ES, WIA, and TAA are co-located in the state's 40 AJCs (called WIN Job Centers in Mississippi). Staff at AJCs are cross-trained to work on both ES and WIA.

Prior to receipt of its DOL UI Workforce Connectivity grant, Mississippi had other grants to foster coordination of the UI data systems with systems used by other workforce and employment services programs. One effort was to provide employer job orders to the UI claimants through ACCESS MS, so that as soon as UI claimants finish filing for UI they immediately receive five to ten job openings that match their background. Whenever claimants log back into the system they receive a new set of job matches. Another effort involved expanding the options for capturing the Occupational Information Network (O*NET) codes from job seekers. 11 Prior to that grant, the system could only capture one O*NET code per jobseeker. Now the system can capture up to five O*NET codes per job seeker, and the O*NET codes can be based on either the job seeker's past experiences or his/her job preferences. Those grants were completed at the beginning of 2012.

Grantee Objectives

When applying for the grant, state administrators in Mississippi envisioned that the UI Connectivity Project would be a continuation of past efforts to improve the information provided to customers through online registration and share customer information between the UI and ES/WIA systems. Their goal was to create one online location that customers could visit for all services, where a WIPP would display job openings and other useful information. Another goal was to have more customers' ES registration completed before they visit an AJC, which would save staff time and also be more efficient for clients. As development of the IWR proceeded, MDES staff reported that the initiative involved the additional goal of creating a system that could be adopted by other states that were less advanced in their integration efforts. They viewed participation in the grant partially as service to other states, since they invested time in developing and implementing an integrated workforce registration system that was intentionally designed for use beyond those involved in the grant.

Grantee Staffing and Partnerships

In Mississippi, two individuals devoted a portion of their time to the project—the Deputy Executive Director and Chief Operating Operator and the Director of the Office of Technology Innovation. MDES relied on partner organizations for the majority of labor time related to implementing the IWR and other IT systems changes. The National Strategic Planning and Analysis Research Center (nSPARC) of Mississippi State University is MDES's workforce system developer. nSPARC integrated the IWR into WINGS (the state's existing ES/WIA system), and helped develop the single sign-on function and the WIPP. nSPARC also built the skills transferability component, which conducts a skills gap analysis for individual job openings and conveys the result to customers using a simple visual. MDES also coordinated with TCS, their UI system developer, to integrate the state's existing UI system with the IWR.

¹¹ O*NET is a database of occupations based on based on the Standard Occupational Classification (SOC) system that includes occupational requirements and worker attributes. It describes occupations in terms of the skills, knowledge, and abilities required, how the work is performed, and typical work settings. More information on O*NET can be found at https://www.onetonline.org/ accessed June 11, 2015.

3.3 Planning and Start-up Activities in New York

Similar to the discussion of Mississippi, this section describes the context in which the UI Workforce Connectivity grant was implemented in New York, particularly the organizational structure of their workforce programs and their previous experience in working on issues related to the project, and their rationale and goals in applying for the grant.

Background and Context

The New York State Department of Labor (NYSDOL) oversees and administers workforce programs, including UI, ES, WIA, and TAA. The WIA program is administered by 33 local workforce investment boards (serving single or multiple counties), featuring a total of 88 AJCs with co-located ES and WIA staff. In New York, all ES and UI claimants are co-enrolled in WIA. Claims for UI benefits can be submitted either via phone or the Internet.

Prior to award of the UI Workforce Connectivity grant, NYSDOL initiatives aimed to reduce reliance on staff-assisted services and at the same time deliver high-quality and timely services to claimants and other job seekers. Jobseekers can access a number of online tools through JobZone, a web-based application that provides information on 900+ occupations from the O*NET database and current LMI maintained by NYSDOL. JobZone provides critical links for claimants and other job seekers for a range of services related to job search including a resume building tool, an online work search record, and a career exploration tool.

Through its implementation of the Reemployment Operating System (REOS), the NYSDOL sought to better engage UI claimants in reemployment services from the point at which they filed a claim and to allow for easy transmission of data on each claimant between the AJCs and the UI program. REOS is an information system that allows for real-time automated selection and scheduling of UI claimants for reemployment services, and then tracks and reports on claimant compliance in undertaking reemployment. Prior to the implementation of REOS, local AJC staff had little access to UI claimant information except for a few data items available in their tracking system, known as One-Stop Operating System (e.g., a check box indicating whether the claimant was profiled likely to exhaust benefits and an indicator of whether the individual was currently claiming benefits or not).

In addition to implementing a system for scheduling and tracking reemployment services, prior to receipt of it UI Workforce Connectivity grant, NYSDOL was interested in improving skills assessment and automating the process of job matching for the rapidly expanding numbers of claimants and job seekers entering an AJC. NYSDOL contracted with Burning Glass Technologies to obtain a software tool called Skills Matching and Referral Technology (SMART) that would enable scanning of each job seeker's resume (or developing a resume if one is not available), followed by immediate automated analyses of the job seeker's work experience, skills, and abilities for matching of each job seeker to available job openings. SMART uses the latest job matching technology, which looks at skill sets and matches a job seeker to a job based on past work experience and skills instead of traditional "keyword" matching. As a result, SMART provides job leads that a customer might not have considered in the past, but are a good fit based on their past work experience and skills. Prior to the DOL grant, the SMART website (maintained under contract by Burning Glass) was offered only as a staff-assisted tool.

Grantee Objectives

As in Mississippi, New York felt that the grant would be a natural fit given that the state was already working on strategies such as real time triage and skills transferability, with tools such as SMART. NYSDOL's Deputy Commissioner participated in the UI Connectivity workgroup that came up with the concept of the National Vision, and NYSDOL decided to apply for the grant based on the Deputy Commissioner's participation in the workgroup and the state agency's belief in the concept. NYSDOL viewed the grant as an opportunity for the state to expand on its use of the skills transferability tools previously implemented under contract with Burning Glass and to provide job seekers with real time (continuous) job leads via the IWR/WIPP. Additionally, the state agency was interested in reducing duplication in data entry for agency staff and participating job seekers and improving the timing and quality of job leads provided to UI claimants and other job seekers relying upon the AJCs across the state.

Grantee Staffing and Partnerships

In New York, two state agency staff worked full time on the management and key design/implementation tasks involved in the grant, and a third state agency official served as a full time contact in the IT department. NYSDOL worked with a partner, Navisite, to do the programming work integrating JobZone with the SMART technology and the state's case management system for workforce services.

4. Implementation of UI Workforce Connectivity Elements in **Mississippi**

This section provides an overview of Mississippi's key grant activities and implementation experiences. It first describes the overall timeline for development and implementation of the three transformational elements. It then provides an overview of Mississippi's workforce systems and registration processes prior to introduction of the IWR and the WIPP, followed by a detailed description of how the IWR, real time triage, and skills transferability components of the grant were designed and operated. The section concludes with a discussion of reported outcomes of the grant activities and future plans for development and use of the systems and tools piloted under the grant.

4.1 Timeline to Develop Systems

Mississippi was awarded the UI Workforce Connectivity Grant in October 2011, and began a pilot of the IWR and WIPP (known as "My MDES") in AJCs in Brookhaven, Amory and Harrison counties in March 2014. As discussed above, the intervening years were spent in a lengthy planning process with DOL, NASWA/ITSC, and NYSDOL. Major steps in the planning process included participating in planning meetings and calls to create a blueprint for integrated workforce registration, allowing time for vendors to develop the system, and integrating the IWR with Mississippi's existing WINGS and ACCESS MS systems.

After GCOM completed development of the IWR in September 2013, MDES had to complete the programming work to integrate the IWR with its existing systems for ES, WIA, and UI. GCOM developed an IWR application that could operate as a state-hosted system (residing on the mainframe) or as a cloud application, and MDES opted for the state-hosted version. In Mississippi, MDES contracted with two vendors to maintain the systems: TCS (ACCESS MS), and nSPARC (WINGS). nSPARC also worked on development of the single sign-on feature and the WIPP. State administrators estimated that it took two to three months to integrate the IWR into the state environment once GCOM completed their work, with additional time required to develop the customized single sign-on function, which was built into the IWR to allow customers to use one user name and password to simultaneously sign into their accounts for both UI and workforce services (prior to single sign-on, customers had one user name and password but had to log-in separately to the two systems). The skills transferability and real time triage elements of the grant are built into the WIPP and were completed for the purposes of the grant, although the state planned for continued updates and improvements to those functionalities.

For the pilot, new customers at select AJCs who had not previously registered in ACCESS MS and WINGS were directed to use the IWR (all returning customers use the existing systems). Over the course of the next several months, three additional AJCs started using the IWR and WIPP for new customers. MDES conducted its largest rollout of the IWR and WIPP in February 2015, adding six more AJCs (for a total of 12). For each group of new AJCs that piloted the system, MDES conducted a webinar for local staff to introduce them to the operations of the IWR and train job center staff on its use.

At the time of the research team's final site visit in April 2015, the IWR was being used by new customers who visited one of the AJCs piloting the IWR. Customers visiting non-pilot AJCs and customers registering online still used the separate ACCESS and WINGS systems to register for UI and employment services. All customers, regardless of whether they used the IWR to register or not, end up on the same "landing page" (the WIPP), where they can see job matches and utilize services.

4.2 **Description of Transformational Elements**

The following section provides a description of customer registration processes for UI, ES, and WIA prior to implementation of the IWR and WIPP, and then describes how the three transformational elements were implemented in Mississippi.

Pre-Grant Overview of Applying For UI and Registering for ES and WIA

As discussed above, Mississippi uses two automated systems for its workforce programs—ACCESS MS for the UI program and WINGS for ES, WIA, and TAA. Prior to implementing the IWR, all customers registered for UI and ES and WIA using these two distinct systems; information from a customer's UI application in the ACCESS MS system was prepopulated in the WINGS system to create a partial registration for ES and WIA services. To finalize the ES and WIA registration, claimants need to sign into the WINGS system and complete the remaining fields, such as education and in-depth work history. Customers use the same log-in information for both systems, but it is not single sign-on—customers have to log into WINGS and ACCESS MS separately, and the look and feel of each site is different. Employers also have to create separate accounts for each system with two different sets of log-in information.

