Job Data Exchange (JDX)
Sending Clearer Signals in the Talent Marketplace

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Talent Pipeline Management (TPM)

A supply chain approach to closing the skills gap
JDX emerged from the TPM movement, a growing network of over 200 partner organizations in 22 states involving thousands of employers.
The next generation of data on in-demand jobs, skills, competencies, and credentials
The Problem

More dynamic, fast-paced labor market

Disconnect between employers, education partners, and job seekers

High costs of developing validated, competency-based job postings from scratch

Increasing demands on HR professionals' time
The Solution

The JDX is a set of open data resources that support employers and their HR partners in signaling in-demand jobs and skills—and other hiring requirements—as structured, linked data on the open web.

- Extend and improve the JobPosting Schema
- Pilot test with employers and HR technology partners
- Send better, faster, clearer signals through the JDX
The JDX provides a standardized way of organizing structured data on the web for jobs.
What will the JDX Do?

**Job Analysis and Competency Profiling**
- Select from competency frameworks and lists
- Improve validation of competency requirements with experts
- Create validated job descriptions and postings

**Job Description Creation**
- Create job descriptions and postings conforming to JobPosting Schema+
- Feedback and recommendations to improve job descriptions and postings

**Job Information Distribution**
- Distribute job descriptions and postings to talent sourcing partners
- Expand to include real-time updates to talent sourcing partners
The JDX Open Data Infrastructure

- **Users**
  - Employers and Collaboratives
  - HR Technology Vendors

- **JDX-Powered Applications**
  - Job Analysis & Competency Profiling
  - Job Description Creation
  - Job Information Distribution

- **Data Partners**
  - Government
  - Professional Associations
  - Labor Market Information Providers
  - Competency Model Data Aggregators
  - Product Specification Vendors

- **Signal Recipients**
  - Students
  - Job Seekers

- **Talent Sourcing Partners**
  - Job Boards
  - Recruiters
  - Employment & Staffing Orgs
  - Universities
  - Community Colleges
  - Workforce Boards
  - Community-based Organizations
  - Others

**JDX Infrastructure**

- **Open & Structured Data Resources**
  - Competency Frameworks
  - Occupation Taxonomies
  - Validated Job Description Repository
  - Data Specifications
  - Other Data

- **Open Algorithms and Protocols**
  - Competency Extraction
  - Competency Translation
  - Job Description Profiler
  - Specification Validator
  - Other Algorithms
JDX Impact and Shared Benefits

**Benefit to Education, Workforce, and Credentialing Providers:**
1. Improved curriculum, credential, and assessment alignment
2. Improved career guidance and services
3. Reduced time and cost, and improved quality of employer engagement

**Benefit to Learners and Workers:**
1. Improved career navigation for active and passive job applicants
2. Improved job matching, placement, and upskilling with mitigated bias
3. Reduced time and cost through personalized learning

**Benefit to Employers and HR Partners:**
1. Scalable competency and skill-based hiring with improved ability to tap into hidden talent
2. Seamless integration with HR processes and workflows
3. Reduced time and cost in hiring and onboarding
Discussion Questions

1. Is your state experiencing any challenges when it comes to employer signaling? What strategies or tools do you currently use to capture employer signals?

2. Is it clear what the JDX does and how it works?

3. How is the JDX similar or different for existing LMI? Can the JDX be leveraged to help us rethink LMI and its use in states?

4. Is the JDX value proposition clear for all major stakeholders in the talent marketplace?
The Scope of the JDX Pilot

- Standards Orgs (e.g., HR Open Standards Consortium, PESC and IMS Global)
- Employers (e.g., Cognizant)
- Education Groups (e.g., C-BEN, NILOA)
- Expert consultants
- Others...

