

**Outcomes from Transitions in Education and Work:
Developing a Scalable Regional Approach**

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Executive Summary

Representatives of state agencies, philanthropic organizations, and research institutions from nine states gathered in Chicago to discuss approaches to measuring the outcomes from transitions in education and work. Participants were asked to focus on how to build a common framework across states and work through the important data and measurement issues that are necessary to build operational metrics for decision-making. After a series of presentations from agency directors, researchers and foundations, participants were assigned to three groups to address key operational questions.

All groups emphasized the importance of communication in any regional data sharing process and that reciprocity would be important for will-building. All groups noted that in order to get the most out of data-sharing at the regional level, the methods used to create metrics and analysis need to be transparent and reusable. There was a strong sense that classes and shared code can be helpful in achieving this vision of shared methodology. There was also recognition of the importance of produce products that had value to decision-makers.

One group was tasked with identifying a core set of metrics, datasets, and data products that are of common interest and that could form the basis for curriculum development. The group agreed that the initiative should focus on demonstrating value in the short term to build buy-in and political will for expanding a shared, regional approach. The immediate next step is for each State to identify existing data agreements that could be leveraged for this effort. A sample set of key metrics and datasets were identified that could be used by agencies at different stages of people's transitions through educational programs and workforce participation. Two potential data products were identified that would be useful as examples. One was an exploration tool for senior managers. A second approach is to describe how two or more, groups differ for some specific outcome metric that could be defined by the user.

Another group discussed data governance approaches that could be applied at the individual project level, the contract level, and an enduring 'universal' level. The participants recommended that a working group of neighboring state agencies flesh out this framework, looking at which legal and oversight aspects of typical data sharing arrangements can be standardized into enduring agreements and which need to be dealt with for each individual project. An automation tool for some of the agreement process would be valuable and that such a system would need to have data stewardship at its core.

The third group focused on issues related to scaling the impact of any regional analytical partnerships. It was agreed that citizens and policymakers reap much more value from analytic products when they source data from across state lines. A working group with representation from the relevant states could establish enduring agreements and pipelines for this cross-state data sharing and standard templates for setting up further exchanges. The group also thought that a scalable approach could be analogous to a "community" extension program, where university-based agents work with state and local government agencies to distribute trusted information and receive back key insights on community needs and context, as a model for impact at scale.

Opening Remarks

Julia Lane opened the day, asking participants to reflect on the valuable work they had produced in each of their own state settings. She called on them to spend the day developing concrete ways the group could work together to scale the impact of their work across the region.

Participants then introduced themselves to the group. Education and workforce agencies from 9 states were represented, along with several state university researchers and officers from six philanthropic organizations.

Governor Rauner's Chief Economist, Mischa Fisher, took the floor next, thanking the gathered individuals for their time and work in this area. The majority of work that goes into extracting insights from data, he explained, is actually spent on cleaning and governance. Working through the ADRF, which has these features baked into it from the start, allows state officers and researchers to go straight to the value-add analytical work. In closing, Fischer reiterated the governor's support for the participants' work and hope that robust regional approaches would come out of the dialogue.

Jeff Mays, Director of the Illinois Department of Employment Security, echoing Fischer's comments, thanked participants and laid out a vision where Data Use Agreements and other administrative structures need not be rebuilt over and over again. He pointed out that real progress has been made in developing data sharing infrastructure at both the technical and administrative levels that provides needed evidence to policymakers.

Keynote Address

Nancy Potok, Chief Statistician of the United States, told participants how the White House is thinking about data at the federal level. Along with representatives from multiple federal agencies, Potok is developing a Federal Data Strategy which will set out the direction for agencies' data management. She looks to the states for innovation and best practices, she said, and was excited to have this opportunity to connect with the great work happening with the 9 states represented at the workshop.

Panel: Identifying Issues of Interest

Director Mays returned to the front of the room where he spoke on a panel along with Anna Hui, Director of Missouri's Department of Labor and Industrial Relations, and John Carey, Chancellor of Ohio's Department of Higher Education.