Filing for Unemployment Insurance

When customers file a UI application online, ACCESS MS gathers the basic information (DOB, SSN, employer etc.) needed for a UI claim and asks questions to facilitate job matching, including:

- What type of employment did you last perform?
- What is the primary type of employment you are you looking for?
- What other types of employment are you looking for?
- How many months or years of experience do you have?

Customers are able to select up to five O*NET codes associated with the jobs they are looking for or the jobs for which they have experience. An additional screen asks the customer in what geographic area they are looking for work. ACCESS MS sends the customer's information to the WINGS system, and WINGS immediately returns five to ten job matches for the customer at the end of the online UI application process. Customers who apply for UI over the phone have their job matches read out loud to them by a call center representative after completing the application. However, state administrators indicated that when there is increased call volume for UI applications, phone applicants are unlikely to receive job matches. Job matches for customers using the UI phone system are not updated in "real time," instead they are updated weekly based on any changing claimant information and new job openings.

After applying for UI, the WINGS system automatically creates a partial registration for them. The information from the customer's UI claim is sent to WINGS using the customer's Social Security Number. While customers can view their job matches in ACCESS MS, for most job postings the customer needs to complete their registration in WINGS to apply for a job. Claimants who come into

an AJC are first sent to a computer to complete their ES registration. Then they are able to start the job search, find jobs for which they are qualified, and meet with an interviewer at the job center who makes a referral to the employer.

Registering for Employment Services

After signing in separately to WINGS at the AJC, UI claimants can register for ES, look at job postings, and sometimes apply directly to the jobs (as noted, often the employer requires a referral from the job center). All the information entered by customers is accessible by case workers, so if a customer comes to the job center interested in training, a case manager could determine the customer's eligibility for this activity. WINGS also allows customers to set their preferences to better target the job matches they receive. Customers can indicate that they would like to work in a new occupation rather than the occupation of their most recent employment, which is helpful for customers who are starting at the entry level or who can no longer work in their current field. WIA services are available for UI claimants who need additional assistance or training; enrollment can only occur in-person at an AJC.

Employers can use WINGS to create job orders and review information about customers referred to job openings. Job orders posted by employers go through an approval process at MDES, or MDES staff could post job orders to WINGS themselves. Prior to WINGS, most employers either wanted the AJCs to screen customers for job openings or they wanted job seekers to go to the company's website.

Implementation of the IWR

As of April 2015, the process described above was still used for new customers registering for UI and/or ES remotely (online from their home or another location) and returning customers, but the IWR developed under the grant was piloted with new customers registering in person in 12 AJCs across the state. In these AJCs, when a customer first walks in they are asked if they are a new or returning customer. If the individual says they have never registered for UI or in WINGS before, they are prompted to go over to a computer in the resource center and register using the IWR. The first part of registration is creating a user ID and password.

Prior to implementation of the IWR, the new customer would have had to choose to either register for ES (if just a job seeker) in the WINGS system or to file for UI benefits in ACCESS MS. Customers would then complete registration for one of those systems (including creating a user ID and password, and entering personal information), and then need to repeat the entire registration process again for the other system (if they were interested in both UI and ES and WIA services). In the new system, after a user ID and password is created the customer goes to the IWR. Since they are first time users, there is no data to pre-populate so the data provided during the registration process is used by both WINGS and ACCESS MS. There are 28 basic questions new registrants must complete that cover the basic information necessary to register for both UI and ES. The first 20 questions were developed in coordination with New York State, as these are the common data elements for both states.

While Mississippi and New York both use these 20 common data elements, the IWR system allows customization for each state. Mississippi used this feature to add eight unique questions to the registration process for UI and ES. Information collected here includes citizenship and work eligibility, race, gender, education, job preferences, desired wage and distance willing to travel for

work, among others. Exhibit 4.1 shows the first of seven screens in the IWR registration process. Once the customer completes registration through the IWR, they are routed to the WIPP.

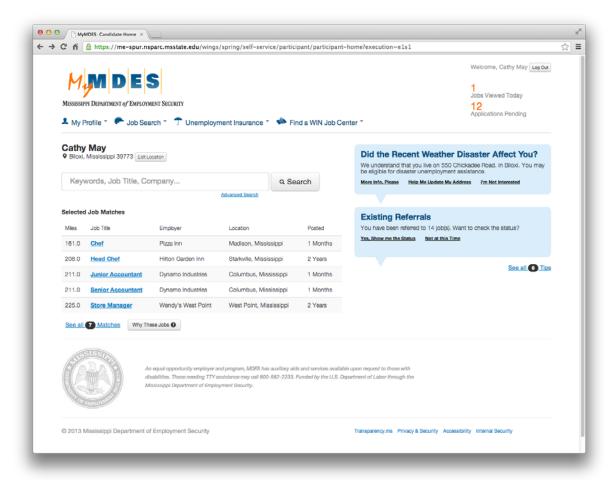
Exhibit 4.1: Mississippi Integrated Workforce Registration Screen 1 of 7



Implementation of the WIPP: My MDES Profile Page

Mississippi developed their WIPP rather than adopt the WIPP developed by GCOM. While Mississippi worked closely with GCOM and NYSDOL to develop a universal WIPP, the state felt that a WIPP developed in-house would better meet its specific needs. Referred to as "My MDES," the landing page or profile page provides customers with a number of tools to assist with job search and accessing relevant services (see Exhibit 4.2 for examples of job leads). The WIPP provides an immediate list of job matches available based on the data gathered through the 28 questions asked during IWR enrollment. From the WIPP, customers can click on links to file for UI or go into WINGS and provide more detailed job and education information. While only first-time customers utilize the IWR for registration, all customers who sign in to WINGS or ACCESS MS are directed to the WIPP. Customized messages on the right of the screen provide relevant information targeted toward specific groups of individuals, for example, to let customers know about an upcoming job fair near their zip code or prompt customers to update their basic profile information if it has been more than 90 days.





To view additional job postings beyond the list on the home screen, there is a search bar to search jobs by keyword, job title, or company (see Exhibit 4.2). Customers can view specific job postings that include labor market information (LMI) from MDES and the Bureau of Labor Statistics (BLS) about average wage for that occupation in the state and the current and projected labor market on a map, by county. The LMI was available in WINGS prior to the grant, but MDES used the WIPP to display the information in a more user-friendly manner. The customer can also provide feedback on the type of job positions that are being displayed, and choose to stop receiving certain types of jobs by clicking "stop recommending jobs like this."

Exhibit 4.3 shows a more detailed view of the types of jobs a specific customer is being matched with (e.g., sheet metal worker, furniture maker) with an initial list of primary job matches in green and a second list in gray labeled "These Could Be Great For You Too." In the top left corner of the home page, the WIPP provides statistics on the number of jobs the customer viewed that day and the number of jobs for which he or she submitted applications. If a customer is interested in in-person services, the WIPP provides a link to "Find a WIN Job Center."

● ○ ○ MyMDES: Candidate Home × 🗲 🤿 🖰 🧌 https://me-spur.nsparc.msstate.edu/wings/spring/self-service/participant/participant-home?execution=e1s2 ☆ = Welcome, Cathy May Log Out MMDES ♣ My Profile * ♣ Job Search * ↑ Unemployment Insurance * ♣ Find a WIN Job Center * We're Matching You With These Jobs Right Now Sheet Metal Workers | Pipe Fitters / Steamfitters Like This These Could Be Great For You Too is this a Good Match? your previous jobs + Range Managers | + Clinical Data Mar es. Those needing TTY assistance may call 800-582-2233. Funded by the U.S. Department of Labor through the

Exhibit 4.3: Additional Detail on Types of Jobs Used for Job Matching

Real Time Triage

Mississippi incorporated the real time triage element into the WIPP, where appropriate job matches are provided immediately upon registration based on the customer information collected during the IWR registration process. When a customer first arrives on the WIPP home page, there are up to 10 "relevant job matches" based on the information he or she provided. When the customer clicks on a specific relevant job more detailed information on the job appears, along with the level of match to the customer (e.g., 50 percent match, 90 percent match). The IWR captures information on most recent work experience and occupation of interest during the registration process, and when customers arrive at the WIPP they can click "update work history" to input additional information. The more detailed the information customers add within the WIPP, the better the job matches and real time triage will be. To assist with job matching and real time triage, the WIPP uses OccuCoder to collect information on the customer's most recent job, and types of jobs of interest. 12 The new system captures and matches to O*NET SOC codes through this page.

¹² OccuCoder is ITSC's software application developed to assign occupational codes to jobs, resumes, and UI claims. OccuCoder relates informally described occupations to standard occupations as published by the O*NET Center. http://www.itsc.org/Pages/pub_aocode.aspx

Several features of the WIPP prompt the customer to provide additional and updated information that allows the system to provide better job matches and give more customized messages regarding appropriate services and next steps. In addition to the option for the customers to update their work history from the WIPP home page, the system is designed to periodically prompt existing customers to update their information with notifications from the messaging feature on the right side of the home page. The job matching graphic tool also builds in prompts suggesting that customers update their education profile, skills profile, or work history (see Exhibit 4.4). State administrators suggested that requesting more information from customers works well in the context of job matching because when customers see that they are below a 50 percent match for a job, they are motivated to add more information to their profile to improve future matches, particularly if the bad match results from a lack of information in their personal profile rather than an actual gap in skills, experience, or education.

