Workers, employers, and the labor market itself are experiencing a major shift in how education, training, and preparation are viewed in the hiring process. Much more emphasis is being placed on skills-based hiring, hopefully expanding the paths to high-quality jobs and careers available to job seekers. Such a shift could bring any number of benefits to both job seekers and employers—less debt and lost time pursuing expensive but relatively low-quality training programs, a larger pool of individuals with the specific skills employers need, higher wages, and lifelong skill accumulation. But this shift can only be successful if it is sustained by a strong data ecosystem at all levels—local, state, and federal—that gathers and publicizes data on labor market needs, earnings, program availability, and program quality, among other things, so that people can make informed decisions about their individual workforce journeys.

Unfortunately, it is currently far too difficult for stakeholders across this ecosystem (policymakers, employers, community organizations, education and training providers, and workers themselves) to access basic information about education and training programs as well as participant outcomes, including long-term labor market outcomes. Even the available data has major gaps and quality concerns, such as challenges capturing training participants who work out of state or more precise wage detail (e.g., hours, occupations, number of employers). These persistent challenges have frustrated informed decisionmaking by workers, talent ecosystem developers, providers, career navigators, and policymakers at every level of government, and they make it more difficult to help participants achieve sustained economic mobility. This gap also slows down, or stalls, program and service evolution and continuous improvement.

The existing data ecosystem could be improved with better data quality and integrating intergovernmental data to improve individuals’ abilities to navigate their workforce development and employment options. Especially valuable to states, a lead actor in this effort, better data could also enable federal decisionmakers, service providers, local workforce boards, researchers, and others to address their most pressing questions about program quality, disparate impact, and equity.

Value of an Improved Data Ecosystem That Includes Workforce Data

We will know that our data ecosystem is operating to its highest potential once it meets essential access needs for informed decisionmaking, such as:

- **Job seekers and career counselors** have access to timely, useful, personalized, and aggregate data that enables them to:
  - Understand the in-demand skills and credentials needed for the fastest growing industries in their state.
  - Determine how their existing skills transfer into related careers, and what their career options would look like with additional education or certifications.
locate nearly community college, postsecondary, and other providers of reputable education and career programs, and assess common measures of return on investment (ROI) between various options and their related employment and earnings outcomes.

- **Education and training providers and partners**, including employers (both public and private), researchers, and tool builders (software developers, data scientists, etc.), have access to high-quality, up-to-date, standardized data that enables them to:
  - Engage in ongoing performance management, learning, and improvement.
  - Perform rigorous evaluations of program activities.
  - Identify trends and patterns to strengthen support for job seekers and participants in education and training.
  - Understand the skills required for in-demand jobs and assess workforce outcomes.
  - Leverage standardized data, available through well-maintained and well-documented application programming interfaces (APIs), to better understand the broad effects of policy and practice reforms around hiring, advancement, and retention to improve economic mobility and longer-term labor market outcomes.

- **Members of the public** (employers, industry leaders, and community members) have access to open data sets, aggregate data, query tools, and dashboards that help them:
  - Explore and compare locally available career education opportunities and related requirements, costs, and outcomes.
  - Understand the extent to which partners exist within given geographies to support talent attraction and reskilling.
  - Evaluate longer-term questions such as whether there is alignment between the landscape of quality jobs and the skills and credentials held by the available workforce.

- **Policymakers** (workforce development boards, agency leaders, and legislators) have data that helps them plan, allocate resources, and answer questions, such as:
  - What kind of career and educational opportunities are needed to meet the current and future needs of job seekers in the changing job market?
  - What educational and workforce investments, programs, and support services are associated with high-quality careers or trades?¹
  - How well are workforce, K–12, and postsecondary systems working together to leverage/braid resources and ensure that they are all preparing learners for high-quality careers?
  - What is the return on investment at the local, state, and federal level for workforce programs and training models?
  - How should local, state, and regional job market differences create targeted programs and funding to support community-level needs?