In responding to several discussion questions, the panelists highlighted several high level challenges and opportunities with data. We are sitting on 6 million wage records collected each quarter, explained Mays, and yet we only extract the most basic of metrics from these data -- the unemployment rate of X county or the growth of Y job sector. Panelists were also concerned with sustainability. Each recounted how valuable initiatives had stalled or been abandoned outright when administrations turned over. Clearly-communicated business-value would be necessary to ensure resilience of evidence-gathering projects. Panelists commiserated on the constantly changing technology stack and related procurement issues they face. Hue

highlighted the importance of flexible approaches - “if it isn’t illegal, immoral, or unethical, then game on!” She also pointed out how collaboration with other states and non-state institutions helps demonstrate value to her own internal stakeholders in ways that can lead to further unlocking of data to develop the collaboration and ultimately help empower citizens.

From this high-level discussion, panelists proceeded to identify opportunities for progress:

- Ohio 2- and 4-year higher education presidents came together to help the state develop performance-based funding which was seen as successful. The next step, however, involves connecting employment outcomes to this system.
- College2Career.com has had a difficult time getting all the relevant data, but the potential is high and expansions to its functionality would be very valuable.
- BestInMidwest.com and Talent4Tomorrow are promising Missouri projects that could use work: what are the competencies that employers want? (note it is often hard to credential areas that employers most want -- problem solving, conflict resolution)
- We know we educate people who then leave with relatively high level of education, then lower-education people are coming to our state on net. What are the nuances to this story that data can provide? can we share data as a region to help understand the richer context here?
- Can we use data from the ADRF to create a plan to reach our (Ohio’s) 65% attainment goal?
- We’ve had mega-employers come in and ask for thousands of people. It would make sense to work with neighboring states to help address these asks with a package.
- We have the occasional once-off strategic initiative, such as our current efforts with harmful algae blooms. We’ve also set up a data lake around opioid-abuse. It would be great to use the ADRF to collaborate regionally on such initiatives.
- How do we leverage the ADRF approach to address our training and retraining needs?
- We really need other states’ employment data. We can only present incomplete picture to students, limited as we are to our state’s data.

Panelists discussed the value of training personnel with the ADRF. This isn’t just analytical methods in a vacuum -- we bring real questions and data to the class not to solve university folks’ questions, but to address real, operational decisions we make as an agency. We want to scale this approach so that we can develop not just the capacity of our HQ officers, but our field agents as well. On a related note, Director Hue expressed the desire to get front-level staff to understand value of data, but also put them into higher-skill role in a way that would benefit their own professional development.

Panel: What Approach could be Used to Inform Answers

Bob Goerge, Senior Research Fellow at Chapin Hall at the University of Chicago, Josh Hawley, Associate Professor at Ohio State University, and Julia Lane, Professor at New York University presented on the way researchers work with data to provide value to government decision makers.

Goerge demonstrated outcomes from a study of Chicago Public School students which helped administrators make evidence-based decisions. But, he pointed out, analysis like this has suffered from stop-and-go analysis, as the bureaucratic and technical infrastructure facilitating the research is not always maintained.

Hawley picked up the thread, showing how better decisions at the policy and operational levels really need both relevance but also appropriate packaging so that state officials can take evidence and apply it to their work. He laid out a vision for a regional approach that would empower each part of the evidence-to-decision ecosystem to increase its impact.

Lane built on the preceding panelists' comments, formalizing a framework of value proposition, stakeholders, and tools. Reflecting on her work building national data architectures abroad and in the US, Lane described how the ADRF's design features respond directly to the needs brought up throughout the morning, combining security with facilitated data agreement and auditing modules to help collaborations take place while ensuring all legal and other requirements are met.

Panel: Moving the Agenda Forward

Representatives from 6 foundations formed a panel facilitated by Lane to reflect on lessons learned from their work and identify areas of overlapping interest with state officials and researchers.

