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UNDERSTANDING THE USE OF SNAP ONLINE APPLICATIONS

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Executive Summary

In 2019 the Supplemental Nutrition Assistance Program (SNAP) served over 35 million low-income individuals in a typical month and paid out more than $55 billion in annual benefits. Most States centralize SNAP administration and operation in a single State-administered agency except for 10 States in which operations are County-administered and State-supervised. This study included eight States - Colorado (CO), New York (NY), Pennsylvania (PA), Tennessee (TN), Texas (TX), Utah (UT), Virginia (VA), and Washington (WA). Three of the study States are county-administered—CO, NY, and VA. While Food and Nutrition Service (FNS) provides oversight of SNAP at the federal level, State agencies administer the program, make eligibility determinations, and distribute benefits. All States receive federal funding for SNAP administration, and County-administered programs receive federal SNAP administrative funds from the State for program functions they perform. As a result, each State agency operates according to its own business processes, and there may be further variation at the County level in County-administered States. For example, of the 53 State and U.S. territory agencies, 46 accept online applications from new applicants, and 33 accept online applications from SNAP households renewing their benefits (known as recertification).

This study adds to the current body of knowledge about SNAP online applications and provides FNS with insights from States' continuing efforts to modernize their SNAP programs and the resulting program outcomes. The study provides information about online application processes and procedures, including those used for processing applications, verifying applicant information, and watching for suspicious submission patterns; online application features; and the impact of online applications on customer service and program integrity. Moreover, the study also provides insights into the new frontier in public human services delivery—bringing services to clients through mobile-friendly websites, mobile apps, and service kiosks—alongside traditional in-person program office visits or telephone calls. The study was not designed to examine or suggest causation. This study included eight States and had seven specific objectives:

1. Describe each study State's experience with online applications.
2. Describe variations in the features of online applications for each study State.
3. Describe how study State agencies process online applications.
4. Determine the degree to which the use of online applications varies by participant demographics and geographic location.
5. Determine the degree to which the use of online applications varies by study State characteristics.
6. Describe each study State's perspective on potentially fraudulent activities related to online applications.
7. Determine the impact of online applications on program outcomes, including payment accuracy and application timeliness rates.

Study Design and Data Sources

Addressing these objectives involved three main data sources and methodologies from the eight participating study States: a review of publicly available and State-provided internal documentation, a quantitative and qualitative analysis of a survey of State SNAP online application processes and features, and analyses of State SNAP administrative data. The study team also conducted targeted followup interviews with State SNAP administrators to clarify survey responses; however, the survey remained the primary source of data.

The document review used publicly available and internal information from FNS, study State and County websites; other online resources; and published and unpublished literature. The internal documentation that study States provided included standard operating procedures, manuals, technical reports, and memoranda.

The study team designed and deployed a web-based survey to collect data on indicators for comparing the eight participating study States. The survey also collected qualitative information to capture in-depth information about each study State's experience with online applications.

The study State administrative data analysis involved working with study State administrators to provide targeted applicant and case-level data elements spanning a 3-year period (2016–2018), per federal recordkeeping requirements, including applicant demographics, mode of application (online, paper, telephone, etc.), type of application (expedited or nonexpedited), SNAP quality control (QC) reviews, and electronic document management systems. **A-1** provides specific details on the creation of administrative data variables used in this study, as well as complete results.

Administrative data varied across study States. A substantial number of variables were missing values, both within and across study States. Reasons for missing values varied, including (1) some study States do not retain certain demographic information for denied applications, (2) application information was incomplete, and (3) other data issues (e.g., analysis excluded duplicate applications with conflicting values).

Eight Study States

The study team worked with FNS to identify eight States to participate in the study, with one serving as a pilot State for designing data collection tools and processes and collecting data. Eight study States completed the survey. Only four study States provided nearly complete data of the requested administrative data within the timeframe for this study. UT provided partial data. In total, five study States provided partial or nearly complete data. **Table ES-1** summarizes the study States and the data they provided. A checkmark (✓) indicates that the study State had the respective data source; an X mark (✘) indicates that the data source was not available. This notation is used throughout the report.

Table ES-1: Available Data by Study State

State and Online Application		Available Data Sources		
		Survey	*Public and Internal Documents**	*Administrative Data*
CO	PEAK Colorado Peak	✓	✓	✓
NY	NEW YORK STATE myBenefits	✓	✓	✗
PA	COMPASS CLICK. APPLY. BENEFIT.	✓	✓	✓
TN	TN Department of Human Services Family Assistance	✓	✓	✗
TX	Your Texas Benefits	✓	✓	✓
UT	myCase	✓	✓	✓
VA	CommonHelp HELPING THOSE IN NEED	✓	✓	✓
WA	WASHINGTON CONNECTION your link to services	✓	✓	✗

*Includes publicly available resources and State-provided documents

Summary of Findings

First, the report presents an overview of online application characteristics across all eight study States (see **Table ES-2**) , followed by key findings organized around each of the seven objectives. As shown in **Table ES-1**, this analysis incorporates documentation and survey responses from the eight study States and administrative data from the five study States that provided it. For the remainder of the report, all tables that list findings from eight study States reflect information from the survey of State SNAP online application processes and features and study State-provided internal documentation, whereas tables displaying administrative data reflect findings for CO, PA, TX, UT, and VA, unless the report specifies a smaller subset of study States.

Table ES-2: Summary of Study State Online Application Characteristics

	CO	NY	PA	TN	TX	UT	VA	WA
State or County Administration	County	County	State	State	State	State	County	State
Implementation of Online Application	2010	2009	2001	2016	2006	2012	2012	2003
Multibenefit Application	✓	✓	✓	✓	✓	✓	✓	✓
Autoregistered in Eligibility System*	✗	✓	✓	✗	✓	✓	✗	✗
Languages Available (*other than English and Spanish*)	✗	Arabic Chinese Creole Haitian Korean Russian	✗	Arabic Somali	✗	✗	✗	Cambodian Chinese Korean Laotian Russian Somali Vietnamese
Mobile-Friendly Website	✓	✓	✓	✓	✓	✓	✗	✗
Mobile Application**	✓	✓	✓	✗	✓	✗	✗	✗
Application Kiosks in Office Lobbies	Varies by County	Varies by County	✓	✓	✓	✓	✓	✓
Clock Start (if applications submitted after business hours)	Next business day	Next business day	Next business day	Next business day	Next business day	Date of submission	Next business day	Next business day

*Indicates data from online application automatically interfacing with eligibility system.
**Indicates fully operational app with capability to submit applications.
Data source: Survey of State SNAP directors, and document reviews of eight study States.

Objective 1—Describe Each Study State's Experience with Online Applications

This analysis identified two types of instructions for clients to interact with their online applications: instructions for creating portal accounts and filling out applications, and instructions for clients who already had accounts and entered the portal to complete an application. Nearly all study States provided instructions for prospective clients to create accounts before entering the online portal, with the exception of TN.[1] The study team assessed online application instructions building on principles from FNS' "Best Practices for Online SNAP Applications."[2] **Appendix A** provides technical details on how these principles were operationalized. Most study States' instructions were easy to find but varied in degree of detail. The most commonly used instruction tools included help buttons and "how to apply" pages. Five out of eight study States provided detailed information for filling out the online application in their instructions; this included details on the steps needed to complete the application process.

Based on administrative data, four study States received about one-third of applications online, and one study State received almost two-thirds of its applications online. The survey of State administrators indicates that online applications for the three study States without administrative data fall into three groups: 0–20 percent, 21–40 percent, and 41–60 percent. Survey estimates suggest that only two study States saw an increase in the percentage of online applications they received between 2015 and 2018: NY increased from 21–40 percent to 41–60 percent, and VA increased from 0–20 percent to 21–40 percent. Percentages in the other study States remained relatively consistent.

Using administrative data, the vast majority of applications (82.8 percent) were accepted. Over two-thirds of the accepted applications were submitted via paper through the mail, in person at an office, or via an affiliated organization, while the majority of denied applications were submitted online. Recertification applications have high rates of acceptance, and most are submitted via paper. The lower rate of acceptance of online applications could be due to applicants beginning an application online and not following through with the subsequent steps, such as an interview. One study State commented that because online applications are so easy to fill out, there is more "fishing" by people who are unlikely to be eligible but attempt to complete the form anyway. When these applicants find out that an interview and further paperwork are required, they often abandon the application.

Based on responses to the survey of State SNAP online applications, study States reported various perceived and observed advantages regarding the use of online applications. Most study States agreed that online applications helped improve customer service. Other frequently cited advantages included processing efficiencies, such as reduced time to enter applications into the eligibility system (NY, PA, UT) and reduced time for SNAP caseworkers to process an application (NY, UT), and reduced workload (TX, VA). One study State (NY) cited autoregistration in the eligibility system and immediate availability of online applications facilitate the use of data matching and document review prior to the interview being conducted in a way that the paper application process cannot, which mitigates the potential for errors and fraud.[3]

[1] TN does not have instructions for completing the application prior to entering the online application portal, although it does have instructions once clients make their way through the portal login.
[2] USDA FNS, "Best Practices for Online SNAP Applications," March 10, 2015, https://www.fns.usda.gov/snap/admin/online-application-best-practices. The study notes, where applicable, when State practices deviated from the best practices outlined in this document and/or from SNAP law and regulations.
[3] Autoregistration refers to data from online applications automatically interfacing with the eligibility system.

Based on responses to the survey, study States reported various challenges regarding the use of online applications.[4] Nearly half the study States reported insufficient funding to improve their online application process. Individual study States identified specific challenges. CO reported insufficient call center capacity to handle online applications. CO is a County-administered State, and some variation across the State may be due to staffing decisions made at the County level. WA reported insufficient capacity to address technology issues with online applications. As noted earlier, NY reported that online applications had the potential to decrease payment accuracy but believed the use of autoregistration mitigated this risk and allowed them to maintain payment accuracy.

Despite the advantages of the online applications as reported in the survey, in followup interviews to clarify survey responses, study State administrators also reported that online applications have had little impact on their agencies' workflow and processing. Most study State agencies implemented online applications as part of broader efforts to modernize their business processes, and their online applications fit relatively seamlessly into that process.

Objective 2—Describe Variations in the Features of Online Applications in Each Study State

Most SNAP online applications in this study have features that make them accessible and user-friendly for applicants. Except for UT, the study States allow applicants to submit paper verification materials by mail or fax. Except for UT and WA, the study States also allow applicants to submit verification materials by uploading scanned versions or photos of the materials.

For study States with mobile-friendly websites, the features available to applicants using a mobile device are not as robust or user-friendly as those available when using the full-site version on a computer. Of those study States, all except for TN and UT also have mobile-friendly online applications. Although TN and UT allow applicants to submit applications using a smartphone or tablet, their online applications have not been optimized for mobile devices and would be difficult to fill out from a smartphone or tablet. VA and WA do not allow applicants to submit applications from a mobile device.

Objective 3—Describe How Study State Agencies Process Online Applications

The steps required to process an online application are essentially the same as a paper application in the study States. However, the processes each study State employs for SNAP applications can vary depending on the design of the online application technology or the local business processes used to determine SNAP eligibility. For example, once an online application is received, in some study States (NY, PA, TX, UT) the online application interfaces directly with the State's eligibility determination system so the application does not have to be retrieved manually. In UT, as soon as the online application is autoregistered, internal data matches begin, and the case is assigned to an eligibility specialist by setting a notification for application processing.

Objective 4—Determine the Degree to Which the Use of Online Applications Varies by Participant Demographics and Geographic Location

Below are the findings for each analyzed demographic across study States that provided (valid) administrative data using descriptive statistics, and logistic regression models to predict the probability

[4] The survey instrument asked respondents about advantages and challenges; respondents were not asked about disadvantages. "Challenges" can thus be viewed as the proxy for "disadvantages" in this study.

of an application being submitted online and the probability of an application being accepted, controlling for the following six application characteristics. The findings are:

- **Age:** The heads of household who used an online application during the 3-year study period tended to be younger than those who submitted paper applications.
- **Race:** White applicants submitted 38.3 percent of all applications and 31.5 percent of all online applications and Black or African American applicants submitted 18.5 percent of all applications and 34.5 percent of all online applications. The data to determine whether applicants' ethnicity was non-Latino/Hispanic or unknown was often missing or unclear. As a result, the study team did not analyze ethnicity.
- **Gender:** About 60.0 percent of all applications were completed by females, 18.8 percent were completed by males, and 21.6 percent did not identify gender. Female heads of household were slightly less likely to use online applications compared to male heads of household (29.6 percent compared to 34.2 percent of all online applications).
- **Household Size:** Household size was determined by calculating the number of unique individual IDs for each application. The largest households (six or more members) were least likely to submit their applications online compared to smaller households, and households with one individual were most likely to submit applications online.
- **Recertifications:** Original applications were slightly more likely to be submitted online rather than via paper (52.4 percent and 47.6 percent, respectively). Households submitting recertifications were less likely to submit online and typically submitted via paper (91.7 percent compared to 8.3 percent online). Federal regulations require States to send recertification application packets to current recipients of SNAP between the first and last day of the month prior to the month the certification period ends. Based on the study team's knowledge of SNAP, States still send recertification packets via postal mail, even in States where online recertification applications are supported, which could increase the likelihood that households recertified via the paper application that was mailed to them.
- **Income:** Applicants with the highest and lowest incomes were more likely to submit online compared to applicants at other income levels. About one-third of applicants with income below 25 percent of the federal poverty guideline submitted an online application, and one-third of applicants with income greater than 130 percent of the federal poverty guidelines submitted an online application. The highest-income applicants were likely receiving unearned income that made them categorically eligible for SNAP benefits for a reason other than their income, as nearly all of them were accepted.

Objective 5—Determine the Degree to Which the Use of Online Applications Varies by Study State Characteristics

As the distance to the nearest SNAP office increased, the percentage of applicants choosing to submit applications online also increased. This finding is based on limited information from three study States that submitted geographic data (CO, PA, VA). These study States submitted administrative data on SNAP office locations, applicant geographic location, and mode of submission (online versus paper application). Location data was missing for 14 percent of applications in CO, six percent in PA, and over 99 percent of applications in VA.

As study State agencies moved to provide more virtual SNAP services, they knew that some people would always need to access in-person services. This recognition, alongside other process improvements in the workflow of in-person services, led study States and Counties to install computer kiosks in their

office lobbies so applicants who visit a local office can fill out an online application instead of a paper application.

All of the study States reported that they provide application kiosks in their office lobbies, and they offer in-person assistance with the online application if needed. Some study States, especially County-administered States, reported variation in the types of assistance available at kiosks.

Objective 6—Describe Each Study State's Perspective on Potentially Fraudulent Activities Related to Online Applications

Five out of the eight study States (NY, PA, TX, UT, WA) reported using online data to identify online applications that may be associated with fraudulent activities. The three remaining study States (CO, TN, VA) reported not using any of these methods, although TN identified duplicate applications in examination of the data and is now planning to implement identity verification software. TN also reported that it received more duplicate applications because online applicants assume that they will be contacted immediately and tend to reapply when they are not. This could be another reason why online applications have higher rates of denied applications.

Among the study States using online data or web analytics to identify online applications that may be associated with fraudulent activities, all five use the applicant data itself and track internet protocol addresses. NY, PA, and WA monitor clients' message open or click-through rates to detect fraud, and NY and WA reported using geolocation data or data provided by internet service providers to do this. NY and WA reported using additional methods to track potentially fraudulent activities. Study States (CO, NY, VA) that did not report using any of the methods specified in the survey mentioned using other options to monitor potentially fraudulent applications, such as Google Analytics, third-party services, and tracking transactions in stores that experience large spikes in SNAP activity.

Four out of the eight study States (NY, TN, TX, UT) reported that online applications potentially make it easier for applicants to submit false or misleading information. Five of the eight study States (NY, TN, TX, UT, WA) responded that potentially fraudulent activities were more commonly associated with SNAP online applications. These same five study States (NY, TN, TX, UT, WA) also reported false identification and duplicate enrollments as the most common fraudulent issues related to online applications.

Objective 7—Determine the Impact of Online Applications on Program Outcomes, Including Payment Accuracy and Application Timeliness Rates

All study States conduct quality assurance reviews of SNAP applications. No study State conducts targeted QC reviews for applications submitted online versus those submitted via paper or other traditional means. Survey responses revealed mixed opinions on whether there were differences in payment accuracy between initial applications submitted online and those submitted via paper.

Administrative data only allowed for an estimation of payment accuracy rates, and data was insufficient to empirically test differences across study States. Estimates on the aggregate data for all type of payment errors showed that payment accuracy rates between online and paper applications were nearly the same, 62.1 percent and 61.4 percent, respectively. The rates represent the percentage of applications with an error, regardless of whether the dollar amount is below the threshold FNS sets when calculating published error rates. Data did not allow the study team to examine findings on recertification.

The data on Application Processing Timeliness (APT) rates is similarly limited. Initial survey results and information subsequently received from the study States revealed that none of the study States reported timeliness separately for online applications and paper applications; rather, study States report just one APT rate. Note that States are not required to track timeliness for online applications separately. Data may be available, but it is not reported in terms of application submission mode. Anecdotal observations from study State administrators suggest that online applications do not greatly affect timeliness for either expedited or regular applications.

Conclusions and Further Research

Individuals and families using online SNAP applications are able to apply for benefits at their convenience without negatively affecting the processing workflow for caseworkers. This is a significant and positive outcome for the program and its clients. Furthermore, although study State administrators expressed concern about potential increases in fraudulent activities associated with online applications due to greater opportunities to submit false or misleading information or duplicate applications, the data did not support these claims. Study States also said that ongoing analysis of online data may minimize the risk of potentially fraudulent activities.

Study States reported insufficient funding to improve their online applications or handle specific aspects of the online application process. The availability of FNS' technology grants is a potential way to both assist the States and continue to improve the systems or features that yield the most benefit.[5] Targeted resources for strategic improvements could both help underserved clients and result in organizational advantages, such as integrated eligibility systems or other features that contribute to these goals (e.g., the ability to scan eligibility or provide e-signatures).

There is room for further research. Study States provided sufficient instructions for prospective clients to create accounts, but the amount of detail they offered varied greatly. This variability is an opportunity for FNS to provide guidelines or feature checklists to help States improve the usability of their online application processes.

Considering half of the study States perceived that online applications potentially make it easier for applicants to submit false or misleading information, additional research on the tools and methods States are using to combat potentially fraudulent activities would be beneficial. More insights are needed into why States choose the specific tools and approaches that they do. Among the potential questions of interest are: Are some tools more effective than others? What role can FNS play in broadening knowledge and access to States about web-driven analytic tools to combat potential fraud?

Future research could include analyses of additional data from a larger number of States to help determine with more certainty which groups are most and least likely to submit applications online, as well as determine to what extent those groups differ from the average SNAP applicant.

[5] "FY 2020 SNAP Process and Technology Improvement Grants," USDA FNS, accessed August 22, 2020, https://www.fns.usda.gov/grant/fy-2020-snap-process-and-technology-improvement-grants#:~:text=Funding%20and%20Duration,the%20three%2Dyear%20project%20period .

Chapter 1. Introduction

Background and Study Purpose

As the U.S. Department of Agriculture (USDA) Food and Nutrition Service (FNS) continues exploring options to modernize the Supplemental Nutrition Assistance Program (SNAP), online applications are a key tool for improving SNAP applicants' access to the program. Evaluating the impact of this tool on program outcomes (customer service, program access, timeliness, program administration, and program integrity) is vital to the program's continuous improvement.

In 2019, SNAP served over 35 million low-income individuals in a typical month and paid out more than $55 billion in annual benefits. While FNS provides oversight of SNAP at the federal level, State agencies in all 50 States, Washington, DC (DC), and the territories of Guam and the U.S. Virgin Islands administer the program, make eligibility determinations, and distribute benefits. Most States centralize SNAP administration and operation in a single State-administered agency except for 10 States in which operations are County-administered and State-supervised. This study included eight States—Colorado (CO), New York (NY), Pennsylvania (PA), Tennessee (TN), Texas (TX), Utah (UT), Virginia (VA), and Washington (WA). Three of the study States are county-administered—CO, NY, and VA. Each State agency operates according to its own business processes, and there may be further variation at the County level in County-administered States. For example, of the 53 State agencies, 46 accept online applications from new applicants, and 33 accept online applications from SNAP households renewing their benefits (known as recertification).[6]

Online applications grew out of a modernization movement in SNAP operations that started in the late 1990s, with 90 percent of federal funding for information technology (IT) projects made available through federal welfare reform legislation. States began implementing electronic document management systems (EDMS) to increase the efficiency of their processes for determining eligibility, thus increasing accuracy and timeliness of benefits. When call center volumes in the first States to modernize became too great, and States had more data from their EDMS on the type and volume of work that needed to be processed, States started looking for ways to save processing time and reduce paper. The data helped State agencies save staff time by offering self-service options for SNAP applicants and participants. For example, manual entry of data from a SNAP application into an eligibility system for processing can be eliminated if data is captured in an online application and automatically interfaced with the eligibility system (known as autoregistration). These ideas led to the development of self-service options like interactive voice response (IVR) systems, online applications, and client portals.

Now, the same customer service standards that private industries employ, such as call centers and online services, are commonplace in most SNAP programs. In addition, nationally available third-party applications like FreshEBT and GetCalFresh have been designed to expand access for SNAP applicants and participants. However, State SNAP directors still have goals for future modernization efforts. For example, SNAP directors in the study States reported that obtaining the data and documentation required to verify eligibility is still the most time-intensive part of processing SNAP applications, and

[6] USDA FNS, "State Options Report: Supplemental Nutrition Assistance Program," 14th Ed, May 31, 2018. https://fns-prod.azureedge.net/sites/default/files/snap/14-State-Options.pdf.

directors are focused on the development of mobile applications (commonly referred to as "apps") that can collect digital documents and enhance data interfacing.[7]

SNAP's modernization has not been consistent across all States, and substantive differences in implementation exist. This study considered two environmental issues when measuring the impact of SNAP online applications on program outcomes for eight participating study States:

- States rarely implement online applications as a stand-alone project; more often, they are part of broader outreach efforts. For this report, the study team collected and analyzed data on the study States' goals for implementing online applications and their implementation history to tease out factors that might be related to the number, timeliness, and quality of SNAP applications regardless of how applications are submitted (e.g., online, phone, or paper).
- Operations vary State-to-State. This study captured information on the application process in each study State to provide context for comparing results. For example, most study States centralize SNAP administration and operations in a single State agency, but operations in some States are County-administered and State-supervised. In County-administered study States, survey questions accounted for local operational differences that might affect the rate, quality, and timeliness of online applications.

To add to the current body of knowledge about online applications, this study aimed to help FNS ensure SNAP's modernization efforts do not negatively impact program outcomes. It focused on study States' efforts to continuously improve and enhance customer service, program access, timeliness of service, program administration, and program integrity. Moreover, the study also provides insights into the new frontier in public human services delivery—bringing services to clients through mobile-friendly websites, mobile apps, and service kiosks—alongside traditional in-person program office visits or telephone calls. The study was not designed to examine or suggest causation. These overarching efforts were organized around seven objectives.

Study Objectives and Data Sources

This study sought to provide information about online application processes and procedures, including those used for processing applications, verifying applicant information, and identifying suspicious submission patterns; online application features; and the impact of online applications on customer service and program integrity. The study had seven specific objectives that it applied to the study States:

1. Describe each study State's experience with online applications.
2. Describe variations in the features of online applications in each study State.
3. Describe how study State agencies process online applications.
4. Determine the degree to which the use of online applications varies by participant demographics and geographic location.
5. Determine the degree to which the use of online applications varies by study State characteristics.
6. Describe each study State's perspective on potentially fraudulent activities related to online applications.

[7] For the remainder of the report, mobile applications are referred to as "mobile apps." A mobile app is a type of software designed to run on a mobile device, such as a smartphone or tablet computer. Mobile apps frequently provide users with services similar to those that can be accessed on personal computers. Source: "Mobile Application (Mobile App)," Techopedia, last updated August 7, 2020, https://www.techopedia.com/definition/2953/mobile–application–mobile–app.

7. Determine the impact of online applications on program outcomes, including payment accuracy and application timeliness rates.

Table 1 maps each of the research objectives and its corresponding research questions to the data sources (described in the next section).

Table 1: Research Objectives, Questions, and Data Limitations

Research Objective	Research Question	Data Source(s)
1: Describe each study State's experience with online applications.	What type of instructions or guidance (e.g., frequently asked questions, or FAQs) are available to online applicants? Is the information adequate or sufficient to guide the applicants through the application process?	Documentation
	What proportion of applications were submitted online in the past 3 calendar years?	Administrative Data, Documentation, Survey
	What benefits and challenges have the study States experienced with online applications?	Survey
	To what degree and how have online applications affected workflow and how SNAP applications are processed in each study State?	Documentation, Survey
	When does the clock start for processing online applications—at the time the application is submitted, or when the application is received by the SNAP office?	Documentation, Survey
	How does the study State agency screen between expedited and nonexpedited online applications?	Documentation, Survey
2: Describe variations in the features of online applications in each study State.	In what languages are the online applications offered?	Documentation, Survey
	How are verifications submitted when using an online application?	Documentation, Survey
	Are online applications mobile-friendly?	Documentation, Survey
	Are mobile apps for online applications available? If yes, what services are available through the app?	Documentation, Survey
3: Describe how study State agencies process online applications.	What steps are taken to process regular online applications?	Documentation, Survey
	What steps are taken to process expedited online applications?	Documentation, Survey
	Are SNAP applications completed separately or combined with other federal means-tested programs?	Documentation, Survey
4: Determine the degree to which the use of online applications varies by participant demographics and geographic location.	Is there a significant difference in the use of online applications by applicant age, race, household characteristics, and first-time versus returning applicant?	Administrative Data
	To what degree, if any, does the use of online applications differ by geographic area?	Administrative Data
5: Determine the degree to which the use of online applications varies by study State characteristics.	Is the number of SNAP offices in the study States associated with the rate of submission of online applications?	Administrative Data, Documentation
	Is help available to SNAP applicants when using kiosks? If so, does the availability of assistance at SNAP office kiosks affect the rate of submission of online applications?	Documentation, Survey

Research Objective	Research Question	Data Source(s)
6: Describe each study State's perspective on potentially fraudulent activities related to online applications.	What practices and procedures do the study States have in place to detect and prevent fraudulent activities that are linked to online applications?	Documentation, Survey
	Do study States check the internet protocol (IP) address of online applications? What is the rate of online applications being submitted from the same IP address? What is the rate of online applications being submitted from an IP address outside the study State?	Survey
	What types of potentially fraudulent activities are associated with online applications? What potentially fraudulent activities are most prevalent?	Documentation, Survey
7: Determine the impact of online applications on program outcomes.	Is there a significant difference in payment accuracy for initial applications (expedited and nonexpedited) submitted online versus those submitted through other means?	Administrative Data, Survey
	Is there a significant difference in application processing timeliness for initial applications (expedited and nonexpedited) and recertification application processing timeliness for applications submitted online versus those submitted through other means?	Administrative Data, Documentation, Survey

Report Organization

The next chapter of this report provides data sources, followed by Chapter 3, which presents an overview of the study methodology. Chapters 4–10 provide the findings for each of the seven study objectives. Each objective begins with a brief summary, followed by more detailed findings for each objective's research questions in the form of summary tables and discussion. Appendix A provides details on administrative data cleaning, Appendix A details the review of eight study State SNAP websites to assess the experience of clients seeking to enroll in SNAP, and Appendix C provides brief profiles for each of the eight study States, summarizing key findings from the documentation review and web-based survey to State SNAP administrators .

Chapter 2. Data Sources

Ensuring that all data collection methods mapped to specific research objectives and questions was a critical step for maximizing each phase of the study**.** This chapter briefly discusses data sources.

Data Collection Approach

The study team worked with FNS to identify nine States to participate in the study, of which eight States showed interest. The study team contacted each of these States and held a short online presentation about the study's goals, participation expectations (completing a survey and sharing 3 years of administrative data), and benefits of participation. The study team could only request administrative data from the 3 most recent years per Code 7 of Federal Regulations (CFR) 272.1.[8] The study States completed the survey: Colorado (CO), New York (NY), Pennsylvania (PA), Tennessee (TN), Texas (TX), Utah (UT), Virginia (VA), and Washington (WA). Only four study States (CO, PA, TX, VA) were able to provide most of the requested administrative data within the timeframe for this study. UT provided partial data. Some of the data provided by the study States was unusable or incomplete (see **Appendix A**).

Data Sources

The study team used three data sources, when available, for the eight study States to address the study objectives and research questions: documentation reviews, a web-based survey, and administrative data.

Documentation Review. This included a review of publicly available information from FNS, study States, and County websites; other online resources; and literature. This also included a State-provided internal documentation review of information from standard operating procedures, manuals, technical reports, and memoranda from study State programs.

Web-based Survey. The study team worked with FNS to develop a survey and deployed it from September to November 2019. The survey was designed to capture in-depth information about each study State's experiences with online applications, the features of those applications, and supporting documentation. Notably, the study team also offered study States an opportunity to submit additional documentation for review as they completed the survey. The study team also conducted targeted followup interviews with State SNAP administrators to clarify survey responses; however, the survey remained the primary source of data.

Administrative Data. The study team worked with FNS and the study States to collect individual applicant record data, including demographics, mode of application (online or paper), type of application (expedited or nonexpedited), and quality control (QC) review outcomes. Per study requirements, the study team could only request administrative data from the 3 most recent years (2016–2018).

[8] Current as of August 5, 2020. Per 7 Code of Federal Regulations (CFR) 272.1: "(f) Retention of records. Each State agency shall retain all Program records in an orderly fashion for audit and review purposes for no less than 3 years from the month of origin of each record."

Table 2 provides a summary of the various data sources used to assess the study objectives and research questions.

Table 2: Available Data by Study State

State	Documentation Reviews*	Survey	Administrative Data
CO	✓	✓	✓
NY	✓	✓	✗
PA	✓	✓	✓
TN	✓	✓	✗
TX	✓	✓	✓
UT	✓	✓	✓
VA**	✓	✓	✓
WA	✓	✓	✗

*Publicly available resources and study State-provided internal material.
**VA served as a pilot State for the study. The survey instrument was first administered to VA, and followup interviews were also conducted. No substantive changes emerged from the pilot, and the same survey instrument was administered to the seven other study States. The study team received the same information from VA's survey as the other study States, and that information was complete.
Data source: Public information from State-provided materials, publicly available State and FNS online information, web-based survey of eight study States, and internal SNAP application and eligibility information from five states covering 2016–2018.

Chapter 3. Methodology

This chapter presents the methodology the study team used for analyzing data collected from the three data sources for the eight study States.

Conducting Documentation Reviews (Publicly Available Resources and State-Provided Internal Material)

The documentation review used publicly available information from many sources, including FNS publications, State and County SNAP program websites, other online resources, and literature. The document reviews enabled the study team to do the following:

- Complete an environmental scan to inform the current state of SNAP online application tools, resources, and processes.
- Inform development of the web-based survey.
- Collect specific information to prepopulate survey responses to ease the burden of completing the survey. Once respondents logged in to complete the survey, they could confirm the prepopulated information or choose to skip to other incomplete questions. For example, the languages in which applications were available to SNAP applicants was prepopulated based on the study team's inspection of the online application during document reviews.

FNS Publications. This review included publications such as the following:

- The fourteenth "State Options Report," which documents SNAP statutes, regulations, and waivers and summarizes the flexibility States have to better target delivery of SNAP benefits[9]
- Policy memos like "Best Practices for Online SNAP Applications," which is a guide for State agencies to create SNAP online applications using a client-centered approach[10]
- Reports focused on SNAP modernization, including "The Evolution of SNAP Modernization Initiatives in Five States"[11] and "Enhancing SNAP Certification: SNAP Modernization Efforts"[12]

State and County SNAP Program Websites. Reviews of State and County websites provided information such as the languages in which study States offered applications, availability of SNAP mobile apps, and assessment of whether websites were mobile-friendly. Websites were scored on various criteria on a rubric with potential scores of 1 to 3, with 3 being the highest score and 1 being the lowest. Please refer to **Appendix A** for more information on website scoring.

[9] USDA FNS, "State Options Report, Supplemental Nutrition Assistance Program," 14th ed., May 31, 2018, https://www.fns.usda.gov/snap/waivers/state-options-report.

[10] USDA FNS, "Best Practices for Online SNAP Applications," March 10, 2015, https://www.fns.usda.gov/snap/admin/online-application-best-practices.