Exhibit 4.4: Education, Experience, and Skills Gap Analysis

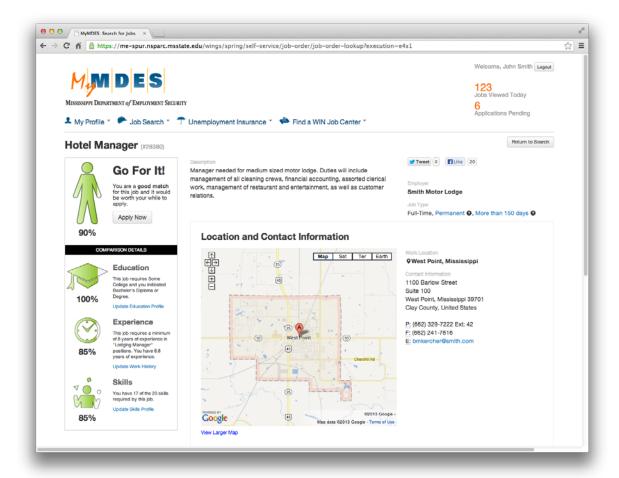


Skills Transferability

The skills transferability element, which seeks to provide appropriate job matches based an assessment of the individual's skills and job experiences, utilizes the O*NET occupational code system and the personal information entered in the IWR and the WIPP. Mississippi's key skills transferability feature is a job matching graphic that helps customers determine which of their current skills may be applicable to a different occupation and assesses whether the customer has an appropriate level of experience and education for the job. For example, a customer with experience repairing cameras might apply for a job as an electronics technician because there are some skills that may be transferable to electronics technician.

The new tool compares the skills associated with the job the customer has been performing with the skills required for the job of interest, and if the skills match up to 50 percent or more, it will recommend that the customer apply for the job (see Exhibit 4.5). If the customer lacks the skills and education to fill at least 50 percent of the prerequisites necessary for the job, the system indicates where there are deficiencies and how they can be remedied. The tool provides a detailed list of the skills required for the job of interest, and indicates which ones the customer does and does not meet. If the customer has an education gap, it provides information on what level of education to pursue. The information about the customer's fit for a given job position is communicated through an easy-tounderstand graphic in the WIPP that uses a person-shaped icon shaded with color to show the percentage fit (see Exhibit 4.4). A job that is a good match (more than 50 percent) displays a greenshaded person and the words "Go For It!" A job that is a less than 50 percent match displays an orange-shaded person and a prompt of "Interested?" that instructs the customer to look below for more information about what gaps are leading to the bad match.

Exhibit 4.5: Job Match Details



One of the features Mississippi is still working on for customers with education and skills gaps is connecting the customer with training providers through the WIPP. State administrators plan to add this feature in the future to help customers quickly and easily access the necessary training for the specific job of interest. This would eliminate determining which providers have the necessary training and which locations are accessible. At the time of the April 2015 visit, state administrators were in initial conversations with local training providers about developing this option.

4.3 **Reported Outcomes**

This section examines the reported outcomes of the UI Workforce Connectivity grant in Mississippi, based on assessment by MDES administrators/staff of the components of the grant that have been implemented. It is difficult to make conclusive statements about the outcomes of the grant because it is still early in the period of implementation and the IWR has been phased in on a limited basis only. In addition, there is not a study in place to measure outcomes for customers utilizing the grant-funded tools (see Appendix A for a discussion of future options for measuring outcomes). Discussions with MDES agency administrators and staff suggested the following benefits from grant activities.

Customers who register using the IWR have more complete data in the system, which may result in better job matches. WIN Job Center staff suggested that using the IWR may lead to better

customer employment outcomes for two reasons. First, customers are required to enter complete data in the registration process, which provides employers with more information on potential job candidates in the database and improves the job matching function within the new system. Previously, many customers had incomplete registrations for ES, which served as a barrier when staff were making job matches and referrals. Second, the ease of system use and the direct access to job matches on the WIPP encourages customers to use the system more frequently, which might help them find jobs more quickly. One exception to this finding is customers unaccustomed to technology use. For these individuals, staff often had to spend extra time walking them through the features of the IWR and the WIPP.

- Customers are satisfied with the system and find it easy to use. Staff said that from the customer's perspective, the new system is easier to use (less clicking, less going between two systems). All of the job matches and LMI is immediately available on the WIPP, so customers don't have to dig around the WINGS website to find it. According to staff, customers particularly like the job matching tool and the graphic showing the match based on education, experience, and skills.
- By implementing the IWR, the state served as a pilot for other states interested in integrating their systems. State administrators felt that a valuable outcome of the grant was the development of the IWR in such a way that other states could adopt the system. While the goal created certain challenges during the development, ultimately it was seen as worthwhile and state administrators thought the resulting system would be valuable, particularly for states less advanced in integrating their UI and workforce systems.

Overall, despite the delays in implementation, staff in Mississippi consistently report positive experiences, for both staff and customers, with the IWR and the WIPP. State and local staff reported that they had encountered no notable challenges in implementing it —the staff found it easy to understand and customers largely encountered no issues with the system.

4.4 **Use of System and Further Development Plans**

As noted, as of April 2015, the IWR was being used by new customers in 12 WIN Job Centers in Mississippi, and the skills transferability and real time triage elements of the grant were available to both new and existing customers registered in the workforce system. Due to other systems changes occurring within MDES, the full rollout of the IWR across the state was on hold as of April 2015. MDES was in the midst of implementing an updated UI system through the UI consortium they participate in with Maine and Rhode Island. The model developed through the consortium was in the testing process, and state administrators anticipated that they would roll out the system in two phases in 2015, one in June and one in December. The rollout would involve fairly substantial changes to the UI system, and MDES staff decided to finalize the changes to the new UI system before further implementation of the IWR, since those changes would necessitate adapting the IWR.

Moving forward, MDES has yet to determine whether they will continue to use the IWR developed through the UI Workforce Connectivity grant or develop their own version of an IWR that is embedded in their existing WINGS and ACCESS MS systems (rather than operating as a third separate system that connects them). MDES does not have any issues with the IWR developed as part of the grant program, but is considering an approach that would allow the ongoing maintenance

and improvements to the IWR to be the responsibility of state staff. In addition, they are considering changes to the functionality of the IWR, in the context of the continued improvements they are making to their existing systems. MDES also plans to make enhancements to the real time triage and skills transferability features developed under the grant. For example, there is an interest in building a training provider recommendation function into the job matching tool, as described earlier.

5. Implementation of UI Workforce Connectivity Elements in **New York**

This section provides an overview of New York's key grant activities and implementation experiences. It first describes the overall timeline for development and implementation of the three transformational elements. It then provides an overview of New York's workforce systems and registration processes prior to introduction of the IWR, followed by a detailed description of how the integrated workforce registration (IWR), real time triage, and skills transferability components of the grant were designed and operated in the state. The section concludes with a discussion of reported outcomes of the grant activities and future plans for development and use of the systems and tools piloted under the grant.

5.1 Timeline to Develop Systems

In 2011, NYSDOL was awarded a UI Workforce Connectivity Grant to develop and implement the IWR, skills transferability, and real time triage components under the grant. As of February 2015 when the study team made its final site visit, the IWR and the WIPP were still in a pilot testing phase and had not gone "live" with the public. NYSDOL planned to pilot test the system in the spring/summer of 2015 and if all went well, to make the IWR available to the public later in 2015. As of February 2015, many of the skills transferability and real time triage features planned under the UI Workforce Connectivity Grant had been developed and implemented, though it should be noted that prior to receipt of the grant, the state had already made considerable progress on implementing skills transferability and real time triage components envisioned under the grant. ¹³

Between 2011 and 2015, NYSDOL staff focused on an iterative process of planning and design of the IWR, along with DOL, NASWA/ITSC and its contractors, and MDES. Major steps in the planning process included participating in early planning meetings to create a blueprint for the IWR, allowing for the NASWA/ITSC vendors to develop the IWR and the WIPP, providing comments and input on design elements of the IWR and WIPP, and then once the IWR and WIPP prototypes were made available, integrating the IWR with New York's existing UI and ES data systems. The original timeline called for development and pilot testing of the IWR, skills transferability, and real time triage in New York within a timeframe that would allow for full implementation of these three components by the end of the grant period. However, due to a number of factors discussed below – particularly added time needed to develop, test, and implement the IWR and WIPP – the timeline for full implementation of all components to be developed under the UI Workforce Connectivity Grant was delayed considerably in New York.

5.2 **Description of Transformational Elements**

Because the IWR and the WIPP were not yet operational at the time of this report, the description in this section of the IWR screens and way in which job seekers, claimants, and the general public will interact with the IWR and WIPP is based on a prototype. It is possible that changes will be made

¹³ Unlike the IWR and WIPP, these two features could be and have been made available to job seekers and UI claimants via the state workforce agency's website, though the addition of the IWR/WIPP in the future will make the skills transferability and real time triage features even easier to access and use.

once the IWR and WIPP are pilot tested and rolled out to the public. For example, there is some potential that changes will be made to content, formatting, and sequencing of data screens prior to making the IWR and WIPP available to the public. It is anticipated that the IWR will reside as a "cloud" application (as opposed to an application residing on the state's mainframe computer), though it is important to note that as of February 2015 state administrators indicated that there were several important remaining issues to address before making the IWR publically available via a cloud application (discussed further below).

The discussion that follows highlights the sequence of data entry screens and capabilities expected to be made available to claimants, job seekers, and the general public as a result of the IWR and the availability of the WIPP. Some of the features that the IWR will provide easy access to are features that existed prior to the DOL grant, such as JobZone (which provides job openings and other resources for job seekers), the ability to obtain LMI, and the ability to file initial and continuing UI claims online. As envisioned, the IWR will facilitate use of the various self-service components that are already available or will be made available in the future via the state agency's website (or linked websites).

