WICHE’s Pilot Data Exchange

Midwestern Higher Education Compact
Annual Commission Meeting
November 17-18, 2013
WICHE’s Data Exchange Pilot

Other States’ Education Institutions

My State’s Postsecondary

My State’s Secondary

Credential

My State’s Labor Force

Other States’ Labor Force
Products

1. Aggregated analysis tracking human capital development and mobility among four states.

2. Enhanced identifiable data returned to state agencies with legitimate interests.

3. The infrastructure – governance and architecture – necessary to sustain the data exchange and expand to or export to additional states.
Research Questions Embedded in MOA

1. What are the patterns of postsecondary enrollment and employment of high school graduates from each participating state?

2. What are the patterns of postsecondary enrollment and employment of students in public postsecondary institutions in participating states?

   – Each with appropriate disaggregations –

3. By more fully accounting for individual mobility across state lines, to what extent does sharing data among states supplement existing state data resources available for conducting evaluations leading to policy and program improvements?
Data Sources

• Single Source States *(State Longitudinal Data Systems that originally compiled the data owned by the responsible agencies in each respective state)*
  - Hawaii P-20
  - Idaho Office of the State Board of Education
  - Washington Education Research and Data Center

• Multiple Sources (Oregon)
  - Oregon Department of Education
  - Oregon Department of Community Colleges and Workforce Development
  - Oregon University System
  - Oregon Employment Department
Data Elements Exchanged

• Identity and Demographics
  • Randomly-generated Exchange ID#

• Education (Term)
  • High School Diploma
  • Postsecondary Institution
  • Credits Attempted, Passed
  • Postsecondary Awards
  • Field of Study

• Employment: Unemployment Insurance Wage Records (Quarterly)
  • Social Security Number
  • Gross Wages
  • Employer’s Industry Classification
Two Cohorts

A
Public high school graduates from the class of 2005

B
First-time public postsecondary students in 2005-06
Key for the Next Slide

- Enrollment records
- Credential(s) earned
- Employed in HI
- Employed in ID, OR, or WA
Hawaii High School Graduates

- Begin at HI public IHE
  - No xfer/Xfer to HI public IHE
  - Xfer to public IHE in ID, OR, or WA
- Begin at public IHE in ID, OR, or WA
  - Xfer to HI public IHE
  - No Xfer to private/out-of-4-state IHE
- Begin at private/out-of-4-state IHE
  - Xfer to HI public IHE
  - Xfer to public IHE in ID, OR, or WA
  - Xfer to private/out-of-4-state IHE

Key:

- Enrollment records
- Credential(s) earned
- Employed in HI
- Employed in ID, OR, or WA

SLDS

Darker shading, 🔴, means full data are available. Lighter shading with stripes, 🔴, means partial data are available. No shading, 🔴, means no data are available. SLDS representations do not include data made available through its own use of National Student Clearinghouse data or through bilateral data-sharing agreements with other states. The lack of employment data for those who don’t attend college is tied to the absence of SSNs common in K-12 data systems, though some states are seeking ways to obtain one from other sources. Employment data for states not included in the data exchange are unavailable for all student pathways.
Unpacking the “Not Found” Category

100% of completers from Washington institutions by December 2010

- No employment record found in WA
- Employed in another state
- Not in the workforce
- No SSN available
- Unemployed
- Employed in WA
- Military or federal government employment and self-employed
Unpacking the “Not Found” Category

100% of completers from Washington institutions by December 2010

- Employed in WA
- Employed in another state
- Military or federal government employment and self-employed
- Employed in HI, ID, or OR
- Not in the workforce
- No SSN available
- Unemployed

Subsequent postsecondary enrollments (e.g., graduate school)
How Far Does the Exchange Extend Coverage of Employment Outcomes?