¹ The Job Quality Measurement Initiative, led by the Families and Workers Fund, offers one vision of a high-quality career, as does MIT’s Good Jobs Institute.
Key Principles for an Improved Data Ecosystem That Includes Workforce Data

A stronger data ecosystem should be grounded in greater cross-agency collaboration, leveraging existing and emerging infrastructure, and encouraging and investing in state and local expertise to support transparency and systemwide improvement. While this vision of an improved data ecosystem that includes workforce data can take lessons from the College Scorecard’s infrastructure, we believe it is essential to provide locally relevant context, elevating existing state efforts that are responsive to local labor markets.\(^2\) Key aspects of a data ecosystem incorporating workforce data should include:

- **Improved interoperability, security, and privacy.** A modernized data ecosystem should use up-to-date, secure, privacy-protecting technologies; be governed by strong, clear cross-agency data governance provisions; and support transparency and interoperability (including in cloud-based systems) through the use of open-source data formats and schema, such as the credential transparency description language. Prospectively, this system could leverage a national workforce data exchange or clearinghouse or a collaboration with data intermediaries, such as nonprofit organizations.

- **More available data.** It is crucial that this system dramatically expand the availability of high-quality data so jobseekers, navigators, government agencies, policymakers, and other stakeholders across the system have the information they need to make informed decisions. We recommend, for instance, that the US Department of Labor (DOL) consider collecting longer-term employment data, improving disaggregation, and exploring new methodologies to expand the number of programs with reported data.

- **Stronger infrastructure.** A modernized data ecosystem incorporating workforce data should support continuous improvement activities for providers, including those who are included on Workforce Innovation and Opportunity Act (WIOA)–eligible training provider lists, integration across programs, participation from interested workforce development providers who are not currently funded by WIOA, and secure research access to empower ongoing learning and development systemwide. There must be a data governance strategy to ensure cross-agency collaboration, continuous improvement, the ongoing implementation of a stable system, and scalability to new data sources and users.

- **Better reporting.** Collecting and sharing the data necessary for decisionmaking, including demographic data and long-term labor market outcomes data, is critical.\(^3\) This data should be available in common, standardized, open-source formats, while leaving space for innovation and adaptation to local contexts as necessary. For example, DOL could create incentives for states to produce and share indicators that connect education to workforce outcomes, including improved credential quality and transparency.

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\(^2\) For an example of specific potential reforms, see this joint comment to the Department of Labor’s open data RFI from fall 2022.

\(^3\) For more examples of key metrics, see Results for America (2020), *Moneyball for Workforce Development*, pages 20–22.
**Enhanced usability.** An improved data ecosystem will center access and usability through advanced and traditional analytics tools that generate evidence such that decisionmaking by participants, providers, navigators, and other stakeholders across the system is both informed and easier. Several states, such as Kentucky, Minnesota, New Jersey, and Washington, have already demonstrated the possibility of creating tools that make data available in an easy-to-navigate and understandable manner. Any resource DOL develops should build on these open-data efforts, embrace innovation, and incorporate and summarize multiple relevant datasets.

**Recommendations to Achieve a Stronger Data Ecosystem That Includes Workforce Data**

To pave the way for this more robust, actionable system, we suggest several near-term steps to provide essential wins and meaningful improvements:

- **Stabilize and increase dedicated data funding.** DOL, the Office of Management and Budget, and partner agencies (e.g., Education and Commerce) should issue joint guidance clarifying states’ ability to use existing federal funds for data system priorities (both emergency relief funds and funding in other programs that can be blended and braided). Also important is providing base funding and increasing the annual funding for competitive programs such as the Workforce Data Quality Initiative (WDQI) and Statewide Longitudinal Data Systems (SLDS) to sustain investments and ensure ongoing federal support to address evolving source system needs.

- **Support and incentivize cross-state and multi-state collaborative efforts.** There is a critical need to remove state border siloes, both in data systems with state-driven governance and in the cross-agency/cross-state data analytics community, for capacity building. Federal agencies should increase support for and encourage participation in cross-state data linkages, shared problem solving, and collaborative efforts to develop common solutions, building on progress funded by SLDS, WDQI, and the Multi-State Data Collaborative supported by the National Association of State Workforce Agencies, Coleridge Initiative, and State Higher Education Executive Officers Association. Federal agencies should also provide line-item funding for training for the public sector analytics field, similar to the recent DOL Employment and Training Administration-sponsored Applied Data Analytics training for state agencies.