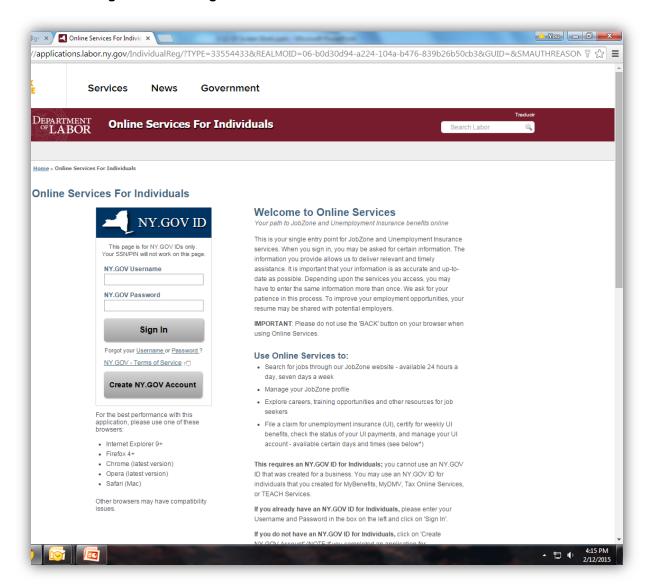
Pre-Grant Overview of Applying For UI and Accessing ES and WIA

NYSDOL requires that customers create an account prior to registering for any services in the workforce system. NYSDOL is part of a single sign-on system (located at www.NY.gov) that was instituted across state government agencies to simplify access to a broad range of available online state government services (NY.gov single sign-on predates the UI Workforce Connectivity Grant). This single sign-on, which provides users with a NY.gov username and password, can be used to access New York state government online services in a number of areas, including employment. 14

Exhibits 5.1 and 5.2 provide sample screenshots of how a customer coming on to the NYSDOL main website would obtain a NY.gov login ID. As shown in Exhibit 5.1, if the user does not already have a NY.gov login ID to access online services, he or she is able to (on the left side of the screen) click on the "Create NY.Gov Account" button, where a very limited core set of data is collected to establish an online account that the customer can use to access online employment, education, and other workforce services (as well as the broad range of other online services discussed above).

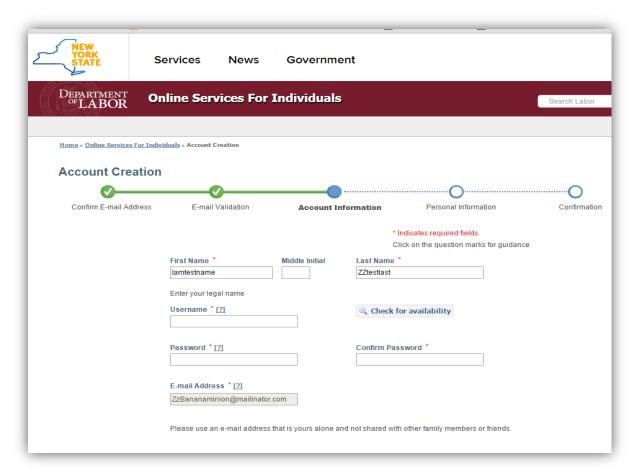
¹⁴ Other online services available through NY.gov include business, culture and recreation, education, employment, environment, government, health, housing, identification, licenses, military, safety and justice, social programs, taxes, and transportation.

Exhibit 5.1: NY.gov Account Log-in



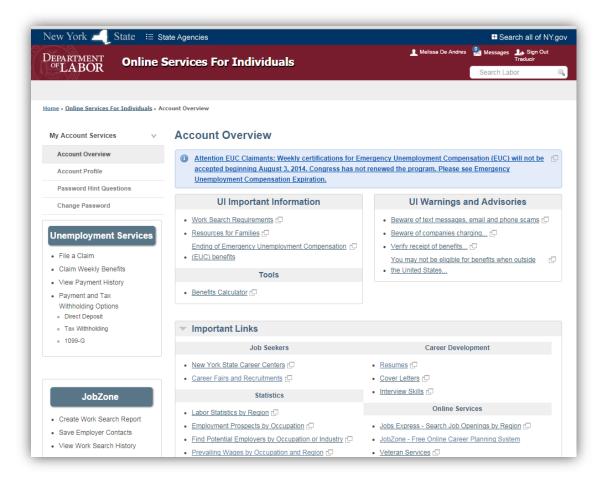
As shown in Exhibit 5.2, the user enters a core set of data (including name, user name, password, and password hint questions and answers) and personal information (limited to date of birth and Social Security number) to be able to set up an online account with the state.

Exhibit 5.2: NY.gov Account Creation



Once the job seeker, claimant, or other customer enters his or her NY.gov user name and password on the NYSDOL main website, he or she is directed to an "Account Overview" page, which provides links to online services available through the state agency. As shown in Exhibit 5.3, the "Account Overview" page provides web links and instantaneous access to a range of online workforce agency services, with a particular emphasis on accessing unemployment insurance services, LMI, career development/planning services, and available job openings.

Exhibit 5.3: Account Overview Page



The key links to available online services provided by the "Account Overview" page are highlighted below.

- *Unemployment Services.* On the left of the Account Overview page (and prominently displayed) is a button that links the customer directly to Unemployment Services, which provides a direct connection to apply for UI benefits. The customer is re-directed to the UI mainframe system and online services by simply clicking on a web link. Customers can use the site to (1) file a claim, (2) claim weekly benefits, (3) view UI payment history, and (4) view payment and tax withholding options.
- JobZone. Also on the left of the Account Overview page is a button to link the customer directly to the JobZone, a web-based application that provides information on 800+ occupations from the O*NET Database and current LMI maintained by NYSDOL. Though JobZone was available to job seekers and claimants prior to the UI Workforce Connectivity Grant, the IWR is aimed at making customers knowledgeable about JobZone and making access to the JobZone application quicker and easier, especially for UI claimants. The JobZone link (see Exhibit 6.4, available at https://www.jobzone.ny.gov/views/jobzone/guest.jsf) provides critical links for claimants and other job seekers for a range of services related to job search including a resume building tool, LMI, an online work search record, and a career exploration tool.

UI Information and UI Warnings and Advisories. The Account Overview page includes links to learn more about UI work search requirements, available resources for families, a UI benefits calculator, and additional details about UI requirements. Additionally, the user is offered a series of links to UI warnings/advisories (e.g., eligibility to UI benefits when the individual is outside of the U.S.).

Exhibit 5.4: JobZone Home Page



Any customer who has created an account can access the WIPP, without being registered for any services. From the Account Overview page, customers can register for ES and WIA by clicking the "JobZone" button or file a UI claim by clicking the "Unemployment Services" button (as noted previously, everyone who registers for ES is also co-enrolled in WIA). The two processes are separate and customers who file a UI claim are not immediately registered for ES and WIA. Currently, customers who file a UI claim are called in for an initial in-person appointment at an AJC about a month after filing, and they are then registered for ES and WIA by a case manager during the appointment.

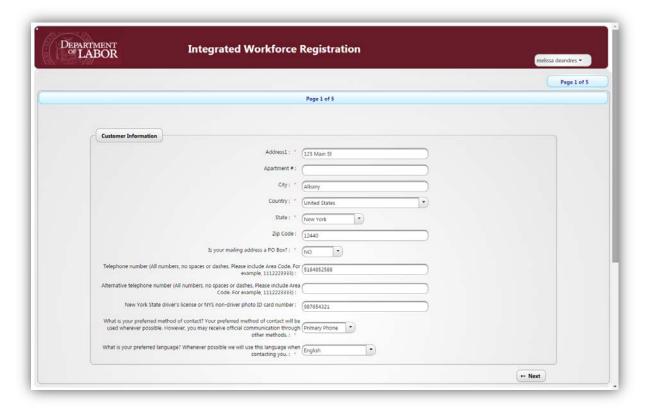
Planned IWR Registration Process and the WIPP

As a result of the UI Workforce Connectivity Grant, the state has established an IWR (residing on the Internet as a "cloud" application, rather than on the state's mainframe system), whereby, once fully operational, data will be shared between the UI system and software applications to ES and AJC customers. For example, data collected during the process of filing a UI claim will be automatically shared through the IWR when a job seeker registers for ES to a conduct a job searches, develop or refine a resume, or obtain online career planning services via the JobZone system. As envisioned, when an individual files a UI claim, the data entered will automatically be pre-populated into the ES system. Similarly, if a job seeker registers for the ES prior to filing a UI claim, relevant data from the ES registration will be pre-populated (in yellow) into the UI claim so that rather than reentering this core set of data, the claimant can easily edit and update data that appears in the claim application. ¹⁵ This automated uploading of data is intended to save time for the claimant, job seeker, and agency staff by reducing the amount of double entry of common data items (e.g., identifiers, address, demographics, O*NET code, educational qualifications, etc.).

The IWR data entry screens, the first of which is shown in Exhibit 5.5, allow for entry of key data items for UI claimants, ES registrants, and other customers of workforce services. Screen shots of the remaining IWR data entry screens are provided in Appendix B. Customers complete five pages (screens) of data that are fully shared by the UI, ES, and other workforce programs like WIA: (1) customer information (Exhibit 5.5) (e.g., address and contact information); (2) demographic information (e.g., ethnicity, race, gender, disability status, etc.); (3) employment details (e.g., current employment status, type of work looking for, skills the individual would bring to the desired job title); (4) work history (e.g., a listing of jobs the individual has had); and (5) education information (e.g., a listing of each degree or certification attained, school training/provider, course of study, etc.). This sharing of data, particularly between UI and ES, is made possible via the IWR application developed as part of the grant.

¹⁵ State agency staff reported that typically data validation and "trust levels" are more rigorous for UI data compared to data collected as part of the ES registration process (in part, because data collected for UI is used to determine UI eligibility and benefit amounts). This varying level of data validation can be an issue when data are shared between ES and UI programs – in particular, data validation requirements can make it difficult to share data collected for the ES program with the UI program. As a result, under the IWR application used in New York, customer information is pre-populated in yellow when a claimant is filing a UI claim, but claimants are required to go through each data pre-populated data item and make changes where appropriate to update each data item.

Exhibit 5.5: NYSDOL IWR Screen 1 of 5



A key feature under development is an enhanced WIPP or landing page. NYSDOL opted to develop their own WIPP rather than use the WIPP developed by GCOM because they already had a landing page from which customers can access JobZone and UI services (see Exhibit 5.3: Account Overview). Use of GCOM's WIPP also would have involved additional customer data being sent back and forth to the cloud, which concerned state administrators.

The enhanced WIPP feature that is currently in development is intended to provide UI claimant and other workforce agency customers with links to a range of online workforce agency services; updated and customized information about training opportunities; real-time job openings customized to the career interests, expertise, and experience of the individual; and a capability to receive and send messages to NYSDOL administrators/staff.

