



INDIANA DEPARTMENT OF
WORKFORCE
DEVELOPMENT

Title: Pivot – an Indiana workforce engine

Category: State IT Recognition

State: Indiana

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Executive Summary

You have lost the job that you've held for the last decade. You are full of emotions - frustrated, embarrassed, scared. The state provides unemployment benefits, which will help, but what you really want, and need, is to find work. You know what you need to earn to cover your expenses, you hope to find something you are excited about, but you have no idea where to start. Where do you go? There are so many websites, so many tools, but which one is the best? Which can you trust? Which one will help you reach the best possible outcome? Indiana has taken the guesswork out of this process by creating an individualized career matching tool and placed it directly into the unemployment claims filing process.

Pivot, an Indiana Workforce Engine, leverages the Indiana Statewide Longitudinal Data Systems (SLDS) to provide a powerful set of data that links together education and workforce outcomes, tailored to each specific job seeker.

Individuals are now able to automatically receive relevant, personalized job recommendations without having to register at an additional website or provide any additional input. Thanks to the use of information available only to the State of Indiana, Pivot can utilize the actual experiences and outcomes of similarly situated Hoosiers to suggest pathways to the user that will provide a higher wage and meet the individual's career needs and goals.

Project Narrative

Idea

It's June 2020 and the COVID pandemic is very much affecting the everyday life of Hoosiers. Businesses are shutting down; employees are in turn, out of work. The rise in unemployment is sudden and the Indiana Department of Workforce Development (DWD) begins looking for a way to address the concerning rise in unemployed workers.

Uplink, the automated self-service Unemployment Insurance system, gives job seekers access to enhanced services, where you can manage your own profile, apply for unemployment benefits and file for weekly benefits, and use help screens and navigation aids to assist you in using the system. However, the DWD team wanted to do more.

They jotted down the key problems for job seekers:

- Users are unsure of where to start;
- Users are confused of how to navigate systems and services; and
- Users are uncertain of their skills needed for new careers.

They then noted the key challenges of their current system and how they can enhance it.

- How might we provide clear, actionable next steps for job seekers?
- How might we leverage State data to improve the quality of recommendations?
- How might we democratize career coaching?

A prototype algorithm was created to simplify the process for job seekers; send them directly to the next step, allowing them to explore opportunities that are right for them, both where they are now or with a little more training or education to help advance their career.

After requesting funding and help from the United States Department of Labor, the new project kicked off in April 2023.

Implementation

Hoosiers who have filed for unemployment insurance (UI) are at both a delicate and unrestricted point in their career. While the State of Indiana has many programs through the DWD to help UI claimants upskill, reskill, and change jobs, it can be difficult to find the right starting point.

The Need: Unemployed workers often have little idea of the resources that exist to assist them. Eliminate the information gap and reduce the effort required for the worker to identify next steps.

Led by DWD's Chief of Staff, Josh Richardson, and Chief Information Officer, Chris Henderson, a coalition of subject matter experts and technologists was assembled.

DWD leveraged its relationships with partner agencies including the Commission for Higher Education (CHE), the Department of Education (DOE), the Management Performance Hub (MPH), and the Office of Technology (IOT) and engaged the expertise of Resultant, an Indiana-based consulting and services provider, to implement the Indiana Workforce Engine, Pivot.

By November 2023, Pivot was launched. The first-of-its-kind system leverages the Indiana Statewide Longitudinal Data Systems (SLDS) and applies Artificial Intelligence to this powerful set of linked education and workforce data. At its core, Pivot is a recommender system with hybrid filtering trained on the SLDS data to maximize career outcomes.

Indiana's SLDS is already a national leader and by applying AI, Indiana took that advantage and turned it into an intelligent tool capable of using historical outcomes and trends to present data to inform personalized recommendations. While AI job matching tools exist, those tools require a significant amount of input and knowledge on the part of the user to generate relevant, personalized results. Because the type of detailed records are available only to the State of Indiana, Pivot can compare and contrast similar individuals to suggest pathways to the user that will provide a higher wage and meet the individual's career needs and goals.

Pivot was designed to deliver its recommendations in a reusable and composable fashion, allowing DWD to add value and enrich the experiences of the systems and services already familiar to Hoosiers (Uplink) - instead of adding another standalone destination the user must find.

Pivot provides pay scale, suggests training options based on the user's background, and provides links to current job openings, giving the job seeker clear and actionable next steps without the need of additional data input.

The program offers a simple ranking process as it suggests job options. Users grade their interest in the job options with a green smiley face for yes, yellow neutral face for maybe, or red angry face for no. They can also provide additional feedback, like "too much training," to help Pivot curate future suggestions. This process tailors options to the job seeker that better fit what they're looking for in a career change.

Impact

Simplifying the process

Pivot, Indiana's Workforce Engine, offers a curated path for job seekers by using their past experiences when deciding what to do next in their career journey, and it meets them where they already are. Not only is this tool embedded in the UI claims process, but the user interface was designed for a mobile experience as approximately 70% of unemployment claims are filed through a phone.

From January of 2024 through May 14th, approximately 38,000 Hoosiers have filed initial claims for unemployment benefits. In that same time period, just over 22,000 unique users have entered into Pivot. Because, at this time, Pivot is only available to those filing UI claims, the unique users of the tool represent just under 60% of the eligible population. When compared to email campaigns or banner ads, which often have about a 2% click rate – these numbers are outstanding.

Additionally, users aren't just entering the tool – they are using it! During this same timeframe, approximately 41,600 jobs have been explored. On a weekly basis, the number of times a user provides a "Yes" feedback response to the recommended job, ranges between 700-1000.

Limitless Potential

While these early results from Pivot already provide a reason to be proud, the potential for the future of this concept can go much further.

Improvements already planned will provide users with an even greater ability to impose their preferences on recommendations. Users will be able to clearly compare the data indicating the tradeoffs in earnings, training time, and job demand by occupation. Additionally, once a user has selected an occupation they are interested in, the tool will recommend relevant training providers and the ability for the user to be referred for services.

Future phases will further consolidate workforce resources into an easy-to-use, customer focused, personalized career navigation portal.