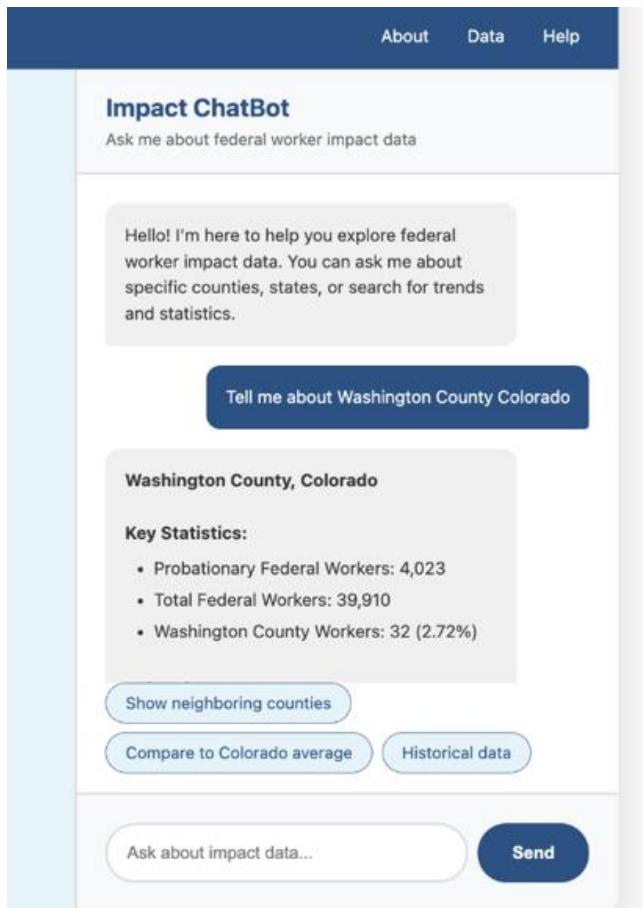


The Impact Project was designed to show the effects of government funding cuts via an interactive map. Historically, the platform relied on manual coding to track metrics like funding amounts and affected populations, an unscalable process when facing a backlog of over 60,000 potential news sources. 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 illustrates the Impact ChatBot interface. At the top, a dark blue header bar contains three white links: "About", "Data", and "Help". Below the header, the main content area has a light blue background. A title "Impact ChatBot" is centered at the top of this area, with the sub-instruction "Ask me about federal worker impact data" just below it. A large, rounded rectangular box contains a welcome 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." Below this message is a blue button with white text that says "Tell me about Washington County Colorado". Underneath this button, a section titled "Washington County, Colorado" displays "Key Statistics:" followed by a bulleted list: "• Probationary Federal Workers: 4,023", "• Total Federal Workers: 39,910", and "• Washington County Workers: 32 (2.72%)". At the bottom of this section are three blue buttons with white text: "Show neighboring counties", "Compare to Colorado average", and "Historical data". At the very bottom of the wireframe is a long, thin input field containing the placeholder text "Ask about impact data..." and a small blue "Send" button to its right.