[11] USDA FNS, "The Evolution of SNAP Modernization Initiatives in Five States," March 1, 2012, https://www.fns.usda.gov/evolution-snap-modernization-initiatives-five-states.

[12] USDA FNS, "Enhancing Supplemental Nutrition Assistance Program (SNAP) Certification: SNAP Modernization Efforts," July 6, 2010, https://www.fns.usda.gov/snap/enhancing-supplemental-nutrition-assistance-program-snap-certification-snap-modernization-efforts.

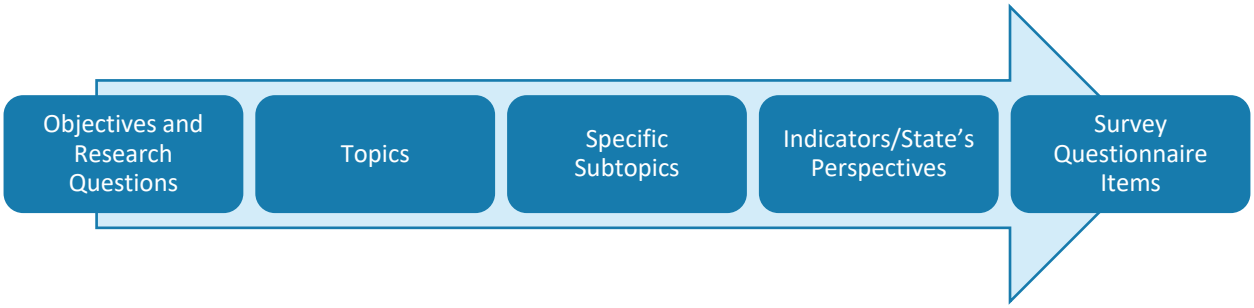
Other Online Resources and Literature. This review involved assessing and documenting reports from nongovernment institutions, such as the Center on Budget and Policy Priorities' reports on the status of SNAP online applications, including "SNAP Online: A Review of State Government Websites."[13]

State-Provided Internal Documentation. Once a State agreed to participate in the study, the study team requested internal documentation, such as standard operating procedures, manuals, process maps, technical reports, and memoranda from study State administrators. These documents provided technical data, such as features of SNAP mobile apps, step-by-step walk-throughs of SNAP online application processing, and multibenefit program dependencies.

Designing and Implementing the Survey of Study State SNAP Administrators

The goal of the survey was to compare indicators across study States and provide an in-depth understanding of features, processes, and perspectives on the impact of online applications on program outcomes in each of the study States. To accomplish this, the study team used a multistep process to parse each research objective into specific survey items, as shown in **Figure 1**. For each objective and research question set, the study team worked with FNS to refine the questions and outline specific topics and subtopics. The study team developed indicators that could capture study States' perspectives on each subtopic. It then developed these indicators into one or more open- and close-ended survey questionnaire items. For example, research question 1.3 asked about the perceived advantages and challenges study States experienced with online applications. Topics for this question included caseworker workload and SNAP applicant burden. The respective subtopics included "reduced time to process an application," which applied to both the caseworker and applicant, and "improved customer service," which was specific to the applicant. Both these subtopics were specific survey response categories provided as responses to survey questions that corresponded to research question 1.3.

Figure 1: Multistep Approach for Developing Survey Questions



Once the study team finalized the 47 unique survey questionnaire items, it programmed the web-based survey in SurveyMonkey. The study team sent a dynamic link via email to each study State's respective point of contact, typically someone holding a senior position with the SNAP programs in a Human Services State agency.[14] The study States' points of contact could then complete the survey questionnaire, seeking assistance from their program office when needed. Prepopulated survey responses from the documentation reviews, along with an opportunity to upload additional documentation during the survey, reduced potential respondent survey burden. Upon completion, the

[13] "SNAP Online: A Review of State Government SNAP Websites," Center on Budget and Policy Priorities, last updated April 23, 2020, https://www.cbpp.org/research/food-assistance/snap-online-a-review-of-state-government-snap-websites

[14] Ideally, it would have been helpful to elicit this information from additional State resources such as State Fraud and Quality Control directors but the Office of Management and Budget Paperwork Reduction Act requirements limited the total number of respondents the study team could engage with to less than nine.

study team reviewed the survey responses to assess the need for followup interviews for clarification. Survey responses were collected from the eight study States: CO, NY, PA, TN, TX, UT, VA,[15] and WA.

The study team took multiple steps to clean and validate survey responses. First, the study team downloaded responses from SurveyMonkey and coded them into an analytic file. Next, the study team cross-referenced survey responses with information collected from public and State-provided internal documentation to fill gaps or determine the need for potential followups with the study States. Finally, the study team created a single analytic dataset reconciling gaps and validating between the survey data and documentation.

Because only eight States are included in this study, the study team did not attempt statistical analysis of the bulk of survey responses, limiting most of the analyses to descriptive comparisons and contrasts across study States. To differentiate between the types of analyses, the study team ensured language used throughout this report distinguished statements concerning study State's perceptions and experience from the reporting of empirical results from administrative data analysis. Resolving the level of agreement between data provided in the publicly available and State-provided internal documentation and surveys was an important part of the analysis. Followup interviews via email or telephone with each study State's point of contact formed the first tier of reconciliation. Where issues were not reconciled via interview, the study team weighted State-provided internal documentation over publicly available documentation. Finally, the study team filled in information gaps pertaining to SNAP application processing using its subject matter expertise and experience administering SNAP programs (a key member of the study team was a former SNAP State Director).[16]

Collecting and Analyzing the Administrative Data

The study team worked with FNS and the eight study States to collect administrative data to supplement survey data. The study team requested applicant and case-level data elements spanning a 3-year period (2016–2018), including applicant demographics, mode of application (online, paper, telephone, etc.), type of application (expedited or nonexpedited), SNAP QC reviews, and EDMS. Three study States (NY, TN, WA) were unable to provide the requested data in the timeframe needed for incorporation into the final report. Some reasons that precluded these study States from participating were a lack of internal resources to process the data, complexity of State Institutional Review Board approvals, and the inability to respond as a result of the COVID-19 pandemic.

The study team worked with the study States that were able to provide data (CO, PA, TX, UT, VA) to establish data-sharing agreements and secure data transfer protocols. It also provided a template of data variables, descriptions, and formats to the study States to guide how they constructed their administrative data files. The study team encouraged study States to provide an initial sample dataset to validate that their variables met the criteria in the template and data transfer protocols. The sample datasets reduced the burden on study States and minimized rework of larger datasets. The study team also reviewed the sample data and engaged the study States with followup questions to clarify data specification when possible. Once the study team and States completed data specification validation using the sample data, study States transmitted data using secure data transfer protocols.

[15] As mentioned earlier, VA was the pilot study State. VA answered the same questions as all other study States.

[16] Alicia Koné is a former SNAP director from the State of WA, where she served in that capacity from 2001 to 2005. She is also a former board member of the American Association of SNAP Directors. Since then, she has worked as a consultant with over half of the State Health and Human Services agencies in the United States.

After receiving data from the study States, the study team reviewed the data to determine whether all data requested was provided. The study team also reviewed the documentation and compared it with the data to confirm the two sources contained consistent information. Some study States provided the data in multiple files, each at a different unit of analysis (applicant, application, household member), so the study team joined the files and confirmed the resulting files had consistent units of analysis, with one row per application. The study team then checked for missing values within each variable and combined the data from the various study States into one master analytic file. The analytic file contained 13.6 million applications from five states, with 280,000 applications from UT, 285,000 from VA, 346,000 from CO, 2.6 million from PA, and 10.1 million from TX from 2016 to 2018.

Using the master analytic file, the study team performed analysis based on the outlined research questions and study objectives using the available information. It also performed State-level comparisons and analyses where available and applicable. For the close-ended survey questions, the study team calculated counts for each response option. The open-ended survey questions were analyzed for themes across the responses, and a narrative was generated for each answer. For the majority of research questions based on the administrative data, the study team generated cross-tabulations of the key variables (such as demographic characteristics) and application source (online vs. paper). The study team also used logistic regression models to predict the likelihood of an application being submitted online and the likelihood of being accepted, while controlling for client and application characteristics.

Given that the data provided often differed from State to State, the study team noted where information was not provided throughout the report and the subsequent limitations of the results. For reference, **Table A-9** provides the percentage of missing values for each analysis variable by study State.

Chapter 4. Study States' Experience with Online Applications

This chapter draws from all three data sources to describe study States' experiences with online applications. The study team conducted the following analyses: (1) a review of study States' online application processes from the States' websites, (2) descriptive statistics of survey data, and (3) analyses of administrative data. This chapter's content is organized around six research questions:

1. What type of instructions or guidance (e.g., FAQs) are available to online applicants? Is the information adequate or sufficient to guide the applicants through the application process?
2. What proportion of applications were submitted online versus paper in the past 3 calendar years?
3. What benefits and challenges have the study States experienced with online applications?
4. To what degree and how have online applications affected workflow and how SNAP applications are processed in each study State?
5. When does the clock start for processing online applications—at the time the application is submitted, or when the application is received by the SNAP office?
6. How does the study State agency screen between expedited and nonexpedited online applications?

Table 3 summarizes the characteristics of online applications used by the eight study States.

Table 3: Summary of Study State Online Application Characteristics

Characteristics	CO	NY	PA	TN	TX	UT	VA	WA
State or County Administration	County	County	State	State	State	State	County	State
Program (Online) Name	PEAK	My Benefits	COMPASS	Family Assistance	Your Texas Benefits	myCase	Common Help	Washington Connection
Implementation of Online Application	2010	2009	2001	2016	2006	2012	2012	2003
Multibenefit Application	✓	✓	✓	✓	✓	✓	✓	✓
Autoregistered in Eligibility System*	✗	✓	✓	✗	✓	✓	✗	✗
Languages Available (other than English and Spanish)	✗	Arabic Chinese Creole Haitian Korean Russian	✗	Arabic Somali	✗	✗	✗	Cambodian Chinese Korean Laotian Russian Somali Vietnamese
Mobile-Friendly Website	✓	✓	✓	✓	✓	✓	✗	✗
Mobile App (Year rolled out)**	✓ (2019)	✓ (2019)	✓ (2016)	✗	✓ (NA)	✗	✗ (2020†)	✗
Application Kiosks in Office Lobbies	Varies by County	Varies by County	✓	✓	✓	✓	✓	✓
Clock Starts (if applications submitted after business hours)	Next business day	Next business day	Next business day	Next business day	Next business day	Date of submission	Next business day	Next business day

*Note: Autoregistration refers to data from online application automatically interfacing with eligibility system.
**Indicates fully operational app with capability to submit applications.
†Indicates the anticipated roll-out year for VA's mobile app.
Data source: Web-based survey of eight study States.

Summary of Findings

Of the eight study States represented in this report, five were State-administered and three were County-administered. These study States implemented online applications between 2001 and 2016; two early adopter study States implemented in the early 2000s, five implemented between 2009 and 2012, and one late adopter implemented in 2016. All study States had websites for applications, and six of those had a range of mobile-friendly features. Four study States had mobile apps. Based on administrative data, four study States (CO, PA, TX, VA[17]) received about one-third of their applications online, and UT received almost two-thirds of its applications using online methods. The survey of study State administrators indicated that the percentage of online applications for the three study States without administrative data fell into three groups: 0–20 percent (TN), 21–40 percent (WA), or 41–60 percent (NY).

Study States reported several advantages to online applications. When asked to choose from a list of possible advantages, at least half of the study States surveyed indicated online applications helped improve customer service and completeness of applications. At least three study States reported increased participation in SNAP (NY, PA, WA), and three reported decreased processing time (NY, TX, UT). However, it is possible that the increased participation had to do with the slowdown of the economy rather than increased use of online applications. The study team did not collect economic data or conduct a statistical analysis to disentangle these effects. In a followup interview, NY elaborated that online applications have the potential to increase participation among working people who do not have time during the day to visit or call a SNAP office. The majority of study States reported that the amount of time required to review verification for online applications is about the same as that required for paper applications.[18]

Study States also reported several challenges in terms of online applications. About half of the study States reported insufficient funding to improve their online application. Study State administrators indicated that online applications required few changes and had little impact on their application processing workflow. Most study State agencies implemented online applications as part of a broader effort to improve their business processes, so their online applications did not require redesign of the workflow. Most study State processing standards require applications to be registered and assigned either the same business day they are received or the next business day.

Findings by Research Questions

Objective 1, Question 1—What type of instructions or guidance (e.g., FAQs) are available to online applicants? Is the information adequate or sufficient to guide the applicants through the application process?

The study team addressed this question by using an assessment of each study State SNAP online application portal. Questions defining the assessment criteria included:

- Does the website have instructions for completing the online application?
- How are the instructions formatted?
- How user-friendly is the format?

[17] Application source was missing for 70.1 percent of VA's applications. Excluding those, 97.1 percent of applications were submitted online.
[18] Due to lack of administrative data to address this question, analysis of this issue relied on data about State administrators' responses to a survey question about their perceptions regarding verification of online applications compared to paper applications.

- How easy are the instructions to find?
- How useful are instructions for filling out the application?

Almost all SNAP online applications in the study can be submitted by including only the applicant's name, address, and signature, per SNAP regulations. If USDA FNS, "Best Practices for Online SNAP Applications" says State Agencies cannot require applicants to use their email addresses to register and create an account. The one exception is TX where the instructions state an account must be created prior to application, and even with a "limited access" account the applicant must also include both birthdate and "sex" (gender), in addition to name and address. In the other study States with client portals, applicants must set up an account with a username and password in order to access the portal. The account allows the client to save an application and complete it later. The applicant may also log in after submission and check on the status of the application. It also usually requires an email address for two-step authentication to protect the client's personal information. The study team assessed these questions from the perspective of the clients' preportal and postportal experience. Notably, reflections about ease of use are subjective and reflect the study team's experience because it was not within the scope of the study to assess how actual clients interacted with the website. A summary of the findings is presented here, with more detailed findings and accompanying screenshots included in **Appendix A.**

Preportal (before creating an account) Client Experience. Every study State encouraged clients to create an account before starting an online application. One study State, TX, appears to require an account as the study team was not able to find instructions stating otherwise.[19] Creating an account with a username and password allows clients to save an incomplete application so they can retrieve and complete it later. It also allows clients to access their benefits portal to check on the status of their application. The study team assessed instructions available to the clients on how to set up an account and the FAQs webpage for each respective SNAP online application portal. Nearly all study States offered instructions on how to complete the online application on their website without requiring applicants to create an account (before the portal), except for TN. Instructions for PA, CO, TX, UT, WA, and NY were easy to find. The study States' respective instructions were most often in the format of a "how to apply" page with content that ranged from listing complete step-by-step instructions to simply providing a link to the online application. Some study States went beyond a "how to apply" page to include videos, a chat box, or (more commonly) a help button. Three study States (NY, PA, UT) lacked information for filling out the online application in their instructions.

Postportal (after creating an account) Client Experience. The study team assessed whether study States provided instructions on how to complete an online application once clients had created an account. The study team was unable to create an account for TX to assess the postportal perspective. Creating a "full access" account required a Social Security Number, case number, Eligibility Determination Group number, or individual number. While clients can apply for benefits in TX without the "full access" account, it is the only option if access to the full range of services is desired.[20] Similar to the preportal experience, all study States in which the study team could enter the portal had high scores on user-friendly formats after entering the portal, except for VA, which did not offer instructions.[21] TN, which

[19] Texas Health and Human Services. YourTexasBenefits Available at: https://yourtexasbenefits.com/Learn/RrResults.
[20] Texas Health and Human Services. YourTexasBenefits Available at: https://yourtexasbenefits.com/Learn/CreateAccount.
[21] Senior study team members developed a scoring rubric based on principles from FNS' "Best Practices for Online SNAP Applications," a guide developed and based on a state-by-state analysis of online SNAP applications conducted in 2014. The high scores for CO, NY, PA, UT, and WA mean the states had videos that were engaging and provided essential information within the first 2-3 minutes, or their websites contained screenshots or graphics for easy understanding and were not text-heavy, making it easy to find useful information. Websites were scored on the rubric by an analyst and reviewed by a second team member. For examples of the website rubric scores, please see **Appendix A**. USDA FNS, "Best Practices for Online SNAP Applications," March 10, 2015, https://www.fns.usda.gov/snap/admin/online-application-best-practices.

had no preportal instructions, offered application instructions postportal. Most often these instructions were in the form of a help button or a small question mark button next to the application entry field that expanded to provide further information. TN and UT had a chat box function, and WA offered videos.

Objective 1, Question 2—What proportion of applications were submitted online in the past 3 calendar years (2016-2018)?

Based on the administrative data gathered from five study States, shown in **Table 4**, about one-third of applications received were submitted online during the 3-year period studied. That percentage was relatively consistent across study States, with the exception of UT, which had almost two-thirds of its applications submitted online. This analysis was limited to online or paper applications only. VA had applications submitted through its call center and some applications that were transferred from the Federally Facilitated Marketplace that could not be attributed to either online or paper submissions. The study team removed these applications from further analyses and only presented findings for online or paper applications.

Table 4: Application Source by Study State

State	Applications Submitted Online		Applications Submitted on Paper		Total
	Count	*%*	*Count*	*%*	*Count*
CO	106,698	30.9	239,054	69.1	345,752
PA	784,255	30.4	1,794,886	69.6	2,579,141
TX	3,345,452	32.9	6,814,558	67.1	10,160,010
UT	185,103	66.0	95,455	34.0	280,558
VA*	276,558	97.1	8,156	2.9	284,714
Total	**4,698,066**	**34.4**	**8,952,109**	**65.6**	**13,650,175**

*VA had applications with undefined values, as well as missing values for application source for 666,852 (70.1 percent) of their applications.
Note: Totals may not equal 100% due to rounding. Chi-square test (overall and by State) are significant at the <0.001 level.
Data source: Internal State SNAP application and eligibility data, 2016–2018.

Administrative data was unavailable for three study States, but those States estimated the percentage of applications submitted online in their survey responses. The survey response choices were categories, and the study States responded as follows:

- **NY:** 41–60 percent
- **TN:** 0–20 percent
- **WA:** 21–40 percent

The amount of time a study State has had SNAP online applications may explain the proportion of clients submitting applications online. Of the study States, TN exhibits the lowest rate of online submission. The low rate of online participation could be attributable to its relatively recent (2016) implementation of online applications. However, PA was the earliest adopter of SNAP online applications in 2001, followed by WA in 2003 and TX in 2006, yet their online application rates were similar. NY, CO, UT, and VA followed in 2009, 2010, 2012, and 2012, respectively. With the exception of CO, these study States reported greater online application rates.

The percentage of online applications estimated in the survey compared to the percentage identified in the administrative data was relatively similar for PA, UT, and VA, whereas CO and TX self-reported more online submissions than they received. TX estimated it received 61–80 percent of its applications online (actual: 33 percent), and CO estimated 41–60 percent (actual: 31 percent), which might indicate that States tend to overestimate the impact of online applications on local office business processes and program outcomes.

Table 5 shows the count and percentage of online applications at the applicant level. For this table, applicants were categorized as submitting online if they submitted at least one application online. For example, if an applicant submitted an online application and a paper application, that applicant was considered to be an online applicant. Looking at the applicant as the unit of analysis, about half (47.9 percent) of the applicants submitted an application online during the 3 years of the study. The percentage of applications submitted online is slightly higher for all study States when looking at applicants versus applications. For TX in particular, the percentage submitted online is higher for applicants (56.6 percent) than for applications (32.9 percent). This indicates that some applicants submitted via both methods (online and paper) over time, which is also consistent with the data on recertification applications that shows a much higher rate of paper submission. If the applicants used a consistent method to submit their applications each time (initial application online and subsequently recertifications online), the application and applicant-level tables should show similar percentages.

Table 5: Applicant-Level Application Source by Study State

State	Applicants Who Ever Submitted Online		Applicants Who Only Submitted on Paper		Total
	Count	*%*	*Count*	*%*	*Count*
CO	104,874	31.4	229,550	68.6	334,424
PA	367,371	33.5	729,465	66.5	1,096,836
TX	1,574,431	56.6	1,204,973	43.4	2,779,404
UT	76,799	71.8	30,101	28.2	106,900
VA*	193,448	97.0	5,958	3.0	199,406
Total	**2,316,923**	**47.9**	**2,200,047**	**45.4**	**4,841,035**

*324,065 (61.2 percent) of applicants in VA submitted applications that could not be attributed to online or paper sources.
Note: Totals may not equal 100% due to rounding. Table includes only applicants with State-provided unique IDs. In all states, if an applicant submitted at least one application online, that applicant was counted as submitting online. In VA, if an applicant submitted via paper and missing/other source applications, that applicant was counted as paper. Chi-square test (overall and by State) are significant at the <0.001 level.
Data source: Internal State SNAP application and eligibility data, 2016–2018.

Table 6 shows the percentage of applications submitted online and on paper, separated by the status of the application (accepted, denied, or other) for all study States combined. Overall, the vast majority of applications (82.8 percent) were accepted. Over two-thirds of the accepted applications were submitted via paper through the mail, in person at an office, or via an affiliated organization, while the majority of denied applications were submitted online. One study State reported during its followup interview that because online applications are easy to complete, households that are more likely to be income ineligible apply online anyway. When they are notified about the interview and verification requirements, they usually decide not to pursue the benefits.

Table 6: Application Source by Application Status

Application Status	Applications Submitted Online		Applications Submitted on Paper		Total	
	Count	*%*	*Count*	*%*	*Count*	*%*
Accepted	3,260,767	28.9	8,036,037	71.1	11,296,804	82.8
Denied	1,435,726	61.1	915,990	39.0	2,351,716	17.2
Other*	1,573	95.1	82	5.0	1,655	0.0
Total	**4,698,066**	**34.4**	**8,952,109**	**65.6**	**13,650,175**	**100.0**

*Other includes applications that were still in the process of being decided.
Note: Totals may not equal 100% due to rounding. Table includes only applications that had an indicator for online vs. paper submission. Chi-square test (overall and by State) are significant at the <0.001 level.
Data source: Internal State SNAP application and eligibility data, 2016–2018.

Objective 1, Question 3—What benefits and challenges have the study States experienced with online applications?

The study team asked study States about their opinions and observations about perceived advantages and challenges to their SNAP online applications. It also asked study States to rank their top three perceived advantages and challenges.

Study States acknowledged nine potential advantages of online applications. All study States reported that online applications improved customer service. Four out of eight study States responded that online applications reduced administrative costs. Administrative pathways to reducing costs include reducing the need for clerical data entry (PA) or manual intervention, such as scanning incoming mail at document processing centers (TX). Online applications also enable SNAP applicants to sign up for electronic notices, saving future mailing costs (PA).

Study States held mixed opinions on the advantages of online applications regarding the time and workload associated with processing SNAP applications. Three study States (NY, TX, UT) reported that online application processing took less time or decreased staff workloads. Three other study States (CO, TN, WA) reported that online applications did not decrease the work or time associated with application processing. Interestingly, study States that reported the advantages of online applications as less processing time or decreased staff workloads were also States that autoregistered applications in the eligibility system, so workers did not need to reenter application information. This suggests a possible relationship between integration with the eligibility system and the efficiency that results from the online application process.

Study States held mixed opinions on the impact online applications had on processing times. This is not surprising considering the heavy emphasis on timely processing of applications in FNS' SNAP performance monitoring and reporting. States can receive monetary penalties if they repeatedly exceed the processing time standards of 30 days for a regular application and 7 days for an expedited application. NY and UT reported that online applications improved timeliness. TN responded that online applications did not increase timeliness. All other study States were neutral on whether online applications improved timeliness.

When asked, the study States identified a few common advantages of online applications. As **Table 7** shows, six out of eight study States identified improved customer service as one of the top three advantages. In interviews, study States mentioned how online applications may result in improved customer service. For example, CO noted that "customers could submit applications from multiple

locations," PA cited that customers could "submit applications at their convenience" instead of traveling to offices, and TN highlighted that customers do not have to spend money on postage.

Other frequently cited advantages related to processing efficiencies, such as reduced time to enter applications into the eligibility system, reduced time for SNAP caseworkers to process an application, or reduced workload. Five out of eight study States identified these among their top three advantages.

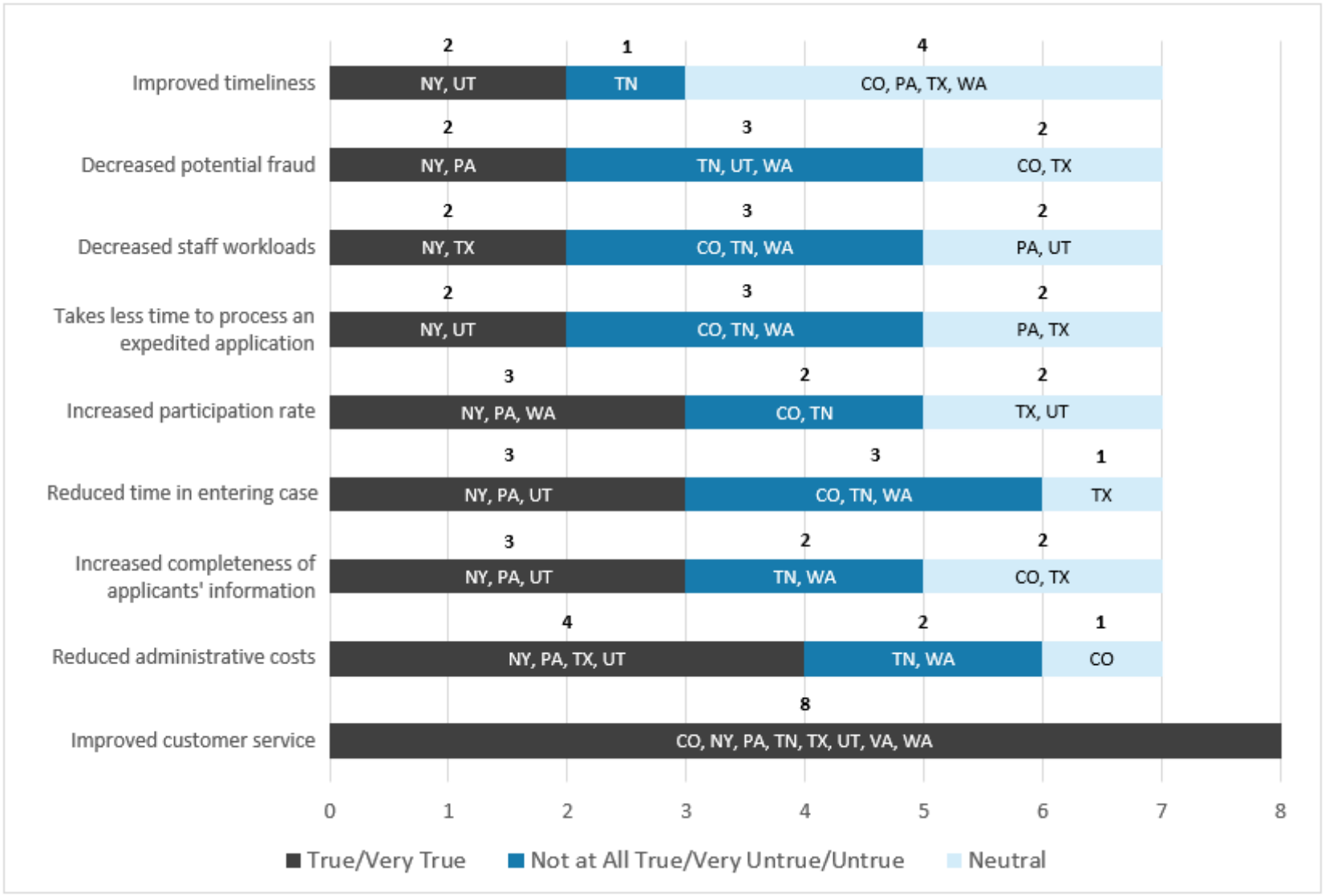
Table 7: Top Three Perceived Advantages of Online Applications

State	Top Advantage	Second Advantage	Third Advantage
CO	Improved customer service*	NA	NA
NY	Reduced time for caseworkers to process an application	Reduced time to enter and register a case into the eligibility system**	Improved timeliness
PA	Improved customer service*	Administrative cost reduction	Reduced time to enter and register a case into the eligibility system**
TN	Improved customer service*	NA	NA
TX	Improved customer service*	Reduced administrative costs	Decreased staff workloads
UT	Reduced time for caseworkers to process an application	Improved customer service*	Reduced time to enter and register a case into the eligibility system**
VA	Improved customer service*	Decreased staff workloads	Increased completeness of application information
WA	Integration with various programs, including SNAP	Supported electronic signatures	Ability to check benefit status by logging into the account

*CO, PA, TN, TX, UT and VA reported improved customer service as a top advantage.
**NY, PA, and VA reported reduced time to enter and register a case into the eligibility system as a top advantage.
Note: Symbols and colors reflect common themes when indicated by three or more study States.
Data source: Web-based survey of eight study States.

Figure 2 presents the study States' opinions on the perceived advantages of online applications. Commonly cited advantages of online applications were improved customer service, reduced administrative costs, increased completeness of applicant information, and increased participation rate. Some study States identified other advantages of online applications. For example, three study States (NY, PA, WA) reported their online application increased participation in SNAP. Another three study States (NY, PA, UT) reported that online applications increased the completeness of the information provided on the applications. Notably, online applications in these study States were autoregistered in the eligibility system.

Figure 2: Perceived Advantages of Online Applications (Count of States)



Note: VA responded only to the last item: "improved customer service"– VA did not provide a response to the eight other potential perceived advantages.
Data source: Web-based survey of eight study States.

CO and NY reported insufficient call center capacity to handle online applications. However, CO is a County-administered State, and staffing decisions are made at the County level, which may account for variation across the State. Likewise, four study States (NY, PA, UT, WA) reported insufficient capacity to address technology issues with the online applications. CO, TX, VA, and WA also reported insufficient funding to improve their online applications.

NY reported that online applications had the potential to decrease payment accuracy. It also mentioned that autoregistration of the application in the eligibility system, coupled with the immediate availability of online applications, facilitated the use of data matching and document review prior to the interview being conducted in a way that the paper application process could not. NY reported that these advantages mitigated the potential for errors and fraud because better data matches were "resulting in better interviews and more accurate information about household circumstances."

Study States identified a few common challenges of online applications among their top three (See **Table 8**). Five out of eight study States identified increased potentially fraudulent applications as a top challenge. Half of the study States identified insufficient capacity to address technological issues of online applications. Half of the study States identified insufficient funding to improve online applications. Three out of eight study States also identified difficulty reaching clients who apply online for a subsequent followup among their top three challenges.