Several panelists highlighted the importance of linking education and workforce data in order to tell a richer story about communities and the families that live in them. Gathered foundations are interested in funding researchers using data, but also in providing capital for development of tools, products, and APIs that help people and organizations harness data. Foundations have looked at how private industry creates benchmarks for expenditures on items such as R&D, and would like to support state governments looking to develop the same level of transparency and comparison metrics.

One officer pointed out that data-driven insights have helped Illinois improve graduation rates, but large gaps in nuance remain. Community colleges, for instance, work with a very different learner population which often completes programs in ways that don't fit with the performance metrics developed for 4-year university programs. How can we use data to capture these distinct pathways?

Panelists also reflected on approach and pitfalls. They each described models that aspire to invest in sustainable ways, footing the bill of unproven initiatives up front, but then seeding cost-coverage to government programs initiatives prove out. An officer summed this up as the importance of case-making. Officers also discussed setting up capabilities or shared centers of resources as another route to sustainability.

Panelists also pointed out that the biggest barrier they face is often a lack of capacity, rather than a lack of interest. Training state employees, including end-users of analysis, such as teachers, is critical to making sure the output from a project is positioned to impact operations for the better. “We can’t hire our way out of this,” pointed out one representative, “we must build existing employees’ capacity and honor the knowledge they already have.” Avoid pilotitis and invest in frequent communication, advised another. “No magic there,” said one officer, “we just need to talk and work closely with our state counterparts.”

Breakout Discussions

Workshop attendees spent 90 minutes and came back together to report on their discussions.

Group 1: Metrics, datasets and data products – curriculum development

Group one was tasked with identifying a core set of metrics, datasets, and data products that are of common interest and that could form the basis for curriculum development. Overall, the group raised concerns about how to sustain this effort through new administrations and, in response, agreed that this initiative should focus on demonstrating value in the short term to build buy-in and political will for expanding a shared, regional approach. The immediate next step, which the group understood has overlap with Group Two, is for each State to identify existing data agreements that could be leveraged for this effort. The information from each State should then be used by the initiative to document a “venn diagram” of potential quick-wins, including identifying specific metrics to be calculated given what datasets can be used in the short-term.

Metrics: Given the diversity of interests represented – both across states and between domains – the group discussed having a series of metrics that could be used by agencies at different stages of people’s transitions through educational programs and workforce participation. For example, a progression of metrics could be: (i) graduation rates of different groups from different educational programs, (ii) number and rates of graduates’ transitions to other educational programs or employment, (iii) duration of employment for different cohorts, and so on. Another core aspect of metrics is they need to be timely to be of use to different agencies; for example, metrics about employment are generally less useful for IL Dep of Human Services in their program administration efforts. In terms of demonstrating value in the near-term, the initiative should also compare metrics when using only individual State data vs data from all participating states.

Datasets: The group agreed that workforce data is relatively straightforward – this initiative should start with the State run UI wage record program to demonstrate workforce outcomes of different groups. Education data, however, poses more of a challenge as there is more variability between different states. For example, the group discussed two specific points: (i) neither Michigan nor Wisconsin have a centralized Department of Higher Education and (ii) only Indiana has a centralized approach to handling certificate programs. In the short-term, Group It

was noted that K-12 is the only data that was likely to be available across all states, while two- and four-year higher education programs should be available for most states in the region.

Data products: The discussion generally centered around communicating analytics results to less technical audiences. Additionally, the group discussed two potential data products that would be useful as examples. One was an exploration tool for manager or Director level audiences. The purpose of such a tool would be for a Director to get a quick, initial answer to some question to decide if it is worth their team pursuing further. The second idea, which the group agreed would be more practical in the near-term, is a tool to compare how two, or more, groups differ for some specific outcome metric that could be defined by the user.

Group 2: Addressing governance issues

Group two thought through the various aspects of data governance at the individual project level, the contract level, and an enduring 'universal' level. The participants recommend that a working group of neighboring state agencies flesh out this framework, looking at which legal and oversight aspects of typical data sharing arrangements can be standardized into enduring agreements and which need to be dealt with for each individual project.

