



WORKFORCE

DATA IN ACTION

Prototyping a research dashboard

The Project on Workforce at Harvard Summer Fellowship Series

This report is a product of the Project on Workforce's Summer Fellowship Program, a short-term research and policy opportunity for Harvard graduate students and recent alumni from the Harvard Kennedy School, Harvard Business School, and the Harvard Graduate School of Education. Summer fellows are placed in interdisciplinary, cross-school project teams over the course of the summer and complete projects focused on pressing policy or operational challenges at the intersection of education, labor markets, and workforce development. The Fellowship Program also provides students with opportunities for professional development and engagement with staff and faculty at the Malcolm Wiener Center for Social Policy, the Managing the Future of Work Project at Harvard Business School, and the Harvard Graduate School of Education. The views expressed in this report are the sole responsibility of the Summer Fellows and are not meant to represent the views of the Harvard Kennedy School, Harvard University, or the U.S. Department of Labor.

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About the Authors

Sherry Seibel was a 2022 Summer Fellow at the Project on Workforce at the Malcolm Wiener Center for Social Policy at the Harvard Kennedy School. Sherry is a 2023 Ed.M candidate of the Harvard Graduate School of Education.

Michael Sanchez was a 2022 Summer Fellow at the Project on Workforce at the Malcolm Wiener Center for Social Policy at the Harvard Kennedy School. Michael is a 2023 M.P.P. candidate of the Harvard Kennedy School.

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Please direct inquiries to: Sherry Seibel at sherry_seibel@gse.harvard.edu or Michael Sanchez at michael_sanchez@hks.harvard.edu.

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About the Project on Workforce at Harvard

The Project on Workforce is an interdisciplinary, collaborative project between the Harvard Kennedy School's Malcolm Wiener Center for Social Policy, the Harvard Business School Managing the Future of Work Project, and the Harvard Graduate School of Education. The Project produces and catalyzes basic and applied research at the intersection of education and labor markets for leaders in business, education, and policy. The Project's research aims to help shape a postsecondary system of the future that creates more and better pathways to economic mobility and forges smoother transitions between education and careers. Learn more at www.pw.hks.harvard.edu.

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Executive Summary

The United States Department of Labor (DOL) is responsible for policy recommendations, partitioning government funds to grant awardees, and overseeing the wellbeing of our nation's workers. It utilizes government research databases such as the Clearinghouse for Labor Evaluation and Research and Health and Human Services' Pathways to Work Clearinghouse to aid in these processes. However, these research resources are scattered and related findings not well chronicled. Locating relevant data is time consuming and cumbersome.

To mitigate this issue, the Project on Workforce Summer Fellows designed a prototype for an internal, centralized dashboard containing key insights from studies in five government research databases and one non-profit database. Furthermore, we aggregated findings on high priority initiatives including reentry, career pathways, sector strategies, and dislocated workers.

The intended primary users are the Department of Labor's Employee and Training Administration and outside consultants. The tool enhances the evidence finding process and help advance pertinent initiatives. This report outlines the dashboard design process, tool highlights, and describes intervention insights gleaned from initial use of the prototype.

Introduction

The Department of Labor (DOL) is responsible for managing over \$9 billion in government grants annually, and as of June 2022, they have successfully given over 1,500 awards¹. Determining how to allocate resources requires in-depth knowledge of current interventions and expertise in the field. They also release numerous funding opportunity announcements that benefit from highlighting previous successful interventions, and need easily accessible research to make their solicitations more robust. Additionally, the DOL supports several research-intensive initiatives that promote more equitable policy recommendations and decisions.

There is a wealth of available studies and reports within the DOL through the Clearinghouse for Labor Evaluation and Research (CLEAR). Other government branches have dedicated research databases as well, such as Health and Human Services' Pathways to Work Clearinghouse, and the U.S. Bureau of Labor Statistics' Office of Survey Methods Research. Isolating relevant databases and studies plus sifting through applicable content is time-intensive, however.

The arduous task of identifying pertinent information is further complicated by a lack of chronicled study commonalities. While potentially dozens of papers exist on a given subject, findings are not linked which makes patterns difficult to discern. This could delay policy recommendations and funding as information must be repeatedly distilled.

