

IWIS System Requirements Plan: Executive Summary

Introduction

The workforce system in Cook County consists of a large number and variety of stakeholders. The Chicago Cook Workforce Partnership (The Partnership) administers over \$40 million in Workforce Investment Act (WIA) funding which it distributes to 49 Delegate Agencies throughout the county. Approximately 85 additional organizations provide workforce services in the region with other federal, state, city, and private funding. These direct service providers often blend funding sources to move job seekers into work and self-sufficiency. However, each funding source has its own outcome measures and definitions of success and its own required data system for reporting.

The result is that service providers enter duplicative data into multiple systems. Most of the existing systems do not serve as case management or workflow tools and do not provide useful reporting mechanisms. This creates administrative and cost inefficiencies in an environment of shrinking resources. Since data is siloed by funding source, it is exceedingly difficult for providers or funders (both public and private) to understand how well individual agencies or programs are performing, let alone the performance of the workforce system more broadly.

According to *Apples to Apples: Making Data Work for Community-Based Workforce Development Programs*¹, service providers “accept the need to use data for reporting and accountability. But the demands of reporting outcomes to multiple funders often sap the resources of providers, making it harder to use data internally for learning and program management.” Cook County needs a workforce information system that captures client-level data across funding streams and empowers providers and funders to access and analyze that data for performance management and program improvement.

In July 2012, The Partnership received a \$3 million Workforce Innovation Fund (WIF) grant from the U.S. Department of Labor Employment and Training Administration to design, build, and test just such an Integrated Workforce Information System (IWIS).

The IWIS project began with a stakeholder engagement and systems requirements gathering process to determine what providers, public agencies and funders needed from a new data system. The IWIS Systems Requirements Plan: (1) provides a summary of the systems requirements activities, (2) outlines the set of systems requirements based on

¹ *Apples to Apples: Making Data Work for Community-based Workforce Development Programs* (May 2013) published by Corporation for a Skilled Workforce and The Benchmarking Project. Found at: http://benchmarking.skilledwork.org/wp-content/uploads/2013/05/Benchmarking_Mainreport_FINAL.pdf

stakeholder input, and (3) provides recommendations for the technical development of IWIS as well as strategies to overcome possible challenges.

Literature review/environmental scan

The goal of the literature review/ environmental scan was to get a better understanding of current or recent relevant projects focused on integrating workforce data or aligning outcome measures and definitions. Overall, a general theme emerging from the document review and interviews was that the Chicago IWIS project goals and vision are ambitious and have the potential to make an important contribution to the workforce development field. Lessons gleaned included:

- 1) Actively engage multiple levels of stakeholders in providing input and ongoing feedback to the proposed system.
- 2) Consider a tiered approach to identifying shared data elements, and know that it will take a long period of time to come to consensus on definitions.
- 3) Projects with similar goals have used a variety of approaches to sharing technology, including the creation of a “data hub.”
- 4) Focus early and intentionally on the components needed to ensure quality implementation and sustainability of the system once it is developed.

Stakeholder Engagement

The stakeholder engagement process involved a survey of 112 staff from workforce provider organizations, focus groups with providers and funders, and many one-on-one and small group meetings with public agency and provider staff. These engagement efforts provided detailed information about the array of workforce programs, the data and measures currently tracked for these programs, data systems used by public agencies and providers, and data system challenges and suggestions for improvement. Key insights about the set of system requirements and functionality needed with IWIS, included the need for IWIS to:

- integrate data among various existing data systems
- reduce duplicative data entry
- allow users to develop queries and obtain informative reports
- provide useful workflow case management tools
- share referrals and service information across agencies
- promote use of data for external reporting and self-assessment

To support the development of a new Asset, Interest and Demand (AID) client intake and assessment model, stakeholders also provided insights into what information they collect as part of their intake and assessment process and how they use this information, such as when determining program eligibility, matching clients to services, and assessing skill development. While the TABE was identified as the most commonly used assessment tool, the TABE, WorkNet, and O*Net assessments were noted as favorites.

System Requirements

The system requirements address a comprehensive set of functions for case management and other practice-related aspects, data reporting, and work-flow management, along with numerous technical aspects to facilitate use of the system. The requirements include:

- **Case management and practice-related aspects:** The majority of functions relate to case management and practice to capture client-level information about referrals/recruitment, assessment/intake/eligibility, receipt of other services/benefits, case management, training/education, job matching, job placement, post-placement services, and employer engagement.
- **Reporting and business intelligence tools:** IWIS must improve users' capacity for reporting to public agencies and private funders, as well as for internal management, self-assessment, and performance improvement purposes. Functional requirements include a set of standard reports and the ability for users to develop their own queries by customer characteristics, geography, funding source, and time frames. Data should also be available in various formats, including raw data files, tables, and graphics.
- **Work management:** Several IWIS requirements identified were tools to help manage work processes, including: a customizable dashboard with important events, milestones, tasks and activities; alerts and notifications; workflows that can be adapted to a variety of processes; and a calendar function.

Technical Requirements

It is envisioned that the IWIS will consist of the following three primary components:

1. **Data Infrastructure:** The IWIS will serve as a data *infrastructure* that will allow for the real-time exchange of data elements between current and future public agency and other workforce related systems. Data flows between the different systems may be unidirectional or multidirectional, based upon the particular system as well as the specific requirements of the interface itself. The data infrastructure will serve as the platform upon which the application functionality and the reporting engine/business intelligence tools will reside. The data infrastructure needs to be flexible and developed to facilitate future interfaces with other systems not identified as being part of the initial development and implementation project.
2. **Workforce Services Provider Interface:** The IWIS will possess an intuitive user interface and functionality that will cover various aspects of the workforce services provider life cycle. It is anticipated that the IWIS will have features and functionality on the par of other robust customer relationship management and case management solutions currently on the market. Furthermore, the IWIS should be developed to evolve over time as new requirements are identified. The technical architecture of IWIS should facilitate the development of future modules, features, and functionality, preferably through the use of open source tools.