The group further found that a tool which automates some of the agreement process would be valuable and that such a system would need to have data stewardship at its core.

Participants suggested that communication be baked into any operational infrastructure supporting regional data sharing and that reciprocity -- agencies only have access to those data from other partners that they themselves share -- would be important for will-building.

In order to get the most out of data-sharing at the regional level, the methods used to create metrics and analysis need to be transparent and reusable. Utilizing classes and shared code are critical to achieving this vision of shared methodology

Group 3: A scalable approach

Group three focused on issues related to scaling the impact of any regional analytical partnerships. It was agreed that citizens and policymakers reap much more value from analytic products when they source data from across state lines. A working group with representation from the relevant states could establish enduring agreements and pipelines for this cross-state data sharing and standard templates for setting up further exchanges.

Participants discussed the analogy to an agricultural extension program, where university-based agents work with farmers to distribute trusted information and receive back key insights on community needs and context, as a model for impact at scale. Regional analytical partnerships can mimic this approach by placing both technical and domain experts in the same room to better-target research efforts at important state issues while improving state personnel technical capacity.

Like group two, the participants in group three pointed out that state and regional projects have the common need of responding to asks from executive stakeholders and the public. The group concluded that any consortium coming out of this work should invest in communicating project outcomes clearly for audiences with diverse data literacy levels.

Closing

Professor Lane and Director Mays thanked participants for their time and thoughtful participation and promised that their discussion would be reflected in the early 2019 class program that many there would be joining.

Appendix 1: Participant List

Name	Title and Affiliation
Kathryn Akers	Executive Director, Kentucky Center for Statistics
Drew Anderson	Associate Economist, RAND Corporation
Stephanie Banchemo	Education Program Director, The Joyce Foundation
Diana Barrett	Assistant Director of Research & Analysis, Indiana Department of Workforce Development
Stephanie Beckhorn	Director, Workforce Development Agency, Talent and Economic Development Department of Michigan
Josh Benton	Deputy Secretary, Kentucky Education and Workforce Development Cabinet
Jordan Blashek	Program Manager, Schmidt Futures
Evan Bradtke	Legislative Liaison, Wisconsin Department of Workforce Development
John Carey	Chancellor, Ohio Department of Higher Education
Steven Cook	Researcher, University of Wisconsin Institute for Research on Poverty
Jessica Cunningham	Research and Analytics Director, Kentucky Center for Statistics
James Dimas	Secretary, Illinois Department of Human Services
Jennifer Engle	Deputy Director, Postsecondary Success, Bill & Melinda Gates Foundation
Sameer Gadkaree	Senior Program Officer, Joyce Foundation
Robert Goerge	Senior Research Fellow, Chapin Hall at the University of Chicago
Nicholas Goodwin	Chief Strategy Officer, Indiana Department of Workforce Development
Joshua Hawley	Associate Professor, Ohio State University
Steve Hine	Director, Labor Market Information Office, Department of Employment and Economic Development, Minnesota
Anna Hui	Director, Missouri Department of Labor and Industrial Relations
Clayton Hunter	Deputy Director of Training and Outreach, NYU/Coleridge Initiative
Nicole Ifill	Senior Program Officer, Data, Bill & Melinda Gates Foundation
Erin Joyce	Associate Director, Ohio Education Research Center
Patrick Lane	Director of Data Initiatives, Western Interstate Commission for Higher Education
Julia Lane	Professor, New York University
Evelina Loescher	Labor Market Information Director, Illinois Department of Employment Security
Lazaro Lopez	Chair, Illinois Community College Board
David Mahan	Associate Vice President, Information, Research and Analysis, Kentucky Council on Postsecondary Education
Dan Mathis	Deputy General Counsel, Indiana Department of Workforce Development
Kiyokazu Matsuyama	Labor Market Research Economist 3, Iowa Workforce Development
Jeff Mays	Director, Illinois Department of Employment Security
Eric Miley	Program Officer, Data for Action , Overdeck Family Foundation
Jason Owen-Smith	Executive Director/Professor, IRIS/University of Michigan
Nancy Potok	Chief Statistician of the United States
Scott Powell	Director of Research, State of Michigan
George Putnam	Assistant Director, Illinois Department of Employment Security
John Reinemann	Executive Secretary, Wisconsin Higher Education Aids Board
Bryant Renaud	Performance Analyst, White House Office of Management and Budget
Cheryl Rice	Associate Vice Chancellor Higher Education Workforce Alignment, Ohio Department of Higher Education
Charles See	Vice Chancellor, External Relations/Education Technology, Ohio Department of Higher Education
Sharon Shipinski	Manager, Planning & Research, Illinois Department of Corrections
Tony Smith	State Superintendent of Education, Illinois State Board of Education
Alan Spell	MERIC Research Manager, Missouri Department of Economic Development
Robin Steans	Executive Director of Advance Illinois, Steans Family Foundation
Sean Tierney	Associate Commissioner for Policy and Research, Indiana Commission for Higher Education
Frances Valentine	Sr. Director, Research, Analysis and Engagement , Indiana Department of Workforce Development
Ryan West	Division Administrator, Iowa Workforce Development
Bryan Wilson	Director, Workforce Data Quality Campaign
Eric Zarnikow	Executive Director, Illinois Student Assistance Commission