We were enlisted to create a centralized dashboard prototype to address these concerns. Through partnerships with the DOL's Office of Workforce Investment and other branches within the Employment and Training Administration, we were able to create a Minimal Viable Product of easily searchable findings on Airtable. The dashboard integrates studies from multiple sources to simplify identifying relevant background research. It also contains individual study insights as well as research summaries of targeted topics. By creating this tool, gathering background research has been streamlined and effective interventions can be more easily identified.

About the Stakeholders

The dashboard was created with input from three primary stakeholders: The Employment and Training Administration (ETA), Office of Workforce Investment (OWI), and their external partners, the American Institute for Research (AIR). Within these organizations, the tool was shaped to assist grant reviewers and policy makers.

Key Stakeholders

Employment and Training Administration (ETA):

The ETA provides high-quality job training, employment, labor market information, and income maintenance services primarily through state and local workforce development systems.

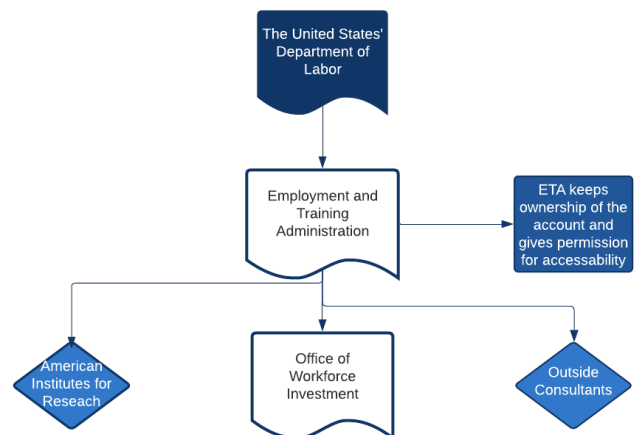
Office of Workforce Investment (OWI):

The OWI is a department within the ETA, the OWI implements an integrated national workforce investment system that supports economic growth and provides workers with the information, advice, and training for in-demand industries

American Institute for Research (AIR):

The American Institute for Research is a nonprofit, nonpartisan behavioral and social science research, evaluation and technical assistance organization

Hierarchy of Users



Data & Methodology

Through several iterative conversations with the ETA's reentry, dislocated workers, and sector strategies teams, members from the Office of the Assistant Secretary for Policy (OASP), and outside consultants from AIR, we created a prototype with an easily sortable and filterable interface. We then populated it with studies from an array of public databases. Databases include the DOL's internal Clearinghouse for Labor Evaluation and Research (CLEAR), United States Department of Health and Human Services (HHS), Education Resources Information Center (ERIC), Office of Inspector General (OIG), Government Accountability Office (GAO), and the Bureau of Labor Statistics (BLS). Through this, the dashboard can be a centralized hub for topical information.

To aid in future analysis, we highlighted successful and hindering strategies amongst research studies with high or moderate causal evidence, questions not yet addressed by research, and key takeaways. To advance equity-focused initiatives, the analysis was approached through an equity lens with emphasis on subgroup analysis and outcomes. Each study's information was organized to highlight these values.

To maximize impact, studies with topics of immediate interest to the DOL were selected for initial dashboard integration. These topics include reentry, sector strategies, and dislocated workers. We reviewed each study individually and included detailed characteristics and unique takeaways. Equity findings within each study's limitations were extracted and promoted so users could easily ascertain impact on subgroups.

All studies within the dashboard contain methodological strengths and weaknesses which we analyzed with equity and diversity in mind. Additionally, we examined causal evidence, location, time in which the study took place, insights into various subgroups, and diversity of gender and race. Commonalities between related studies were synthesized and partitioned to showcase common themes in dedicated, attached spaces for quick reference.

To ease handover, future onboarding, and maintenance, the dashboard contains detailed instruc-

tions, definitions and recommendations for how to input data and categorize studies based on subgroup. Processes such as generating questions studies have not yet addressed are explained. One difficulty with using a myriad of databases is inconsistent definitions across organizations for common terms. We provide a glossary to aid with both data interpretation and future data additions.