At the time of the site visit in February 2015, the state was still engaged in planning, constructing, and pilot-testing the enhanced WIPP prototype—and hence, only a draft of the prototype was available for demonstration at the time of the site visit. In its design of the WIPP, NYSDOL officials indicated that the dashboard-type page was primarily intended to inform users about real-time job openings (tailored to the job seeker's skills, interests, and experience) and to drive claimants to other online services/applications (particularly to JobZone to search available job orders). Exhibits 5.6 and 5.7 provide a draft of the WIPP (referred to as "My Dashboard"). It is important to note that the prototype for the WIPP could change once it goes through further design and pilot-testing.

Exhibit 5.6: WIPP Prototype

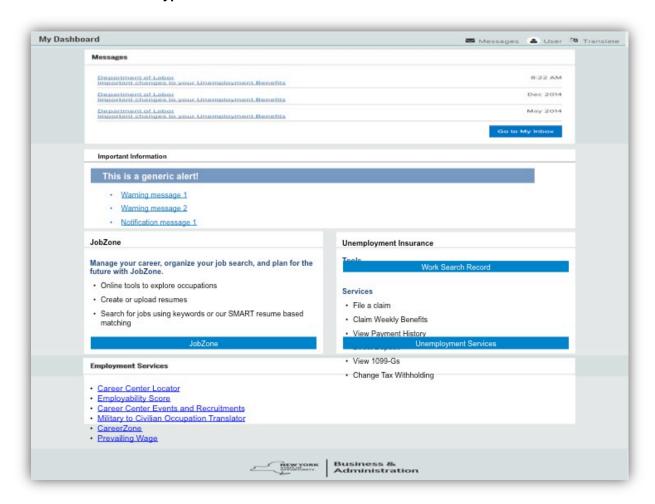
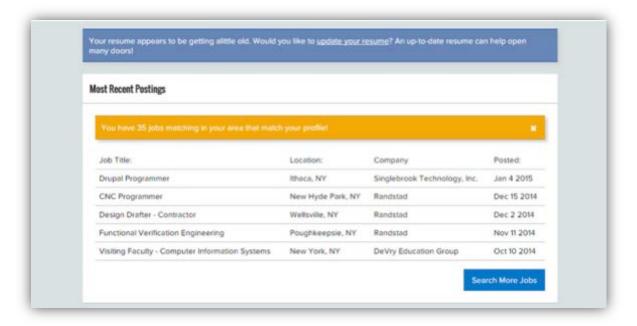


Exhibit 5.7: WIPP Job Matches



As envisioned, the WIPP would provide the customer with between three and five real time job openings matched to his or her interests, qualifications, and experience each time he or she logged onto the system. The WIPP would also alert the customer to how his or her specific skills could be upgraded by obtaining additional education or training. For example, if the job seeker or claimant has training as a Certified Nursing Assistant, the WIPP might alert him or her when allied health or nursing programs at local training institutions are starting, and provide a link on how to apply for and receive financial aid. A link will also be provided to several dozen additional job openings matched to the job seeker's profile that can be easily and quickly reviewed. The job openings offered will be refreshed each time the individual logs onto the WIPP. The other real-time features supported by the WIPP will be a messaging capability that will notify the individual of upcoming appointments and provide a capability for customers and NYSDOL to send and receive messages.

The WIPP will also provide the customer with direct links to other key capabilities/features offered through the state agency's system: (1) a link to UI tools to facilitate filing a UI claim, claiming weekly benefits, and viewing payment history; (2) a link to the state's JobZone to facilitate career exploration, searching for jobs, creating a resume, and obtaining LMI for the region of the state in which the individual resides; (3) direct links to other tools or services for job seekers (e.g., the career center locator, career center events, information on prevailing wages for occupations).

Skills Transferability

Prior to receipt of its DOL grant, NYSDOL offered job seekers and claimants a well-developed skills transferability tool – referred to as Skills Matching and Referral Technology (SMART) – as a staffassisted tool only. The UI Workforce Connectivity Grant was instrumental in enhancing the SMART application and making the tool available to job seekers and UI claimants as a self-service tool. SMART, a proprietary software application developed by Burning Glass Technologies, provides claimants and other job seekers who have registered using the IWR with a tool that provides realtime, high quality matches between their skills and experience and the job postings available on the JobZone system. As of February 2015, the SMART tool was accessible as a self-service tool via the state agency's main webpage.

NYSDOL initiated the SMART pilot in 2009 (prior to receipt of the grant) to enhance the process of matching AJC customers, including UI claimants, to job leads. SMART uses the latest job matching technology, which looks at skill sets and matches a job seeker to a job based on past work experience and skills instead of traditional "keyword" matching. As a result, SMART provides job leads that a customer might not have considered in the past, but are a good fit based on their past work experience and skills. Burning Glass tailored the SMART software application to the specific requirements of NYSDOL and has refined the tool since the pilot.

The SMART system automatically reads the job seeker's resume to identify the broad knowledge, skills, and abilities of the individual based on education, work history, credentials, and other accomplishments. If the customer does not already have a resume, the SMART software develops one based on the information entered. Unlike other job matching systems, which typically base assignment of appropriate occupational codes on a keyword search of the resume or prior occupations held, the SMART system is able to look more broadly at what the job seeker has done in the past and compare the individual to other similar individuals to determine a potential career trajectory. SMART analyzes each job seeker's resume and uses a complex algorithm to determine:

- What jobs the job seeker has held in the past
- How the job seeker's skills, experiences, and abilities compare with those of other job seekers
- And, based on the job seeker's skills and abilities (in comparison to other similar job seekers), his or her likely career trajectory, and types of jobs or occupations that are potentially a good match for this individual¹⁶

SMART automatically links job seekers with employment opportunities based on skill phrase matches contained within customers' resumes and employers' job order descriptions. SMART assesses skills in two main ways. First, a "Resume Score" (see below), an indicator of the job seeker's employability relative to a particular job opening, is calculated. Any upgrade of a job seeker's skill set or experiences can directly affect the Resume Score. Second, through one of SMART's "Insight Tools," job seekers can see what skills others employed in a particular job possess and identify their strengths or any skill gaps that may exist. This may highlight additional options for the job seeker or illustrate the need for the job seeker to consider a transitional job prior to his or her current job goals. It may also be useful in terms of determining additional education or training the individual may need to qualify for jobs in related occupations. Due to the nature of its matching technology, SMART can highlight openings that may be a good fit based on the job seeker's transferable skills during live job searches. SMART also has the capacity to identify possible career trajectories or transitional occupations.

Once the job seeker's resume is uploaded to and analyzed by SMART, the job seeker (or workforce agency staff person) then uses the various functions of SMART: setting up job lead e-mails to be sent

¹⁶ U.S. Department of Labor, Workforce One, Innovations in Action, New York Skill Matching and Referral Technology, available at: https://www.workforce3one.org/view/3001310651755471621.

to the participant on a daily/weekly basis; conducting a live job search; exploring the "insight tools" to assess how competitive the customer may be for various job listings; and exploring relevant career trajectories and pathways. Customers can be automatically e-mailed on a daily or weekly basis a listing of jobs to which they are best matched. For each job listed, the e-mail shows the job title, employer, location, date of the job order, the first few lines of the actual job posting, a link to the actual job posting, and the strength of the job match for the individual (as determined by SMART, which can be from three to five stars, with five stars indicating a strong match of the individual to the skills required by the job). The customer can click on the link to see the full job posting and if interested can proceed to apply as directed in the job posting. The customer is encouraged to followup with staff if they have questions regarding the SMART job leads they are receiving, wish to modify the job search parameters for their matches, update their resume, or discontinue the service for any reason. AJC staff are also provided weekly summary reports of the top 10 job leads provided to customers with whom they are working. Staff can choose to follow up with customers to assess the quality of leads, assist with refining the resume, and offer job search assistance or other services.

NYSDOL has also purchased the business side of the SMART technology, in the form of the Job Order Writer. This feature enables employers to write more detailed and skill oriented job orders, as well as search for resumes using SMART technology. Employers can also message customers through SMART to encourage them to apply.

Once the IWR is implemented, individuals registering through the IWR will enter information on work history, job duties, and skills. This will enable them to begin receiving job matching results immediately (displayed on the WIPP), as well as allow for more detailed searching of available job listings. AJC staff (especially staff involved in the Reemployment and Eligibility Assessment (REA) program) will be required to review job leads and work search records with customers at in-person appointments. It is anticipated that the IWR will lead to a more productive and efficient first appointment with customers since they will have already entered detailed information into the system and will have received job matches. As a result of having completed the IWR, each customer will already have a resume on file to review for discussion of skills, tips for improvement, etc. Staff can start discussing job leads and resume revisions during that first appointment. Decisions can be made to refer customers to next steps, such as interview skills or networking skills workshops, if needed. The continuous influx of information will allow for real time triage to be an ongoing process which will be beneficial for long-term unemployed customers.

Real Time Triage

Prior to receipt of its connectivity grant, NYSDOL had established a customer service model based on four principles aimed at providing real time triage for customers of the workforce system: (1) expeditious entry to the system; (2) identification of customer needs (triage/assessment); (3) development of a service plan; and (4) continuous engagement. The UI Workforce Connectivity Grant helped NYSDOL to continue along this pathway, specifically to provide real time LMI and

triage. 17 Under the real time triage model, information collected during the IWR process can be used to immediately link customers to services including employment opportunities through the state's job matching system (SMART) and employment services and training opportunities offered by the workforce system.

Once registered using the IWR, customers are provided with the option of (1) continuing in selfservice mode (online) to investigate employment and career options; or (2) working with career advisors (in the AJCs across the state), who are also able to electronically track their customers' progress and provide timely services and job leads as appropriate. Further, the WIPP (described earlier) is designed to facilitate the agency's provision of real time LMI and triage by providing instant messaging between staff and customers; electronic alerts of special events (such as job fairs or on-site recruitments) and upcoming training opportunities and workshops; and listings of three to five job openings matched to the worker's interests and qualifications (updated each time the customer logs into his or her WIPP) and a direct web link from the WIPP to JobZone for customers to conduct more specific and detailed job searches.