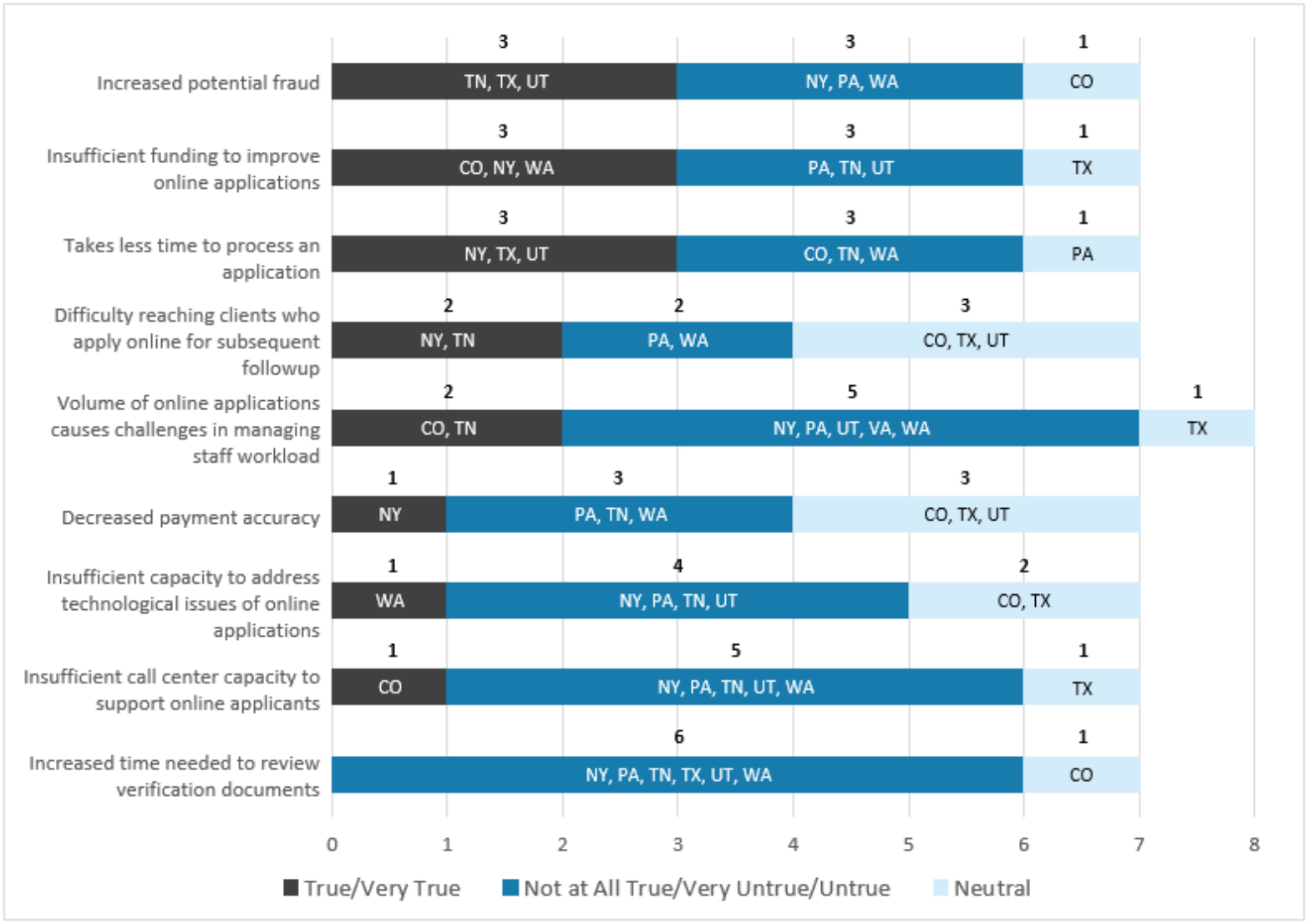
Table 8: Top Three Perceived Challenges of Online Applications

State	Top Challenge	Second Challenge	Third Challenge
CO	Volume of online applications	Insufficient call center capacity to support online applicants	Insufficient funding to improve online applications*
NY	Difficulty reaching clients who apply online for subsequent followup**	Insufficient call center capacity to support online applicants	Insufficient capacity to address technological issues of online applications†
PA	Insufficient capacity to address technological issues of online applications†	NA	NA
TN	Volume of online applications	Difficulty reaching clients who apply online for subsequent followup**	Increased potentially fraudulent applications††
TX	Insufficient funding to improve online applications*	Increased potentially fraudulent applications††	NA
UT	Increased potentially fraudulent applications††	Difficulty reaching clients who apply online for subsequent followup**	Insufficient capacity to address technological issues of online applications†
VA	Difficulty reaching clients who apply online for subsequent followup**	Insufficient funding to improve online applications*	Increased potentially fraudulent applications††
WA	Insufficient capacity to address technological issues of online applications†	Insufficient funding to improve online applications*	Increased potentially fraudulent applications††

*CO, TX, VA, and WA identified insufficient funding to improve online applications.
**NY, TN, UT, and VA identified difficulty reaching clients who apply online for subsequent followup.
†NY, PA, UT, and WA identified insufficient capacity to address technological issues of online applications.
††TN, TX, UT, VA, and WA identified increased potential fraudulent applications.
Note: As States move to online applications, this can lead to increased volume of applications. This is a distinct challenge from "Insufficient capacity to address technological issues of online applications" since this could refer to the type of staff the States have and may be unrelated to application volume.
Symbols and colors reflect common themes when indicated by three or more study States.
Data source: Web-based survey of eight study States.

Study States reported some challenges with online applications, along with explanations about what they were doing to mitigate them. **Figure 3** illustrates the study States' opinions on the perceived challenges of online applications. Commonly cited challenges were increased potentially fraudulent applications and insufficient funding to improve online applications.

Figure 3: Perceived Challenges of Online Applications (Count of States)



Note: VA responded only to the item number 5:" Volume of online applications causes challenges in managing staff workload". VA did not provide a response to the eight other potential perceived challenges.
Data source: Web-based survey of eight study States.

Most study States responded that online applications did not increase the amount of time it took to review verification. As mentioned above, some study States responded that online applications may increase completeness of applicants' information. Considering these perceptions together, online applications appear to work well to gather necessary information and documentation from SNAP households in the study States.

Objective 1, Question 4—To what degree and how have online applications affected workflow and how SNAP applications are processed in each study State?

Most study State agencies implemented online applications as part of a broader effort to improve their business processes, so online applications did not require redesign of the workflow. The study States were asked to document and comment on how online applications affected their application processing workflow, especially in comparison to traditional application submission processes (such as paper, fax, or telephone). Overall, the study States did not report significant differences in their procedures, with the exception of how two study States handled expedited applications submitted online. In six study States, the process for assigning, processing, and screening SNAP applications that were submitted online did not differ from the processes for those submitted via more traditional methods.

All study States reported that SNAP online applications were assigned to caseworkers in the same way as those submitted through traditional methods, including in-person, dropped off, mailed in, faxed, or via call centers. CO and VA, both County-administered States, noted that they screened online applications for expedited services differently than applications submitted through traditional means. With paper applications, a clerical worker typically reviews the form for completeness and to determine—based on how the household answered certain questions related to expedited eligibility—if the household is eligible for an expedited interview and benefit determination within 7 days. While CO also noted that it processed online applications differently than applications submitted through traditional means, VA affirmed that its processing for expedited and nonexpedited online applications was the same. CO's in-person and online applications were often processed the same day, and any online applications submitted after business hours or on weekends were processed the next business day. Other submission methods, like paper or fax, usually did not result in applications being processed the same day they were submitted. In VA, one Local Department of Social Services reported that it had designated staff to handle all expedited online applications.

When asked in the survey, six study States (CO, PA, TX, UT, VA, WA) reported that SNAP online applications have had limited impact (none to low) on eligibility worker procedures. However, TN and NY reported high impact and very high impact, respectively. TN reported it had received more duplicate applications because online applicants assume that they will be contacted immediately. When they are not, the applicants tend to reapply. NY noted the impact on increased efficiency—over 80 percent of SNAP applications in New York City are filed online, while the rate is 20–30 percent in some smaller upstate districts. The integrated worker tools enable caseworkers in NY to start working on applications immediately, bypassing paper intake and data entry. This yields time savings ranging from 30 minutes to several days. Among the County-administered study States, NY noted that these impacts vary greatly across its Counties, while CO reported only some variation, and VA reported very little.

SNAP regulations allow FNS to grant waivers of the Code of Federal Regulations under certain conditions, such as when approval of a waiver would result in a more effective and efficient administration of the program. Online applications have been implemented in most study States as part of broader efforts to make SNAP administration more efficient and effective, so the study examined what types of certification waivers study States believed were most important to the implementation of

their online applications. Currently, 47 of the 53 States and territories have at least one waiver of SNAP certification requirements. The survey asked about six of the common waivers that relate to processing applications or recertifications, including how interviews are conducted and how notices are sent to clients.

As shown in **Table 9**, the administrative waivers or policy options the study States have adopted include the reinstatement option or waiver, the on-demand interview waiver, and the telephonic interview waiver. NY, UT, and TX have used these options or waivers and reported they were important. For instance, UT's Department of Workforce Services uses the on-demand waiver to conduct telephone interviews, with the option of face-to-face interviews at the customer's request. New York City has a waiver to conduct on-demand interviews for SNAP-only applicants, whether they apply online or via paper. NY implemented on-demand interviews for applications within the last 3 years. Only PA and VA operate without either on-demand or telephonic interview policy options. Online applications are often implemented in hand with customer service call centers that conduct SNAP application interviews and processing, so the ability to offer on-demand interviews and reinstate late recertification applications through these waivers enables call centers to provide customer service more efficiently and increases the effectiveness of the online application for increasing participation.

Table 9: SNAP Administrative Waiver or Policy Option and Impacts on Online Application Process

Waiver or Policy Option	Low Impact	Medium Impact	High Impact	NA
Reinstatement Option or Waiver	WA	UT	NY	CO, PA, TN, TX, VA
Unscheduled (On-Demand) Interview Waiver	TX, WA	—	NY, UT	CO, PA, TN, VA
Electronic Notices/E-Notices Option or Waiver	CO, NY, TX	—	—	PA, TN, UT, VA, WA
Waiver of Recertification Interview for Elderly and Disabled Households with No Earned Income	TX, WA	—	—	CO, NY, PA, TN, UT, VA
Deny Applications Before the 30th Day/Early Denial Waiver	CO, NY, TN, WA	—	—	PA, TX, UT, VA
Telephonic Interview in Lieu of Face-to-Face Interview Option	CO, NY, TN, WA	—	TX, UT	PA, VA

Data source: Web-based survey of eight study States.

Study States were also asked to choose from a list of possible changes they may have made to their business process to support SNAP online applications (**Table 10**) and, if they made the change, to identify the goals the agency or County agencies hoped to accomplish with those changes. NY, TX, and VA appeared to be the most involved in process improvement of online applications because they made changes to many aspects of the application and processing procedures that were asked about in the survey. TN only mentioned that the agency made changes in two areas—improving customer service and program operations.

Study States varied in their goals to improve online applications and processing procedures. Four study States (NY, TN, TX, VA) mentioned making changes to their processing procedures to improve customer service. NY changed how interviews are scheduled and conducted, how information is verified, how call centers are organized, and how electronic documents are managed. TN reported changing how

information is verified. TX changed how online applications are assigned to caseworkers, how interviews are scheduled, how interviews are conducted, how information is verified, and how expedited screening is handled for online SNAP applications. Finally, VA changed how applications are assigned to workers and registered in the eligibility system, how interviews are scheduled, how call centers are organized, and how applications are screened for expedited eligibility. Four study States (CO, TN, TX, VA) mentioned making changes to improve program operations. Fewer study States cited making changes to improve program integration (NY, TX, VA) or program integrity (NY, TX). Three study States (PA, UT, WA) had not made changes to their online application or processing procedures in the past 3 years.

Table 10: Goals for Making Changes to Online Application and Online Application Processing Procedures in the Past 3 Years

Procedures Changed within last 3 years	Goals				
	Improve Customer Service	***Improve Program Integration***	***Improve Program Operations***	***Maintain Program Integrity***	***Did not make this change in the last 3 Years***
How SNAP online applications are assigned to caseworkers	TX, VA	TX, VA	TN, TX, VA	—	CO, NY, PA, UT, WA
How SNAP online applications are registered in the eligibility system	VA	VA	VA	TX	CO, NY, PA, UT, WA
How interviews are scheduled for SNAP online applications	NY, TX, VA	—	NY, TX, VA	NY	CO, PA, UT, WA
How interviews are conducted for SNAP online applications (e.g., phone, IVR, in-person)*	NY, TX	—	NY, TX	NY	CO, PA, UT, VA, WA
How information is verified for SNAP online applications (e.g., client uploaded, real-time third-party)	NY, TN, TX	NY	NY, TX	NY	CO, PA, UT, VA, WA
How call centers that process SNAP online application are organized	NY, VA	VA	NY, VA	NY	CO, PA, TX, UT, WA
How electronic documents or case files are managed	NY	NY, VA	CO, NY, VA	NY	PA, TX, UT, WA
How SNAP online applications are screened for expedited service eligibility	TX, VA	—	TX, VA	—	CO, NY, PA, UT, WA

*IVR (interactive voice response) allows humans to interact with a computer operated phone system through the use of voice via a keypad.
Data source: Web-based survey of eight study States. PA did not answer the question. UT and WA confirmed no changes.

Objective 1, Question 5—When does the clock start for processing online applications—at the time the application is submitted, or when the application is received by the SNAP office?

The SNAP certification rules require a State to prorate benefits from the date the application is received for applications that are accepted (approved).[22] For this reason, the date of application is a protected filing date that affects the amount of the benefit allotment the household will receive in the first month. Also, timely application processing standards (30 days for regular applications or 7 days for expedited)

[22] Household Concept, 7 CFR § 273.10 (2020).

use the date the application is received by the State agency as the start of the clock.[23] If the paper application is received outside normal business hours the State agency will consider the date of application the next business day. For online applications, the date of application is the date the application is submitted, or the next business day if it is submitted after business hours. This gives States flexibility on when to begin the clock for online applications submitted after business hours—either on the date it is submitted or the next business day. This is especially important for both paper and online applications submitted on evenings or weekends when it could make a difference of a day or two. Seven of the study States (UT is the exception) considered the date of application for SNAP online applications submitted after normal office hours to be the next business day. For example, the date of application for an online application submitted on Saturday evening would be the following Monday. Only UT considers the date of submission as the date of application for both paper and online applications.

Objective 1, Question 6—How does the study State agency screen between expedited and nonexpedited online applications?

Another important step in SNAP eligibility is screening each application for expedited eligibility, which shortens the application processing standard from 30 to 7 days. A household must meet at least one of three criteria to be eligible for expedited benefits: (1) have monthly gross income and money in the bank less than monthly housing and utility expenses, (2) have monthly gross income less than $150 and less than $100 in cash or money in the bank, or (3) be a certain type of migrant or seasonal farmworker. Most study States screen online and paper applications for expedited eligibility in the same way. Typically, clerical workers date stamp, screen, and register paper applications in the eligibility system of record. In study States that do not offer on-demand interviews, the next step is to schedule interview appointments. Clerical workers review SNAP applications to make sure they are complete (i.e., name, address, and signature). If complete, they review the expedited screening questions on the application to determine if the household is eligible for expedited service. In study States where online application data must be manually entered to register it in the eligibility system, the workers who key in the data also typically conduct the expedited screening. In study States where online application data interfaces with the eligibility system and autoregisters the application, screening is typically done when the application is "indexed" or assigned to a specific task queue or worker.

[23] Current as of September 18, 2020. Per 7 Code of Federal Regulations (CFR) 273.2(c)(1)(iv): "Recording the filing date. The date of application is the date the application is received by the State agency. State agencies must document the application date on the application. If the application is received outside normal business hours the State agency will consider the date of application the next business day. For online applications, the date of application is the date the application is submitted, or the next business day if it is submitted after business hours."

Chapter 5. Variations in the Features of Online Applications in Each Study State

This chapter describes the variations in the features of online applications across study States. Findings are drawn from the survey and document reviews, which included a review of each study State's respective website description of its mobile app. This chapter addresses four research questions:

1. In what languages are the online applications offered?
2. How are verifications submitted when using an online application?
3. Are online applications mobile-friendly?
4. Are mobile apps for online applications available? If yes, what services are available through the app?

Summary of Findings

Most State SNAP online applications in the study States have features that make them accessible and user-friendly for applicants. The online applications reviewed for this study have several common features. All study States:

- Offer SNAP online applications in English and Spanish, and three study States (NY, TN, WA) offer services in at least two other languages
- Accept paper documentation through postal mail and fax
- Have a multibenefit application for other federal means-tested programs in addition to SNAP
- Allow applicants to upload verification documents, such as scanned documents or photos of documents, except for WA

Among the six study States with mobile-friendly websites (CO, NY, PA, TN, TX, UT), features available to applicants using a mobile device are not as robust or user-friendly as those available when using the full-site version on a computer. All study States surveyed, except for VA, allow applicants to submit their applications using a smartphone or tablet.

Four study States (CO, NY, PA, TX) offer SNAP mobile apps. Notably, the ability to upload documents and photos using those apps was identified among the top three features for the four study States that have them.

Findings by Research Questions

Objective 2, Question 1—In what languages are the online applications offered?

As **Table 11** shows, all study States offer SNAP online applications in English and Spanish. WA offers the most language options (nine), followed by NY (eight) and TN (four).

Table 11: Languages in Which SNAP Online Applications Are Offered

	CO	NY	PA	TN	TX	UT	VA	WA
Languages Available	English Spanish	Arabic Chinese Creole English Haitian Korean Russian Spanish	English Spanish	Arabic English Somali Spanish	English Spanish	English Spanish	English Spanish	Cambodian Chinese English Korean Laotian Russian Somali Spanish Vietnamese

Data source: Web-based survey of eight study States.

Objective 2, Question 2—How are verifications submitted when using an online application?

Traditionally, SNAP applicants have submitted paper documentation that verifies household circumstances by either dropping off copies at a local SNAP office or sending them via mail or fax. All study States still accept paper documentation in the traditional ways. With the implementation of SNAP online applications and mobile apps, most study States have added the ability to submit documentation electronically (e.g., through email attachments or uploading scanned images or photos from a smartphone). As shown in **Table 12**, the only study State that cannot support uploading scanned documents or photos of documents is WA. Six of the eight study States (CO, NY, PA, TN, UT, VA) allow clients to submit verifications through email; among those study States, some discourage the use of unencrypted email due to security and privacy concerns, preferring to limit personally identifiable information transmission.

Table 12: Ways that Clients Submit Verification Information Needed to Complete Online Applications

Way to Submit Verification Information	State							
	CO	*NY*	*PA*	*TN*	*TX*	*UT*	*VA*	*WA*
Paper document or postal mail	✓	✓	✓	✓	✓	✓	✓	✓
Email	✓	✓	✓	✓	✗	✓	✓	✗
Fax	✓	✓	✓	✓	✓	✓	✓	✓
Upload scanned document	✓	✓	✓	✓	✓	✓	✓	✗
Upload a photo of the document(s)	✓	✓	✓	✓	✓	✓	✓	✗

Data source: Web-based survey of eight study States.

Only one study State, NY, reported experiencing challenges with the verification process for online applications. A County-administered State, it reported that Counties experience the same challenges with the verification process for online applications as they do for paper SNAP applications. County staff say the verification process is manual, labor-intensive, and prone to errors. The State reported that verification is one of "the biggest challenges in the human services application process." NY is considering implementing the ability to accept photos from a mobile phone to ease the verification task. However, these automation changes are not likely to occur for a few years after the State has implemented a new integrated eligibility system. Further, New York City may also be experiencing additional challenges with the verification process because the State's mobile app has its own document

upload feature, which is not fully integrated with other County and State document imaging applications, as described later in the report.

Objective 2, Question 3—Are online applications mobile friendly?[24]

In nearly all the study States, applicants can submit their SNAP applications using a smartphone or tablet because the mobile-friendly website is optimized for use on a mobile device. VA and WA are the two exceptions where the online application has not been optimized and would be difficult to fill out from a mobile device. As shown in **Table 13**, when asked about the availability of a mobile app—a software application that can be downloaded to a smartphone or tablet and is designed to run separately from a website—four of the eight study States (CO, NY, PA, TX) reported having one. PA was the only study State that reported not facing any challenges in developing its mobile app, perhaps due to the number of years of experience it has with its full online application website. CO's primary challenge was the lack of clear written guidance from FNS regarding the design of mobile apps. CO reported it was one of the first States to develop a mobile app and sought guidance from FNS but did not receive it.

Table 13: Availability of Mobile-Friendly Websites and Mobile Apps

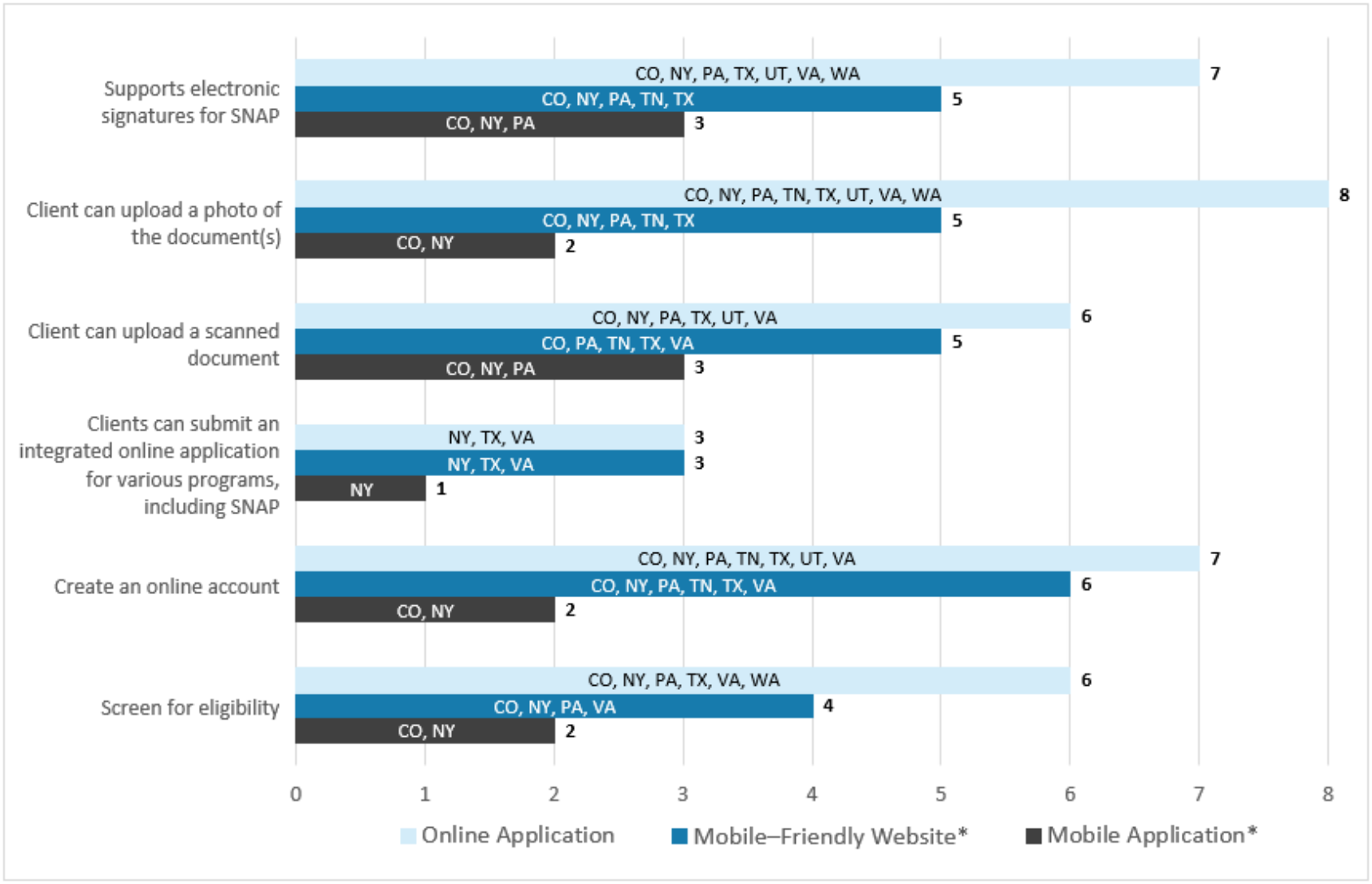
	CO	NY	PA	TN	TX	UT	VA	WA
Mobile-Friendly Website	✓	✓	✓	✓	✓	✓	✗	✗
Mobile App	✓	✓	✓	✗	✓	✗	✗	✗

Data source: Web-based survey of eight study States.

The study States identified common features of their different SNAP online application interfaces that were most helpful to their agencies and staff. For example, study States noted that applicants' ability to view their case status online (CO, TX, WA) or submit required case documents by uploading scanned documents or photos (CO, NY, PA, TN, TX, UT, VA) were helpful features of their online applications. **Figure 4** shows the features for creating an account and screening eligibility. All eight study States reported that clients can upload a photo of the document for submission on their online application, but only five study States (CO, NY, PA, TN, TX) reported that clients have this ability on their mobile friendly website, and two (CO, NY) on their mobile app. Only three (NY, TX, WA) study States reported that clients could submit integrated applications through their online application or through a mobile friendly website, and one study State (NY) reported they could be submitted through its mobile app.

[24] The study team recognizes some overlap in findings for research question three and research question four. The discussion of online application features, including those accessible using mobile-friendly websites or mobile apps, is done here to avoid duplication. Moreover, more study States have mobile-friendly websites than those that have mobile apps; hence, a more comprehensive discussion is better suited for research question three.

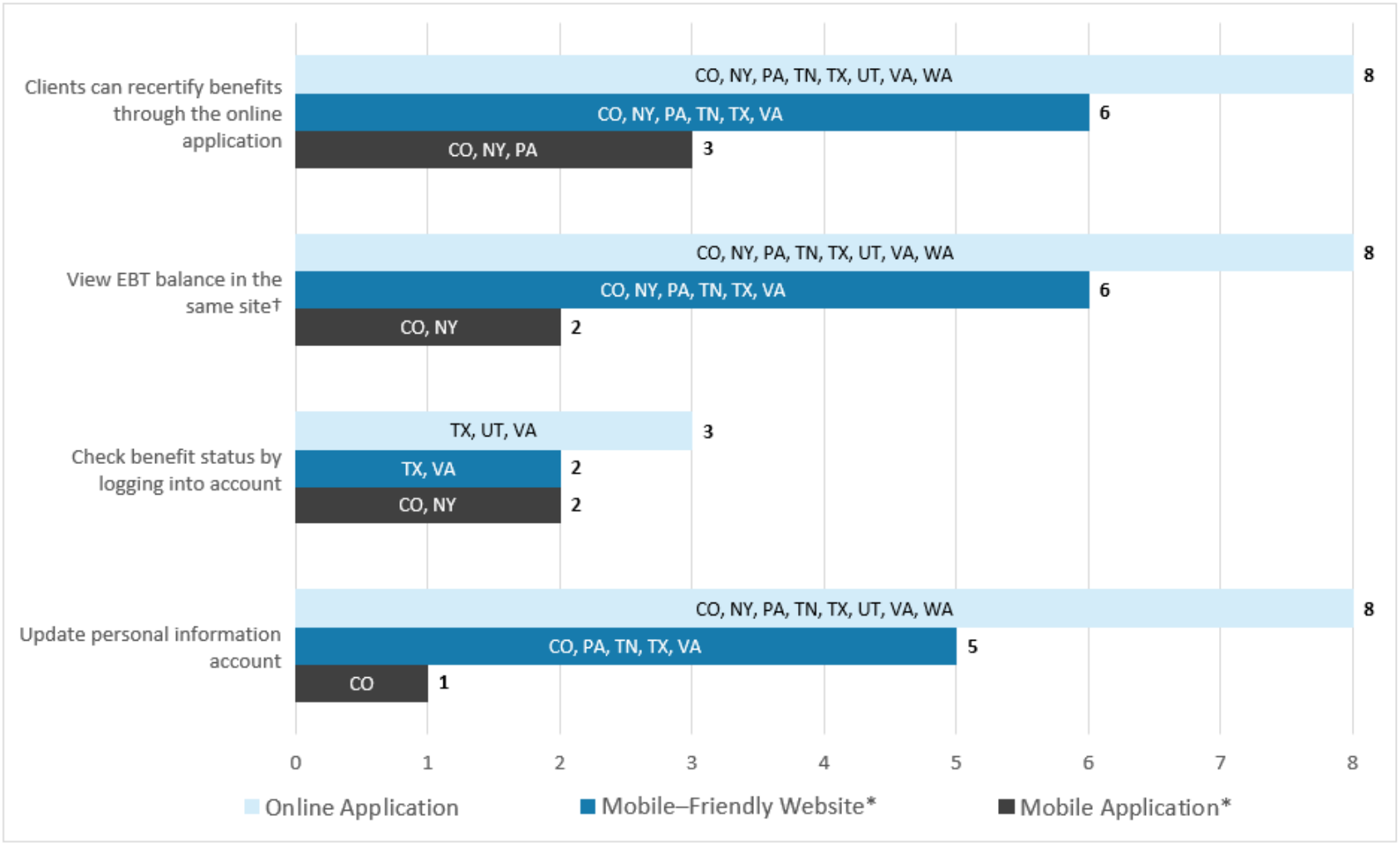
Figure 4: Creating an Account and Eligibility Status Features (Count of States)



*Note: Only CO, NY, PA, and TX have mobile apps. TX was not asked to identify the functionality of their mobile app. UT and WA do not have mobile-friendly application websites.
Data source: Web-based survey of eight study States.

Figure 5 shows the features for maintaining eligibility or checking the status of applications. All eight study States (CO, NY, PA, TN, TX, UT, VA, WA) allow members to recertify benefits and view their Electronic Benefits Transfer (EBT) balance through the online application, while all six study States with a mobile-friendly website (CO, NY, PA, TN, TX, VA) allow members to recertify benefits and view their EBT balance on the mobile-friendly website. Three (CO, NY, PA) of the four (CO, NY, PA, TX) study States with mobile apps allow clients to recertify via the application, and two (CO, NY) allow clients to view their EBT balance.

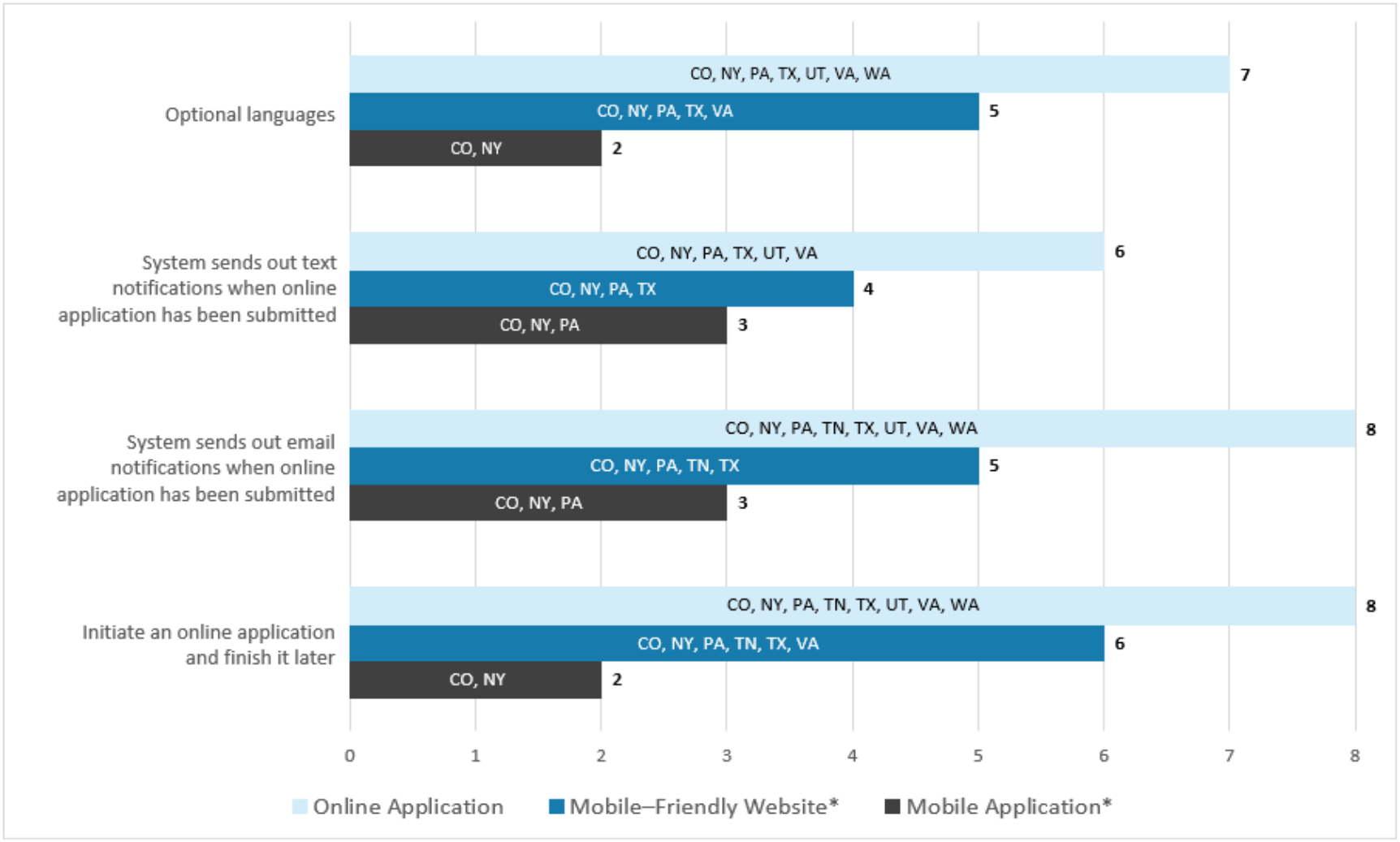
Figure 5: Maintaining Eligibility and Status Check Features (Count of States)



†Not considering EBT balance viewing via an outside site, such as ebtEDGE.
*Note: Only CO, NY, PA, and TX have mobile apps. TX was not asked to identify the functionality of their mobile app. UT and WA do not have mobile-friendly application websites.
Data source: Web-based survey of eight study States.