3. **Reporting Engine and Business Intelligence Tools:** The IWIS will also provide a robust reporting engine and Business Intelligence solution that allows for the easy development and generation of customized, ad hoc reports as well as standard reports. Querying and report development tools should be intuitive and easy to use, allowing traditionally non-IT personnel to be able to design, develop, and run their own reports. Also, the IWIS should allow easy data exporting in a variety of file formats (Excel/CSV, HTML, etc.).

Interfacing with Other Data Systems

Stakeholders noted the importance of IWIS to interface with frequently used data systems. Interfaces would allow data to be shared from one system to another to reduce duplicative data entry and minimize lost information.

The primary public agency data systems that were reviewed and will likely be interfacing with IWIS in the initial development include:

- Illinois Workforce Development System, the Illinois Department of Commerce and Economic Opportunity's (DCEO) mandated system for reporting WIA outcomes
- Illinois JobLink, a system used by the Illinois Department of Employment Security (IDES) for tracking managed services, case management of labor exchange programs, and job search, that also houses employment and earnings data
- Web CM and Customer Data System used by the Illinois Department of Human Services (IDHS) Division of Rehabilitation Services for client tracking and case management.

A number of other public agency and provider data systems were reviewed and may be considered for future interfaces with IWIS, including: Illinois WorkNet (DCEO), Illinois Benefit Information System (IDES), City of Chicago Enterprise Case Management, Data and Information System Illinois (Illinois Community College Board), Efforts to Outcomes (various providers), mPowr (741 Collaborative), and other custom systems used by providers.

Data Users & Access

IWIS will be a valuable resource to several different categories of users with different levels of access to data based on their needs, specifically:

- Staff of community based workforce development providers and public agencies should have access to *individual-level information* for workforce program participants *for whom they provide services or oversee*. They should have access to all information, including identifying information and employment and earnings outcomes. This level of detail is needed to provide services to and assess the outcomes of the customers they serve.

- Staff of community based workforce development providers and public agencies should have access to *aggregate-level information* for programs/clients that they *do not directly provide services to/oversee*. Aggregate-level data would not include access to any identifying information, but aggregate measures could be viewed by a level of disaggregation, such as by a particular customer demographic, barrier to employment, or service.
- Foundations/funders would only need *aggregate-level information* of the workforce system as a whole as well as community-based providers in which they provided grant funding. Aggregate-level data would not include access to any identifying information. Foundations should have aggregate-level data access for those served by their funds within an organization as well as the whole organization and broader system to better assess where they can make investments.
- On an as-needed basis, researchers, evaluators, advocates, and other third party contractors/partners could have access to *aggregate-level information* and on occasion *individual-level information*, including identifiable information if needed for research that required data linking.

Data security and data sharing permissions

Given the sensitivity of the data that will flow through and be collected within the IWIS, including personally identifiable information, it is expected that the IWIS will be built upon and conform to all of the latest data and systems security standards and best practices, and must also comply with any and all mandatory application security requirements and regulations required of federal, state, and local government agencies.

The Partnership needs to establish data sharing agreements with each of the public agency partners (IDES, IDHS, and DCEO) that define permissions on how specific data will be shared and used as part of IWIS. The various users of the IWIS data, including public agency and community organization staff as well as third-party partners, will need to be included in the permissions. Agreements must address data collected and shared by and with community based organizations that do not receive public funding. Customers whose information is entered in IWIS should have the ability to provide consent for their data to be used by other parties through a common consent process and form.

Sustainability

In order for IWIS to be a useful system for years to come, it must be designed to adapt and evolve in response to new and changing requirements across multiple stakeholders. The Partnership must develop and implement a strong sustainability plan so that IWIS will be and remain a capital workforce service provider data system for years to come. Sustainability elements that should be considered, include governance, user training, operational support, technical maintenance, and documentation and knowledge sharing.

Timeline

The timeline for developing and implementing IWIS is largely driven by the requirements and length of the WIF grant. It is anticipated that the identification of a vendor to develop and implement the IWIS and the execution of a formal contract will be complete by December 2013. The development and implementation will span a period of 18 months and will culminate in IWIS being moved into production for a small group of “early adopter” workforce service providers, and then lead into a phased roll-out to an increasingly larger number of organizations by June 2015.

IWIS System Recommendation

As part of the system requirements process, various options were reviewed for the technical development of IWIS. It is recommended that a Commercial Off-the-Shelf (COTS) solution be used, which may need varying degrees of customization based on the functionality already included in the software.

Challenges and Strategies

Given the innovative and complex work needed to development and implement IWIS, several strategies were identified to address possible challenges, including:

- Setting the stage for success: establish and implement an IWIS governance structure; secure the needed data permissions to access and use data; provide strong project management
- Working within an evolving environment: ensure IWIS is flexible to evolve within a changing technology environment; promote capacity and availability among current public agency technology staff
- Procuring the right development team: conduct an efficient system developer procurement process; identify a vendor with expertise that can address the broad scope of IWIS
- IWIS development: phase system development, focusing on the priorities first; assess and address interface capacity with other public and provider data systems; continue stakeholder engagement; move toward shared definitions for key outcome measures; provide clear and consistent communication and messaging among stakeholders
- IWIS implementation & sustainability: incentivize workforce service providers to use IWIS; facilitate change management; develop a thorough IWIS sustainability plan; assess and acquire funding for IWIS post-WIF grant