Three key features of the real time triage mode in New York have been enhanced through the DOL grant:

Initial Assessment. According to NYSDOL policy, all AJC customers must receive an initial assessment (IA) during their first staff-assisted service. During the IA, a common assessment process is used to determine the appropriate services for the individual: job search ready services or career development services. This common assessment often includes a one-on-one interview and/or a self-attestation in written form that covers the customer's occupational goals, existing skills, work search readiness and barriers to employment; the local labor market conditions; and the customer's desire for skills upgrading or training. Information gathered during the IA is used to determine the customer's service plan and provide information for future visits. At subsequent visits, staff reassess the customer's circumstances as they relate to their job search and amend the service plan as appropriate. Prior to the grant, the IA process for UI claimants did not take place until the customer had been certified for UI benefits, which is typically one month (or later) after initially filing a claim. Under the grant and the upcoming implementation of the IWR and the WIPP, which includes occupational goals, existing skills, and work history, every contact (inperson or via the Internet) with a customer will be used as a chance to connect that customer with employment services. For UI claimants, the real time triage process will begin as soon as the claim is submitted. For example, the IWR and the WIPP will provide UI claimants with 3 to 5 matched jobs once the IWR is completed and will move up the point at which such a listing of matched jobs is provided to claimants by at least month, as claimants typically had to wait until their initial meeting with staff for information on matching with job listings.

¹⁷ "New York State Department of Labor Phase 2 Proposal, Application Solicitation for State Partnerships to

Pilot the National Vision for Re-Employing Unemployment Insurance Claimants," submitted to National Association of State Workforce Agencies and U.S. Department of Labor, August 12, 2011. In this section, portions of the description of real-time triage both prior to the receipt of the UI Workforce Connectivity Grant and as planned once the grant period is completed, are based on the proposal.

- Resume-Based Service Model. As part of a resume-based service model, SMART software is used to determine a customer's Resume Score as a means of conducting an ongoing assessment. The Resume Score is an indicator used by staff to determine the job seeker's employability relative to a particular job opening. For example, if a customer has a score of four stars (600-800 points) against a particular job, that would indicate he or she has a good chance of being competitive for that job. On the other hand, if the customer scores only two stars (200-400 points), he or she may be lacking in skills or experience, or his/her employment objective may need to be reevaluated. Staff then use the assessment (together with other planning tools) to help plan the next service(s). Using resources from the grant, NYSDOL has been able to move the generation of the Resume Score earlier in the reemployment process to facilitate provision of real time triage. Using the SMART system, the customer can (once the IWR is completed) create his or her resume from scratch or scan a pre-existing resume into SMART. The Resume Score can be generated once the resume is entered into SMART. The resume can be updated (by the customer or with help of staff) as new information is obtained, such as the acquisition of new or improved skills when the customer completes trainings and workshops. This will generate a higher and more accurate Resume Score, allowing for better job matches and better-customized guidance from staff when planning next steps. A low Resume Score may indicate that the customer would benefit from additional training. In this case, the customer will be able to explore educational and training opportunities for his or her targeted occupation. The customer will be able to use the linkage between the eligible training provider list and the occupational profile pages in JobZone for this purpose; staff will also be able to assist customers in locating appropriate training opportunities.
- Provision of Real Time Job Leads. As noted above, the development of the IWR and the WIPP will make it possible to provide real time (instantaneous) job leads matched to customer interests, capabilities, and experiences each time the customer logs into the system. The SMART system is dynamic in the sense that it continually accounts for changes in the customer's qualifications and interests (e.g., when the customer or staff enter receipt of a new degree or certificate, the job leads provided will automatically take into account this change and provide a new listing of job leads based on the customers current skills/interests and the latest job openings available in JobZone) as well as the latest job openings listed.

5.3 **Reported Outcomes**

Because the IWR has not yet been implemented, no assessment of the effects on customer outcomes can be made at this time. It is also difficult to assess outcomes of the skills transferability and real time triage because key features of these tools/capabilities were already in existence prior to receipt of the grant. At this point, there is not a study in place to measure outcomes for customers utilizing the grant-funded tools (see Appendix A for a discussion of future options for measuring outcomes). Despite the need for caution, discussions with NYSDOL agency staff suggest the following likely outcomes from grant activities.

Claimants will receive job referrals and other services about one month sooner once the IWR is implemented. The sharing of data between workforce programs and systems—in conjunction with the skills transferability software (SMART) and the upcoming implementation of the IWR and WIPP—will make it possible for claimants to be matched with available job openings

immediately upon filing a claim. Prior to this grant, it took about one month (until claimants met with local office staff for an interview) for local office staff to conduct an assessment, and then input data necessary to provide claimants with job matches (in terms of the claimant's interest, qualifications, and experience). Once the IWR and WIPP are completed, it will be possible for NYSDOL to provide claimants with real-time job matches at the time they file their claim. Job matches will also be refreshed each time the job seeker logs into the WIPP.

- There is a reduction in duplicative data entry by UI claimants, ES registrants, job seekers, and agency staff. Once the IWR system is fully operational, if a job seeker files a UI claim (prior to registering for ES services), relevant information from the UI claim will automatically populate the ES system. Similarly, if a job seeker registers for ES services prior to submitting a UI claim, relevant data from the ES registration will automatically populate (in yellow) the claim file so that it can be edited by the claimant. The DOL grant was an impetus to move the state along a pathway to sharing data across workforce programs and mainframe data systems, which is saving time and effort for claimants, other job seekers, and agency staff in terms of reducing duplicative entry of common data items.
- The skills transferability capability embodied in Burning Glass' SMART tool resulted in a shift from a staff-assisted to a self-service tool, which makes it more readily accessible to claimants and job seekers. Workforce agency customers can use this tool to develop resumes (or to scan a pre-existing resume) and be automatically matched based on skills, interests, and past work experience instantaneously (real-time) with available job orders. SMART provides job leads that a customer might not have considered in the past, but are a good fit based on past work experience, interests, and skills.

Overall, despite substantial delays in launching the IWR, NYSDOL officials believe that once the system is implemented that it will have important benefits for both the agency and customers served by the workforce system across the state. The key benefit of the three components, once they are working in conjunction with one another, is expected to be the ability of the state and local workforce agencies to provide a continuous flow of job leads to claimants and other customers to enhance job search efforts, with the enhanced skills transferability capabilities helping to broaden the occupations, job listings, and training opportunities considered by job seekers and claimants. The IWR and particularly the WIPP will provide the claimant and other job seekers with easy and ongoing access to job leads and other up-to-date relevant information to support job search and skills upgrading efforts.

5.4 **Use of System and Further Development Plans**

The IWR and WIPP had neither been pilot-tested or implemented for public use at the time of completion of this study, thus it is not possible to assess usage of the IWR and the WIPP. To date, according to NYSDOL administrators, there has been extensive use of the skills transferability and real time triage features, though there is no available data on utilization.

Though optimistic about eventual full-scale implementation in 2015 of the IWR as a cloud application, state administrators identified several issues that still needed resolution by NASWA/ITSC and GCOM before the application can be made available to the public. One issue is testing the performance of the system, including loading of matched job listings to the WIPP each time the user logs on, to make sure there are not lengthy delays due to the loading and selection of job listings tailored to each individual job seeker. For example, state administrators observed that on Sunday (when claimants recertify for benefits), as many as 200,000 UI claimants interact with the NYSDOL UI website and there is some concern that claimants could experience delays in accessing their individual records as a result of real-time matching of claimant skills with available job orders as part of the IWR and the WIPP. Related to this concern, state agency officials indicated that prior to full-scale implementation of the IWR as a cloud application, the state wanted to make certain that the IWR or WIPP does not inadvertently drive more claimant inquiries (and workload) to the state's UI call centers (e.g., UI claimants who encountered slow response times or difficulties using the technology when submitting continuing claims would drive a greater volume of customer inquiries to UI call centers).

Second, prior to IWR implementation, NYSDOL needs to finalize and sign a subcontract with NASWA/ITSC to cover costs and access to the IWR as a cloud application (i.e., there are costs related to maintaining the application on the cloud, which must be paid for by the state). Finally, concerns persisted on the part of NYSDOL's information technology office over the security of personally identifiable information in cloud applications, particularly in light of recent security breaches in cloud applications maintained by large corporations and the prevalence of attempted hacking of large government and private sector data systems in recent years.

In terms of further development plans, it is possible that some, or substantial, changes could be made prior to the roll-out of the IWR and WIPP to the public. Most notable, while it is anticipated that the IWR will reside as a "cloud" application (versus an application residing on the state's mainframe computer), there is some possibility New York will not implement the IWR and WIPP as a cloud application. If remaining hurdles related to implementing the cloud application cannot be overcome, the state is committed to making the IWR available using the state's mainframe system (though this would require additional programming work and delays in IWR implementation).

6. **Key Findings from the UI Workforce Connectivity Project**

Through its UI Workforce Connectivity Project, DOL aims to develop automated systems to improve UI claimants' access to employment services provided through the workforce system. Because many UI claimants primarily apply for or maintain their benefits via the Internet or phone, many are physically disconnected from the workforce system and often not aware of how to access the range of reemployment, job search, career counseling, and training services that are available to them. Moreover, the automated systems for filing UI benefits claims and for accessing employment services through workforce systems are often separate, with limited or no connections between them, making it cumbersome and sometimes confusing for individuals to navigate between two systems. At the state level, the challenge has been how to more effectively share customer-level data between mainframe systems, which are often in separate systems that are costly and difficult to change. Sharing the data electronically would reduce data collection burden and duplication of effort for staff and UI beneficiaries and other workforce customers, and would also reduce the time it takes to provide information to job seekers to help them search for work.

The UI Workforce Connectivity grants awarded to New York and Mississippi were aimed at overcoming this divide in collection of data from UI claimants and other workforce system customers (particularly those receiving services through ES and WIA), and to test approaches to sharing of data between programs through the development of the IWR. Additionally, the grants to states were intended to advance skills transferability and use of real time triage to support claimants and other job seekers in their efforts to improve skills and search for jobs. This section of the report presents the key findings from the implementation study of grantee initiatives. The findings were obtained primarily through interviews with New York and Mississippi officials, NASWA staff, DOL staff, and a review of documents provided by New York and Mississippi.