Figure 6 shows the features for providing convenience or reminders in study States' online applications, followed by those in their mobile-friendly websites and mobile apps. Notifications about when applications are submitted are one such reminder that study States have embraced. All eight study States have system-generated email notifications when online applications have been submitted through the online application system. Five study States (CO, NY, PA, TN, TX) have this feature on their mobile-friendly website, and all four study States with mobile apps (CO, NY, PA, TX) have this feature on their app. Another convenience that study States have implemented is allowing clients to exit an application and complete it later. All eight study States allow clients to finish their application later in the online application, while all six study States with mobile-friendly websites (CO, NY, PA, TN, TX, VA) have this feature on their mobile-friendly website. Two study States (CO, NY) allow clients to finish the application later on their mobile apps.

Figure 6: Convenience and Reminders Features (Count of States)



*Note: Only CO, NY, PA, and TX have mobile apps. TX was not asked to identify the functionality of their mobile app. UT and WA do not have mobile-friendly application websites.
Data source: Web-based survey of eight study States.

Regarding features of online application interfaces (websites), **Table 14** shows that five study States (CO, PA, TN, TX, WA) listed the ability to submit an integrated online application (i.e., one application for multiple programs) among the top three most helpful features of their online application interface. Four study States (PA, TX, UT, VA) also identified the ability for clients to upload scans or photographs of required documents as a top feature. These two features were also identified among the top three most helpful features of the online application interface. Three study States (NY, UT, VA) also noted the ability to submit an application online as a top three feature. Other top features, such as the ability to view case status, did not make the top three for at least three of the study States.

Table 14: Top Three Features of Online Application Interface

Please rank the top features of your online application interface that have been most helpful for your agency and its staff, or County agencies and their staff:			
State	***Top Feature***	***Second Feature***	***Third Feature***
CO	Screen for eligibility	Submit an integrated online application for various programs, including SNAP*	View case status
NY	Initiate an online application and finish it later	Submit an application**	Create an online account
PA	Submit an integrated online application for various programs, including SNAP*	Client can submit required case documents by uploading scanned document or photo†	Update personal information in account
TN	Initiate an online application and finish it later	Supports electronic signatures for SNAP	Submit an integrated online application for various programs, including SNAP*
TX	Client can submit required case documents by uploading scanned document or photo†	Submit an integrated online application for various programs, including SNAP*	View case status
UT	Submit an application**	Submit application to recertify benefits	Client can submit required case documents by uploading scanned document or photo†
VA	Submit application to recertify benefits	Client can submit required case documents by uploading scanned document or photo†	Submit an application**
WA	Submit an integrated online application for various programs, including SNAP*	Supports electronic signatures for SNAP	Check benefit status by logging into account

*CO, PA, TN, TX and WA reported the ability to submit integrated online applications for various programs, including SNAP, as a top feature of their online application interface.
**NY, UT and VA reported the ability to submit an application as a top feature of their online application interface.
†PA, TX, UT and VA reported the ability for clients to submit required case documents by uploading scanned documents or photos as a top feature of their online application interface.
Note: Symbols and colors reflect common themes when indicated by three or more study States. The study team also makes a distinction between "viewing the case status" and "checking the benefit status by logging into [the applicant's] account." "Viewing the case status" refers to checking whether an application has been approved. "Checking the benefit status" assumes an approved application and the applicant is checking benefit amounts among other case statuses.
Data source: Web-based survey of eight study States.

For specifically mobile-friendly websites, study States listed both submitting an integrated online application (CO, PA, TN, TX) and submitting documents by uploading scanned documents or photos (CO, NY, PA, TX) among the top three most helpful features, as shown in **Table 15**. Notably, these two top features for mobile-friendly application websites were also top features for the online application interface (**Table 14)**. Other top features of mobile-friendly application websites, such as initiating an online application and being able to finish it later, were high on two study States' lists (NY, TN). Other features, such as the ability to check benefit status by logging into the account, made the top three for only one study State.

Table 15: Top Three Features of Mobile-Friendly Application Website

Please rank the top three features of your mobile-friendly application website that have been most helpful for your agency and its staff, or County agencies and their staff:			
State	***Top Feature***	***Second Feature***	***Third Feature***
CO	Check benefit status by logging into account	Submit an integrated online application for various programs, including SNAP*	Client can submit required case documents by uploading scanned document or photo**
NY	Client can submit required case documents by uploading scanned document or photo**	Initiate an online application and finish it later	Submit an application
PA	Submit an integrated online application for various programs, including SNAP*	Client can submit required case documents by uploading scanned document or photo**	Update personal information in account
TN	Initiate an online application and finish it later	Support electronic signatures for SNAP	Submit an integrated online application for various programs, including SNAP*
TX	Client can submit required case documents by uploading scanned document or photo**	Submit an integrated online application for various programs, including SNAP*	View case status

*CO, PA, TN and TX reported the ability to submit integrated online applications for various programs, including SNAP, as a top feature of their online application interface.
**CO, NY, PA and TX reported the ability for clients to submit required case documents by uploading scanned documents or photos as a top feature of their online application interface.
Note: Symbols and colors reflect common themes when indicated by three or more study States. VA and WA do not have mobile-friendly websites. UT skipped this question.
Data source: Web-based survey of eight study States.

Objective 2, Question 4—Are mobile apps for online applications available? If yes, what services are available through the app?

As mentioned above, four study States (CO, NY, PA, TX) have SNAP mobile apps. PA rolled out its mobile app in 2016, and CO and NY rolled their apps out in 2019. VA indicated that it is planning to roll out a SNAP mobile app in 2020. TN, UT, and WA were unsure about plans to develop SNAP mobile apps in the near future. TX did not respond to the survey question about when they rolled out their mobile app.

These four study States (CO, NY, PA, TX) were asked in the survey about 15 mobile app features (Figures 4–6), including supporting electronic signatures for SNAP, the ability for clients to upload scanned documents, and screening for eligibility. CO and NY shared the most robust list of common features. The mobile apps in CO (13 out of the 15 features) and NY (14 out of the 15 features) have nearly the same features as their online application interface. PA's mobile app included only 5 of the 15 features listed in

the survey, while TX included one. The top three features for CO, NY, and PA are listed in **Table 16.** TX did not rank its top three features.

Of the four study States with mobile apps, only CO enables applicants to submit their applications using the mobile app. Notably, as was the case for study State SNAP online application websites and mobile-friendly websites, the ability to upload documents and photos using the SNAP mobile app was identified as among the top three features for all three study States that have SNAP mobile apps and responded to the question (TX did not rank its top three features), as shown in **Table 16**. Other top three features, though not a plurality across the three study States, include the ability to view EBT balance on the app, check benefits status, update personal information, and initiate an online application and finish it later.

Table 16: Top Three Features of Mobile Apps

State	Top Feature	Second Feature	Third Feature
CO	Submit an application	View Electronic EBT balance in the same site (not an outside site such as ebtEDGE)	Submit required case documents by uploading a scanned document or photo*
NY	Submit required case documents by uploading a scanned document or photo*	Initiate an online application and finish it later	Create an online account
PA	Update personal information in account	Submit required case documents by uploading a scanned document or photo*	Check benefit status by logging into account

*CO, NY, and PA reported the ability for clients to submit required case documents by uploading scanned documents or photos as one of the top three features of their online application interface.
Note: Symbols and colors reflect common themes when indicated by three or more study States. PA's mobile app accepts scanned documents, but not photos. TX has a mobile app but did not rank its top three features.
Data source: Web-based survey of eight study States.

Chapter 6. How Study State Agencies Process Online Applications

This chapter outlines the variations in how study State agencies process online applications by addressing three research questions, namely:

1. What steps are taken to process regular online applications?
2. What steps are taken to process expedited online applications?
3. Are SNAP applications completed separately or combined with other federal means-tested programs?

An important consideration is whether SNAP operations are State- or County-administered. Most States centralize SNAP administration and operation in a single State agency (State-administered). In other States, County agencies administer operations under State supervision (County-administered). County-administered programs receive federal SNAP administrative funds from the State for the program functions that County agencies perform. All States receive federal funding for SNAP administration. Nationally, 10 States are County-administered, including CO, NY, and VA, as shown in **Table 17**. In County-administered study States, the survey questions account for local operational differences that might affect the rate, quality, and timeliness of online applications.

Table 17: State- and County-Administered States in the Evaluation

SNAP Operation	CO	NY	PA	TN	TX	UT	VA	WA
State or County Administration	County	County	State	State	State	State	County	State
Online Program Name	Colorado PEAK	My Benefits	COMPASS	Family Assistance	Your Texas Benefits	myCase	Common Help	Washington Connection

Data source: Web-based survey of eight study States.

Summary of Findings

The steps required to process both online and paper applications are nearly identical the same in all the study States. The processes those study States use for SNAP applications, however, can vary depending on the preferences of local eligibility offices. Depending on the online application technology's design and the local business processes used to determine SNAP eligibility, online applications might add or remove some steps in the eligibility process compared to paper applications. Study States process both types of applications using the same high-level steps described in more detail in subsection Objective 3, Question 1 (below) and **Figure 7**. Also, as discussed in the findings for Objective 1, three study States believe SNAP online applications potentially improve customer service because they provide an access point for people who cannot apply during regular business hours.

Findings by Research Questions

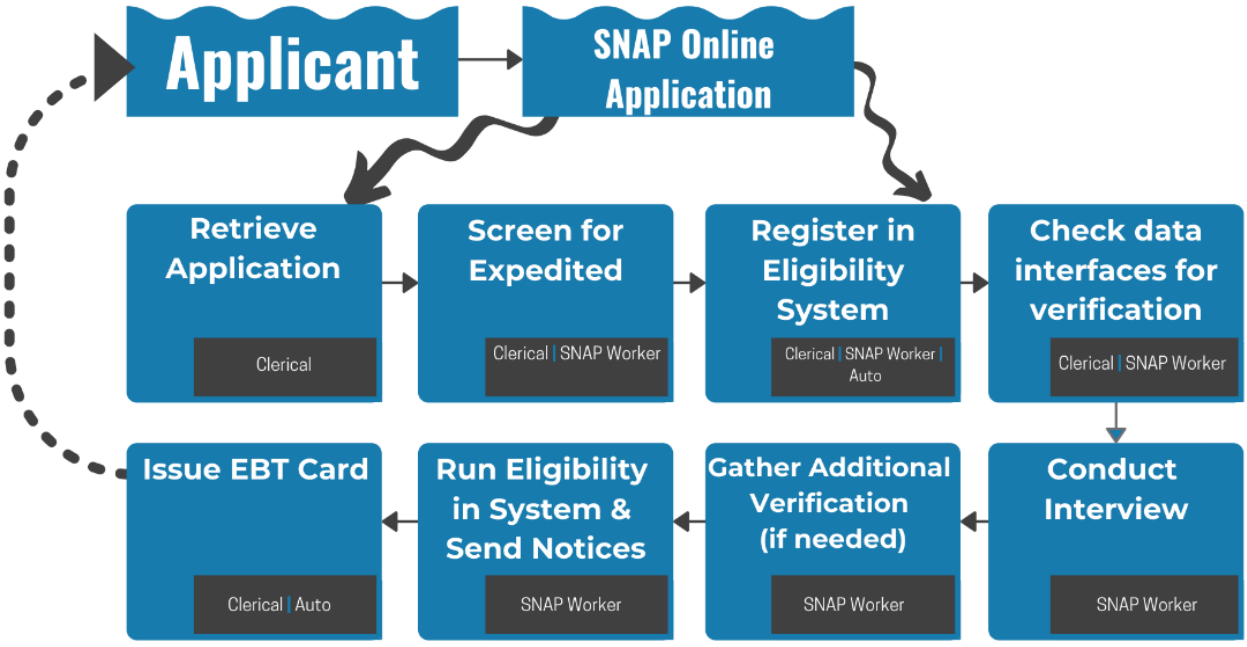
Objective 3, Question 1—What steps are taken to process regular online applications?

As shown in **Figure 7**, the steps required to process online and paper applications are essentially the same among the study States. An online application might add or remove some steps depending on the

technology's design and the local business processes used to determine SNAP eligibility, but a SNAP online application generally follows the workflow described below.

First, an online application is usually routed to a local office based on zip code, and a worker in the local office assigned to process a case retrieves the online application. States that operate a universal worker model are the exception. In that model, applications are not routed to individual offices by zip code; instead, they are routed to a statewide work queue, and the next available eligibility worker anywhere in the State pulls the next case from the worker's assigned queue. Typically, clerical workers retrieve the online applications first. They might retrieve the applications manually from the online application platform, or that platform might interface with the study State's EDMS so that the application displays as a PDF, just like a scanned paper application. Under optimal processing procedures, as observed in NY, PA, TX and UT, the online application interfaces directly with the State's eligibility determination system so the application does not have to be retrieved manually. For example, UT's SNAP online applications are automatically written to its eligibility determination system. As soon as the online application is autoregistered, internal data matches begin, and the case is assigned to an eligibility specialist by setting a notification for application processing. In addition, timeliness and due date monitoring are actively engaged to ensure the application is completed prior to the due date.

Figure 7: Steps Required to Process an Online Application



Unless the online application interfaces with the eligibility system like in NY, the next step is for clerical workers to screen the application for expedited processing eligibility and put it into either an expedited processing or regular queue. During this step, clerical workers register the application in the SNAP eligibility system. Registering the application means entering the information from the application into the eligibility system of record, usually by manually retyping the information. In some States and Counties (e.g., VA), clerical workers monitor the online application inbox and assign applications to caseworkers for processing, pulling system inquiries, and registering applications in the eligibility system. In VA, for Counties that do not have administrative staff, the SNAP eligibility worker is responsible for pulling applications from the inbox and screening, registering, and processing them.

After the online application is retrieved, screened, registered, and assigned to a worker or work queue, the next step is always for the eligibility worker to complete an interview with a responsible member of the household or authorized representative.[25] In the past, these interviews had to be scheduled, which was time-consuming and difficult to manage efficiently because of missed and rescheduled interviews. As States modernized business processes, FNS granted waivers so States could experiment with more modern customer service models, like on-demand interviews available through call centers. For example, in some States (e.g., TX), eligibility specialists first attempt cold calls to complete the interview. If they are unable to reach the household after several attempts, a letter will be sent to the household mailing address with a time a for a telephone appointment. Similarly, in UT eligibility specialists attempt a telephone call to complete the interview using UT's on-demand interview waiver. They hold face-to-face interviews only at the customer's request. NY reports the SNAP reinstatement waiver—which allows certain SNAP households whose cases have closed, and then reapply and provide necessary information within 30 days of case closure to be reinstated—has had a positive impact on the online application process by saving time for both the client and staff as no interview is necessary for reinstatement. Also, the on-demand interview waiver allows applicants to call the County SNAP office at their convenience instead of the County having to try and reach applicants. NY believes the process is substantially more efficient than scheduling interviews.

After the interview is complete, if all required elements of eligibility have been verified, the SNAP worker can finish processing the case and generate the legally required notices to the household. If not, a notice requesting the missing documentation is sent to the household, giving the household 10 days to return the information before their application is denied. As discussed in Objective 2, to aid in the submission of documentation, six study States in the survey now accept uploaded photographs of documents in the form of JPEGs, and six study States can accept other types of uploaded documents, such as PDFs, through their online application or mobile app platforms.

If households are deemed eligible for SNAP, they will either need to visit a local office to pick up an EBT card or have it mailed to them. Some study States can send the EBT card in the mail.

Although SNAP is federally regulated, State and County SNAP agencies have some flexibility in how they manage the work of eligibility determination, such as how applications are assigned to workers for processing. Traditionally, SNAP cases were assigned to workers using an alphanumeric caseload system in which a case was assigned to one worker at one office based on the zip code and the first letters of the last name of the head of household. That worker managed the entire life cycle of that case. Now, SNAP agencies use a combination of methods to distribute the work more efficiently, such as the more modern universal worker and task-based approaches that apply principles from Lean business process reengineering.[26] Smaller, more rural offices tend to continue to use the traditional alphanumeric caseload system, in part because they lack the necessary staff to cover all duties associated with task-based assignment of specialized tasks—caseloads are issued alphabetically or numerically rather than to specialized staff for the different phases of the application.

Universal Worker System

Modern technologies (e.g., call management software for call centers, EDMS, and online applications) enable the universal worker system. In this system, any worker in the State can process any SNAP

[25] Current as of September 18, 2020. Per 7 Code of Federal Regulations (CFR) 273.2(e)(1): "The individual interviewed may be the head of household, spouse, any other responsible member of the household, or an authorized representative."
[26] Lean business process reengineering refers to rethinking or redesigning a process to eliminate waste and increase productivity and/or efficiency.

application, which makes a statewide queue possible. When implemented well, a universal worker system minimizes slack and bottlenecks. If one office is particularly busy because it is in an area that is densely populated or has a high participation rate, then offices in less populous or busy areas of the State can help process applications.

For example, WA uses a centralized universal caseload system that pushes SNAP tasks to the next available worker in the State. TX and UT are two other study States that use a universal worker model to manage SNAP applications. TX assigns online applications to local offices for processing the same day, if possible, using task-based work queues. The Eligibility Workload Management System (EWMS) is a centralized system used to distribute applications, redeterminations, and missing information statewide. EWMS enables staff to process tasks using a "Get Next" feature, which retrieves the next task or case.

State and County-Administered States

As noted earlier in this section, some States are supervised by the State but administered by the County, meaning the Counties pay the 50 percent administrative match and make decisions about business processes related to SNAP eligibility. Among County-administered States, SNAP application business workflows can vary from County to County based on staffing levels, the physical footprint of the agency, and the IT systems used to support eligibility. NY reported a lot of variation, and most study States reported at least some variation. For instance, CO uses its statewide PEAK system to assign online applications to Counties for processing based on zip code. After the Counties receive those applications, they can assign cases to workers by alphanumeric caseload, universal worker, or task-based models, depending on the County.

For State-administered programs, variation also exists in how cases are assigned to offices and how offices assign cases to workers. PA assigns SNAP online applications to offices by zip code. After that, the offices may assign cases to a worker using the traditional alphanumeric caseload system or the more modern task- or program-based system (e.g., applications, changes, or recertifications).

Objective 3, Question 2—What steps are taken to process expedited online applications?

The process for screening applications varies by study State, depending on the functionality of its eligibility and document management systems. In general, once an application is submitted to an agency, either on paper or online, a clerical worker reviews the application to make sure it is complete and reviews the expedited processing screening questions to determine if the household is eligible for expedited processing (within 7 days). In CO, the most automated of the study States, the PEAK online application autoscreens for expedited eligibility so that the Colorado Benefits Management System expedited eligibility is already known when the County clerical worker manually registers the case in the eligibility system. PA reported that sometimes paper applications are screened for expedited eligibility faster than online applications because the clerical staff that process paper applications must manually upload paper applications to the EDMS the same day they are received, while online applications are automatically uploaded. PA reports this sometimes causes clerical staff to not screen the online applications the same day.

Objective 3, Question 3—Are SNAP applications completed separately or combined with other federal means-tested programs?

As shown in **Table 18**, all of the study States' online application platforms enable clients to submit an integrated online application for various programs in addition to SNAP. PA's integrated online application offers the most programs, which is perhaps not surprising considering it has been in use the longest. In WA, in addition to SNAP, applicants can apply for Medicaid, Children's Health Insurance Program (CHIP), Medicaid, Long-Term Care (LTC), the Medicare Savings Program, Temporary Assistance for Needy Families (TANF) cash assistance, and childcare assistance. In PA, in addition to food, medical, cash, and childcare benefits, applicants can apply for the Low-Income Home Energy Assistance Program (LIHEAP) and the National School Lunch Program (NSLP).

In UT and WA, worker procedures related to the eligibility process for multibenefit online applications are no different than SNAP-only online applications. CO and VA reported differences in worker procedures for multibenefit applications. In CO, a face-to-face interview is required for the adult cash program. In VA, some medical assistance applications can "self-direct", requiring no worker intervention or interview to process the application. Despite these differences in worker procedures for multibenefit and SNAP-only applications, the remaining study States have either no or very little variation (i.e., NY) across their respective Counties.

Table 18: Multibenefit Applications Combined with SNAP Applications

State	CO	NY	PA	TN	TX	UT	VA	WA
Multibenefit Application	• CHIP* • LIHEAP** • Medicaid • Metro Denver Transportation • TANF†	• LIHEAP**	• Childcare • CHIP* • LIHEAP** • Medicaid • NSLP†† • TANF†	• TANF†	• CHIP* • Medicaid • TANF†	• Childcare • Medicaid • TANF† • General Assistance	• Childcare • CHIP* • LIHEAP** • Medicaid • TANF†	• Childcare • CHIP* • LTC~ • Medicaid • Medicare Savings Program • TANF†

*CHIP -Children's Health Insurance Program.
**LIHEAP -Low-Income Home Energy Assistance Program.
†TANF - Temporary Assistance for Needy Families).
††NSLP - National School Lunch Program).
~LTC - Long Term Care).
Data source: Web-based survey of eight study States.

Chapter 7. Variations in the Use of Online Applications by Participant Demographics and Geographic Location

This chapter examines whether the use of online applications results in differences across measurable demographics categories. To do so, the study team analyzed administrative data for applications from five study States: CO, PA, TX, UT, and VA. Two research questions were addressed:

1. Is there a difference in the use of online applications by applicant age, race, household characteristics, and first-time versus returning applicant?
2. To what degree, if any, does the use of online applications differ by geographic area?

Several issues drove how the analyses were completed—defining the SNAP applicant, addressing missing data, and the impact of data volume on significance testing.

SNAP policy defines a household as people who purchase and prepare food together; therefore, multiple people can be included on one SNAP application form, whether on paper or online. To know whom to contact for an interview, the SNAP application asks households to designate one member of the household as the head of household. This person typically fills out the form. Demographic analysis was limited to heads of household because they were most likely the household member who filled out the application and chose to do so online or on paper. For the purposes of this study, throughout both this section and anywhere in the administrative data-derived sections, "SNAP applicant" is synonymous with "SNAP head of household."[27]

Because the administrative data varies across study States, a substantial number of variables are missing values, both within and across study States. Values may be missing because some study States (TX, PA) do not retain certain demographic information for denied applications, because some applications are missing this information, or because of data issues (e.g., duplicate observations with conflicting values are not included in the analysis). These types of data issues in administrative data are common. Notes indicating the reasons for missing values are appended to each of the tables below. A row indicating missing values also appears in each table because missing values may correlate with variables of interest in some cases (e.g., type of submission and acceptance).

Significance test results are shown in the table notes. Due to the number of observations in the data, the tests nearly always resulted in a significant finding.

Summary Findings

Household heads using online applications were more likely to be younger, report multiple races, be male, live in one-person households, have very low income, or have income greater than 130 percent of federal poverty guidelines.

Overall findings for each demographic characteristic analyzed are summarized below and discussed in detail, organized by research question, in the following section. All analyses were computed at the

[27] Current as of June 3, 2020. We note that this differs from the SNAP definition of household, which, per 7 Code of Federal Regulations (CFR) 273.1: (d) defines the head of household as an adult parent of children (of any age) living in the household, or an adult who has parental control over children (under 18 years of age) living in the household. The head of household may be different than the individual who filled out and submitted the application.

application level, based upon the demographic characteristics of the head of household completing the application.

- **Age:** The heads of household who used an online application during the study period tended to be younger than those who submitted paper applications. As the head of household age cohorts get older, the likelihood that they will submit an online application instead of paper decreases. Note that age was missing for 21.6 percent of the applications. See **Table 19** for details.
- **Race:** Forty percent of all applications were missing this information for the head of household.[28] Of the applicants who identified their race, the two most prevalent groups were Whites and Black or African Americans. The proportion of Black or African American applicants submitting online applications was slightly higher than the proportion of White applicants submitting this type of application. The distribution of age groups varied by race, which could be driving the variation in online submission rates by race. See **Table 20** and **Table 21** for details.
- **Gender:** The gender of the head of household was missing for 21.6 percent of all applications. The majority of applications that did identify gender came from females, and males were slightly more likely to use an online application compared to females. See **Table 22** for details.
- **Household Size:** Household size was determined by calculating the number of unique individual IDs for each application. The largest households (six or more members) were least likely to submit their applications online compared to smaller households, and households with one individual were most likely to submit applications online. See **Table 23** for details.
- **Recertifications:** Original applications were slightly more likely to be submitted online compared to paper, whereas recertifications were almost always submitted via paper. Federal regulations require States to send recertification application packets to current recipients of SNAP, in most cases, between the first and last day of the month prior to the month the certification period ends.[29] Based on the study team's knowledge of SNAP, States still send recertification packets via postal mail, even in States where online recertification applications are supported, which could increase the likelihood that households recertified via the paper application that was mailed to them. See **Table 24** for details.
- **Income:** Applicants with the highest and lowest income were more likely to submit online compared to applicants at other income levels. About one-third of applicants with income below 25 percent of the federal poverty guideline submitted an online application, and one-third of applicants with income greater than 130 percent of the federal poverty guidelines submitted an online application. The highest-income applicants were likely receiving unearned income that made them eligible for SNAP benefits for a reason other than their income, as nearly all of them were accepted. See **Table 25** for details.

In addition to the descriptive statistics explained above, the study team used the demographic variables to construct a logistic regression to predict the probability of a SNAP applicant submitting an online application. The results show that holding all else equal, the following groups were most likely to submit their applications online, compared to the reference group: report multiple races, age less than 18, one-

[28] In the data provided, whether the applicant's ethnicity was non-Latino/Hispanic or unknown was often missing or unclear. As a result, this variable was not included in the analysis.

[29] Current as of September 18, 2020. Per 7 Code of Federal Regulations (CFR) 273.14(b)(1)(i): "The State agency shall provide households certified for one month or certified in the second month of a two-month certification period a notice of expiration (NOE) at the time of certification. The State agency shall provide other households the NOE before the first day of the last month of the certification period, but not before the first day of the next-to-the-last month. Jointly processed PA and GA households need not receive a separate SNAP notice if they are recertified for SNAP benefits at the same time as their PA or GA redetermination."

person households, and live in VA. Additionally, applicants living in a metro area with a population of over 1 million were most likely to submit online. See **Table 26.**

Missing demographic information is neither random nor uniform. The missing data have some patterns, but those patterns do not explain every instance of missing information. For example, in PA all denied applications were missing demographic information, but some accepted applications were also missing this information. In TX, denied applications were always missing income and often missing age and gender, but accepted applications were sometimes missing this information as well. In VA, about one-third of applications were missing gender and age, regardless of acceptance status. This suggests that the lack of information—whether withheld by the applicant or due to data issues—is predictive of different outcomes for these groups. In other words, applications with missing data should be treated differently based on the other characteristics of the applicant.

Findings by Research Questions

Objective 4, Question 1—Is there a significant difference in the use of online applications by applicant age, race, household characteristics, and first-time versus returning applicant?

Table 19 shows the number and percentage of applications submitted online versus on paper by the applicants' age group. The study team calculated the age of applicants using their date of birth and a reference date that was on or near the date the data was received. This information was missing for 21.6 percent of applicants. Overall, the most common age of applicants was 25 to 34 years old (26.9 percent of applications). As age increases, the percentage of applications submitted via paper versus online increases, with over 80 percent of applications submitted by applicants aged 65 and older submitted on paper, compared to 56.7 percent for applicants aged 18 to 24.

Table 19: Number and Percent of Applications Submitted Online and on Paper, by Age of Head of Household

Applicant Age	Applications Submitted Online		Applications Submitted via Paper		Total	
	Count	*Row %*	*Count*	*Row %*	*Count*	*Column %*
<18	6,091	52.1	5,604	47.9	11,695	0.1
18–24	555,186	43.3	727,166	56.7	1,282,352	9.4
25–34	1,225,297	33.4	2,444,471	66.6	3,669,768	26.9
35–44	754,756	29.1	1,843,022	70.9	2,597,778	19.0
45–54	402,436	27.3	1,071,730	72.7	1,474,166	10.8
55–64	227,380	21.7	821,281	78.3	1,048,661	7.7
65+	117,002	19.0	499,091	81.0	616,093	4.5
Missing	1,409,918	47.8	1,539,744	52.2	2,949,662	21.6
Total	**4,698,066**	**34.4**	**8,952,109**	**65.6**	**13,650,175**	**100.0**

Note: Totals may not equal 100% due to rounding. Table includes only applications that had an indicator for online vs. paper submission. Applications with a missing value for applicant age are included in the "Missing" row. As mentioned above, demographic information for denied applications was not provided in the TX and PA data, so those applications are included in the "Missing" row. Overall, 22% of applications are missing a value for age (29% missing from PA, 20% missing from TX, 33% missing from VA, 40% missing from UT). Chi-square test (overall and by category) are significant at the <0.001 level.
Data source: Internal State SNAP application and eligibility data, 2016–2018.

Table 20 shows the number and percentage of applications submitted online versus on paper, separated by the applicants' race. Note that 39.9 percent of all applications were missing data on race. Of all applicants, including those missing race data, the two most prevalent groups were Whites, who submitted 38.3 percent of applications, and Black or African Americans, who submitted 18.5 percent of all applications. Applicants who identified as multiracial used online applications the most (47.8 percent), followed by Native Hawaiian or Pacific Islanders (43.3 percent).

Table 20: Number and Percent of Applications Submitted Online and on Paper, by Race of Head of Household

Applicant Race	Applications Submitted Online		Applications Submitted via Paper		Total	
	Count	*Row %*	*Count*	*Row %*	*Count*	*Column %*
Native American	14,969	37.6	24,889	62.4	39,858	0.3
Black or African American	873,413	34.5	1,654,815	65.5	2,528,228	18.5
White	1,645,103	31.5	3,580,676	68.5	5,225,779	38.3
Asian American	37,371	25.2	108,265	78.9	144,636	1.1
Native Hawaiian or Pacific Islander	9,433	43.3	12,344	56.7	21,777	0.2
Other	45,540	21.8	163,485	78.2	209,205	1.5
Multiple	17,983	47.8	19,667	52.2	37,650	0.3
Missing	2,055,254	37.8	3,387,968	62.2	5,443,222	39.9
Total	**4,698,066**	**34.4**	**8,952,109**	**65.6**	**13,650,175**	**100.0**

Note: Totals may not equal 100% due to rounding. Table includes only applications that had an indicator for online vs. paper submission. Applications with a missing value for applicant race are included in the "Missing" row. As mentioned above, demographic information for denied applications was not provided in the TX and PA data, so those applications are included in the "Missing" row. Code definitions for VA did not align with data values, so definitions were inferred (see **Appendix A**). Overall, 40% of applications were missing a value for race (92% missing from CO, 31% missing from PA, 40% missing from TX, 33% missing from VA, 69% missing from UT). Chi-square test (overall and by category) are significant at the <0.001 level.
Data source: Internal State SNAP application and eligibility data, 2016–2018.

Table 21 shows the number and percentage of applications submitted online versus on paper by the applicants' age group and race. To streamline the table, the study team combined applications with heads of household of the following races into the "Other" category: Native American, Native Hawaiian or Pacific Islander, Other, and Multiple. Within each race category, the first column presents the percentage of all applications in each age group and the second column shows the percentage of all applications that were submitted online in each age group.

Asian American heads of household submitted applications online less often than White and Black or African American heads of household. This subpopulation has a higher-than-average percentage of applicants in the 65+ age category (16.9 percent) relative to other races. Other race categories have less than 6 percent of their applicants in the 65+ age category. This same race/age group has the lower percentage of individuals submitting online (19.5 percent) across Asian American age groups.

Table 21: Percent of Applications Submitted Online and on Paper, by Race and Age of Head of Household

Race	White		Black or African American		Asian American		Other		Missing		Total	
Age Group	*Age Group*	*Submitted Online*	*Age Group*	*Submitted Online*	*Age Group*	*Submitted Online*	*Age Group*	*Submitted Online*	*Age Group*	*Submitted Online*	*Age Group*	*Submitted Online*
<18	0.1	53.3	0.1	53.4	0.1	45.1	0.1	42.5	0.1	50.1	0.1	52.1
18–24	12.1	42.4	13.2	48.2	5.9	40.6	12.1	38.5	5.0	40.2	9.4	43.3
25–34	35.1	33.4	36.4	37.2	26.0	31.1	36.4	31.4	14.1	29.3	26.9	33.4
35–44	24.6	30.0	22.5	33.8	24.3	24.1	23.7	26.0	11.7	23.6	19.0	29.1
45–54	13.5	28.7	13.6	29.9	14.9	20.8	13.4	22.7	6.7	23.1	10.8	27.3
55–64	9.2	23.5	10.1	21.7	12.0	20.1	8.3	21.8	4.9	18.5	7.7	21.7
65+	5.4	21.7	4.1	18.5	16.9	19.5	5.6	22.5	3.5	14.9	4.5	19.0
Missing	0.0	NA	0.0	NA	0.0	NA	0.4	26.0	54.2	47.8	21.6	47.8
Total	**38.3**	**31.5**	**18.5**	**34.5**	**1.1**	**25.1**	**2.3**	**28.5**	**39.9**	**37.8**	**100.0**	**34.4**

Note: Totals may not equal 100% due to rounding. Table includes only applications that had an indicator for online vs. paper submission. Applications with a missing value for applicant race are included in the "Missing" row. As mentioned above, demographic information for denied applications was not provided in the TX and PA data, so those applications are included in the "Missing" row. Code definitions for VA did not align with data values, so definitions were inferred (see Appendix A). Overall, 39.9% of applications were missing a value for race (92% missing from CO, 31% missing from PA, 40% missing from TX, 33% missing from VA, 69% missing from UT). Overall, 21.6% of applications are missing a value for age (29% missing from PA, 20% missing from TX, 33% missing from VA, 40% missing from UT). Chi-square test (overall and by category) are significant at the <0.001 level.