Number of Completers of an Associate’s Degree or Higher

<table>
<thead>
<tr>
<th>Assoc+ Conferred by State</th>
<th>(1) Total Number of Completers by December 2010</th>
<th>(2) Number of Completers With a Valid SSN</th>
<th>(3) Number of Completers With an Employment Record in At Least 1 of the 4 States</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hawaii</td>
<td>3,208</td>
<td>2,403</td>
<td>1,438</td>
</tr>
<tr>
<td>Idaho</td>
<td>3,640</td>
<td>3,014</td>
<td>1,956</td>
</tr>
<tr>
<td>Oregon</td>
<td>12,429</td>
<td>10,762</td>
<td>7,013</td>
</tr>
<tr>
<td>Washington</td>
<td>23,683</td>
<td>20,815</td>
<td>12,310</td>
</tr>
<tr>
<td>Elsewhere</td>
<td>7,939</td>
<td>4,471</td>
<td>959</td>
</tr>
<tr>
<td>Total</td>
<td>50,899</td>
<td>41,465</td>
<td>23,676</td>
</tr>
</tbody>
</table>

Note: Column 1 awardees for whom no SSN was available, multiple SSNs were found, or the SSN that was found was shared with another individual. These were excluded from Column 2. Column 3 excludes individuals for whom no employment record was found. “Elsewhere” means the award was conferred by a public or private institution anywhere outside of the four states.
## Reducing Uncertainty About Employment Outcomes

Among Completers, Whether or Not an Employment Record Exists

<table>
<thead>
<tr>
<th>Assoc+ Conferred by State</th>
<th>(1) Number of Completers with a Valid SSN</th>
<th>(2) Number of Completers Without an Employment Record in State</th>
<th>(3) Among Completers Without an Employment Record in State, % With an Employment Record in At Least 1 of the Other 3 States</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hawaii</td>
<td>2,403</td>
<td>1,197</td>
<td>19.4%</td>
</tr>
<tr>
<td>Idaho</td>
<td>3,014</td>
<td>1,342</td>
<td>21.3%</td>
</tr>
<tr>
<td>Oregon</td>
<td>10,762</td>
<td>4,366</td>
<td>14.1%</td>
</tr>
<tr>
<td>Washington</td>
<td>20,815</td>
<td>9,368</td>
<td>9.2%</td>
</tr>
</tbody>
</table>

**Column 1:** The students for whom an employment record might be obtainable.

**Column 2:** The number of students for whom an employment record cannot be located within the state that conferred the degree. In other words, employment outcomes for these individuals are not available to a single state’s SLDS.

**Column 3:** The percentage of the completers for which the data exchange found an employment record outside of the state conferring the degree. In other words, this is the share of the employment record information that would remain missing in a single state’s SLDS but which can be obtained through the data exchange.
## Reducing Uncertainty About Outcomes for Those Without an Employment Record in State

<table>
<thead>
<tr>
<th>Award State</th>
<th>(A) Completers With a Valid SSN</th>
<th>(B) Employment Not Found In-State</th>
<th>(C) Found Employed In Another Exchange State</th>
<th>(D) Not Found Employed, but Found Enrolled</th>
<th>(E) Percent of ‘B’ Accounted For</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hawaii</td>
<td>2,403</td>
<td>1,197</td>
<td>19.4% +</td>
<td>9.4% =</td>
<td>29%</td>
</tr>
<tr>
<td>Idaho</td>
<td>3,014</td>
<td>1,345</td>
<td>21.3% +</td>
<td>7.6% =</td>
<td>29%</td>
</tr>
<tr>
<td>Oregon</td>
<td>10,762</td>
<td>4,366</td>
<td>14.1% +</td>
<td>15.7% =</td>
<td>30%</td>
</tr>
<tr>
<td>Washington</td>
<td>20,815</td>
<td>9,368</td>
<td>9.2% +</td>
<td>12.4% =</td>
<td>22%</td>
</tr>
</tbody>
</table>

But:

- (C) Found Employed In Another Exchange State
- (D) Not Found Employed, but Found Enrolled

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<tr>
<th>Award State</th>
<th>(E) Percent of ‘B’ Accounted For</th>
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<tr>
<td>Hawaii</td>
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<td>Idaho</td>
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<tr>
<td>Oregon</td>
<td>30%</td>
</tr>
<tr>
<td>Washington</td>
<td>22%</td>
</tr>
</tbody>
</table>

Notes: Data are for individuals who completed an associate’s degree or higher by December 2010. Employment measured 10-12 months after receipt of award, and subsequent enrollment measured for a term concurrent with the quarter employment was sought. Additionally, among the 2,062 completers with no available employment record who were found enrolled instead:

- 19% were found enrolled at a private institution.
- 15% were graduate-level enrollments (only known for Exchange state public institutions).
- For Hawaii and Idaho, 64% of those further enrolled were found in another state; for Oregon and Washington, 28% were.
Mobility of Washington Bachelor’s and Higher Graduates by Field of Study

Notes: Data are for individuals who completed by December 2010. Employment measured 10-12 months after receipt of award, and subsequent enrollment measured for a term concurrent with the quarter employment was sought.
Why This Matters: Efforts to Measure Return on Investment

- Gainful employment
- *Student Right to Know Before You Go Act*
- President Obama’s college rankings
- collegemeasures.org

*Generally, these are aimed at accountability or consumer information, with very little attention given to improvement of policy or practice.*
Questions for Policy and Practice

**Policy**
- What percentage of graduates (and non-graduates) are employed, both in-state and elsewhere, or pursuing further education?
- How well are state education investments meeting the needs of state industries?
- To what extent is our state retaining our own residents after their studies, or attracting them back if they left for college, as well as non-resident students we educated here?
- What is our “balance of trade” in human capital?

**Practice**
- Where do our former students go to find employment and in what industries?
- How well are our former students performing after they leave and attempt to enter the workforce?
- Are we offering the right mix of academic programs to serve our state’s economic development needs?
- What curricular adjustments might more fully ensure that the programs we offer are delivering the knowledge and skills the labor market demands?

**More generally**
*Now that we have a broad picture, what more do we need to know before we act?*
A State’s Perspective

Idaho
Idaho background

- Enrollment
  - ~ 250,000 K-12 students
  - ~ 100,000 public postsecondary students
- Idaho SLDS
  - Started collecting K-12 data in Fall 2010
  - Started work on the postsecondary SLDS the same year
    - Utilize the same EDUID system to assign student unique ID’s – link to K-12
    - Currently loading summer 2010 forward from postsecondary institutions
- Had to manually collect K-12 data for this effort
  - 150 school districts
  - 8 public postsecondary institutions
- Manually collected data from postsecondary and labor
Idaho perspective

• Why on earth get involved in this?
  • See if we can address questions such as:
    • Do students who leave the state for postsecondary return to work in Idaho?
      – Is this related to specific degrees?
    • Do students that graduate from an Idaho Institution leave the state for employment?
      – If so, what are the characteristics of those students?
    • Are students that have gone to school or worked in multiple states more/less likely to return?
  • Basically are we an importer or exporter of degrees?
Where do Students attend Postsecondary? (within 16 months of HS Graduation)
-- 2010-11 High School Graduates
Idaho’s experience

• What was the hard part?
  • Getting the MOU’s in place (approvals) – started before FERPA changes
  • Determining what exactly we wanted to exchange

• Is this worthwhile?
  • Yes, because of:
    • Information that couldn’t obtain easily elsewhere
    • Contacts / shared experience – great people involved
    • Helped shape our data collection
    • Exposed other states perspectives
Where To From Here?

- Additional analyses
  - Subsequent enrollment
  - Wages
  - Industry classifications
  - Employment concurrent with enrollment
  - Employment outcomes based on student enrollment patterns
  - Disaggregations for race/ethnicity, gender, age, Pell

- Moving beyond the pilot phase
  - Secure additional funding
  - Develop a process for adding states
Idaho’s Thoughts

- Moving beyond the initial pilot
  - Other states?
  - Exploration of a Centralized ID resolution
    - Assignment of Unique Exchange ID’s
      - Maintaining state privacy
        » My Demographics, return an Idaho ID
        » Centralized mapping Idaho ID to other state ID
        » Request – submit Idaho ID, sends other states that match their ID

- Oversight Board
  - Federated model
  - Cost Model
  - Value Proposition
  - Request Management
Lessons So Far

• Multistateness

• Limitations
  • Wedded to the original cohort definition
  • Ambiguity in the UI wage records data
    • (also variance in what states collect in UI)

• Implications for use and Demonstrated Value:
  • Reduced uncertainty about employment outcomes
  • Increased information about mobility of recently educated
Contact Information

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