Overall, Mississippi and New York made significant strides in terms of development and pilot-testing the IWR and WIPP, and the states involved in the UI Workforce Connectivity grants identified a number of important benefits of their grant-funded effort:

- Reduction in duplicative data entry by UI claimants, Employment Service registrants, job seekers, and agency staff. Once the IWR system is fully operational in Mississippi and New York, if a job seeker files a UI claim (prior to registering for ES), relevant information from the UI claim will automatically populate the ES system. Similarly, if a job seeker registers for ES prior to submitting a UI claim, relevant data from the Wagner-Peyser/ES registration will automatically populate the UI claimant file, so that it can be edited by the claimant and agencies. The DOL grant has been an important impetus for the two states to increase sharing of data across UI and other workforce data systems, which according to staff in both states will save substantial time and effort for claimants, job seekers, and agency staff in terms of reducing duplicative entry of common data items. Mississippi provided training to local staff on the use of the new tools, and local staff reported they were able to easily incorporate them into daily operations.
- Claimants receive tailored job referrals and other training and reemployment services earlier and tailored to their interests, capabilities, and needs. The sharing of data between UI and other workforce programs and systems (especially ES)—in conjunction with the skills transferability software—will make it possible for claimants to be matched with available job openings

immediately upon filing a UI claim, as well as on an ongoing basis. For example, in New York, prior to the redesign, it took about one month (until claimants met with local office staff for an inperson interview) for local office staff to conduct an assessment and input data necessary to provide claimants with active job openings matched to the claimant's interest, qualifications, and experience. Once the IWR and WIPP are fully operational statewide in New York (and currently in a number of Mississippi localities), new claimants will be provided with real-time job matches at the time they file their claim. In New York, updates on available occupational training matched to each claimant's interests and capabilities will also be available. Job matches will also be refreshed each time the job seeker logs onto the WIPP in both states.

- The skills transferability capability can be used as a staff-assisted or self-service tool to provide claimants and other job seekers with real-time job leads tailored to their skills and interests. Workforce agency customers can use the enhanced skills transferability tools updated and refined by the DOL grant to automatically receive matches available job orders based on skills, interests, and past work experience instantaneously (real-time). In New York the skills transferability tool also helps customers develop resumes or upload pre-existing resumes. The skills transferability software is intended to broaden the range of jobs and occupations that claimants and other job seekers consider, as well as to provide up-to-date information on training opportunities that could make a difference in expanding career choices and lifetime earnings. Administrators in both states indicated that such skills transferability software substantially improved the breadth of job leads that job seekers consider during job search.
- While it is premature to make a definitive assessment of the real time triage feature of the demonstration effort, officials in both Mississippi and New York indicated this capability will significantly improve the quality and timeliness of job leads provided to job seekers, potentially leading to more rapid return to work. The concept behind real time triage is to continuously (behind the scenes) electronically assess the UI claimant or job seeker's skills, experience, and interests in relation to dynamic changes in available job openings and training opportunities. Where before job leads may have been provided based on an initial point-in-time assessment (e.g., at the time of intake or at subsequent meetings between the claimant and workforce agency staff), the IWR and WIPP and skills transferability software in combination allow for ongoing job matching and provision of job listings based on the most current information available.
- Development of tools that will be useful to other states in developing stronger connections between job seekers and the workforce system. A benefit to the workforce system more broadly is that other states will be able to adopt the IWR and WIPP developed under the grant and use these pre-existing tools to better integrate their IT systems. In particular, WIOA provides additional opportunity for states to integrate their systems with its goal of providing comprehensive, integrated and streamlined services by linking and aligning different one-stop partners. A goal of WIOA is to "...increase connections between the job training and employment services and the UI system. UI claimants will benefit from the enhanced services, including the labor exchange services and career counseling that are included as career services under title I, and activities that assist workers in identifying and obtaining jobs in in-demand

industries and occupations." As states work toward integrating their systems and increasing connections between UI and ES/WIA, they may benefit from the pilot work conducted under the UI Workforce Connectivity project, which was developed with much the same goals in mind and produced the IWR and WIPP with the explicit aim of having other states adopt the tools.

Future efforts may also be informed by the challenges encountered in the UI Workforce Connectivity Project. New York and Mississippi experienced design challenges and delays in terms of the original schedule for IWR implementation, in large part stemming from the two year period needed to design the IWR. Once the IWR and WIPP were designed, Mississippi was able to pilot it in two to three months in several locations in the state and, as of April 2015, was closer to full-scale implementation than New York. New York planned to roll out the IWR in the coming months for pilot-testing, but the state was still working on redesign of the IWR's WIPP. State administrators identified two main challenges related to the design and implementation of the IWR and WIPP. Neither state indicated that they had faced challenges with respect to the real time triage or skills transferability aspects of their grants.

- The design process for the grant-funded states was substantially complicated and delayed by the need to take into consideration IWR system requirements and varying IT mainframe systems in each state, as well as the requirements of DOL and other states that might implement the IWR prototype in the future. State administrators in Mississippi and New York indicated that it would have taken substantially less time and the design process would have been considerably less complicated had each state been designing an IWR that would meet the state's requirements only. Discussions over an extended period of time were needed to determine the desired data elements and structure of the IWR that would meet the needs of the grantees, DOL, and other states that might be interested in implementing the IWR in the future. While Mississippi and New York were successful in identifying 20 common elements, the process of identifying these data elements and developing screens was difficult and time-consuming for grantees given their varying IT structures, extent of integration between the state mainframe systems, differences in program structures and customer flow, and substantial concerns over maintaining system security. The added need to develop an IWR that would be compatible and easily incorporated into mainframe systems in other states made the task of designing the IWR more complex and added to system development time. One state administrator suggested that a better approach might have been for one state to take the lead and develop a model, and then the prototype could be adapted by other states.
- The change in the original scope of work under the grant to include development, pilot-testing, and implementation of a WIPP as a feature of the IWR resulted in additional delays. The original project scope did not include incorporation of a WIPP, but once the design work was underway the participating states, DOL, and NASWA/ITSC determined that the WIPP was a critical feature that would bring real-time job leads, training opportunities, and messaging capability that would make the IWR substantially more user-friendly and useful to claimants and other customers. NASWA/ITSC and the participating states spent much additional time and effort in designing,

¹⁸ The Workforce Innovation and Opportunity Act (WIOA) - Driving Innovation, Collaboration, and Performance - Analytical Report - National Association of Workforce Boards and Public Consulting Group -August 2014.

developing, and pilot-testing the WIPP. Additionally, state grant administrators indicated that the state's IT staff had to hold off on state programming activity to support integration of the IWR and WIPP while NASWA/ITSC completed its design and pilot-testing of the WIPP. In the end, while each state benefited from the WIPP development that occurred under the grant, each developed their own version of this tool that better met their state-specific needs.

The experiences of the states involved in the UI Workforce Connectivity grants suggests that the amount of time it takes to implement an IWR will vary from state to state depending on the time required to design and refine, pilot-test, and fully implement such an enhancement to existing IT systems. States will need to carefully assess the extent of integration of existing UI and other workforce data systems and ability to make the necessary programming changes to these systems in order to implement an IWR and a WIPP. It may be necessary for replicating states to make changes in IWR data elements and screens to make optimal use of the prototype developed under the grant. Another concern, which affected New York's implementation of the IWR (and especially the WIPP), was the security of personally-identifiable information residing on an Internet (cloud)-based application. 19

Overall, staff and administrators articulated clear benefits of the IWR and the skills transferability and real time triage provided by the WIPP. At the time of the study, there was no outcomes data. Further evaluation is needed to determine if the IWR and the WIPP are associated with expedited return to work, increased earnings, and a decreased duration of UI benefit receipt among UI claimants.

¹⁹ As noted earlier (in a footnote), New Jersey anticipated that it would be able to incorporate all features (without substantive changes) of the IWR and WIPP into its mainframe system within a 9-month period.

Appendices

Appendix A: Options for Evaluating the UI Workforce Connectivity Elements

Appendix B: Additional IWR Screen Shots

Appendix A: Options for Evaluating the UI Workforce Connectivity **Elements**

The evaluation of the UI Workforce Connectivity Grants focused on implementation in two states. Neither the states nor the study team collected outcome data. Thus, it is not possible at this time to determine whether implementation of the IWR and the WIPP had positive impacts on UI claimant and other job seeker employment rates, wages, and other measures of interest to DOL. Although there are a number of potential designs, an impact study using random assignment is generally considered the "gold standard" of designs because it can describe the extent to which changes in outcomes of interest are due to the intervention and not some other factor. Using this design, researchers compare the outcomes of a group that is randomly selected to receive the intervention to a group (randomly selected) that cannot. The group or unit of interest can be individuals, offices, or geographic regions.

This appendix assesses the opportunities and challenges for conducting rigorous evaluations of these interventions and provides recommendations to DOL on these issues for evaluations of connectivity projects in the two states studied or other states. Some issues to consider in designing an evaluation include:

- Program scale. Impact evaluation designs require sufficient sample sizes in order to detect program effects. Evaluations where earned income is the key outcome typically require samples of 500 to 1,000 per group (treatment and control) to obtain a statistically significant impact. The group size depends on a number of factors, including the nature of the treatment (how "robust" it is and different from other services), participation levels (do most treatment group members receive the service or is there a large amount of attrition), expected size of the impact, and the counterfactual (other services available in the community). We do not know the likely impacts of the connectivity interventions, so it is difficult to suggest an appropriate sample size. If the New York intervention is able to provide job leads one month sooner, that could possibly have a large impact on earnings and employment, but it is difficult to estimate the magnitudes of the impacts for the other interventions. For another Abt project involving services to new claimants currently underway (the Reemployment and Eligibility Assessment Evaluation), we believe that thousands of participants are needed to be obtain statistically significant impact estimates. Thus, programs would need to have sufficient enrollment and resources to operate at this scale to be included in this type of study.
- Strength of the treatment difference. As noted above, impact studies compare those randomly assigned to receive a specified treatment to those randomly assigned to access other services. For an impact evaluation to produce statistically significant estimates there must be a distinct difference in the services received by each group. The study cannot compare apples to apples. In the case of UI Workforce Connectivity projects, the contrast in treatments should be sufficiently large or the cost savings great enough that if the project is successful, the project would pass a cost-benefit test.
- Maturity of treatment. Impact evaluation designs typically try to evaluate programs when they are in a "steady state" of operations or least avoid the early start-up period when implementation problems are more common. This is to avoid assessing the overall effectiveness of a program

during a period that does not reflect the full potential of the program. Programs often have to work out unanticipated issues during the initial period of operation, many of which are ultimately resolved. This is particularly common in programs involving the coordination of different services and agencies, as is the situation for UI Workforce Connectivity Projects.