Data source: Internal State SNAP application and eligibility data, 2016–2018.

Table 22 shows the number and percentage of applications submitted online versus on paper by the applicants' gender. A slightly lower percentage of female heads of household submitted their applications online versus male applicants (29.6 versus 34.2 percent). Applicants whose gender was missing were primarily from TX and PA.

Table 22: Number and Percent of Applications Submitted Online and on Paper, by Gender of Head of Household

Applicant Gender	Applications Submitted Online		Applications Submitted via Paper		Total	
	Count	*Row %*	*Count*	*Row %*	*Count*	*Column %*
Male	877,074	34.2	1,685,270	65.8	2,562,344	18.8
Female	2,409,787	29.6	5,725,162	70.4	8,134,949	59.6
Missing	1,411,205	47.8	1,541,677	52.2	2,952,882	21.6
Total	**4,698,066**	**34.4**	**8,952,109**	**65.6**	**13,650,175**	**100.0**

Note: Totals may not equal 100% due to rounding. Table includes only applications that had an indicator for online vs. paper submission. Applications with a missing value for applicant gender are included in the "Missing" row. As mentioned above, demographic information for denied applications was not provided in the TX and PA data, so those applications are included in the "Missing" row. Overall, 21.6% of applications are missing a value for gender (29% missing from PA, 20% missing from TX, 33% missing from VA, 40% missing from UT). Chi-square test (overall and by category) are significant at the <0.001 level.
Data source: Internal State SNAP application and eligibility data, 2016–2018.

Table 23 shows the number and percentage of applications submitted online versus on paper by the applicants' household size. Household size was determined by calculating the number of unique individuals included in each application (a unique individual was identified using individual IDs). The largest households (six or more members) were least likely to submit their applications online compared to smaller households, whereas households with one individual were most likely to submit their applications online.

Table 23: Number and Percent of Applications Submitted Online and on Paper, by Household Size

Family Members	Applications Submitted Online		Applications Submitted via Paper		Total	
	Count	*Row %*	*Count*	*Row %*	*Count*	*Column %*
1	1,235,289	35.5	2,241,759	64.5	3,477,048	25.5
2–3	1,251,262	31.7	2,695,692	68.3	3,946,954	28.9
4–5	627,335	25.4	1,843,350	74.6	2,470,685	18.1
6+	153,522	21.0	578,901	79.0	732,423	5.4
Missing	1,430,658	47.3	1,592,407	52.7	3,023,065	22.1
Total	**4,698,066**	**34.4**	**8,952,109**	**65.6**	**13,650,175**	**100.0**

Note: Totals may not equal 100% due to rounding. Table includes only applications that had an indicator for online vs. paper submission. Applications with a missing value for household size are included in the "Missing" row. As mentioned above, demographic information for denied applications was not provided in the TX and PA data, so those applications are included in the "Missing" row. A data request could not be fulfilled with UT; therefore, all UT applications are included in the "Missing" row. Overall, 22.1% of applications are missing a value for household size (29% missing from PA, 20% missing from TX, 100% missing from UT, <1% missing from VA). Chi-square test (overall and by category) are significant at the <0.001 level.
Data source: Internal State SNAP application and eligibility data, 2016–2018.

Table 24 shows the number and percentage of applications submitted online versus on paper, separated by original applications and recertifications. Original applications were slightly more likely to be submitted online than via paper, whereas recertifications were almost always submitted via paper.

Federal regulations require States to send recertification application packets to current recipients of SNAP between the first and last day of the month prior to the month the certification period ends. Based on the study team's knowledge of SNAP, most States still send recertification packets via postal mail, even in States where online recertification applications are supported, which could increase the likelihood that households recertified via the paper application that was mailed to them.

Table 24: Number and Percent of Applications Submitted Online and on Paper, by Original Applications and Recertifications

Recertification	Applications Submitted Online		Applications Submitted via Paper		Total	
	Count	*Row %*	*Count*	*Row %*	*Count*	*Column %*
Original Applications	3,257,102	52.4	2,953,235	47.6	6,210,337	45.5
Recertifications	380,151	8.3	4,195,832	91.7	4,575,983	33.5
Missing	1,060,813	37.0	1,803,042	63.0	2,863,855	21.0
Total	**4,698,066**	**34.4**	**8,952,109**	**65.6**	**13,650,175**	**100.0**

Note: Totals may not equal 100% due to rounding. Table includes only applications that had an indicator for online vs. paper submission. Applications with a missing value for recertification status are included in the "Missing" row. PA and VA did not provide a variable to indicate whether an application was an original or recertification; therefore, all applications for PA and VA are included in the "Missing" row. Overall, 21% of applications are missing a value for recertification (100% missing from PA, 100% missing from VA). Chi-square test (overall and by category) are significant at the <0.001 level.
Data source: Internal State SNAP application and eligibility data, 2016–2018.

Table 25 shows the number and percentage of applications submitted online versus on paper by the applicants' income as a percent of federal poverty level. Applicants with the highest and lowest incomes are more likely to submit online, with 34.9 percent of applications submitted online for applicants who make less than 25 percent of the federal poverty guideline, and 33.4 percent of applications submitted online for applicants who make greater than 130 percent of the federal poverty guideline.

Table 25: Number and Percent of Applications Submitted Online and on Paper, by Poverty Level

Gross Income as % of Federal Poverty Guidelines	Applications Submitted Online		Applications Submitted via Paper		Total	
	Count	*Row %*	*Count*	*Row %*	*Count*	*Column %*
<25	1,358,988	34.9	2,533,751	65.1	3,892,739	28.5
25–50	194,536	21.8	699,722	78.2	894,258	6.6
51–75	319,112	21.6	1,159,056	78.4	1,478,168	10.8
76–100	363,971	22.2	1,275,388	77.8	1,639,359	12.0
101–130	370,923	26.1	1,049,713	73.9	1,420,636	10.4
>130	253,943	33.4	506,897	66.6	760,840	5.6
Missing	1,836,593	51.5	1,727,582	48.5	3,564,175	26.1
Total	**4,698,066**	**34.4**	**8,952,109**	**65.6**	**13,650,175**	**100.0**

Note: Totals may not equal 100% due to rounding. Table includes only applications that had an indicator for online vs. paper submission. Applications with a missing value for applicant income are included in the "Missing" row. As mentioned above, demographic information including income for denied applications was not provided in the TX and PA data, so those applications are included in the "Missing" row. Additionally, VA did not provide household income, and the study team was unable to ascertain UT household income. Income for PA households was estimated based upon the amount of benefits received (the 2017 Health and Human Services poverty guidelines were used to assign the poverty threshold for each application based on household income and household size). PA applications for which household size, household income, or both were missing are included in the "Missing" row. Overall, 26.1 percent of applications are missing a value for income (16% missing from CO, 21% missing from TX, 31% missing from PA, 100% missing from UT, 100% missing from VA). Chi-square test (overall and by category) are significant at the <0.001 level.
Data source: Internal State SNAP application and eligibility data, 2016–2018.

Previous estimates are reported for bivariate statistics. The following analyses concentrate on multivariate regression methods, including demographics and geography information. The benefit of multivariate analysis is that it can show the correlation of specific variables while simultaneously controlling the influence of other characteristics of the applicant (i.e., holding all else equal).

Table 26 shows the results of a logistic regression testing the probability of an application being submitted online. The regression uses a binary dependent variable equal to 1 for an application submitted online and 0 for an application submitted via paper. This analysis reveals whether a specific application or head of household characteristic is predictive of whether the application was submitted online, all else being equal. The first column lists the application characteristic and the associated categories within that characteristic. The second column lists the number of applications that fall into each category. The third column lists the regression coefficient for each category. Note that the coefficients are presented as odds ratios. The coefficients can be interpreted as the odds of applying online for a particular group compared to the reference group, holding other characteristics constant. An odds ratio of 1 means the odds of applying online are not different from the reference group, an odds ratio above 1 indicates the group is more likely to apply online than the reference group, and an odds ratio below 1 indicates the group is less likely to apply online than the reference group.

For example, when looking at race in **Table 26**, the coefficient for Black or African American is 0.96, indicating that, holding all else equal, the odds of applying online for Black or African Americans are slightly lower than the odds of applying online for the reference category (White applicants). The final column is the p-value, which indicates the level of confidence of the coefficient estimates (for example, a p-value of 0.05 indicates 95 percent confidence [1-0.05] in the estimate). Using the same example, the p-value for the Black or African American coefficient is 0.001, indicating that the confidence level is greater than 99.9 percent.

As **Table 26** shows, holding all else equal, age, race, gender, and household size have statistically significant correlations with whether applications are submitted online. In this regression analysis, the most common value was used as the reference category. For the State variable, TX was used as the reference category because it had the highest number of applications. Interestingly, applications with missing values also have significant correlations with whether applications are submitted online. If online applications require certain fields to be populated, this could affect those results. Further, missing certain fields (such as gender) may also be indicative of missing other fields throughout the application. Given that missing values were common across all variables and excluding applications with missing values would significantly reduce the population size, the study team chose to include applications with missing values in the analysis.

Holding all else equal, the following groups were most likely to submit their applications online, compared to the reference group within each variable: report multiple races (vs. those who report being White), age less than 18 (vs. those who report being 25-34 years old), one-person households (vs. 2-3 person households), and live in VA (vs. those who live in TX). Additionally, applicants living in a metro area with a population over 1 million were most likely to submit online.

Table 26: Logistic Regression Results, Probability for Applying Online

Variable	Number of Applications	Odds Ratio	p-value
Income Level as % of Federal Poverty Guidelines			
<25%	3,892,739	Reference	<0.001
25–50%	894,258	0.67	<0.001
51–75%	1,478,168	0.62	<0.001
76–100%	1,639,359	0.62	<0.001
101–130%	1,420,636	0.75	<0.001
>130%	760,840	1.16	<0.001
Missing	3,562,520	2.24	<0.001
Applicant Race			
White	5,225,202	Reference	<0.001
Black or African American	2,527,632	0.96	<0.001
Native American	39,858	1.24	<0.001
Asian American	144,627	0.81	<0.001
Native Hawaiian or Pacific Islander	21,769	1.34	<0.001
Other	208,988	0.65	<0.001
Multiple	37,650	1.63	<0.001
Missing	5,442,794	0.74	<0.001
Applicant Gender			
Female	8,133,995	Reference	<0.001
Male	2,562,064	1.14	<0.001
Missing	2,952,461	1.50	<0.001
Applicant Age			
<18	11,686	1.64	<0.001
18–24	1,282,264	1.36	<0.001
25–34	3,669,327	Reference	<0.001
35–44	2,597,435	0.84	<0.001
45–54	1,474,003	0.62	<0.001
55–64	1,048,546	0.40	<0.001
65+	616,018	0.36	<0.001
Missing	2,949,241	0.63	<0.001
Household Size			
1	3,476,413	1.56	<0.001
2–3	3,946,298	Reference	<0.001
4–5	2,470,401	0.76	<0.001
6+	732,344	0.60	<0.001
Missing	3,023,064	0.97	0.001

Variable	Number of Applications	Odds Ratio	p-value
State			
CO	345,752	1.07	<0.001
PA	2,579,141	0.78	<0.001
TX	10,160,010	Reference	<0.001
UT	280,558	2.10	<0.001
VA	283,059	33.96	<0.001
Rural/Urban Location			
Metro 1+ M	6,085,006	Reference	<0.001
Metro 250k–1 M	2,767,115	0.89	<0.001
Metro <250k	726,963	1.00	0.126
Nonmetro	1,282,978	0.76	<0.001
Missing	2,786,458	0.89	<0.001

Note: Table includes only applications that had a value of either accepted or denied for acceptance status and had a value for online vs. paper submission. Tables A-16 through A-18 in Appendix A contain state-by-state breakouts of applications by metro area population for CO, PA, and TX, respectively.
Data source: Analysis of internal State SNAP application and eligibility data, 2016–2018.

In addition to testing the effects of application characteristics on whether applications are submitted online versus via paper, the study team also tested the effects of application characteristics on whether applications are accepted or denied, including the relationship between online submissions and acceptance rates. For this analysis, a logistic regression tested the probability of an application being accepted, where the dependent variable is equal to 1 for an accepted application and 0 for a denied application.

Data availability varied from study State to study State. Both PA and TX did not provide demographic information for denied applications, UT provided demographic data that could not be attributed to an application due to duplicate observations with conflicting information, and VA provided fewer variables than CO. As a result, the study team constructed separate models for CO and VA to maximize the use of the data that was available.

Table 27 shows the results for CO and **Table 28** shows the results for VA. Holding all else equal, applications submitted online were statistically significantly less likely to be accepted for both States. One possible explanation for this is that applicants may begin an application online but not complete the necessary subsequent steps, such as completing an interview to be accepted. The data provided did not allow us to understand the point at which the applications were started and stopped, and potentially denied or the reason for denial.

The study team ran regression models both excluding and including the indicator for the application source (online or paper) to determine whether it observed consistent patterns in acceptance rates in both models among the other variables. Both with and without the application source, the average acceptance rate within each income level, race, gender, age, household size, urban or rural location, and application type remained consistent. Adding the application source explains the differences in acceptance rates while leaving the remaining variable results unchanged, indicating that application source alone is a good predictor of an application being accepted. See example above as to how online applicants may be not follow through with the entire process.

Holding all else equal, including the application source, the following groups were most likely to have their applications accepted in CO, compared to the reference group: have income at 25–50 percent of federal poverty guidelines, ages 55–64, live in nonmetro areas, and be recertifications.

Table 27: Logistic Regression Results, Probability of an Application Being Accepted, CO Only

Variable	Number of Applications	Odds Ratio (Excluding Online Indicator)	p-value	Odds Ratio (Including Online Indicator)	p-value
Application Source					
Paper	239,052	NA	NA	Reference	
Online	106,698	NA	NA	0.34	<0.001
Income Level as % of Federal Poverty Guidelines					
<25%	161,047	Reference		Reference	
25–50%	28,397	2.5	<0.001	2.28	<0.001
51–75%	26,460	2.03	<0.001	1.89	<0.001
76–100%	24,191	1.93	<0.001	1.83	<0.001
101–130%	19,378	1.26	<0.001	1.25	<0.001
>130%	30,568	0.24	<0.001	0.23	<0.001
Missing	55,709	2.16	<0.001	2.27	<0.001
Applicant Race					
White	23,073	Reference		Reference	
Black or African American	3,771	1.14	0.001	1.03	0.423
Asian American	674	0.77	0.002	0.72	<0.001
Pacific Islander	209	0.65	0.004	0.59	0.001
Missing	318,023	1.19	<0.001	1.03	0.033
Applicant Gender					
Female	210,893	Reference		Reference	
Male	134,043	1.06	<0.001	0.98	0.012
Missing	814	0.56	<0.001	0.57	0
Applicant Age					
<18	455	0.28	<0.001	0.37	
18–24	31,183	0.64	<0.001	0.62	<0.001
25–34	107,723	Reference		Reference	
35–44	78,852	1.37	<0.001	1.31	<0.001
45–54	49,269	1.67	<0.001	1.51	<0.001
55–64	44,157	2.14	<0.001	1.84	<0.001
65+	34,111	1.84	<0.001	1.66	<0.001
Household Size					
1	178,825	Reference		Reference	
2–3	30,302	0.79	<0.001	0.76	<0.001
4–5	44,006	0.74	<0.001	0.69	<0.001
6+	92,617	0.77	<0.001	0.65	<0.001

Variable	Number of Applications	Odds Ratio (Excluding Online Indicator)	p-value	Odds Ratio (Including Online Indicator)	p-value
Rural/Urban Location					
Metro 1+ M	118,738	Reference		Reference	
Metro 250k–1 M	85,046	1.09	<0.001	1.04	<0.001
Metro <250k	27,447	1.43	<0.001	1.17	<0.001
Nonmetro	41,671	1.44	<0.001	1.16	<0.001
Missing	72,848	1.43	<0.001	1.41	<0.001
Application Type					
Original	340,803	Reference		Reference	
Recertification	4,947	2.89	<0.001	2.13	<0.001

Note: Table includes only applications that had a value of either accepted or denied for acceptance status and had a value for online vs. paper submission. Table A-16 in Appendix A contains a breakout of application method by rural/urban location for the State of CO.
Data source: Analysis of internal State SNAP application and eligibility data, 2016–2018.

Similar to CO, applications submitted online in VA have a much lower likelihood of being accepted, holding all else equal. As mentioned above, application source (paper vs online) alone is a good predictor of an application being accepted given that the relationship between the other variables and acceptance rates remains consistent both with and without this variable in the logistic regression. VA did not provide a variable indicating whether an application was a recertification application, so the study team could not control for that characteristic in the model. However, the study team observed that in study States that provided the recertification indicator variable, 91.7 percent of recertification applications were submitted via paper, which could account for the higher likelihood of paper applications being accepted.

Table 28: Logistic Regression Results, Probability of an Application Being Accepted, VA Only

Variable	Number of Applications	Odds Ratio (Excluding Online Indicator)	p-value	Odds Ratio (Including Online Indicator)	p-value
Application Source					
Paper	8,074	NA	NA	Reference	
Online	274,985	NA	NA	0.39	<0.001
Applicant Race					
White	94,089	Reference		Reference	
Black or African American	85,655	1.02	0.043	1.03	0.002
Asian American	1,364	0.83	0.001	0.85	0.002
Native Hawaiian or Pacific Islander	1,060	0.96	0.525	0.97	0.589
Other	7,124	0.81	<0.001	0.82	<0.001
Missing	93,767	0.11	<0.001	0.12	<0.001
Applicant Gender					
Female	139,446	Reference		Reference	
Male	49,926	1.02	0.162	1.02	0.083
Missing	93,687	6.93	0.065	6.79	0.067
Applicant Age					
<18	572	0.92	0.34	0.86	0.070
18–24	22,918	Reference		Reference	
25–34	77,330	1.38	<0.001	1.37	<0.001
35–44	44,586	1.53	<0.001	1.52	<0.001
45–54	21,948	1.75	<0.001	1.72	<0.001
55–64	13,712	1.75	<0.001	1.70	<0.001
65+	8305	1.27	<0.001	1.21	<0.001
Missing	93,688	1.83	0.34	1.82	0.558
Household Size					
1	92,428	Reference		Reference	
2–3	118,074	0.99	0.578	0.98	0.077
4–5	55,472	1.05	<0.001	1.03	0.01
6+	16,792	1.08	<0.001	1.04	0.018
Missing	293	1.26	0.054	1.26	0.053

Note: Table includes only applications that had a value of either accepted or denied for acceptance status and had a value for online vs. paper submission. VA did not provide a variable indicating whether an application was a recertification application.
Data source: Analysis of internal State SNAP application and eligibility data, 2016–2018.

Objective 4, Question 2—To what degree, if any, does the use of online applications differ by geographic area?

Close to half of the applications (44.6 percent) were submitted by applicants who live in metro areas with a population of 1 million or more. Across all applications, applicants in nonmetro Counties have a lower proportion of online applications, though the proportion is similar across population size

categories. **Table 29** shows the number and percentage of applications submitted online and via paper by County population size. See **Appendix A** for County population size findings by state.

Table 29: Number and Percent of Applications Submitted Online and on Paper, by County Population Size

County Population Size	Applications Submitted Online		Applications Submitted via Paper		Total	
	Count	*Row %*	*Count*	*Row %*	*Count*	*Column %*
Metro 1+ M	1,870,120	30.7	4,214,886	69.3	6,085,006	44.6
Metro 250k–1 M	770,211	27.8	1,996,904	72.2	2,767,115	20.3
Metro <250k	229,245	31.5	497,718	68.5	726,963	5.3
Nonmetro	327,515	25.5	955,463	74.5	1,282,978	9.4
Missing	1,500,975	53.8	1,287,138	46.2	2,788,113	20.4
Total	**4,698,066**	**34.4**	**8,952,109**	**65.6**	**13,650,175**	**100.0**

Note: Table includes only applications that had a value of either accepted or denied for acceptance status and had a value for online vs. paper submission. The study team is not currently able to identify the correct address for UT applications, so all values for UT are "Missing." Chi-square test (overall and by category) are significant at the <0.001 level. Tables A-16 through A-18 in Appendix A contain state-by-state breakouts of applications by metro area population for CO, PA, and TX, respectively.
Data source: Internal State SNAP application and eligibility data, 2016–2018.

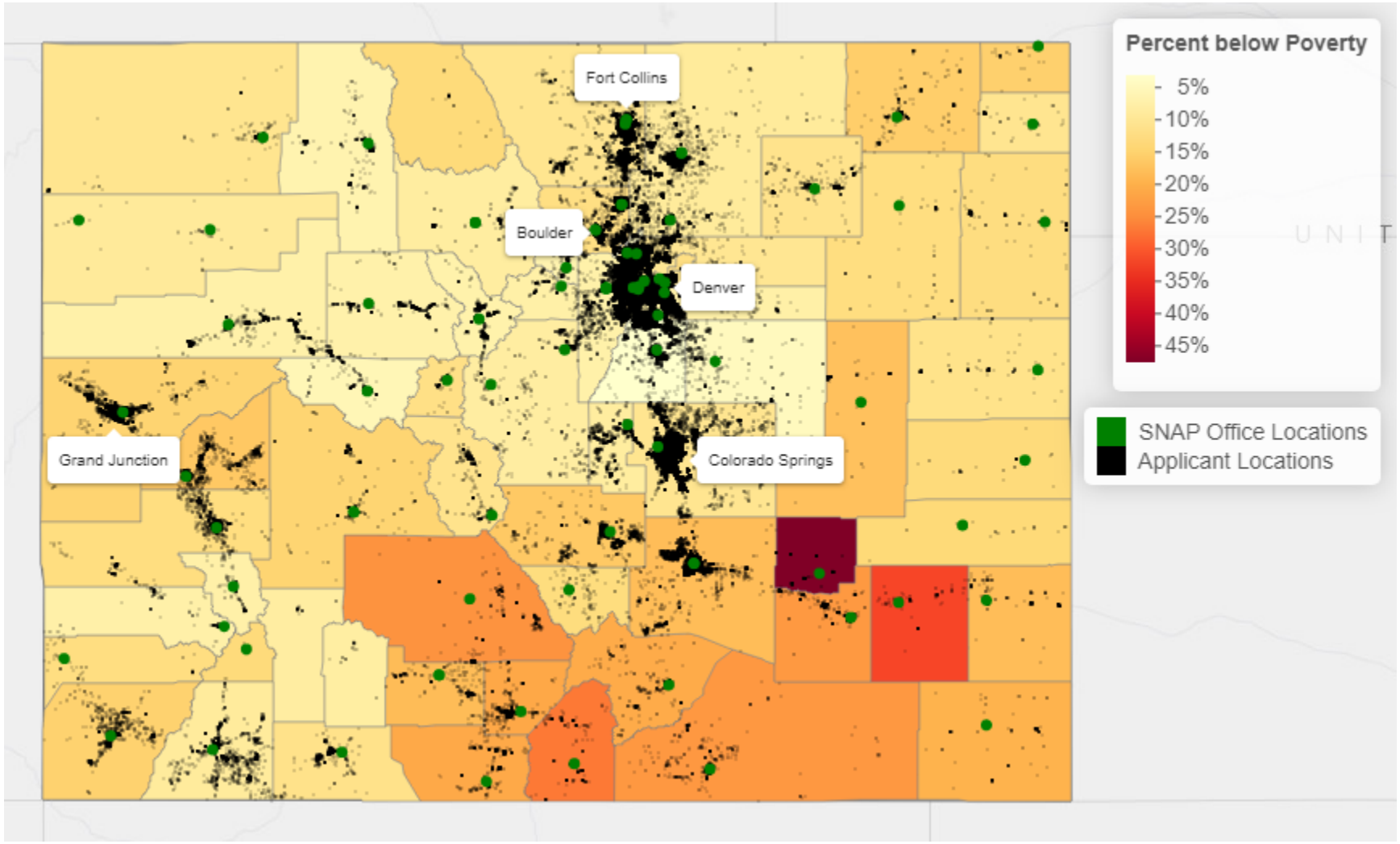
Figure 8, **Figure 9,** and **Figure 10** show the location of applications submitted based on applicant address for CO, VA, and PA, respectively. Each black dot indicates the residential address of an applicant. Green dots indicate the locations of SNAP offices. The percentage of the population that is below the poverty rate is shaded in yellow to red for each County.[30] In general, applicants and offices are near large cities within each State. As seen in the table above, more than 64.9 percent of applications (44.6 + 20.3 percent) were from metro areas with populations of 250,000 or more. As a comparison, 75 percent of the U.S. population in the 2010 Census data lived in metro areas. This may be a result of the sample used in this study comprising only three States. Further, **Figure 11** shows that 14.1 percent of applications submitted were from more than 10 miles from the nearest SNAP office. In addition, in CO the large cluster of applications in the State surround the Denver and Boulder areas, Fort Collins, Colorado Springs, and Grand Junction (**Figure 8**). VA has clusters of applications in the DC metro area, Richmond, Norfolk/Virginia Beach areas, Lynchburg, and Roanoke (**Figure 9**). However, location data was available for only 1 percent of applications in VA. PA has clusters of applications around Pittsburgh, Philadelphia, Erie, Harrisburg, Allentown, Scranton, Wilkes-Barre, Reading, Lancaster, and York (**Figure 10**).

Applicants tend to be clustered in the same area as SNAP office locations. The study team did not have the data needed to explain why this clustering is occurring. However, three possible explanations are that offices are opened in areas near where applicants reside, offices in certain areas are prompting more people in the local area to apply, or SNAP offices are located in highly populated areas.

Overall, the study team found very few offices where it did not observe a cluster of applicants, which is suggestive of offices being well-placed.

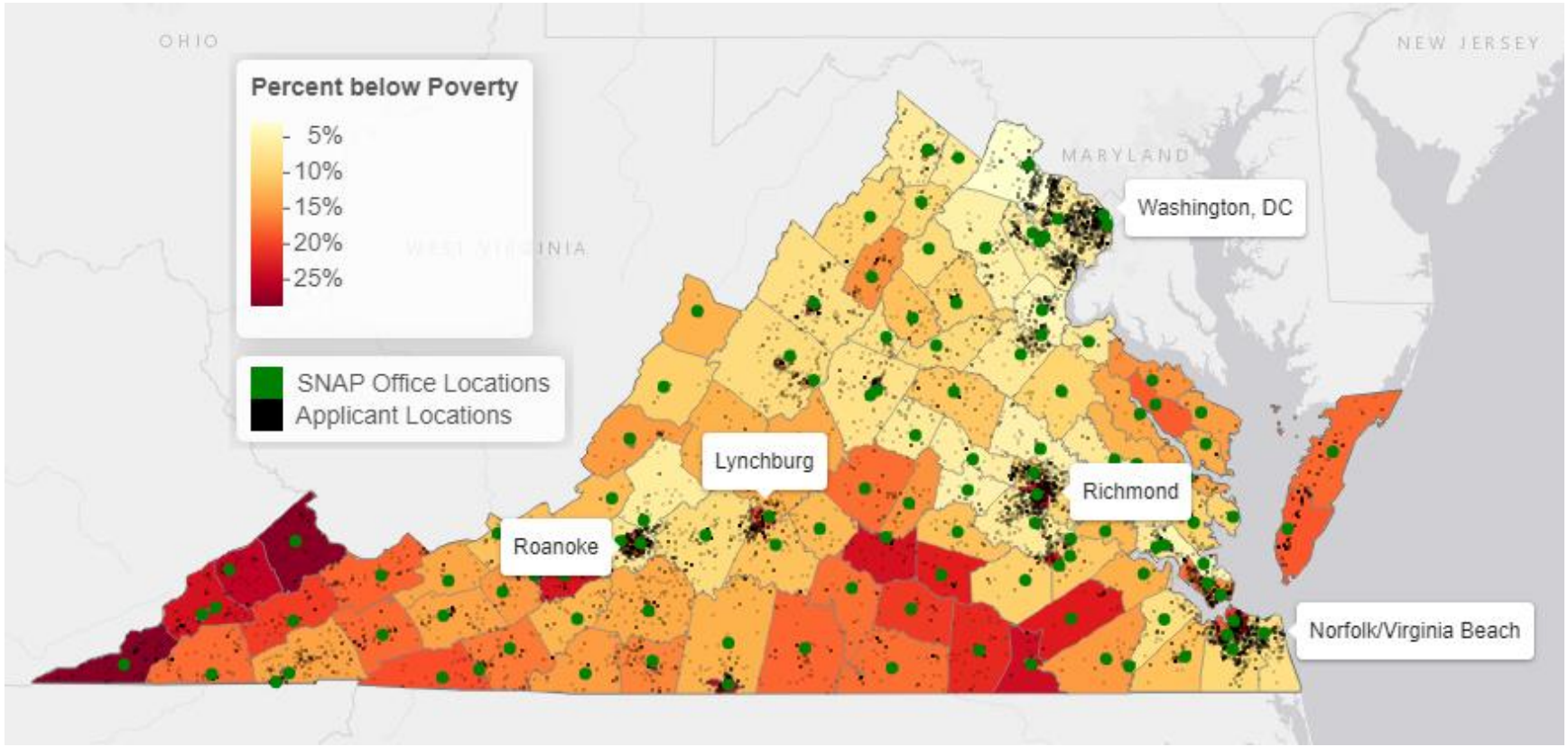
[30] "Small Area Income and Poverty Estimates, all ages in poverty, 2017," U.S. Census Bureau, accessed August 23, 2020, https://www.census.gov/data-tools/demo/saipe/#/?map_geoSelector=aa_c&map_yearSelector=2017&s_year=2017.

