The Temporary Assistance for Needy Families (TANF) Data Collaborative Pilot Initiative is a component of the TANF Data Innovation project. The 30-month pilot offered technical assistance and training to support cross-disciplinary teams of staff at eight state and county TANF programs in the routine use of TANF and other administrative data to inform policy and practice.

**RESEARCH QUESTIONS.** The pilot team at the Michigan Department of Health & Human Services (MDHHS) sought to understand why the TANF application denial rate was higher in Michigan than in other states. The pilot team hoped to use these insights to refine the TANF application process, improve access to the program for eligible people, and reduce staff workloads by reducing redundant applications. The team identified research questions focused on factors contributing to high denial rates, including eligibility rules and application processing steps.

The pilot team at MDHHS included a mix of staff with TANF policy and program expertise, in collaboration with graduate student researchers at the Harris School for Public Policy at the University of Chicago.

**DATA LANDSCAPE.** Michigan’s Department of Technology, Management, and Budget transferred de-identified MDHHS data on TANF applications from a statewide data warehouse to the Administrative Data Research Facility (ADRF) run by the Coleridge Initiative. The ADRF is a secure, cloud-based computing platform that provides an environment for authorized researchers to collaborate on data documentation and analysis. MDHHS’s pilot team worked with graduate student researchers from the University of Chicago’s Harris School of Public Policy to define a series of coding and analysis tasks to better understand the characteristics of TANF applicants and applications and the outcomes of those applications.
PILOT HIGHLIGHTS

The Michigan TDC pilot team began the TDC Pilot Initiative with the goal of bringing TANF analytic work inside their department. They succeeded in hiring an internal data analyst, uploading their TANF program data to a secure, cloud-based computing platform for greater analytic access, and answering complex questions about TANF application denial rates.

APPROACH AND RESEARCH METHODS. The pilot team analyzed data on TANF applications and denials using R, SQL, and Python. The team coded approximately 70 denial reasons into a set of eight major categories such as applicants not meeting eligibility criteria, failing to verify their application information or withdrawing from the program. The trends in the frequency of these denial groupings over time were analyzed, and the team also examined duplicate applications, county-by-county denial patterns, and the income levels and demographic characteristics of approved and denied applicants. Using multivariate regression analyses, the team generated these and other analyses to interpret TANF application and denial patterns.

INITIAL FINDINGS AND NEXT STEPS. A chief outcome of the pilot was the creation of a single data set of MDHHS TANF data hosted in a secure cloud collaboration environment. Importantly, the data set is in a format that can be joined with other MDHHS data housed within the secure cloud environment. The team’s exploratory analyses identified the top three reasons for application denials between 2011 and 2019: applicants not meeting basic eligibility criteria (for example, having no children in the household), having incomes too high to qualify for TANF in Michigan, or failing to comply with program requirements like attending required appointments. In addition, working on the pilot yielded important lessons on data management, data quality, and collaboration, including the following:

- To sustain data and analytic knowledge despite staff turnover, the pilot highlighted the value of documenting data contents (such as key tables and variables) and processes (such as coding and programming) and other institutional knowledge so that the work can be carried forward by new/different analysts.
- The pilot team learned what types of contextual information and nuances that MDHHS’s policy staff need to communicate to analysts to interpret the data correctly and build policy-relevant queries and analyses, as well as the value of discussing these details on the phone (not just through email).
This profile was based primarily on reports and presentations produced by the pilot team at the Michigan Department of Health & Human Services. For more information, contact Kent Schulze, MDHHS TDC Pilot Coordinator (schulzek1@michigan.gov). The TANF Data Innovation (TDI) Project Team – which includes Chapin Hall at the University of Chicago, MDRC (lead), the Coleridge Initiative, and Actionable Intelligence for Social Policy at the University of Pennsylvania – provided technical assistance and training. Emma Monahan of Chapin Hall was the Michigan TDC pilot coach. MDRC edited this document and it was designed by Public Strategies.


The team learned how identical elements of MDHHS’s administrative data system were labeled differently within the state’s data warehouse—and how to map these two data sets.

Looking forward, the pilot team aims to create a data dictionary that maps administrative data elements to warehouse data elements, upload data to the ADRF quarterly, and incorporate additional data fields into the cloud-hosted database to explore additional research questions. In addition, the team may analyze the impact of COVID-related policy changes on TANF application approvals, the extent to which application income thresholds have fallen short of inflation, and whether income thresholds for active TANF participants can be made less restrictive.