Analysis of Robotic Process Automation (RPA) in Supplemental Nutrition Assistance Program (SNAP)
Findings From Connecticut
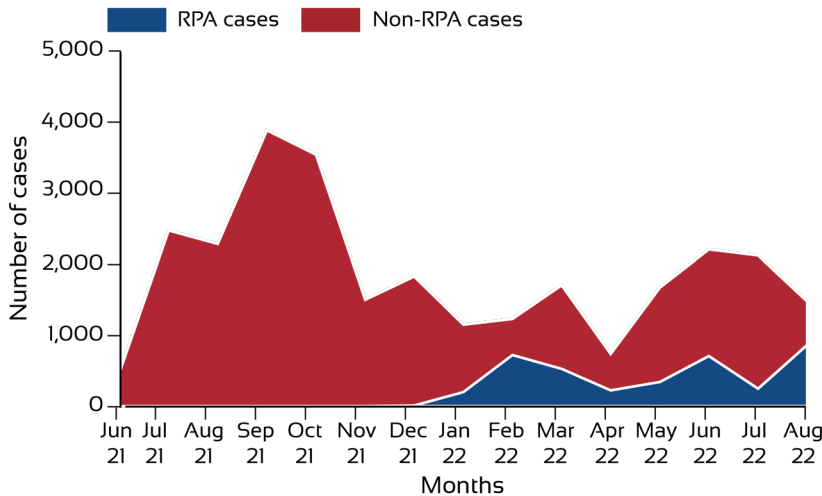
What Is RPA?

RPA is software, usually requiring little code, that can be used to automate repetitive, rule-based processes.

Background

In February 2021, Connecticut implemented an RPA to assist with online SNAP, Medicaid, and cash assistance renewal tasks. The RPA updates a client's case in the State eligibility system based on information received on the online renewal form and conducts certain interface checks. Figure 1 illustrates the number of cases processed by the RPA as a proportion of total SNAP online renewals.

Figure 1. Number of RPA Cases

Facilitators to RPA Implementation and Operations

Creating a detailed RPA requirements document that outlined all RPA actions, identified issues, and listed business exceptions ensured all potential scenarios were identified before the RPA went live.

A comprehensive RPA testing approach further ensured smooth implementation.

Lessons Learned

- Providing sufficient RPA training is important to help promote staff trust in the new technology. Potential time savings may be eroded if staff redo the work of the RPA.

- Maintaining the RPA on an in-house server can mitigate challenges working with an outside vendor, such as State staff being dependent on vendor availability to make updates.

RPA Outcomes

Connecticut implemented its RPA to help improve and streamline business processes. Interviews with staff suggest the RPA helps eligibility workers save time, though respondents noted the time savings are minimal. While quantitative findings do not suggest time savings, this may be a result of data limitations. Figure 2 presents the mean days to decision for RPA and non-RPA cases in Connecticut. The RPA completed its work within 3 days of the State receiving the online renewal.
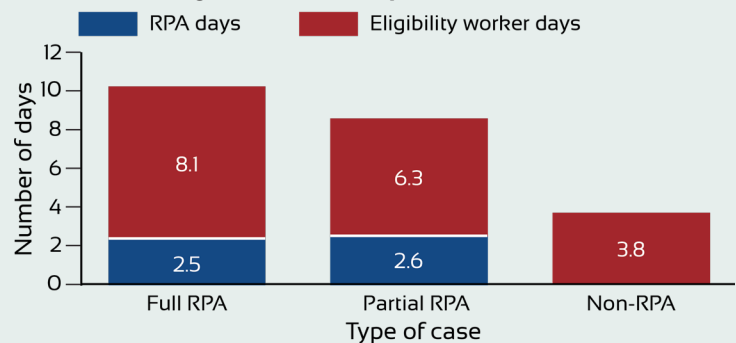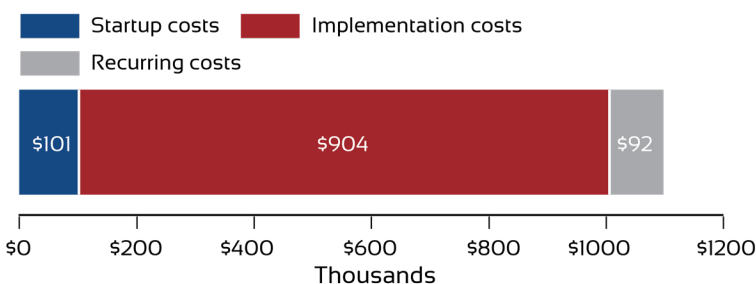
Figure 2. Mean Days to Decision

Figure 3. Total RPA Costs, in Thousands of Dollars

RPA Costs and Benefits

Connecticut's RPA cost approximately $1.1 million (see figure 3). A cost-benefit ratio incorporating eligibility worker time saved indicated the costs of the RPA exceeded the benefits. However, it is important to note that the analysis underestimates the potential benefits of the RPA.

For further information, see Wroblewska, K., et al. (2023). Analysis of robotic process automation in SNAP: Three case studies. Prepared by Insight Policy Research. U.S. Department of Agriculture, Food and Nutrition Service. www.fns.usda.gov/research-and-analysis