Figure 8: Applicant Location in CO



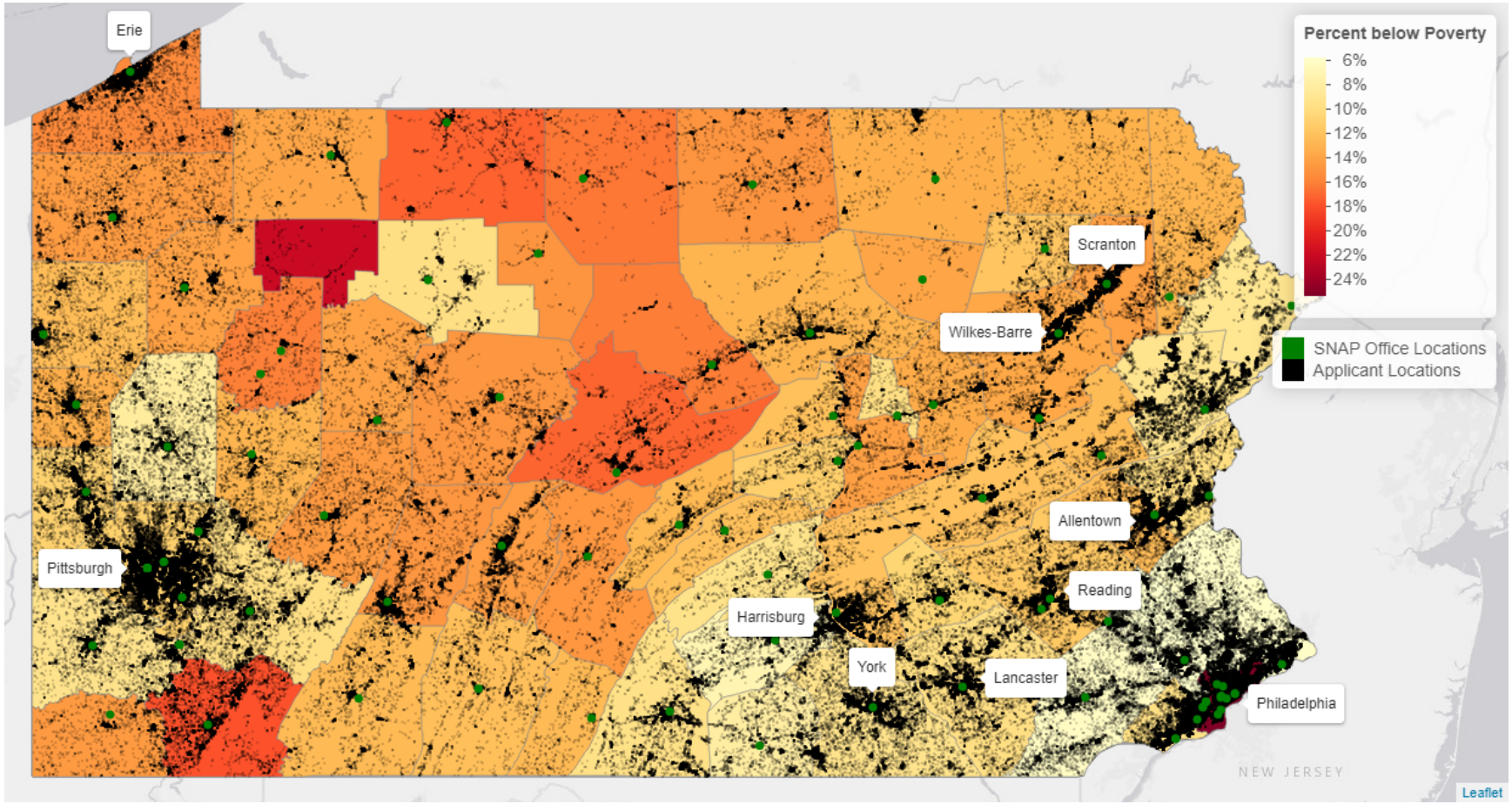
Note: Location data was available for 89% of applications in CO.
Data source: Internal State SNAP application and eligibility data, 2016–2018.

Figure 9: Applicant Location in VA



Note: Location data was available for only 1% of applications in VA.
Data source: Internal State SNAP application and eligibility data, 2016–2018.

Figure 10: Applicant Location in PA



Note: Location data was available for 97% of applications in PA.
Data source: Internal State SNAP application and eligibility data, 2016–2018.

Chapter 8. Variations in the Use of Online Applications by Study State Characteristics

This chapter explores the relationship between SNAP online applications and an applicant's distance from the nearest SNAP office. It also looks at the role of SNAP kiosks in the application process. The most dramatic shift in the physical footprints of State and County SNAP offices happened around the turn of the 21st century, when SNAP agencies began adopting new policy options and customer service tools, such as waiving the face-to-face interview requirement, customer service call centers, electronic document management, and, of course, online applications. In some States, these changes resulted in centralization of services and deemphasis on in-person requirements so working adults could more easily participate, which encouraged office closures. States have also moved to enhance customer service by installing computer kiosks in their office lobbies so applicants who visit a local office can fill out an online application instead of a paper one. This chapter of the study addresses the important question of whether the number of SNAP offices in a State correlates with the use of online applications; this is important to know because the number of offices a State operates is a management decision. Specifically, this chapter addresses two research questions:

1. Is the number of SNAP offices in the study States associated with the rate of submission of online applications?
2. Is help available to SNAP applicants when using kiosks? If so, does the availability of assistance at SNAP office kiosks affect the rate of submission of online applications?

Summary of Findings

Among the five study States (CO, PA, TX, UT, VA) that submitted administrative data on SNAP office locations, three (CO, PA, VA) submitted sufficient geography data for analyses. Overall, as the distance to the nearest SNAP office increases, the percentage of applicants choosing to submit applications online also increases.

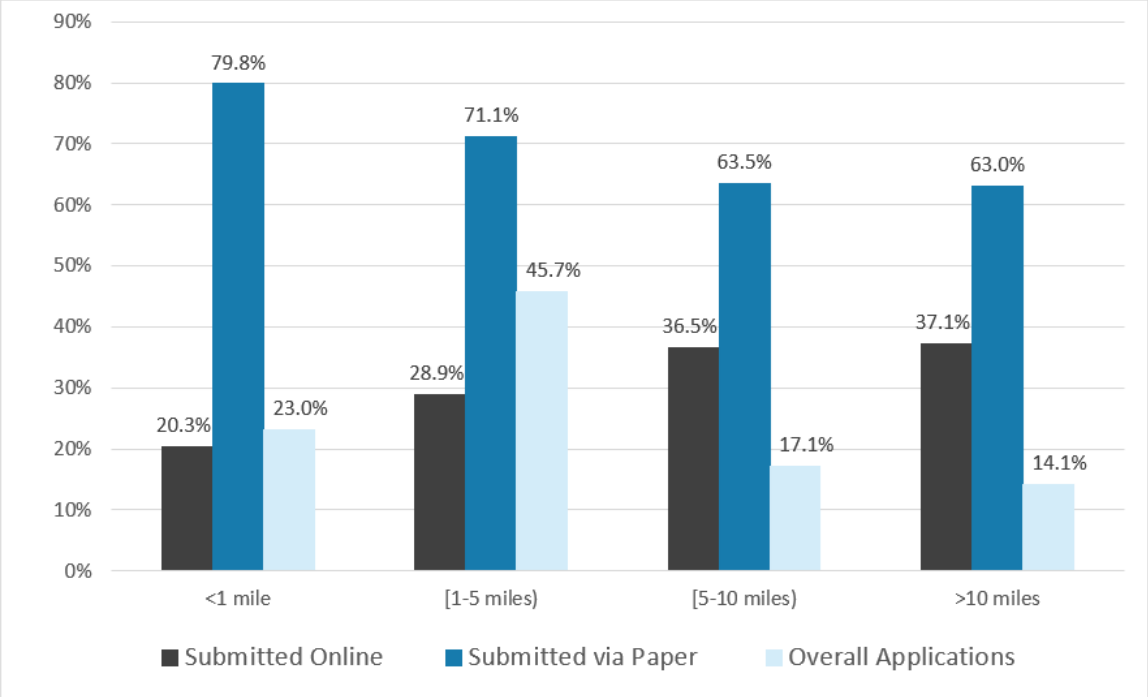
All of the study States reported that they provide application kiosks in their office lobbies, and they offer in-person assistance with the online application if needed. Some study States, especially County-administered States, reported providing different types of assistance across their kiosks.

Findings by Research Questions

Objective 5, Question 1—Is the number of SNAP offices in the study States associated with the rate of submission of online applications?

Figure 11 shows the percentage of applications submitted online by distance to the nearest SNAP office. As distance to the office increases, the percentage of applications submitted online also increases. Paper applications follow the opposite path. Note that this finding does not necessarily imply causation. If an agency opens a new office in a location that lacks one, the study team cannot ascertain whether online applications will decrease. See **Appendix A** for distance to SNAP office findings by study State.

Figure 11: Applications Submitted Online and on Paper, by Distance to SNAP Office (Percent of Applicants)



Note: Table includes only applications that had a value of either accepted or denied for acceptance status and had a value for online vs. paper submission. The study team is not currently able to identify the correct address for UT applications, and TX did not include applicant street address information, so all values for TX and UT are "Missing." Most VA records did not contain street address information. Chi-square test (overall and by category) are significant at the <0.001 level. Tables A-13 through A-15 in Appendix A contain state-by-state breakouts of distance to SNAP offices for CO, PA, and VA, respectively.
Data source: Internal State SNAP application and eligibility data, 2016–2018.

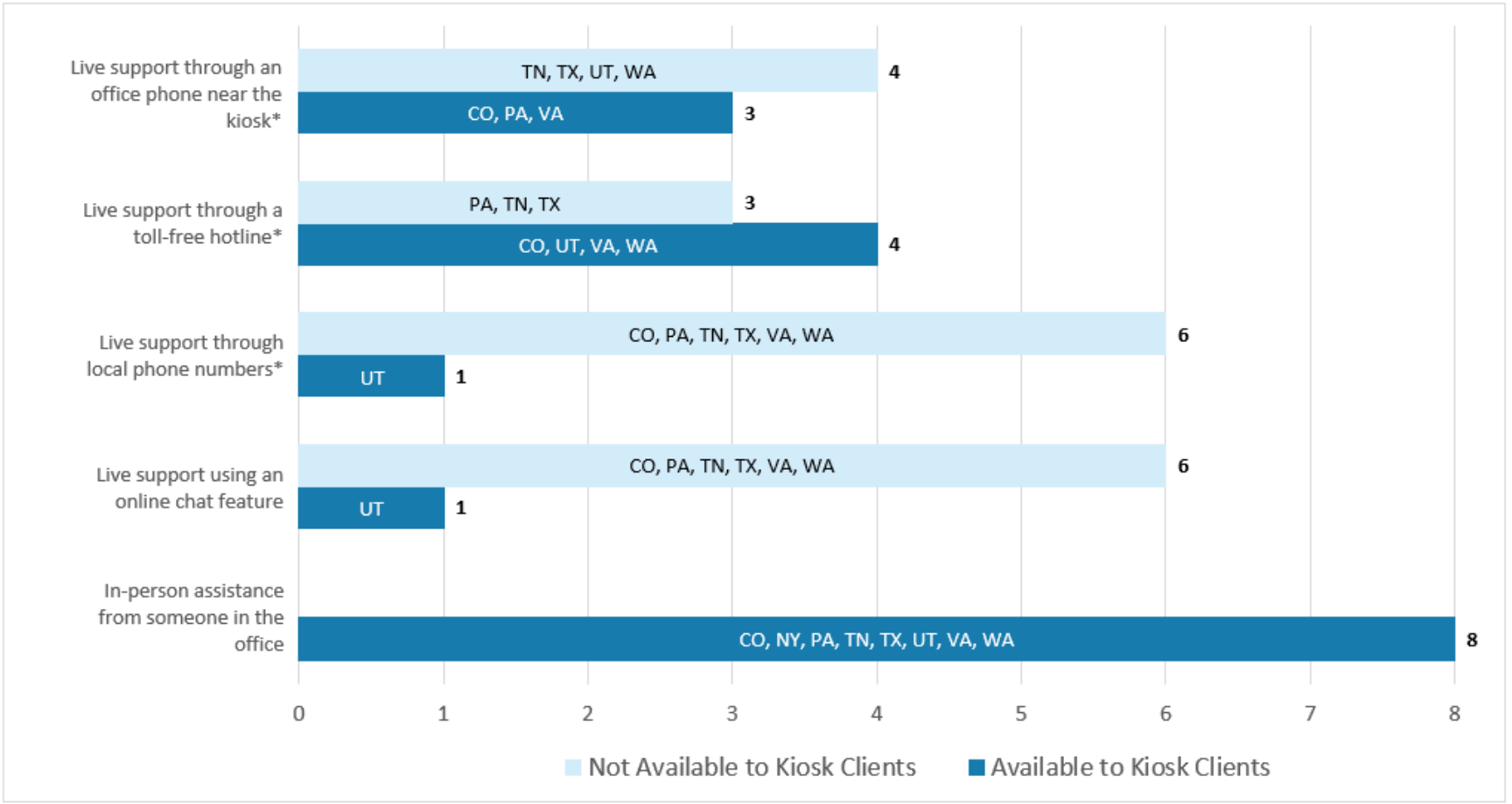
Objective 5, Question 2—Is help available to SNAP applicants when using kiosks? If so, does the availability of assistance at SNAP office kiosks affect the rate of submission of online applications?

As shown in **Figure 12,** all of the study States reported that they provide application kiosks in their office lobbies and in-person assistance with the online application, if needed. UT is the only study State providing live support for its online application using online chat features and local phone numbers. In some study States, clients can also obtain technical assistance with the application using a toll-free hotline (CO, UT, VA, WA) or office phone near the kiosk (CO, PA, VA).[31] County-administered study States noted some differences in kiosks and support availability:

- CO and NY, two of the County-administered study States, reported that the availability of kiosks varies by County agency.
- CO, along with the third County-administered study State, VA, reported that the type of assistance provided at kiosks varies as well.
- NY reported very little variation in the types of assistance available to clients in Counties that have kiosks.

[31] A toll-free telephone located near the kiosk for clients to use and connect to SNAP caseworkers.

Figure 12: Types of Assistance Offered to Clients Submitting Applications via Kiosk (Number of States)



*Note: Missing information from NY on "Live support through an office phone near the kiosk" and "Live support through a toll-free hotline." Missing information from WA and VA on "Live support through local phone numbers."
Data source: Web-based survey of eight study States.

As shown in **Table 30**, State and County efforts to increase access to the program have also led to colocation of SNAP application kiosks at community partner sites, such as nonprofits providing employment and training services. PA, TX, VA, and WA all reported having application kiosks located at community partner sites, where in-person assistance was available, in addition to their own office lobbies.

Table 30: Availability and Location of SNAP Application Kiosks

	CO	NY	PA	TN	TX	UT	VA	WA
Application Kiosks in Office Lobbies	Yes—varies by County	Yes—varies by County	✓	✓	✓	✓	✓	✓
Application Kiosks at Community Partners	✗	✗	✓	✗	✓	✗	✓	✓

Data source: Web-based survey of eight study States.

Chapter 9. Study State Perspectives on Potentially Fraudulent Activities Related to Online Applications

Detection, investigation, and prosecution of fraud in SNAP are the responsibilities of States and Counties. Additionally, FNS reports on these activities annually in the SNAP State Activity Report.[32] This chapter addresses two research questions and partially addresses a third. The following are the research questions it directly addresses:

1. What practices and procedures do the study States have in place to detect and prevent fraudulent activities that are linked to online applications?
2. What types of potentially fraudulent activities are associated with online applications? What potentially fraudulent activities are most prevalent?

Research question 6.2 asked whether study States check the IP address of online applications, the rate of online applications being submitted from the same IP address, and the rate of online applications being submitted from an IP address outside the State. Five study States (NY, PA, TX, UT, WA) track IP addresses for online applications. However, study States did not respond to the other parts of the question; hence, research question 6.2 is summarized as part of research question 6.1.

For reporting, fraud investigations are broken into two categories: precertification investigations and postcertification investigations. Precertification investigations are cases referred for investigation and completed prior to certification to prevent fraud at intake and before a dollar loss can occur. Postcertification investigations are completed after certification and may result in an administrative disqualification hearing or prosecution, disqualification of the individual who committed an intentional program violation, and the establishment of a claim to recover the overissuance or amount trafficked. In recent years, including in the most recent report available for federal fiscal year 2016, fraud prosecutions and convictions are increasing. Thus, this study asked study States what they are doing to detect and prevent fraud in SNAP online applications and how that might be different from paper applications.

Summary of Findings

Five out of the eight study States reported using online data or web analytics to identify applications that may be associated with fraudulent activities (NY, PA, TX, UT, WA). The three remaining study States reported not using any of these methods (CO, TN, VA), although one study State (TN) tracked online applications and noticed duplicate telephone number usage, which led to the discovery of potentially fraudulent applications. The common perception among study States is that they receive more fraudulent applications online because clients do not have to come into the office if they waive the face-to-face interview. TN will be using the Lexis/Nexis identity verification software to verify identity for their clients to prevent fraud.

When asked about which types of potentially fraudulent activities are associated with SNAP online applications, four out of the eight study States thought that online applications make it easier for applicants to submit false or misleading information (NY, TN, TX, UT). Five study States (NY, TN, TX, UT, WA) noted that some types of potentially fraudulent activities were more commonly associated with SNAP online applications. All of these study States reported that false identification was most common

[32] "SNAP State Activity Reports," USDA FNS, accessed August 23, 2020, https://www.fns.usda.gov/pd/snap-state-activity-reports.

to online applications. WA was the only study State that did not report duplicate enrollment as common to online applications. Two of these study States (TN, TX) identified intentional program violations in this way.

Findings by Research Question

Objective 6, Question 1—What practices and procedures do the study States have in place to detect and prevent fraudulent activities that are linked to online applications?

CO, TN, and VA do not use online data or web analytics to identify SNAP online applications that may be associated with fraudulent activities. Among the five study States (NY, PA, TX, UT, WA) that mentioned having practices or procedures to detect potentially fraudulent activities, all use some form of online data or web analytics and multiple methods to identify SNAP applications that may be associated with fraudulent activities. As shown in **Table 31**, five study States use applicant data and track IP addresses for this purpose (NY, PA, TX, UT, WA).[33] Fewer study States (NY, PA, WA) monitor clients' message-opening or click-through rates to detect fraud.[34] Two study States (NY, WA) use geolocation data and data provided by internet service providers to do this. TX and PA mentioned using Google analytics and web analytics for this purpose. Seven categories provided in the survey and States chose these categories as mechanisms to detect fraud. See below **Table 31** for all methods selected by States.

Table 31: Types of Online Data or Web Analytics Study States Use to Detect Fraudulent Activities in SNAP Online Applications

How States Detect Fraud	State				
	NY	*PA*	*TX*	*UT*	*WA*
Applicant Data Itself	✓	✓	✓	✓	✓
IP Address	✓	✓	✓	✓	✓
Geolocation	✓	✗	✗	✗	✓
Internet Service Provider Data	✓	✗	✗	✗	✓
Referrer*	✓	✗	✗	✗	✗
Message Open/ Click-through Rate	✓	✓	✗	✗	✓
Other Analytics (Yes/No)	✗	✓	✓	✓	✓

*Referrer is the last web address accessed by a browser prior to loading a particular web page.
Note: CO, TN, and VA do not use online data or web analytics to identify SNAP online applications that may be associated with fraudulent activities.
Data source: Web-based survey of eight study States.

Among the five study States that reported having practices or procedures to detect potentially fraudulent activities, NY and WA use the most methods for detecting these activities. Through conversations meant to complement survey answers, the study team learned that NY's most common types of fraud in SNAP online applications are duplicate benefits and false identification. NY uses online

[33] Research question 6.2 asked whether States check the IP address of online applications, the rate of online applications being submitted from the same IP address, and the rate of online applications being submitted from an IP address outside the State. Five States track IP addresses for online applications. However, the study States did not respond to the other parts of the question; hence, research question 6.2 is summarized as part of research question 6.1.
[34] Click-through rate is the ratio of users who click on a specific link to the number of total users who view a page, email, or advertisement.

data and web analytics to monitor and track fraud for online applications. In addition to using all methods of detecting fraud listed in the survey, NY also reported tracking the referrer webpage, the last web address accessed by a browser prior to loading a particular web page, as another method of discovering fraud. Essentially, NY uses this approach to detect the use of bots or automated referrals rather than an actual user. NY also consults with and participates in a third-party national fraud workgroup, hosted by the American Public Human Services Association and American Association of SNAP Directors, to learn about preventing potentially fraudulent activities.

WA has a procedure in place to screen applicant data first before using any other methods to detect fraudulent applications. Aside from methods identified in the survey, the State crossmatches online applications and eligibility reviews with EBT transaction data to identify any clients applying for benefits who are currently using their benefits in another State. They also check for foreign and out-of-State IP addresses, virtual private networks that can change IP address, frequently used addresses and phone numbers, identities matching reported deaths, and the number of applications from the same IP address per day.

Three of the study States (PA, TX, UT) report using fewer than four of the seven methods listed in the survey to detect potentially fraudulent activities. In addition to the methods the survey asks about, PA uses risk-based authentication that leverages Google Analytics to assess page times and counts, which includes checking device logins from new devices and locations and locking accounts with authentication failures. In the near future, PA will be implementing Remote Identity Proofing (RIDP),[35] a method that will allow recipients to immediately confirm their identity through Experian.[36]

In addition to using applicant data and tracking IP addresses to detect fraudulent activity, UT uses data analytics to detect duplicate issuance on customer transactions by tracking multiple card issuances.

In addition to the analyses of applicant data, IP addresses, online data, and web analytics to detect fraudulent activities, TX uses a centralized fraud prevention and investigations unit that helps provide oversight of the program's accuracy and fraud detection and prevention systems. This has resulted in a streamlined process that allows investigators to evaluate potentially fraudulent cases with a high degree of accuracy. The unit cross-references multiple data sources to conduct its evaluations, including Social Security Administration, TX driver license offices, social media, Birth Verification System, marriage and divorce records, phone calls to collateral contacts,[37] and the Texas Workforce Commission.

As mentioned above, neither CO nor VA scan for online fraud through web analytics or online methods or follow specific practices to detect potentially fraudulent activities. TN has begun using data analytics to track potentially fraudulent applications. TN staff use Google Docs to track online applications and detect duplicate telephone numbers, a process that identified a potential broader issue with fraudulent applications. In the future, TN plans to use the National Accuracy Clearinghouse identity verification software to verify identity of its clients and prevent fraud.

[35] RIDP is a multifactor authentication process for validating sufficient information that uniquely identifies an individual. The validating information could include credit history, personal demographic information, or other indicators.

[36] Experian is a consumer credit reporting company.

[37] Collateral contacts refer to a source of information that is knowledgeable about the client's situation and serves to support or corroborate information provided by a client.

Objective 6, Question2— Do study States check the IP address of online applications? What is the rate of online applications being submitted from the same IP address? What is the rate of online applications being submitted from an IP address outside the State?

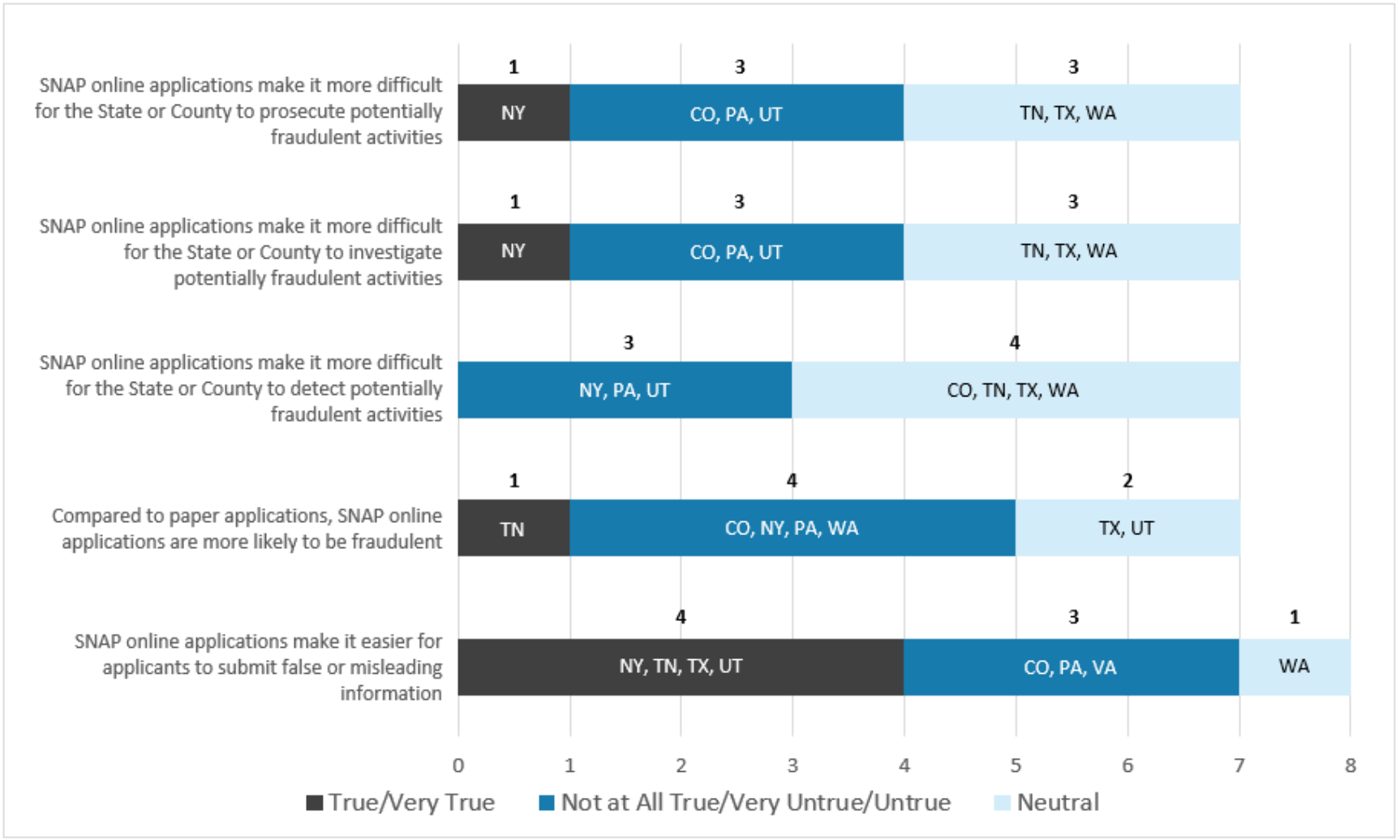
Research question 6.2 asked whether study States check the IP address of online applications, the rate of online applications being submitted from the same IP address, and the rate of online applications being submitted from an IP address outside the State. Five study States (NY, PA, TX, UT, WA) track IP addresses for online applications. However, study States did not respond to the other components of the question.

Objective 6, Question 3—What types of potentially fraudulent activities are associated with online applications? What potentially fraudulent activities are most prevalent?

When asked about their perceptions of the types of potentially fraudulent activities most often associated with online applications (**Figure 13**), half of the study States expressed that SNAP online applications make it easier for applicants to submit false or misleading information (NY, TN, TX, UT). Only two study States (NY, TN) identified other potentially fraudulent activities in addition to those the survey asked about. NY believes its fraud detection capabilities (the autoregistration and immediate availability of online applications that facilitates the use of data matching and document review prior to the application interview) more than balance the risk of applicants submitting false or misleading information because online applications facilitate better interviews, the acquisition of better and more complete information, and better eligibility decisions and benefit calculations.

TN reported that, compared to paper, SNAP online applications are more likely to be fraudulent. TN's staff clarified in a followup conversation that this is because online applications make it easier to receive duplicate benefits, submit false identification, or submit misleading information about household circumstances.

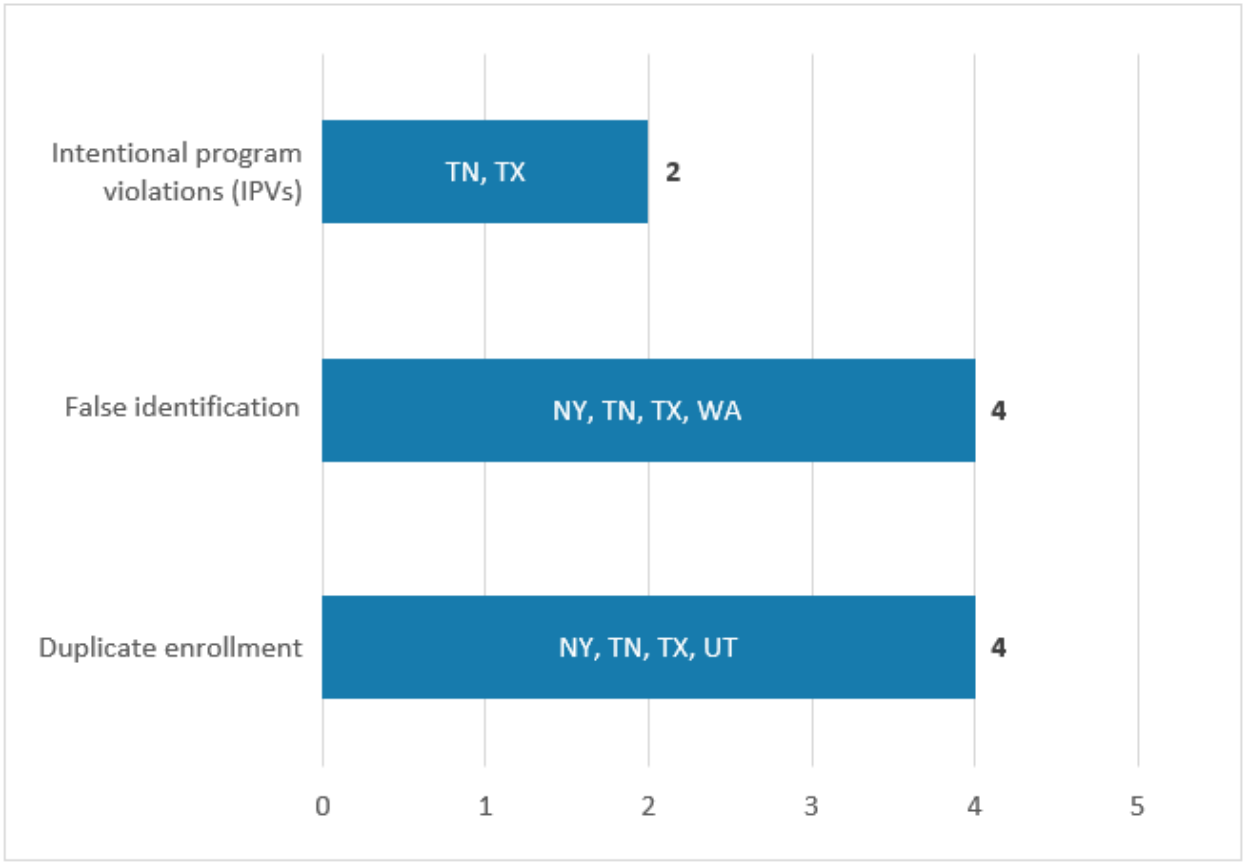
Figure 13: Perspectives on the Process of Detecting, Investigating, and Prosecuting Potentially Fraudulent Activities Related to Online Applications (Number of study States)



Data source: Web-based survey of eight study States.

When asked if they thought any potentially fraudulent activities were more common to SNAP online applications, five out of the eight study States (NY, TN, TX, UT, WA) responded they thought that some types of potentially fraudulent activities are more common for SNAP online applications than for applications submitted through other means (**Figure 14**). Among those five study States, four selected false identification and four selected duplicate enrollment as being common to SNAP online applications. Two study States (TN, TX) thought intentional program violations were made this way.

Figure 14: Study States Suspecting Potentially Fraudulent Activities are More Common to SNAP Online Applications (Number of study States)



Note: False Identification refers to anyone posing as someone else for the purposes of applying for benefits. This could include family members applying for benefits on behalf of someone else without their knowledge (e.g., adult children applying on behalf of their parents without their consent and using the benefits themselves).
Data source: Web-based survey of eight study States. Five study States responded to the question (NY, TN, TX, UT, WA).

Chapter 10. Impact of Online Applications on Program Outcomes, Including Payment Accuracy and Application Timeliness Rates

This chapter explores the correlation between submitting an online application and SNAP program outcomes, including payment accuracy and application timeliness—two of the national program performance measures each State must track and report. The research questions addressed are:

1. Is there a significant difference in payment accuracy for initial applications (expedited and nonexpedited) submitted online versus those submitted through other means?
2. Is there a significant difference in application processing timeliness for initial applications (expedited and nonexpedited) and recertification application processing timeliness for applications submitted online versus those submitted through other means?

The study team first reviewed published 2017 SNAP QC data for all study States to contextualize the findings of the data collected for the study. The survey included questions regarding payment accuracy and timeliness. CO, TX, and PA provided their QC data; however, the administrative data did not provide sufficient information for the study team to assess these metrics for the full population of applications. As a result, the number of applications is greatly reduced in the tables presented.

Reported Payment Accuracy and Application Timeliness Rates from 2017 Quality Control Data

An important responsibility of SNAP administration is ensuring eligible households have timely access to SNAP benefits. All eligible households must receive SNAP benefits within 30 days of application, or within 7 days if they are eligible for expedited service, to be considered timely. FNS measures SNAP application timeliness in three different ways: the Application Processing Timeliness (APT) rate calculated from the QC active case sample, the State timeliness rate calculated from the universe of State data, and the Certification Section of the "FNS Program and Budget Summary Statement, Part B-Program Activity Statement" (FNS-366B).[38] In addition to these measures, FNS regularly monitors State timeliness through management evaluation reviews, advocate and client complaints, and other modes of information gathering. The APT is a closely watched measure. FNS considers an APT rate of 95 percent or above as acceptable, an APT rate of 90 to 94.99 percent as untimely, and an APT rate below 90 percent as very untimely performance for which States must develop and implement a corrective action plan.

For payment accuracy, each State or County conducts monthly QC reviews of a statistical sample of households participating in SNAP (active cases) and households for which participation was denied, suspended, or terminated (Case and Procedural Error Rate cases). FNS inspects a sample of the State reviews to validate. The most recent publicly available data on QC error rates for fiscal year 2017 are shown in **Table 32**. At that time, the national payment error rate was 6.3 percent. The error rates for the eight study States are also shown in the table.