Appendix 2: Pre Workshop Responses

Which pathways are of greatest interest?

In general, different demographic or socioeconomic groups' pathways are of most interest – be they low-income, eligible for specific programs, of certain age ranges or ethnicities, or with specific educational attainment. There is also common interest those pathways that lead to successful outcomes, where success was in once case defined as “sustainable employment with living wages”, or, more generally, as better or positive outcomes. Additionally, a few respondents focused, at least in part, on identifying if there are specific (i) industries, (ii) topics of study (eg STEM), or (iii) measurements (eg if access to transportation influences participation or completion in a program) which influence pathways.

What outcomes are of greatest interest?

Almost universally, some measure of employment – eg receiving wages, gainful employment, sustained employment – was cited as the outcome of highest interest. The second most common set of metrics were completion and graduation rates of training and education programs, respectively. A few responses included an explicit time component in outcome measures, such as time to degree or employment. Lastly, one response included measuring cross-state comparisons while another mentioned employment in high-demand occupations.

How do you currently generate the information you need?

Organizations that administer programs, be they education or workforce based, responded that they, unsurprisingly, use at least their own data to generate metrics of interest while two responded that they get information from some external party. All respondents except one said they use data from at least one other organization or program to generate their information. The sources that were explicitly mentioned were the National Student Clearinghouse, wage records, tax data, job vacancy survey data, and FAFSA filings.

What are your two or three biggest “asks” for data to get better information?

The single most common “ask” was to incorporate data from other organizations – either across state lines or from organizations focused primarily on a separate topic (ie organizations with an education mandate want workforce data and vice versa). Access to data over a longer time horizon was also common across multiple responses. A couple groups mentioned more granular data, such as access to information on occupations or hours worked in wage data or non-credential programs and transfers between schools/programs. One response explicitly mentioned interest in alternate ways to link individual level data rather than SSN.

What are the two or three biggest barriers to getting the better information?

Respondents mentioned three primary barriers to getting better information: (i) legal barriers in the form of legislation or statutes that restrict how specific datasets of interest are used or shared across organizations or jurisdictions, (ii) budget limitations which manifest in insufficient computing infrastructure or personnel to perform or maintain analyses, and (iii) the lack of commonly defined approaches to presenting or calculating metrics of education and workforce. Two responses also mentioned the technical aspects of sharing data or producing metrics as barriers to getting information.

What do you see as the most important next steps necessary to advance cross state and cross agency activities?

The two most common next steps mentioned were to clarify specific research questions – and necessary datasets for those questions – in order to ensure the correct parties are brought to the table and to create a common, collaborative data governance structure. A common governance structure was cited as important to both inform how data agreements are created or processed as well as provide structure around how projects, especially those using data from multiple agencies, should be tracked and reviewed.