- Industry Associations (e.g., NAM)
- Federal and State Agency Stakeholders (e.g., DOL)
- Experts (e.g., WorkCred, NILOA)
- Pilot Sites

- Kentucky Chamber of Commerce (KY)
- Phoenix Chamber of Commerce (AZ)
- DTE Energy (MI)
- San Diego Regional EDC (CA)
- Greater Sarasota Chamber of Commerce/CareerEdge Funders Collaborative (FL)
- Ivy Tech Community College (IN)
- The Chamber of Commerce for Greater Philadelphia (PA)
- OMB/OPM (USAJobs)
- Others…
Current JobPosting Schema Overview

- Job Title
- Occupation/Occupational Category
- Hiring Organization
- Industry
- Employment Type
- Job Location
- Base Salary
- Salary Currency
- Incentive Compensation
- Job Benefits
- Estimated Salary
- Work Hours
- Responsibilities
- Skills
- Experience Requirements
- Qualifications
- Education Requirements
- Special Commitments
- Date Posted
- Valid Job Posting Timeline
JobPosting Schema+ Improvements and Extensions

**Extensions**
- Business Unit/Facility
- Employer Overview
- Job Overview
- Employment Duration, Time, and Type
- Job Location and Remote Work
- Required and Preferred Skills
- Required and Preferred Work Experience
- Required and Preferred Credentials
- Base Salary
- Assessments
- Expected Start Date
- Reporting Relationships
- Work Environment/Physical Demands
- Other Job Requirements

**Improvements**
- Job Title Connections to Occupation and Occupation Categories
- Hiring Organization Connections to Industry Categories
- Work Hours
- Special Commitments
JDX Applications

- Job Analysis Application
- Job Description Application
- Job Distribution Application
JDX Applications

Job Analysis Application → Job Description Application → Job Distribution Application
JDX Applications

Job Analysis Application

Job Description Application

Job Distribution Application
JDX Applications

Job Analysis Application

Job Description and Distribution Application
JDX Applications

Receives feedback on:

- Conformity with data specifications
- Strength in communicating requirements
The Main Question:
Do the JDX tools and resources help employers send a better, faster, clearer signal to education and training providers?

Additionally:
● Is the JDX “sustainable” in terms of being widely adopted and used?

● Will a clearer signal lead to better outcomes for employers and job seekers?
JDX Timeline

JDX pilot employers confirmed  
Winter 2019

Employer onboarding calls & JDX stakeholder forums  
February 2019

JDX prototype finished  
Spring 2019

JDX pilot-testing begins  
Spring/Summer 2019

Pilot-testing and evaluation  
Summer/Fall 2019
Discussion Questions

1. Will the proposed JobPosting Schema+ add value to job analysis, descriptions, and postings in your state?

2. What other schema improvements or extensions should we consider?

3. Are there partners in your state that are interested in becoming an early adopter of JDX?

4. Who else needs to be briefed and brought into the conversation?
Plans to Improve the JDX and Integrate with the NLx

• Proposed pilot to integrate the JDX with the National Labor Exchange (NLx)

• Identify a role for states to promote adoption and use of the “JobPosting Schema+” and improve career, business, and LMI services

• Integrate state data on in-demand skills, competencies, and credentials—and other relevant LMI—into the JDX open data infrastructure
Plans to Improve the JDX and Integrate with the NLx

- **What**: (1) Pilot integrating the JDX into the NLx, and (2) expand and improve the JDX open data infrastructure and resources
- **Why**: Over 2MM job postings a day, 75MM since 2007 (300,000 employers)
- **Who**: NASWA, Direct Employers Association, and 3-5 states
- **Population Served**: All job-seekers, including those receiving public job assistance
- **Estimated Timeline**: 18 months
Discussion Questions

1. What should the role of states and public sector partners be in the JDX?

2. Is your state interested in being part of the proposed JDX-NLx pilot?

3. What are other extension and integration opportunities for the JDX that Workforce Development Boards can assist with?

4. What are other use cases that should be explored or piloted should the initial field testing prove successful?
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T3 Innovation Network

Building an open, public-private data and technology infrastructure for a more equitable talent marketplace
T3 Innovation Network

200+ organizations working together to build an open, distributed, public-private data and technology infrastructure for a more equitable talent marketplace.

An infrastructure to support improved signaling and communication across all major stakeholders, including learners.
Roadmap for Building an Open, Distributed, Public-Private Data and Technology Infrastructure for the Talent Marketplace