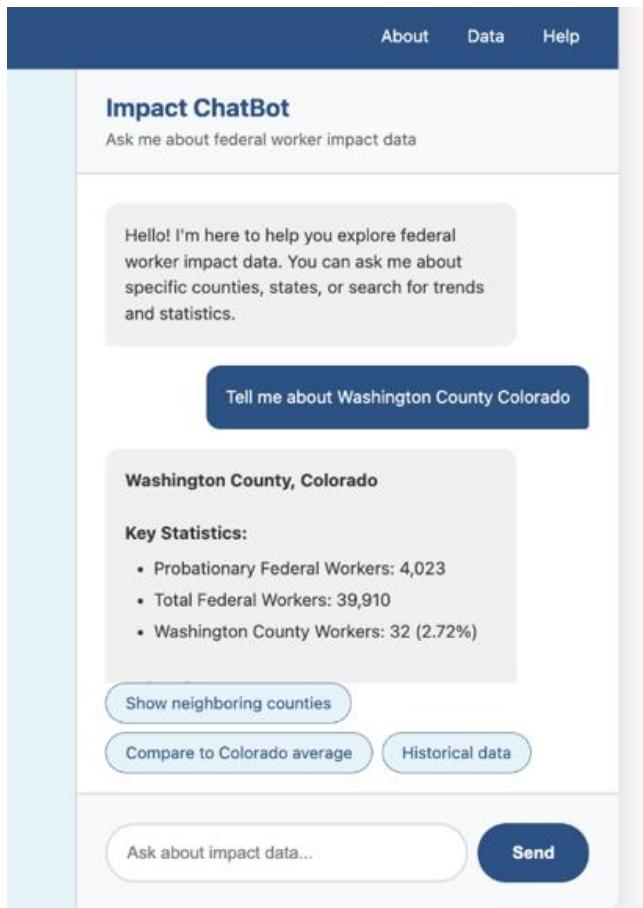


The Impact Project was designed to show the effects of government funding cuts via an interactive map. Historically, the platform relied on manual coding to track metrics like funding amounts and affected populations, an unscalable process when facing a backlog of over 60,000 potential news sources. To resolve this bottleneck, an end-to-end automated pipeline was engineered to streamline data acquisition and extraction.

A custom web scraping model successfully processed an initial batch of 16,000 articles, followed by a cleaning script that filtered out approximately 10,000 irrelevant pages. Utilizing this refined dataset, a hybrid extraction model combining pattern recognition and Large Language Models (LLMs) was constructed to automatically identify critical data points including monetary figures, geographic locations, and population impacts. Finally, a prototyped chatbot interface was implemented to allow users to query the database directly. This comprehensive system eliminated the manual data entry workload, establishing a scalable foundation for real-time policy tracking. Below is the HTML wireframe for this chatbot interface. It will augment interactions with data visualizations on its left.



The wireframe shows a user interface for the Impact ChatBot. At the top, a dark blue header bar contains the text "About", "Data", and "Help". Below the header, the main content area has a light blue background. The title "Impact ChatBot" is displayed, followed by the sub-instruction "Ask me about federal worker impact data". A text box contains the message: "Hello! I'm here to help you explore federal worker impact data. You can ask me about specific counties, states, or search for trends and statistics." A blue button labeled "Tell me about Washington County Colorado" is positioned below the text box. To the right, a detailed data card for "Washington County, Colorado" is shown. It includes a section for "Key Statistics" with the following items:

- Probationary Federal Workers: 4,023
- Total Federal Workers: 39,910
- Washington County Workers: 32 (2.72%)

Below the statistics are three buttons: "Show neighboring counties", "Compare to Colorado average", and "Historical data". At the bottom of the card is a text input field with the placeholder "Ask about impact data..." and a blue "Send" button.