- **Engage stakeholders.** We propose that DOL engage key stakeholders such as states, localities, and Tribal governments; innovative providers; state and national associations; and workers themselves to inform the design of a stronger system moving forward. Participants, navigators, and other stakeholders can help DOL and other relevant agencies understand what resources and tools they need (be they a state or locally developed dashboard, resource, or other tool). Stakeholders can also play a key role in providing technical capacity and resources.

- **Publish revised regulations or guidance.** Building on the US Department of Education (ED) and DOL’s existing joint guidance on sharing wage data for WIOA reporting

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4 See examples from [Kentucky](https://example.com), [Minnesota](https://example.com), [New Jersey](https://example.com), and [Washington](https://example.com).
purposes, the ability of wage and workforce data to be used for linkages, including
cross-state and multi-state initiatives, must be clarified and could be modeled on ED
guidance regarding integrated data systems and student privacy. The lack of clarity on
this issue has been a real barrier to linking workforce data (e.g., UI wage, Perkins, and
WIOA data) in state longitudinal data systems despite such linkages being allowable
under federal law. We were excited to see DOL’s recent Request for Information on the
unemployment compensation confidentiality regulations, which we hope will result in
action to revise the existing regulations and the 2016 joint guidance. Such a revision
would provide greater clarity to states seeking to use earnings data together with
programmatic data for program improvement, evidence building, and transparency.

- Institute initial improvements to WIOA data reporting regarding eligible training
  providers, including publicly reporting on longer-term (fourth-quarter) earnings data and
demographic data that is already collected, as well as revisiting suppression practices to
increase the proportion of programs with available data (e.g., rolling up over multiple
years) on TrainingProviderResults.gov.

- Commit to full transparency and interoperability. Ensure that data about publicly
  funded education, training, and occupational credentials, competencies, providers,
  programs, and related information of value to students, workers, and employers is made
  publicly available through the use of linked, open, and open-source data formats and
  schema, such as the credential transparency description language, so that data can be
  used for evidence building and continuous improvement.

- Support the pilot expansion of wage records. DOL and other agencies (e.g.,
  Education, Commerce) should support efforts to incorporate standardized information
  available from wage records, such as job titles, job-required skills, and job codes,
  through data standards such as JEDx.

- Partner with state and other federal agencies and stakeholders (e.g., Commerce)
  to implement new methods of secure, privacy-protecting data linkages leveraging
  national labor markets data. This strategy could include an exchange or clearinghouse
  approach that minimizes sharing of personally identifiable information and prospectively
  involves private partners as well. Accompanying this strategy should be the exploration
  of a national privacy center that can share innovative approaches to data privacy and
  security, demystify existing privacy requirements, and help stakeholders navigate
  specific privacy questions.

- Commit capacity and resources to advancing these recommendations and
  supporting cross-agency collaboration and capacity building for federal, state,
  and local entities in the use of workforce data. For too long data systems have
gathered data for compliance purposes rather than leveraging data to improve services
and outcomes for individuals. Participants in the workforce system—policymakers,
education and training providers, workers, and researchers—need to be able to access
and use the myriad data that exists in these systems to make informed decisions about
how to transform their programs, policies, and career paths. To achieve this, DOL and its
agency partners must dedicate collaborative time, energy, and resources to building a
more cohesive intergovernmental workforce data ecosystem in partnership with a range
of stakeholders to support a more robust, effective, aligned, and evidence-based workforce education and training system across all levels of government.

Supportive Organizations
America Forward
Coleridge Initiative
Credential Engine
Data Quality Campaign
FutureFit AI
Jobs for the Future
JVS – Bay Area
National Association of Workforce Boards
National Skills Coalition
Opportunity@Work
Per Scholas
Progressive Policy Institute
Propel America
REDF
Results for America
Social Finance, Inc.
Third Sector Capital Partners
Year Up, Inc.