[38] Lizbeth Silbermann, Letter from FNS to all SNAP regional directors, "Clarification on the three ways initial SNAP application processing timeliness is measured," June 2, 2017, https://fns-prod.azureedge.net/sites/default/files/snap/Triple%20Timeliness%20Memo%2023May2017.pdf.

Table 32: Study State SNAP Payment Error Rates FY 2017

State	Overpayments	Underpayments	Payment Error Rate	APT Rate (FY 2015)
CO	4.75*	1.48**	6.22*	94.13†
NY	4.65*	0.88*	5.53*	87.08††
PA	4.64*	0.44*	5.08*	93.59†
TN	3.96*	0.52*	4.48*	90.53†
TX	2.81*	1.32**	4.13*	88.57††
UT	4.51*	1.08*	5.59*	95.71˜
VA	7.95**	1.75**	9.70**	91.48†
WA	4.52*	0.90*	5.42*	90.67†
National Average	**5.19**	**1.11**	**6.30**	**90.18†**

*Indicates Payment Error Rate was below the national average
**Indicates Payment Error Rate was above the national average
†Indicates Untimely Processing
††Indicates Very Untimely Processing that would require corrective action
˜Indicates Timely Processing
Note: Symbols and colors reflect common themes when indicated by three or more study States.
Data source: USDA, "Supplemental Nutrition Assistance Program: Payment Error Rates FY 2017," June 13, 2018, https://fns-prod.azureedge.net/sites/default/files/snap/FY17-QC-Payment-Error-Rates.pdf.

Summary of Findings

The 2017 QC error rates show that the national payment error rate was 6.3 percent. The error rates of the eight study States ranged from 4.14 to 9.7 percent, with VA as the only study State above the national average. The current survey findings show study States conduct some kind of quality assurance (QA) effort regarding online applications, but none of them oversample online applications in QC reviews to enable comparison of online versus paper application quality.

Survey data revealed mixed opinions on whether there were differences in payment accuracy for initial applications submitted online versus those submitted via paper. Administrative data only allowed for a preliminary estimation of payment accuracy rates, and data was insufficient to empirically test differences across study States. Estimates on the limited aggregate data showed that the percentage of applications determined to be accurately paid that were submitted online versus those submitted via paper were nearly the same, 62.1 and 61.4 percent, respectively. This rate represents the percentage of applications with an error, regardless of the dollar amount, while the payment error rates mentioned above (**Table 32**) use an error tolerance. In fiscal year 2017, this tolerance was $38. Data did not allow examination of findings on recertification.

The data on APT rates is similarly limited. Survey results and followup information from the study States revealed that none of them reported timeliness separately for online applications versus paper applications; rather, study States just report one APT rate. Note that States are not required to track timeliness for online applications separately; hence, while they may have this data, they do not report it. Anecdotal observations from study State administrators suggest that online applications do not greatly affect timeliness for either expedited or regular applications. The administrative data did not allow the study team to measure timeliness; however, the limited QC data provided by the states showed that 94.9 percent of online applications and 97.5 percent of paper applications were processed in a timely manner.

Findings by Research Questions

Objective 7 Question 1—Is there a significant difference in payment accuracy for initial applications (expedited and nonexpedited)[39] for applications submitted online versus those submitted through other means?

All of the study States report conducting some kind of Quality Assurance (QA) effort concerning applications, regardless of how they were submitted, but none of them oversample online applications in QC reviews[40] to enable comparison of online versus paper application quality. None of the study States report experiencing challenges with incorporating review of online applications into the QC processes they had in place. Moreover, none of the study States conduct systematic QA reviews of SNAP online applications independently from applications submitted through other means. Survey results indicate that study States' staff have mixed beliefs about whether SNAP online applications improve SNAP's payment accuracy rate. Three study States (CO, TN, WA) believed that online applications did not improve SNAP payment accuracy rates, but two study States (NY, UT) believed it did. The three remaining study States (PA, TX, VA) were neutral on this topic.

The study States that believed SNAP online applications improved SNAP payment accuracy rates mentioned that online applications allow more accurate data collection and facilitate the processes of data matching that yield higher payment accuracy rates. Specifically, NY reported using autoregistration and commented that the immediate availability of online applications facilitates the use of data matching and document review prior to the applicant interview in a way that the paper application process does not. Further, NY said that online applications facilitate the acquisition of more accurate and complete information that results in better eligibility decisions and more accurate benefits calculation. UT reported that online applications improved payment accuracy because they follow a streamlined process to obtain information and verification from applicants and recipients. This information is then compared to data matches to ensure accuracy for each household prior to approval.

The use of administrative data to examine payment accuracy rates was limited. Only three of the study States (CO, PA, TX) provided their QC data containing payment accuracy rates. The study team used the determinations made by QC reviewers for applications within the study data and the QC data provided to calculate accuracy rates. As shown in **Table 33**, the distribution of online versus paper applications is fairly consistent across the payment accuracy indicators. The differences between these indicators are not statistically significant. See **Appendix A** (**Tables A-19 to A-21**) for payment accuracy findings by state.

[39] Recertifications were originally part of the research question, but data was unavailable. Administrative data collected from CO, PA, TX, and VA did not allow for examination of recertifications.

[40] The SNAP Quality Control (QC) System measures the accuracy of state eligibility and benefit determinations. Data collected by quality control are also used for program improvement and analysis.

Table 33: Number and Percent of Applications Submitted Online and on Paper, by Accuracy Payment Indicators

Application Payment Accuracy	Applications Submitted Online		Applications Submitted via Paper		Total	
	Count	*Row %*	*Count*	*Row %*	*Count*	*Column %*
Accurate	1,392	23.9	4,430	76.1	5,822	61.6
Overpayments	505	23.7	1,624	76.3	2,129	22.5
Underpayments	336	22.6	1,153	77.4	1,489	15.7
Not Eligible	7	38.9	11	61.1	18	0.2
Total	**2,240**	**23.7**	**7,218**	**76.3**	**9,458**	**100.0**

Note: There are no statistical difference indicators in payment accuracy between online and paper applications. Data includes only applications that had an indicator for online vs. paper submission and had a value for payment accuracy information. Analyses only include QC data for three study States: CO, PA, and TX. VA's QC data did not contain information relevant to this analysis, and UT did not provide a QC file. Accuracy is measured as payments with any amount in error, while published error rates contain error thresholds. Tables A-19 through A-21 in Appendix A contains state-by-state breakouts of applications submitted by payment accuracy for CO, PA, and TX, respectively.
Data source: Analysis of internal State SNAP QC data, 2016–2018.

Table 34 aggregates the content shown in the previous table into two categories and presents the estimates as column percentages, rather than row percentages as shown above, to show the accuracy rate within the applications submitted online and the applications submitted via paper. There were no statistically significant differences in payment accuracy rates between SNAP applications submitted online versus those submitted on paper. Payment accuracy rates for SNAP applications submitted online are similar to those for paper submissions, 62.1 and 61.4 percent, respectively. Note that States record payment accuracy only on a subset of applications at a time; therefore, the number of applications is substantially reduced from the previous counts in the tables using the full administrative data. The data show no statistical differences in payment accuracy rates between online and paper applications. The study team did not examine payment accuracy in terms of dollar error because this field was even more sparsely populated than the overall payment accuracy finding.

Table 34: Number and Percent of Applications Submitted Online and on Paper, by Payment Accuracy

Payment Accuracy Rate	Applications Submitted Online		Applications Submitted via Paper		Total	
	Count	*Column %*	*Count*	*Column %*	*Count*	*Column %*
Accurate	1,392	62.1	4,430	61.4	5,822	61.6
Inaccurate/Not Eligible	848	37.9	2,788	38.6	3,636	38.4
Total Number of Applications	**2,240**	**100.0**	**7,218**	**100.0**	**9,458**	**100.0**

Note: Data includes only applications that had an indicator for online vs. paper submission and had a value for payment accuracy information. VA's QC data did not contain information relevant to this analysis, and UT did not provide a QC file. Data on payments to ineligible clients, overissuance, and underissuance were considered inaccurate and were not included in the analyses. Of the 11,476 applications in the QC data, 2,018 (17.6%) were missing a value for the accuracy variable. Accuracy is measured as payments with any amount in error, while published error rates contain error thresholds.
Data source: Analysis of internal State SNAP QC data, 2016–2018.

Objective 7 Question 2—Is there a significant difference in application processing timeliness for initial applications (expedited and nonexpedited)[41] and recertification application processing timeliness for applications submitted online versus those submitted through other means?

Data to examine timeliness of application processing from both the survey and administrative data was limited. For this reason, the study team presents only preliminary information to clarify the difference in APT topics.

Survey data indicates that none of the study States are tracking timeliness separately for applications submitted online versus those submitted via paper, but some offered opinions based on their practitioners' expertise. The study team reported above that most of the study States perceived online application submissions did not increase timeliness overall (Objective 1.3), possibly because it does not change the most time-consuming parts of the application process—conducting the interview and gathering the required documentation. Further, from the few study States (NY, PA, TN) that commented on timeliness differences between submission modes for expedited and nonexpedited applications, the study team did not observe a difference in timeliness based on whether the application was submitted online. PA reported that the time it takes to process an expedited application and to process an application overall should not be affected—negatively or positively—by the online process. Similarly, TN reported no difference in the timeliness of online versus paper applications for either expedited or regular applications. NY processing timeliness for expedited online applications and paper applications was about the same, but processing of online applications for the nonexpedited applications was perhaps faster due to other processes the State has in place (e.g., on-demand interviews and autoregistration).

Administrative data did not provide the date the application was processed, so the study team could not reproduce the APT metrics for the full population of applications. Instead, the study team used study State QC data to examine timeliness. From examining combined data from three study States that provided it (CO, PA, and TX), information is further limited by the fact that State QC data only tracks processing time on a subset of applications, and therefore the number of applications overall is reduced, including only a small sample of online applications.

Table 35 shows the percentage of applications submitted online by timeliness indicator. Paper submissions are slightly more likely to be timely than online submissions. The majority of applications (both online and paper) are handled in a timely manner.

[41] Recertifications were originally part of the research question but data was unavailable. Administrative data collected from CO, PA, TX, and VA did not allow for examination of recertifications.

Table 35: Number and Percent of Applications Submitted Online and on Paper, by Timeliness

Timeliness Finding	Number of Applications Submitted Online		Number of Applications Submitted via Paper		Total	
	Count	*Row %*	*Count*	*Row %*	*Count*	*Column %*
Timely	335	94.9	1,128	97.5	1,463	96.9
Not Timely	18	5.1	29	2.5	47	3.1
Total	**353**	**100.0**	**1,157**	**100.0**	**1,510**	**100.0**

Note: Table includes only applications that had an indicator for online vs. paper submission and a value of Timely or Not Timely for timeliness finding. Includes data from CO, PA, and TX. The QC data VA provided did not contain information relevant to this analysis, and UT did not provide a QC file. Chi-square test (overall and by category) are significant at the <0.05 level. Of the 11,476 applications in the QC data, 8,886 (77.4%) were missing a value for the timeliness variable. Of the 11,476 applications in the QC data, 8,886 (77.4%) were missing a value for the timeliness variable and 1,651 (14.4%) had a value of Other.
Data source: Analysis of internal State SNAP QC data, 2016–2018.

Chapter 11. Conclusions and Implications for Further Research

Over the past 20 years States have implemented online applications for SNAP and other assistance programs as a part of broader efforts to modernize health and human services business processes so the programs are more accessible to low-income people and more efficient for States to manage. Considering the prevalence of mobile "smartphones"[42] amongst households in the US and the push to modernize, it is not surprising that most of the study States are working on expanding functionality for their mobile-friendly sites and mobile apps.

This chapter summarizes key findings from the study, followed by a discussion of potential ways FNS could continue to guide States. Finally, future research opportunities are presented.

Key Findings

Study States agreed that the biggest benefit of online applications is how they improve customer service. Six of the eight States surveyed indicated that online applications have not required significant changes to their agency's workflow and processing because they fit relatively seamlessly into their standard eligibility workflow.

SNAP online applications offer flexibility and features that have become the customer service standard in other industries like banking and insurance. Moreover, online applications are becoming mainstream and have minimal, if any, impact on processing and screening of applications. Most SNAP online applications in this study have customer service-centric features that are designed to make them more accessible and user-friendly for SNAP applicants (for example, the ability to submit supporting documentation by taking a photo with a smartphone and uploading it).

Nearly all study States indicated that online applications helped improve customer service. Most States had full-website online application systems that were also mobile-friendly, albeit with reduced features.

In terms of the geographical characteristics of the applications, there are several findings. As distance to the nearest SNAP office increases, the percentage of applications submitted online also increases. Individuals and families who live in less populous areas are more likely to use online applications, holding all else equal. Thus, through online applications in any modality (website, mobile-friendly sites, and apps), the program is increasing its reach to individuals in need of SNAP benefits.

However, there are potential drawbacks to online applications. While four out of eight study States reported that online applications potentially make it easier for applicants to submit false or misleading information, five out of eight study States reported that online data and tools identify online applications that may be associated with fraudulent activities. The study States also reported using various online data or web analytics to identify online applications that may be associated with fraudulent activities.

[42] According to annual surveys by the Pew Research Center, the vast majority of Americans—96%—now own a cellphone of some kind. The share of Americans that own smartphones is now 81%, up from just 35% in Pew Research Center's first survey of smartphone ownership, conducted in 2011. Source: "Mobile Fact Sheet," Pew Research Center, June 12, 2019, https://www.pewresearch.org/internet/fact-sheet/mobile/.

Potential Areas for Further FNS Guidance and Assistance to States

Study States provided sufficient instructions for prospective clients to create accounts, but the amount of detail they offered varied. This variability is an opportunity for FNS to provide guidelines or feature checklists to support States in improving the usability of their online application processes.

What the study team found to be relevant from engaging in these analyses is that administrative data quality and completeness vary a great deal across the study States. This variability limited the ability to glean generalizable findings, including potential organizational advantages. This variability may point to the need for FNS to offer guidance on making data collection practices more consistent across States so that data is available to make strategic decisions about online applications systems or other issues.

SNAP online applications are usually created with limited funding for development or maintenance, and States report having inadequate funding to further improve or enhance the applications. For example, some States reported insufficient funding to handle specific aspects of the online application process (e.g., call center or technology issues). The ongoing offer of technology grants can potentially encourage continued improvement of the systems or features that yield the most benefit.[43] Given our findings, the study team believes that States could achieve strategic improvements by targeting resources aimed at improving the experience of underserved clients. This could additionally result in organizational advantages, such as integrated eligibility systems or other features. These systems or features create dual value through organizational improvements and a better client experience (e.g., the ability to scan eligibility or provide e-signatures).

Potential Future Research

Organizational efficiencies could provide compelling reasons to drive initiatives to improve online systems; however, none were identified across the sample of States. A study with a larger number of States would be useful for examining organizational advantages more closely.

In terms of clients' use of online applications, our data analyses revealed that younger, male, and multiracial clients were more likely to submit their applications online, controlling for all other factors. However, because of the limited sample of study States examined, data was insufficient to generalize this finding to other study States with confidence. Analyses of additional data from a larger number of States could help determine which groups are most likely to submit applications online and which are least likely to do this with more certainty, as well as determine to what extent they differ from SNAP applicants submitting paper applications. An understanding of these differences could help FNS determine where to allocate additional resources to increase client take-up rates, for example, for clients who are underserved or live farther from urban areas. For the latter, our data analyses did show that as the distance to the nearest SNAP office increases, the percentage of applicants who choose to submit applications online also increases. Thus, improving online application systems in areas where clients live in more remote areas could be important.

Despite most States recognizing improved customer service as a benefit, many reported online applications had little effect on agencies' workflow or processing of SNAP applications. Survey data revealed mixed opinions about the organizational advantages of SNAP online applications, such as reducing processing time or decreasing staff workloads. Similarly, analyses of administrative data did not reveal any significant organizational impacts of online SNAP applications on key metrics, such as

[43] "FY 2020 SNAP Process and Technology Improvement Grants," USDA FNS, last modified April 15, 2020, https://www.fns.usda.gov/grant/fy-2020-snap-process-and-technology-improvement-grants - :~:text=Funding and Duration,the three-year project period.

payment accuracy or timeliness. Our observations suggest that organizational advantages from online applications may depend on the availability of other specific features or processes. For example, reducing processing time or decreasing staff workloads seemed to be more likely in States that also had integrated eligibility systems and EDMS. The interplay between impacts on workflow, integrated eligibility systems, and EDMS warrants additional research from a larger sample of States.

An interesting discrepancy between the survey and the administrative data is that many State SNAP directors reported in the survey that a larger percentage of applications were submitted online than were actually submitted online, according to the administrative data during the study period. Some States send paper applications for recertification to applicants via mail, which could affect the number of paper applications when compared to online, possibly explaining the difference between their reported and actual online submission rates. Notably, staff may be thinking about initial applications when they are estimating, rather than initial and recertification applications together. Understanding the cause of this discrepancy between State perceptions of the number of online applications submitted and the actual counts in the administrative data could be an area for further study.

With regard to the potential for fraudulent activities, additional research on the tools and avenues States are using to combat this would be beneficial since half of the study States perceived that online applications potentially make it easier for applicants to submit false or misleading information. More insights are needed into why States choose the tools and approaches that they do. Are some tools more effective than others? What role can FNS play in broadening knowledge and access to States about web-driven analytic tools to combat potential fraud?

With additional FNS guidance and funding, coupled with additional research on strategies that yield significant impact, FNS could drive the push for continued modernization. For example, interfacing computer systems is an area where there are opportunities for further modernization. Additional research on the impact of more States implementing autoscreeening for expedited eligibility, like CO's PEAK system, or autoregistering data from the application in the eligibility system, like in NY, is needed.

Ultimately, individuals and families using online SNAP applications can apply for benefits at their convenience, and the processing workflow for caseworkers is not negatively affected. The use of online tools may continue to grow across States and could eventually become common among means-tested programs.

Appendix A—Administrative Data Details

Data Cleaning

Dataset Variables

Table A-1 provides names and descriptions of each of the administrative data variables requested from the study States, along with any issues or clarifying notes associated with the variables. The last column provides the potential values for the variables and what they correspond to. Variable names were not consistent across study States, so the study team standardized them as part of the data cleaning process. The variable names were defined in the study plan.

Table A-1: Variable Descriptions and Clarifying Notes

Variable Name	Variable Description	Issues/Notes	Key
applicant_id	A unique identifier for every request for assistance at the household level		Unique numbers or characters for each request for assistance at the household level
application_id	A unique identifier for every application	This is the primary unit of analysis for the demographic information of applications.	Unique numbers or characters for each applicant's application
appl_date	The date on which every unique application is submitted to a State agency		YYYY-MM-DD No answer = 9999-99-99
appl_disp_date	The date on which the acceptance or denial of an application is decided by a State agent		YYYY-MM-DD No answer = 9999-99-99
appl_online	Whether the application was submitted online	This was missing or could not be attributed to paper or online for 70 percent of applications in VA.	1 = Yes 0 = No 99 = No answer
appl_online_source	Whether the application was submitted via mobile device, mobile app, or other online source		1 = Mobile 2 = App 3 = Other (default) 99 = No answer
appl_recertify	Whether the application is a first-time application or a recertification	PA and VA did not provide this.	1 = Recertifying 0 = First time 99 = No answer
appl_expedited	Whether the application was designated as expedited	This was missing for over 99 percent of observations in VA's data.	1 = Yes 0 = No 99 = No answer
appl_tanf	Whether the applicant is applying for Temporary Assistance for Needy Families (TANF) with the same application	PA did not provide this.	1 = Yes 0 = No 99 = No answer

Variable Name	Variable Description	Issues/Notes	Key
appl_medicaid	Whether the applicant is applying for Medicaid with the same application	PA did not provide this.	Yes = 1 No = 0 No answer = 99
appl_age	The calculated number of years to the reference date used	The reference date was determined based on data receipt and differs from State to State; records with age of 169 (DOB: 1/1/1851) and 168 were recoded to missing.	
appl_zip	Zip code of applicant's residence	This was missing for over 99 percent of observations in VA's data.	Five digits, no decimals 00000 = No answer
appl_city	City of applicant's residence	This was missing for almost all observations in VA's data.	Follow American Community Survey pattern[44] 99 = No answer
appl_County	County of applicant's residence	This was missing for over 99 percent of observations in VA's data	Use Federal Information Processing Standards code[45] 99999 = No answer
appl_race	The applicant's race	The data dictionary VA provided did not accurately reflect the values in the corresponding data. (See the section on Data Variable Recoding below for more details.) This was missing for 69 percent of applications in UT.	1 = White 2 = Black or African American 3 = Native American 4 = Asian American 5 = Native Hawaiian or Pacific Islander 6 = Other 7 = Two or more races 99 = No answer
appl_hispanic	The applicant's ethnicity	This was missing or unclear in 28 percent of applications, including 94 percent of applications in VA and 51 percent of applications in UT. When the value was omitted, it was unclear whether the applicant's ethnicity was non-Latino/Hispanic or unknown. As a result, this variable was not included in the analysis.	1 = Hispanic 0 = Not Hispanic 99 = No answer

[44] "City codes and frequencies," IPUMS USA, Minnesota Population Center, University of Minnesota, accessed August 24, 2020, https://usa.ipums.org/usa-action/variables/CITY#codes_section.

[45] "Understanding Geographic Identifiers (GEOIDS)," U.S. Census Bureau, last modified July 22, 2020, https://www.census.gov/programs-surveys/geography/guidance/geo-identifiers.html.

Variable Name	Variable Description	Issues/Notes	Key
appl_male	The applicant's gender		1 = Male 0 = Female 99 = No answer
appl_marital	The applicant's marital status		1 = Single 2 = Married 3 = Divorced 4 = Separated 5 = Widowed 6 = Domestic partner 99 = No answer
appl_citizen	Whether the applicant is a citizen of the United States[46]		0 = Citizen 2 = Refugee 3 = Noncitizen 99 = No answer
household_size	The number of people for or with whom the applicant regularly purchases and prepares food, including the applicant	This was created by counting the number of unique individual IDs for each application ID and resulted in values up to 137 for CO, 20 for TX and VA, and 17 for PA.[47]	≥1, no decimals 99 = No answer
household_income	The amount of income the applicant's household receives from all sources (gross income)	There were some negative values for income in CO; observations with negative income were sent to CO for review. VA and PA did not provide this. See page A-15 for details on how this was calculated in PA.	≥0, no decimals 99999 = No answer
ProcessingTimeliness	The findings of the Supplemental Nutrition Assistance Program (SNAP) quality control (QC) as to whether the application was processed within SNAP timeliness standards	QC data was not provided by UT, and VA's QC data was not used in this analysis.	1 = Timely 2 = Not Timely 3 = Other/Not reviewed
ReviewFinding	The findings as to whether the reviewer reached the correct benefits payment amount	QC data was not provided by UT, and VA's QC data was not used in this analysis.	1 = Amount Correct 2 = Overissuance 3 = Underissuance 4 = Ineligible

[46] This definition matches the variable used in "Characteristics of SNAP Households: Fiscal Year 2017," USDA FNA, February 26, 2019, https://www.fns.usda.gov/snap/characteristics-supplemental-nutrition-assistance-program-households-fiscal-year-2017.

[47] Less than 1% of applications had a household size greater than 31 in CO. Household size was subsequently converted to a categorical variable, see "household_size_categ." CO noted that sometimes multiple IDs may be assigned to the same person but did not offer a methodology for identifying and accounting for these instances.

Variable Name	Variable Description	Issues/Notes	Key
office_id	The indicator for which office handled processing an application or case	This information was not provided by VA, UT, or PA.	The format of this variable varies from State to State
application_status_code	The disposition of an application		0 = Denied 1 = Approved
state_num	Numeric variable for the State of the application used in regressions		1 = CO 2 = PA 3 = TX 4 = UT 5 = VA
dist_mi	Distance between the applicant's address and the nearest SNAP office (in miles)	Distances are calculated as the Great Circle distance (i.e., not driving distance) and are therefore likely to underestimate the true distance an applicant would have to travel to a SNAP office.	
dist_categ	Categorical variable of "dist_mi"		0 = <1 mile 1 = 1 to 5 miles 2 = 5 to 10 miles 3 = More than 10 miles
tag_applicant	Flags a single row per applicant	This variable is used for any applicant-level tables.	0 = Not first instance of applicant 1 = First instance of applicant
ever_online	Indicator for whether an applicant ever submitted an application online		0 = Applicant only submitted applications via paper or with a missing application source. 1 = Applicant submitted an application online at least once. 99 = Applicant only submitted applications with a missing application source.

Variable Name	Variable Description	Issues/Notes	Key
poverty_pct_categ	Household income as a percent of the poverty threshold	The poverty guidelines were the 2017 Department of Health and Human Services poverty guidelines.[48]	1 = <25% 2 = 25%–50% 3 = 51%–75% 4 = 76%–100% 5 = 101%–130% 6 = >130% 7 = Missing
appl_age_categ	Categorical variable for applicant age		0 = 18–24 1 = 25–34 2 = 35–44 3 = 45–54 4 = 55–64 5 = 65+ 6 = <18 7 = Missing
household_size_categ	Categorical variable for household size		0 = 1 member 1 = 2–3 2 = 4–5 3 = 6+ 4 = Missing
urban_rural	Categorical variable for the rural/urban classification of an application based on the applicant County	The rural/urban classification was determined using the 2013 Rural-Urban Continuum Codes;[49] 4 through 9 were aggregated into a "Nonmetro" category.	1 = Metro 1+ M 2 = Metro 250k–1 M 3 = Metro <250k 4 = Nonmetro

Data source: Analysis of internal State SNAP application and eligibility data, 2016–2018.

Data Variable Recoding

Many of the values for each of the requested variables were inconsistent across study States. Therefore, the study team recoded the values to allow it to merge the study State datasets together to generate the analytic file used for the analyses presented in this report. The following tables show the recoding performed for relevant variables. In each table, the left column shows the recoded values for the given variable. The subsequent columns list the values from each study State dataset that were included in each or the recoded values. For example, in the first table the final variable is an indicator for whether the application was accepted. In PA, all applications that had a value of "A" (Approved) for the application status code were considered "Accepted" in the recoded variable. Values of "E" (Application Entry), "R" (Rejected), and "S" (Screened) were considered "Denied."

[48] Department of Health and Human Services, "Annual Update of the HHS Poverty Guidelines," National Archives Federal Register, January 1, 2017, https://www.federalregister.gov/documents/2017/01/31/2017-02076/annual-update-of-the-hhs-poverty-guidelines.

[49] "Rural-Urban Continuum Codes," USDA Economic Research Service, last modified October 25, 2019, https://www.ers.usda.gov/data-products/rural-urban-continuum-codes.aspx.

Table A-2: Application Status

Recoded Value	Original Values				
	CO	***PA***	***TX***	***UT***	***VA***
Accepted = 1	1 (Yes)	A (Approved)	AP (Approved)	1 (Yes)	DI (Case Approved)
Denied = 0	0 (No)	E (Application Entry), R (Rejected), S (Screened)	DN (Denied)	0 (No)	DN (Case Denied/Closed), DE (Application Denied)
No Answer = 99			Sustained, Terminated, Non-Action		AP (Application Pending), CP (Case Pending), AC (Application Complete)

Note: Applications from TX that have an application status code of terminated (TN) were removed.
Data source: Analysis of internal State SNAP application and eligibility data, 2016–2018.

Table A-3: Race Variable Recoding

Recoded Value	Original Values				
	CO	***PA***	***TX***	***UT***	***VA***
White = 1	1 (White)	5 (White)	WH (White)	1 (White)	WH (White)
Black or African American = 2	2 (Black)	1 (Black or African American)	AA (Black or African American)	2 (African American)	AA (American Indian or Alaska Native)[50]
Native American = 3	4 (Native American)	3 (American Indian or Alaskan Native)	AI (American Indian or Alaskan Native)	3 (American Indian)	
Asian American = 4	3 (Asian American)	4 (Asian American)	AS (Asian American)	4 (Asian American)	CH (Chinese), JP (Japanese), KR (Korean), VT (Vietnamese)
Native Hawaiian or Pacific Islander = 5	5 (Pacific Islander)	7 (Native Hawaiian or Other Pacific Islander)	NH (Native Hawaiian or Other Pacific Islander)	5 (Native Hawaiian or Pacific Islander)	PI (Other Pacific Islander), GU (Guamanian or Chamorro)
Other = 6		2 (Hispanic), 6 (Other)		6 (Other)	
Two or more = 7		12-765,432 (Multiple)	Codes corresponding to multiple races	7 (Two or more)	
Missing = 99	Missing	8 (Unknown), Missing	UK (Not Provided), UN (Unable to Determine)	Missing	UN (unknown)

Data source: Analysis of internal State SNAP application and eligibility data, 2016–2018.

[50] VA's data dictionary indicated "AA" as "American Indian/Alaska Native" and "BL" as Black or African American; however, the data did not include any values of "BL." The proportion of "AA" values aligned with other States' proportion of African American applications. As a result, the study team categorized values of "AA" as African American instead of American Indian or Alaska Native, as the dictionary instructed.

Table A-4: Gender Variable Recoding

Recoded Value	Original Values				
	CO	***PA***	***TX***	***UT***	***VA***
Male = 1	0 (Male)	M (Male)	M (Male)	0 (Male)	M (Male)
Female = 0	1 (Female)	F (Female)	F (Female)	1 (Female)	F (Female)
No answer = 99	Missing	Missing		Missing	Missing

Data source: Analysis of internal State SNAP application and eligibility data, 2016–2018.

Table A-5: Application Online Variable Recoding

Recoded Value	Original Values				
	CO	***PA***	***TX***	***UT***	***VA***
Yes = 1	2 (Online), 3 (Mobile), 4 (Mobile App)	CDE_TYPE_APPLN_COMPASS != "#"	"Online"	1 (Online)	"CommonHelp"
No = 0	1 (Paper)	CDE_TYPE_APPLN_COMPASS = "#"		0 (Not online)	"Paper Application"
No answer = 99	Missing				

Note: In PA, a "COMPASS" application is an online application. A value other than "#" in the CDE_TYPE_APPLN_COMPASS variable indicates it was submitted online.
Data source: Analysis of internal State SNAP application and eligibility data, 2016–2018.

Table A-6 shows the specific application source for online applications, whether it was submitted via smartphone, a mobile app, another method (computer), or unknown. CO was the only study State to provide this information at this level of detail. For all other study States, it was coded as "Other" if it was an online application and "No answer" if it was a paper application. In PA, a "COMPASS" application is an online application, so any applications with a value of "#" for the type of COMPASS application (which indicates that the variable is "Not Applicable" for that application) are categorized as not online. If there was a value other than "#," it is categorized as "Other" because the variable does not provide the detail needed to differentiate between mobile, app, or other online sources.

Table A-6: Application Source Variable Recoding

Recoded Value	Original Values				
	CO	***PA***	***TX***	***UT***	***VA***
Mobile = 1	3 (Mobile)				
App = 2	4 (Mobile App)				
Other (default) = 3	2 (Online)	CDE_TYPE_APPLN_COMPASS != "#"	"Online"	1 (Online)	"CommonHelp"
No answer = 99	1 (Paper)	CDE_TYPE_APPLN_COMPASS = "#"		0 (Not online)	

Note: In PA, a "COMPASS" application is an online application. If there is a value other than "#" in the CDE_TYPE_APPLN_COMPASS variable, that indicates it was submitted online. None of the values of this variable correspond to a Mobile application or an App application.
Data source: Analysis of internal State SNAP application and eligibility data, 2016–2018.

Table A-7: Recertification Variable Recoding

Recoded Value	Original Values				
	CO	***PA***	***TX***	***UT***	***VA***
Yes = 1	1 (Recertify)	NA	Y	1 (Recertify)	NA
No = 0	0 (Original)	NA	N	0 (Original)	NA
No answer = 99	Missing	NA			NA

Data source: Analysis of internal State SNAP application and eligibility data, 2016–2018.

Table A-8: Expedited Variable Recoding

Recoded Value	Original Values				
	CO	***PA***	***TX***	***UT***	***VA***
Yes = 1	1 (Yes)	Y	Y	1 (Yes)	Y
No = 0	0 (No)	N	N	0 (No)	N
No answer = 99	Missing				NA

Data source: Analysis of internal State SNAP application and eligibility data, 2016–2018.