We constructed our prototype in Airtable to enhance sorting and tagging functionality. Its advanced search features, options for displaying rich text, and visually appealing tagging features made it an ideal option. Airtable also eases maintainability. While this tool is currently only for internal use, it can be made publically available without requiring licenses.

Case Study: Evidence to Action

The Department of Labor in partnership with the American Institute for Research (AIR) is undergoing an ambitious initiative called "Evidence 2 Action" (E2A). This initiative strives to increase the impact of research to mobilize efforts against forced labor. Through weekly meetings with AIR, the dashboard was tailored to include major themes for their research process such as insights into equity and analyses of effective interventions. With the completion of the dashboard, the framework for collecting and sorting consequential data was successfully created, furthering E2A's mission.

Dashboard Highlights

Dashboard headers target insights stakeholders hope to emphasize in their research. They consist of both basic study information and key takeaways gleaned from reading each study.

Insight	Rationale	Data in Action
Impacts on Equity/Subgroups	To highlight if/how the intervention affected different subgroups of people.	The sample is mostly White participants.
Type of intervention	Allows the user to see what type of intervention has occurred; thereby, allowing easier filterability.	Job assistance.
Strategies Identified	Allows user quick access to a study's primary strategies without having to read the entire paper.	Improving human capital through training and education.
Study Strengths	Users can see what strengths a study has and can therefore see if a study has credibility.	Racially diverse.
Study Weaknesses	Users can identify the shortcomings of a study and can therefore see its merit before citing its findings.	Nonresponse or selection bias might have occurred when interviewing grantees.
What questions remain?	Gives the user insight on what might be missing from a study without having to read through it all. Additionally, this column can provide greater detail for a study's weakness.	Can we see private sector players involved in the future to improve employment opportunities?
Notes	A section where the user can see information the reviewer thought was valuable to the study without it fitting into any other specific column or category. Or, it can be a section that allows more context for the paper and allows users to get a better understanding of a program/intervention.	STEP Forward is a voluntary program operated by the Human Services Agency of San Francisco (HSA) under JOBSNOW!, a subsidized employment initiative.

When data is entered for multiple related studies, patterns become easily detectable. As a result, commonalities can be extracted to help guide future interventions, policy recommendations, and/or make program funding decisions. For example, dislocated workers were one of the immediate areas of interest for those within the ETA. By utilizing our dashboard, we were able to find commonalities, recurring themes, and overall failing and successful practices.

Case Study: Dashboard in Action

Commonalities for 14 Dislocated Worker Studies

- Non-respondents to surveys are more likely to be minorities so we must entice respondents to get better data for future use
- Participants that earned credentials learned of government services and were more likely to gain employment
- Counseling and advising sessions are critical to success or failure
- Dislocated workers can be helped through information, training, and/or incentives to them or potential employers
- Providing incentives and strategies for self-employment can be beneficial and effective
- Having fewer mandatory meetings with councilors or advisors can be beneficial. Perhaps there is a sweet medium and sessions should not be overdone.

Limitations

The six databases chosen for integration hold vast amounts of credible findings, recommendations, and knowledge. However, within the process of configuring our prototype we first heavily utilized the information located within CLEAR and structured the prototype around causal impact analyses. Therefore, studies from other databases such as GAO or BLS that do not have causal impact analyses do not cleanly fit within the template. This may limit valuable information from other databases from being fully incorporated into the database.

Other limitations include shortcomings from the studies themselves. Some studies did not contain information on subgroups, making them less effective in fulfilling our mission of applying an equity lens to data collection. These omissions were noted, and some studies were not analyzed because there was either no representation of subgroups or not enough.

Conclusion

There is a wealth of information available within the Department of Labor and United States government research databases to aid with policy and grant making decisions. Using the centralized dashboard tool created by the Harvard Project on Workforce Summer Fellows simplifies information gathering and provides actionable insights into subgroup analysis by consolidating scattered studies into an easily searchable structure. By maintaining this tool, the Department of Labor can expand this prototype into a robust hub that caters to their targeted initiatives.

End Notes

1 “Agency Profile: Department of Labor (DOL).” USAspending.gov, June 29, 2022. <https://www.usaspending.gov/agency/department-of-labor?fy=2022>.