- Use of random assignment. As noted above, evaluations using random assignment are considered the gold standard. However, random assignment is not always appropriate. Barriers to using random assignment include legal issues, ethical issues, and issues of feasibility. In UI connectivity projects, there are not likely to be legal or ethical issues in using random assignment, but there may be issues of how practical or feasible it is to direct claimants to different resources. (Alternative quasi-experimental approaches are discussed below.)
- Group vs. individual random assignment. In some situations there are alternatives to individuallevel random assignment, particularly when the interventions are explicitly designed to benefit a group or population, not individuals specifically. For example, many educational programs are targeted to affect classrooms of students, or even entire schools. While such programs do affect individuals, their basic focus is on achieving impacts at the larger unit of analysis. In such cases, the unit of random assignment might be classrooms or, in the case of this project, a workforce investment area or local office.

Several options that may be promising for future rigorous studies focusing on integrated workforce registration, real time triage, and skills transferability assessment are discussed below. An evaluation could assess the impact of all three activities implemented as a group, as was done in Mississippi and New York, or where only one or two of the activities are implemented. It is assumed for purposes of this appendix that all three activities would be implemented as a package, as was done in the current project.

Under the options described above, a challenge would be operating the program with the old and new approaches simultaneously. By rolling out the IWR in select offices, Mississippi engaged in this practice in implementing the three connectivity elements, although not for the purpose of evaluating the different systems. Before undertaking an evaluation with multiple variations operating at the same time, either within or across local offices, consideration should be given as to how feasible and disruptive this might be.

The key to any impact evaluation is observing some group of individuals who receive the treatment and another group who does not; ideally the only difference between the two groups would be receipt of the treatment, but in all other aspects the treatment and control groups would be the same. The best way to ensure comparable treatment and control groups is random assignment. If UI claimants are the focus of such a study, the outcomes of primary interest are likely to include UI payments, weeks on UI, and earnings of claimants in one or more post-program periods (e.g., 6 months, 1 year, 18 months, 36 months after filing an initial claim).

Recent experience with the ongoing Reemployment and Eligibility Assessment (REA) demonstration evaluation, studying different job search approaches for UI claimants using an experimental design, shows the feasibility of implementing this type of study in the UI system. For the REA impact evaluation, conducted by Abt Associates, the five participating states are providing different treatments to claimants within offices and across offices, although the evaluation is focusing primarily on the within-office variations.

As noted above, there are two broad approaches to random assignment: random assignment of individuals within participating offices and random assignment of participating offices. We recommend individual-level random assignment for two reasons. First, a large number of offices is needed for a group-based approach, and there are likely too few offices in most states to ensure that the treatment and control groups will be similar in their claimant and environmental characteristics if offices are randomly assigned. Second, in some states, there will not be a good match for certain offices; for example, in the current REA evaluation it would be difficult or impossible to develop good matching locations for New York City in New York and Seattle in Washington.

Should random assignment prove infeasible, several quasi-experimental designs could be considered. For large states with fairly homogeneous offices (in terms of various labor market characteristics of claimants and the economy), it might be possible to use a delayed implementation comparison group design. In this approach, the IWR would be introduced on a rolling basis, with perhaps half the offices implementing the new program initially, and the remaining offices introducing the new system six months or a year later. During the initial period, the offices introducing the three connectivity innovations would constitute the treatment group and the remaining offices would be the comparison group. For this approach to provide good results, it is important that the treatment and comparison offices be well matched.

Another option that could be explored, particularly if there is a desire for statewide implementation, is an interrupted time series approach; this approach could also be used if the intervention is implemented in only part of a state, permitting a comparative interrupted time series. Under this approach, data for the state would be gathered for a number of years prior to and subsequent to implementation of the connectivity project. Regression analysis would be used to estimate models at the state level of UI duration, replacement earnings, and other outcomes of interest as a function of time, the intervention, and other economic and demographic variables likely to affect the outcomes. In some applications, this approach has been found to be highly accurate, particularly if a comparative interrupted time series is estimated, where in addition to the area implementing the treatment during the observation period, there is a comparison area where the treatment was never implemented.²⁰

Although this approach is sometimes appropriate, we have concerns in using it for evaluating a connectivity intervention. Rules for unemployment insurance have gone through a number of changes in recent years, and besides the unprecedentedly high unemployment rates during the Great Recession, major changes to the system were made with funds provided by the American Recovery and Reinvestment Act (ARRA). ²¹ These major changes in the environment and in program structure might make it inappropriate to include pre-program observations prior to the Great Recession. In spite of the encouraging results of St. Clair, Cook, and Hallberg, in other applications, such as determining the impact of welfare reform on the size of the caseload, interrupted time series have not

²⁰ For an application to education where the procedure worked well, see St. Clair T, Cook TD, Hallberg K. Examining the Internal Validity and Statistical Precision of the Comparative Interrupted Time Series Design by Comparison with a Randomized Experiment. American Journal of Evaluation. 2014;35(3):311-327.

²¹ For a discussion of the changes to the UI system made by the ARRA, see Chocolaad, Y., Vroman, W., and Hobbie, R. 2013. Unemployment Insurance, in Barnow, B. and Hobbie, R.A., editors. The American Recovery and Reinvestment Act: The Role of Workforce Programs. Kalamazoo, MI: Upjohn Institute.



²² See Blank, R. Evaluating Welfare Reform in the United States. Journal of Economic Literature 2002.; 40(4): 1105-1166.

Appendix B: Additional IWR Screen Shots

Sections 4 and 5 provided an overview of Mississippi and New York's IWR registration processes, and included screen shots of the first step in the process. The remainder of the IWR screen shots are provided below.

Mississippi

Exhibit 1: MDES IWR Screen 2 of 7

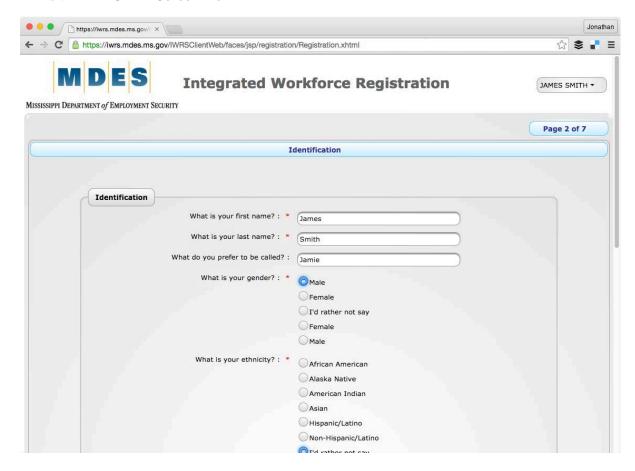


Exhibit 2: MDES IWR Screen 3 of 7



Exhibit 3: MDES IWR Screen 4 of 7



Exhibit 4: MDES IWR Screen 5 of 7

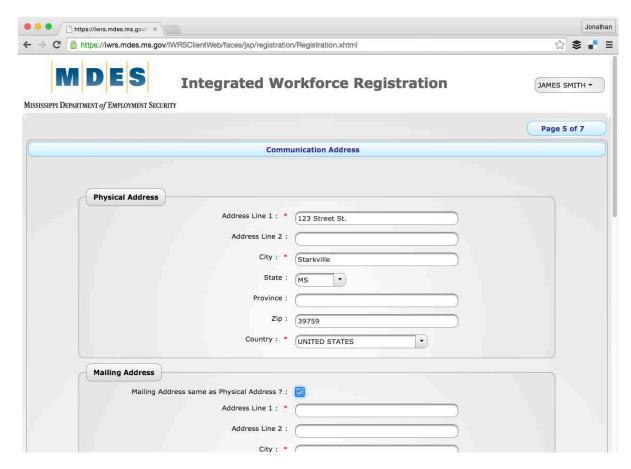


Exhibit 5: MDES IWR Screen 6 of 7



Exhibit 6: MDES IWR Screen 7 of 7



New York

Exhibit 1: NYSDOL IWR Screen 2 of 5

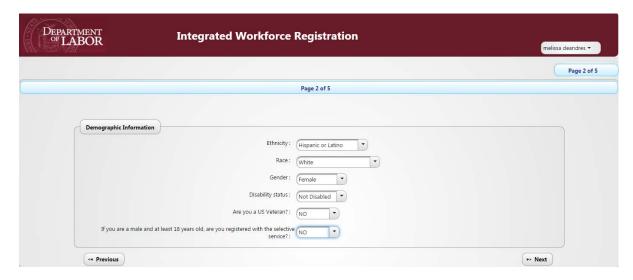


Exhibit 2: NYSDOL IWR Screen 3 of 5



Exhibit 3: NYSDOL IWR Screen 4 of 5

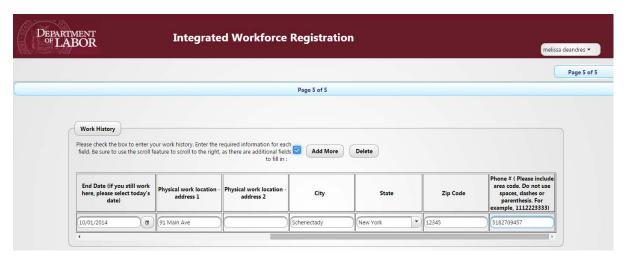


Exhibit 4: NYSDOL IWR Screen 5 of 5