Data Review and Deduplication Process

This section describes the process the study team used to review the data and remove potentially erroneous or duplicated data, promote consistency within a given application ID, and achieve a unique observation for each application for each study State. Specifically, the study team reviewed each of the files and took the following actions:

- Confirmed that variables listed in the documentation appeared in the data files
- Confirmed that variable values listed in the documentation aligned with values in the data
- Reviewed the number of observations
- Reviewed the prevalence of missing values within each variable
- Reviewed the range of values for non-categorical variables, such as age and income
- Determined the unit of measurement within each file (application, individual, household, etc.)

The study team then compiled the files using the following steps:

- Merged additional data tables with the application data from each study State. Many of the study States provided their data in multiple files that needed to be merged to compile a complete dataset. The study team followed State instructions for this (when provided).
- Accounted for variations in unit of analysis by deduplicating and aggregating data tables to contain one observation per application. This involved identifying duplicate applications and generating business rules to deduplicate based on the specific variables and instructions from States (when provided).
- Reformatted and recoded variables to align across study States. Because each study State uses different names and values for the variables of interest, the study team needed to recode the variable names and values so it could perform analysis across study States.[51]
- Appended the study State files together to generate a master analytic file.

[51] For example, because gender may be coded as "0" and "1" or "Male" and "Female," all variables were recoded to contain the same values across the study States.

The specific process for each state is described in detail below.

Colorado

For each application ID, the study team:

- Removed values that did not have a value of "1" as the "Relationship to Head of Household."
- Removed all records that did not have a value of "1" for "Seeking Benefits," except for those applications in which no head of household was classified as seeking benefits. In those instances, the study team kept applications with a "1" for "Relationship to Head of Household" and a "0" for "Seeking Benefits."
- For applications in which two office locations were listed, the study team removed observations where a PO box (mailing address) was listed for the office, rather than the physical address, because the PO box does not correspond to the location the applicant visited.
- Removed duplicate household IDs because the application IDs have two household IDs but refer to the same individuals with the same characteristics.
- Removed applications with completely identical values for each variable (retaining only one instance of the application).
- Marked a given application ID as applying for expedited processing if any instance of the application ID indicated this.
- Summarized the unique nonmissing values of race, gender, ethnicity, disability status, and income for each combination of application ID, date of application, and individual ID, then compared across all records for that combination:
    - If the values for each single variable were all either missing or identical, or contained all identical values in addition to missing values, then those values were assigned to each observation at that application ID, date of application, and individual ID level.
    - If values were not identical, then the values for all observations at that application ID, date of application, and individual ID level were recoded as missing because the study team was unable to determine which were the correct values.
- Sorted the dataset, with the individual IDs of those who were not minors listed first in ascending numeric order. If all remaining observations were minors, then the row with the lowest individual ID was listed first. Every instance of the application ID after the first observation for that associated application ID was then dropped, resulting in a dataset of single observations for each application ID.

Pennsylvania

For each application ID, the study team:

- Marked a given application ID as "Accepted" if any of the budget requests were approved and "Denied" if all of the requests were denied.
- Marked a given application ID as applying for expedited processing if any instance of the application ID indicated this.
- Dropped observations not associated with a head of household.
- Dropped observations in the personal information dataset that contained duplicate County number, case number, and list of associated application IDs.

- Kept each unique combination of County number, case number, and list of associated application IDs.
- Kept only the observations in the resulting joined dataset, which provided information on the status of each application, that were unique in the combination of County number, case number, and application number, and kept the earliest budget start date associated with that combination of variables.

Texas

The study team merged datasets for TX based on the information provided by the State as to how they mapped together. For each application, defined as the unique combination of application ID, applicant ID, and application date, it:

- Selected observations associated with the head of household.
- Removed all observations in the data that had the status code of "terminated" (TN), which indicated that a case was closed with that transaction.
- Assigned applications with an observation marked as "not timely," which is a not timely value for all observations.
- Marked a given application as applying for expedited processing if any instance of the application indicated this.
- Removed any remaining duplicate observations for an application (retaining only one instance of the application).

Utah

The study team joined applications from three datasets provided by the State team. The State provided an additional dataset containing household geographic information and income, but this information could not be included in the analysis without additional information (a date key) from the State. For each application ID, the study team:

- Selected a unique combination of the application ID, household ID, and date of application where only one instance of this combination existed in the Households dataset.
- Deduplicated the Household Members table based on the Disability Indicator variable, where anyone marked once as "disabled" was flagged as "disabled."
- Linked the Household Members and Household Members Link tables using the household member ID variable in instances where only one unique household ID existed for a household ID member in the Household Members Link table.
- Combined the linked household member information with the household and application information in the Households table and recoded variables according to the study team's variable mapping.

Virginia

The study team joined applications and assigned values based on documentation provided by the State team, as well as what the study team was able to map across 11 datasets provided by the State. For each application ID, it:

- Selected observations associated with a head of household, or the latest record in instances where there were multiple heads of household.
- Assigned a household size based on the number of individual IDs listed in the case-individual dataset and, if no record was found, assigned them based on the number of individual IDs in the application-individual dataset.

The study team removed all applications that could not be positively identified in the case-program-individual dataset as associated with the SNAP (Prog_CD = 'FS') program. This resulted in dropping 1.8 million observations.

Summary of Missing Data

Table A-9 shows the number and percent of missing values for each variable for each study State. Variables with more than 50 percent of their values missing for the study State are highlighted in red and indicated with an asterisk (*) symbol. The missing data limits the study in that it does not allow complete analysis of all applications in a uniform manner. Having the data for all applications could potentially change the findings of the analyses.

In some cases, study States declined to provide the information or provided it in a format that rendered it unusable. For example, in UT the demographic and income information did not include the corresponding timing of the values, so it was not possible to map the information to the correct application in most cases. Further, the information may be collected at the time of application but discarded if the application is denied.

Table A-9: Number and Percent of Missing Values, by Variable and Study State

Variable	CO		PA		TX		UT		VA		Total	
	Count	*%*	*Count*	*%*	*Count*	*%*	*Count*	*%*	*Count*	*%*	*Count*	*%*
Application ID	0	0	0	0	0	0	0	0	0	0	0	0
Applicant ID	0	0	758,102	29	1,984,136	20	0	0	9,569	1	2,751,807	19
Application Status	0	0	0	0	0	0	0	0	6,242	1	6,242	0
Application Date	0	0	0	0	0	0	0	0	1	0	1	0
Expedited Application	0	0	0	0	0	0	0	0	950,455*	100*	950,455	7
Applied Online	0	0	0	0	0	0	0	0	666,852*	70*	666,852	5
Online Application Source	239,054*	69*	1,794,886*	70*	6,814,558*	67*	95,455	34	675,008*	71*	9,618,961*	67*
Recertify	0	0	2,579,141*	100*	0	0	0	0	951,566*	100*	3,530,707	25
Age	1	0	758,102	29	1,984,136	20	113,314	40	311,306	33	3,166,859	22
Race	318,025*	92*	789,655	31	4,048,113	40	193,234*	69*	311,485	33	3,677,483	26
Hispanic	0	0	758,779	29	2,214,668	22	143,087*	51*	897,068*	94*	4,013,602	28
Gender	814	0	758,185	29	1,986,458	20	113,317	40	311,306	33	3,170,080	22
Applicant Zip	39,422	11	81,705	3	2,146,617	21	280,558*	100*	948,788*	100*	3,497,090	24
Applicant County	72,848	21	0	0	2,146,606	21	280,558*	100*	951,566*	100*	3,451,578	24
Applicant City	4,026	1	81,702	3	2,146,606	21	280,558*	100*	948,784*	100*	3,461,676	24
Household Size	1	0	758,102	29	1,984,110	20	280,558*	100*	1,901	0	3,024,672	21
Household Income	55,705	16	795,513	31	2,146,599	21	280,558*	100*	951,566*	100*	4,229,941	30
Office ID	0	0	2,579,141*	100	0	0	280,558*	100*	951,566*	100*	3,811,265	27
Total Observations	**345,752**	**2**	**2,579,141**	**18**	**10,160,010**	**71**	**280,558**	**2**	**951,566**	**7**	**14,317,027**	**100**

*Asterisk symbol and red color indicates variables with over 50% of their values missing for the State.
Note: Asterisk symbols and colors reflect common themes when indicated by three or more study States.
Data source: Analysis of internal State SNAP application and eligibility data, 2016–2018.

Table A-10 summarizes the data sources and missing data elements by research objective. This table demonstrates the missing data distributed across each objective. The missing data represents the remaining gaps following a review of each study State's survey, documentation, and administrative data.

Table A-10: Missing data elements by objective

Research Objective	Research Question	Data Source(s)	Missing Data Elements
1: Describe each study State's experience with online applications.	What type of instructions or guidance (e.g., frequently asked questions, or FAQs) are available to online applicants? Is the information adequate or sufficient to guide the applicants through the application process?	Documentation	Instructions/guidance—No missing data recorded
	What proportion of applications were submitted online in the past 3 calendar years?	Administrative Data, Documentation, Survey	Proportion applied online last 3 calendar years—70% of data missing for VA
	What benefits and challenges have the study States experienced with online applications?	Survey	Benefits/challenges—No missing data recorded
	To what degree and how have online applications affected workflow and how SNAP applications are processed in each study State?	Documentation, Survey	Impact on workflow—No missing data recorded
	When does the clock start for processing online applications—at the time the application is submitted, or when the application is received by the SNAP office?	Documentation, Survey	Processing start time—No missing data recorded
	How does the study State agency screen between expedited and nonexpedited online applications?	Documentation, Survey	Screening process—No missing data recorded
2: Describe variations in the features of online applications in each study State.	In what languages are the online applications offered?	Documentation, Survey	Availability—No missing data recorded
	How are verifications submitted when using an online application?	Documentation, Survey	Verifications—No missing data recorded
	Are online applications mobile-friendly?	Documentation, Survey	Mobile-friendliness—No missing data recorded
	Are mobile apps for online applications available? If yes, what services are available through the app?	Documentation, Survey	Mobile app services—No missing data recorded
3: Describe how study State agencies process online applications.	What steps are taken to process regular online applications?	Documentation, Survey	Regular—No missing data recorded
	What steps are taken to process expedited online applications?	Documentation, Survey	Expedited—No missing data recorded
	Are SNAP applications completed separately or combined with other federal means-tested programs?	Documentation, Survey	Submitted with other means-tested programs—No missing data recorded

Research Objective	Research Question	Data Source(s)	Missing Data Elements
4: Determine the degree to which the use of online applications varies by participant demographics and geographic location.	Is there a significant difference in the use of online applications by applicant age, race, household characteristics, and first-time versus returning applicant?	Administrative Data	Race—92% missing data for CO and 69% missing for UT; Hispanic—94% missing for VA, 51% missing for UT Household Income—Missing for PA, UT, and VA (values were back-calculated based on benefit amount in PA) Household Size—Inaccurate for CO and unable to be used for UT Applied Online—70% missing or unusable for VA Recertify—Missing for PA and VA
	To what degree, if any, does the use of online applications differ by geographic area?	Administrative Data	Street Address—Missing for TX and 99% missing for VA, unusable for UT Zip Code—99% missing for VA Applied Online—70% missing or unusable for VA Virtually all location information is missing for VA
5: Determine the degree to which the use of online applications varies by study State characteristics.	Is the number of SNAP offices in the study States associated with the rate of submission of online applications?	Administrative Data, Documentation	Applied Online—70% missing or unusable for VA
	Is help available to SNAP applicants when using kiosks? If so, does the availability of assistance at SNAP office kiosks affect the rate of submission of online applications?	Documentation, Survey	SNAP office information—Lacking historical dates of operation to accurately back-count for all study States
6: Describe each study State's perspective on potentially fraudulent activities related to online applications.	What practices and procedures do the study States have in place to detect and prevent fraudulent activities that are linked to online applications?	Documentation, Survey	Fraudulent activities—No missing data recorded
	Do study States check the (internet protocol (IP) address of online applications? What is the rate of online applications being submitted from the same IP address? What is the rate of online applications being submitted from an IP address outside the State?	Survey	Online Data, web analytics—No missing data recorded
	What types of potentially fraudulent activities are associated with online applications? What potentially fraudulent activities are most prevalent?	Documentation, Survey	Fraudulent activities— No missing data recorded

Research Objective	Research Question	Data Source(s)	Missing Data Elements
7: Determine the impact of online applications on program outcomes.	Is there a significant difference in payment accuracy for initial applications (expedited and nonexpedited) submitted online versus those submitted through other means?	Administrative Data, Survey	Payment Accuracy—Usable data provided for CO, PA, and TX. VA data does not include payment accuracy information, and UT did not submit quality assurance (QA) data.
	Is there a significant difference in application processing timeliness for initial applications (expedited and nonexpedited) and recertification application processing timeliness for applications submitted online versus those submitted through other means?	Administrative Data, Documentation, Survey	Expedited Application—Missing for VA Recertify—Missing for PA and VA Application Timeliness—Missing for TX, UT, and VA. Information on timeliness was not available from TX and VA. UT did not submit QA data.

Data source: Internal State SNAP application and eligibility data, 2016–2018; web-based survey of eight study States.

Calculating Income in PA

PA was unable to provide a reliable data field containing household income for each application. As a result, the study team calculated income using the benefit amount received and the household size to estimate household income. This section describes the process for performing this calculation. While this calculation has limitations, the study team decided it was the preferred approach after consulting with SNAP State agencies, rather than leaving the information out altogether. The process involves some assumptions about the various deductions and simplifications, which makes the resulting calculated income potentially very different from the true household income. For example, the maximum SNAP benefit amount and the excess shelter deduction is adjusted each year. This calculation does not account for this variation. Additionally, not all households are eligible for the excess shelter deduction; however, it was applied to all households because the study team was unable to determine eligibility. The calculation also does not include unearned income, such as social security, supplemental security income, and TANF.

The study team used "A Quick Guide to SNAP Eligibility and Benefits" posted by the Center on Budget and Policy Priorities as a guideline.[52] This source provides the SNAP benefits by household size and an example for calculating a household's monthly SNAP benefits. **Table ES-1**: Available Data by Study State shows screenshots from the website regarding benefits by household size and the example calculation. The study team worked backwards from the SNAP benefit amount using the formula in **Figure A-2** to solve for gross income. The components of the calculation, along with assumptions and calculations made to each value, are listed in **Table A-11**.

[52] "A Quick Guide to SNAP Eligibility and Benefits," Center on Budget and Policy Priorities, last modified November 1, 2019, https://www.cbpp.org/research/food-assistance/a-quick-guide-to-snap-eligibility-and-benefits.

Table A-11: Gross Income Calculation

Component	Source	Assumptions/Calculation
SNAP Benefit	PA administrative data	Given
Household Size	PA administrative data	Calculated number of unique individual IDs associated with each household ID
Maximum SNAP Benefit Amount	**Figure A-1**	Determined via **Figure A-1** using the household size calculated above
Family's Expected Contribution Towards Food	Calculated	Subtracted the SNAP benefit received from the maximum SNAP benefit amount for household size
Net Income	Calculated	Multiplied the expected contribution toward food by (10/3) because the monthly contribution toward food is 3/10 of net income
Shelter Deduction	Assumed	Added the assumed maximum shelter deduction of $569 (2020 value)
Standard Household Deduction	**Table A-12**	Added the standard household deduction based on the household size
Gross Household Income	Calculated	Multiplied the (net income + shelter deduction + standard household deduction) by (10/8) to arrive at gross household income because that value is 20% of gross household income

Data source: Center on Budget and Policy Priorities, "A Quick Guide to SNAP Eligibility and Benefits."

Figure A-1: SNAP Benefits by Household Size

TABLE 1

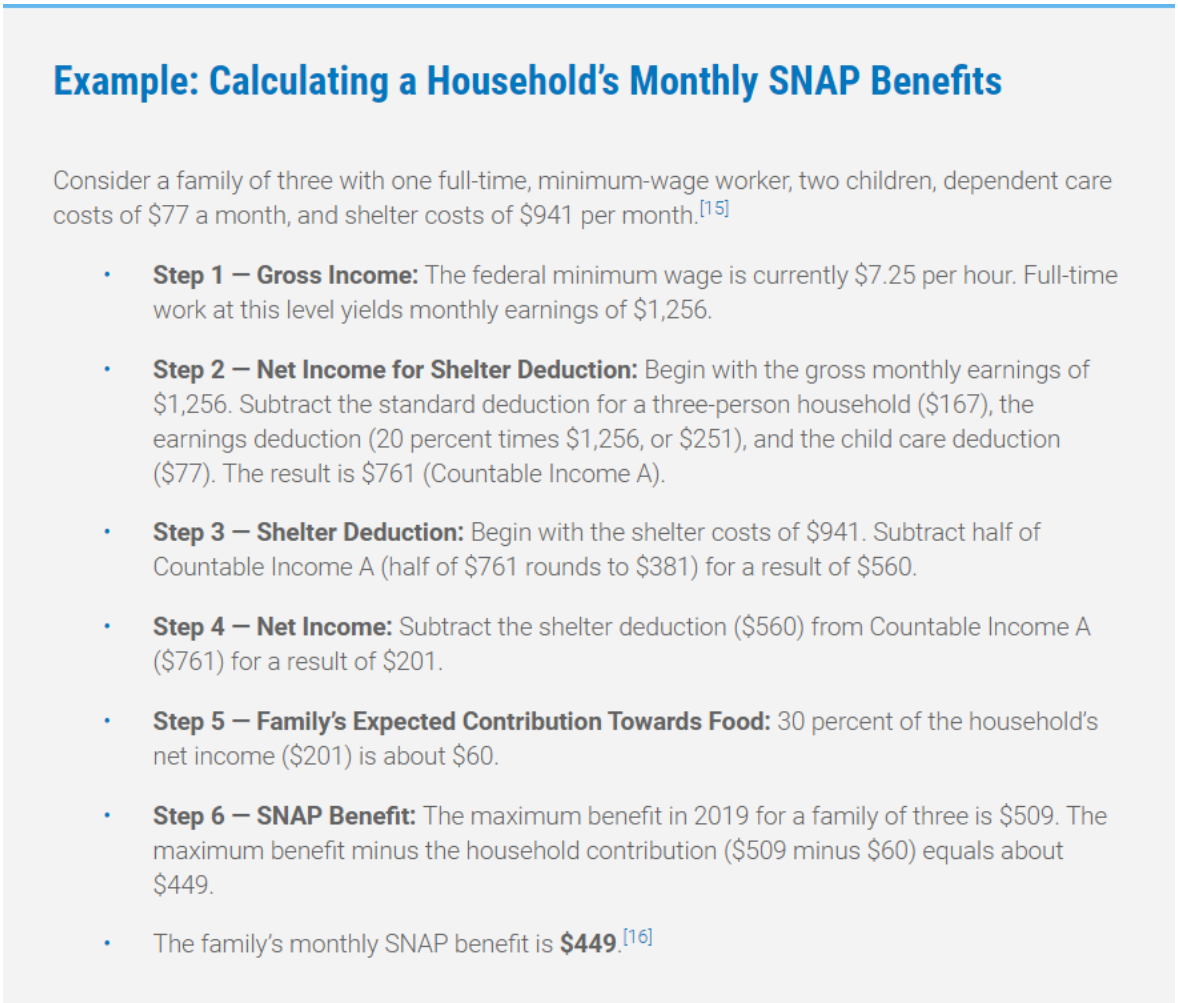
SNAP Benefits by Household Size

Household Size	Maximum Monthly Benefit, Fiscal Year 2020	Estimated Average Monthly Benefit, Fiscal Year 2020*
1	$194	$134
2	$355	$247
3	$509	$378
4	$646	$465
5	$768	$528
6	$921	$637
7	$1,018	$729
8	$1,164	$868
Each additional person	$146	

* Estimated average benefits are based on fiscal year 2018 SNAP Quality Control Household Characteristics data, the most recent data with this information.

Data source: Center on Budget and Policy Priorities, "A Quick Guide to SNAP Eligibility and Benefits."

Figure A-2: Example for Calculating a Household's Monthly Snap Benefits



Data source: Center on Budget and Policy Priorities, "A Quick Guide to SNAP Eligibility and Benefits."

Table A-12: Standard Household Deductions, FY 2020

Household Size	Deduction
1–3	$167
4	$178
5	$209
6+	$240

Data source: Center on Budget and Policy Priorities, "A Quick Guide to SNAP Eligibility and Benefits."

Additional Administrative Data Tables

This section presents the distance to the nearest SNAP office, County population size, and payment accuracy rates, by study State.

Table A-13: Number and Percent of Applications Submitted Online and on Paper, by Distance to SNAP Office: CO

Distance to SNAP Office	Applications Submitted Online		Applications Submitted via Paper		Total	
	Count	*Row %*	*Count*	*Row %*	*Count*	*Column %*
<1 Mile	8,443	24.7%	25,799	75.3%	34,242	9.9%
1–5 Miles	49,264	32.2%	103,796	67.8%	153,060	44.3%
5–10 Miles	26,895	36.7%	46,435	63.3%	73,330	21.2%
10+ Miles	11,427	31.4%	24,915	68.6%	36,342	10.5%
Missing	10,669	21.9%	38,109	78.1%	48,778	14.1%
Total	**106,698**	**30.9%**	**239,054**	**69.1%**	**345,752**	**100.0%**

Note: Totals may not equal 100% due to rounding. Table includes only applications that had an indicator for online vs. paper submission. Applications with a missing value for distance to a SNAP office are included in the "Missing" row.
Data source: Analysis of internal State SNAP application and eligibility data, 2016–2018.

Table A-14: Number and Percent of Applications Submitted Online and on Paper, by Distance to SNAP Office: PA

Distance to SNAP Office	Applications Submitted Online		Applications Submitted via Paper		Total	
	Count	*Row %*	*Count*	*Row %*	*Count*	*Column %*
<1 Mile	113,375	20.2%	446,743	79.8%	560,118	21.7%
1–5 Miles	321,670	28.9%	791,709	71.1%	1,113,379	43.2%
5–10 Miles	152,169	36.5%	265,070	63.5%	417,239	16.2%
10+ Miles	127,329	37.1%	216,312	63.0%	343,641	13.3%
Missing	69,712	48.2%	75,052	51.8%	144,764	5.6%
Total	**784,255**	**30.4%**	**1,794,886**	**69.6%**	**2,579,141**	**100.0%**

Note: Totals may not equal 100% due to rounding. Table includes only applications that had an indicator for online vs. paper submission. Applications with a missing value for distance to a SNAP office are included in the "Missing" row.
Data source: Analysis of internal State SNAP application and eligibility data, 2016–2018.

Table A-15: Number and Percent of Applications Submitted Online and on Paper, by Distance to SNAP Office: VA

Distance to SNAP Office	Applications Submitted Online		Applications Submitted via Paper		Total	
	Count	*Row %*	*Count*	*Row %*	*Count*	*Column %*
<1 Mile	58	98.3%	1	1.7%	59	0.0%
1–5 Miles	233	97.1%	7	2.9%	240	0.1%
5–10 Miles	112	91.1%	11	8.9%	123	0.0%
10+ Miles	22	95.6%	1	4.4%	23	0.0%
Missing	276,133	97.1%	8,136	2.9%	284,269	99.8%
Total	**276,558**	**97.1%**	**8,156**	**2.9%**	**284,714**	**100.0%**

Note: Totals may not equal 100% due to rounding. Table includes only applications that had an indicator for online vs. paper submission. Applications with a missing value for distance to a SNAP office are included in the "Missing" row.
Data source: Analysis of internal State SNAP application and eligibility data, 2016–2018.

Table A-16: : Number and Percent of Applications Submitted Online and on Paper, by County Population Size: CO

Metro Area	Applications Submitted Online		Applications Submitted via Paper		Total	
	Count	*Row %*	*Count*	*Row %*	*Count*	*Column %*
Metro 1+ M	42,196	35.5%	76,542	64.5%	118,738	34.3%
Metro 250k–1 M	27,521	32.4%	57,526	67.6%	85,047	24.6%
Metro <250k	4,545	16.6%	22,902	83.4%	27,447	7.9%
Nonmetro	6,670	16.0%	35,002	84.0%	41,672	12.1%
Missing	25,766	35.4%	47,082	64.6%	72,848	21.1%
Total	**106,698**	**30.9%**	**239,05**	**69.1%**	**345,752**	**100.0%**

Note: Totals may not equal 100% due to rounding. Table includes only applications that had an indicator for online vs. paper submission. Applications which could not be associated to a County are included in the "Missing" row.
Data source: Internal State SNAP application and eligibility data, 2016–2018.

Table A-17: Number and Percent of Applications Submitted Online and on Paper, by County Population Size: PA

Metro Area	Applications Submitted Online		Applications Submitted via Paper		Total	
	Count	*Row %*	*Count*	*Row %*	*Count*	*Column %*
Metro 1+ M	407,405	30.8%	914,421	69.2%	1,321,826	51.3%
Metro 250k–1 M	242,926	30.8%	545,336	69.2%	788,262	30.6%
Metro <250k	63,778	31.4%	139,472	68.6%	203,250	7.9%
Nonmetro	70,146	26.4%	195,657	73.6%	265,803	10.3%
Missing	0	0.0%	0	0.0%	0	0.0%
Total	**784,255**	**30.4%**	**1,794,886**	**69.6%**	**2,579,141**	**100.0%**

Note: Totals may not equal 100% due to rounding. Table includes only applications that had an indicator for online vs. paper submission. Applications which could not be associated to a County are included in the "Missing" row.
Data source: Internal State SNAP application and eligibility data, 2016–2018.

Table A-18: Number and Percent of Applications Submitted Online and on Paper, by County Population Size: TX

Metro Area	Applications Submitted Online		Applications Submitted via Paper		Total	
	Count	*Row %*	*Count*	*Row %*	*Count*	*Column %*
Metro 1+ M	1,420,519	30.6%	3,223,923	69.4%	4,644,442	45.7%
Metro 250k–1 M	499,764	26.4%	1,394,042	73.6%	1,893,806	18.6%
Metro <250k	160,922	32.4%	335,344	67.6%	496,266	4.9%
Nonmetro	250,699	25.7%	724,804	74.3%	975,503	9.6%
Missing	1,013,548	47.1%	1,136,445	52.9%	2,149,993	21.2%
Total	**3,345,452**	**32.9%**	**6,814,558**	**67.1%**	**10,160,010**	**100.0%**

Note: Totals may not equal 100% due to rounding. Table includes only applications that had an indicator for online vs. paper submission. Applications which could not be associated to a County are included in the "Missing" row.
Data source: Internal State SNAP application and eligibility data, 2016–2018.

Table A-19: Number and Percent of Applications Submitted Online and on Paper, by Accuracy of Payment Indicators: CO

Application Payment Accuracy	Applications Submitted Online		Applications Submitted via Paper		Total	
	Count	*Row %*	*Count*	*Row %*	*Count*	*Column %*
Accurate	78	16.5%	395	83.5%	473	65.2%
Overpayment	21	15.7%	113	84.3%	134	18.5%
Underpayment	10	9.4%	96	90.6%	106	14.6%
Not Eligible	4	33.3%	8	66.7%	12	1.7%
Total	**113**	**15.6%**	**612**	**84.4%**	**725**	**100.0%**

Note: Totals may not equal 100% due to rounding. Table includes only applications that had an indicator for online vs. paper submission and a value for payment accuracy information.
Data source: Analysis of internal State SNAP QC data, 2016–2018.

Table A-20: Number and Percent of Applications Submitted Online and on Paper, by Accuracy of Payment Indicators: PA

Application Payment Accuracy	Applications Submitted Online		Applications Submitted via Paper		Total	
	Count	*Row %*	*Count*	*Row %*	*Count*	*Column %*
Accurate	266	22.5%	919	77.5%	1,185	63.5%
Overpayment	96	21.6%	348	78.3%	444	23.8%
Underpayment	54	23.5%	176	76.5%	230	12.3%
Not Eligible	3	50.0%	3	50.0%	6	0.3%
Total	**419**	**22.5%**	**1,446**	**77.5%**	**1,865**	**100.0%**

Note: Totals may not equal 100% due to rounding. Table includes only applications that had an indicator for online vs. paper submission and a value for payment accuracy information.
Data source: Analysis of internal State SNAP QC data, 2016–2018.

Table A-21: Number and Percent of Applications Submitted Online and on Paper, by Accuracy of Payment Indicators: TX

Application Payment Accuracy	Applications Submitted Online		Applications Submitted via Paper		Total	
	Count	*Row %*	*Count*	*Row %*	*Count*	*Column %*
Accurate	1,048	25.2%	3,116	74.8%	4,164	60.6%
Overpayment	388	25.0%	1,163	75.0%	1,551	22.6%
Underpayment	272	23.6%	881	76.4%	1,153	16.8%
Not Eligible	0	0.0%	0	0.0%	0	0.0%
Total	**1,708**	**24.9%**	**5,160**	**75.1%**	**6,868**	**100.0%**

Note: Totals may not equal 100% due to rounding. Table includes only applications that had an indicator for online vs. paper submission and a value for payment accuracy information.
Data source: Analysis of internal State SNAP QC data, 2016–2018.

Appendix B—Technical Details of Clients' Experience Navigating SNAP Online Applications

Introduction

Understanding how clients interact with the website and online application and what information or guidance they can find is essential to understanding the impact of online applications. To this point, the study team addressed two research questions:

- What type of instructions or guidance (e.g., frequently asked questions [FAQs]) are available to online applicants?
- Is the information adequate or sufficient to guide the applicants through the application process?

These questions were addressed by developing a rubric and using it to review the websites and application portals. The websites, or what is defined as "preportal," include all pages before a client needs to sign into the application portal. The application portal and subsequent application, or what is defined as "postportal," includes all pages following the sign-in page for the application portal. The following section describes the methodology for the rubric development and data collection process, the findings for both preportal and postportal, and a conclusion based on those findings.

Methodology

The study team referenced Food and Nutrition Service's (FNS) "Best Practices for Online SNAP Applications," a guide developed and based on a State-by-State analysis of online SNAP applications conducted in 2014.[53] The guide outlines five best practices in web design, each underpinned by key principles:

1. Help the client understand the process:
   - Explain the process.
   - Use plain language.
   - Make navigating easy.
2. Help the client apply:
   - Make the information accessible.
   - Help clients enter data.
3. Help the client see the information:
   - Make the information legible.
   - Give graphics meaning.
4. Address policies and regulations:
   - Address policies and regulations.
5. Ensure success:
   - Measure improvement.

The study team used these best practices and principles to develop a rubric of essential criteria to address FNS' two research questions. Senior staff and SNAP subject matter experts reviewed the criteria internally. Notably, the study team developed criteria to assess the increasing use of informational

[53] USDA FNS, "Best Practices for Online SNAP Applications," March 10, 2015, https://www.fns.usda.gov/snap/admin/online-application-best-practices.

videos on SNAP online application websites, an element missing from the 2014 best practices guide. The criteria were then used to score the SNAP application websites (preportal) and SNAP application portals after creating an account (postportal). The five criteria the study team developed were:

1. Does the website have instructions for completing the online application?
2. How are the instructions formatted?
3. How user-friendly is the format?
4. How easy are the instructions to find?
5. How useful are the instructions for filling out the application?

In the case of the preportal scoring, the study team also scored the websites on whether they had a FAQs page and if the page's content was useful for filling out the online application.

The essential criteria were then translated into rubric questions by creating a measurable indicator of success that the criteria were met. A few of the questions were scored as a yes/no option, such as whether the website has instructions for completing an online application, but most others were scored on a 1 to 3 scale. For example, for the question of how user-friendly the format of the instructions was, 1 indicated not user-friendly and 3 indicated user-friendly **Table B-1** provides a breakdown of the questions, their scoring, and the criteria for scoring. The table is followed by three examples, one for each level of scoring (1 to 3).

The rubric underwent several rounds of internal review before it was finalized. This included a testing phase where the rubric was used to score a study State's website, and the results were discussed internally to ensure they produced the information needed. Once the rubric was finalized, two separate reviewers completed the data collection to ensure accuracy in the scoring.

Table B-1: Rubric Questions and Criteria

Question	Criteria
Preportal	
Does the website have instructions for completing the online application before entering the application? (Y/N)	Instructions located anywhere within the website before you enter the application portal. (Y/N)
How are the instructions formatted?	Qualitative description of the format (e.g., videos or brochure)
How user-friendly is the format? (1 = not user-friendly to 3 = user-friendly)	1—The video is not engaging or too long; the brochure or website is too text-heavy and dense; it is difficult to find useful information. 2—The video is slightly too long but engaging; the brochure or website is text-heavy but also contains screenshots or graphics for easy understanding; it is easy to find useful information (See **Figure B-1**). 3—The video is not too long, and it is engaging; the brochure or website is not too text-heavy or contains screenshots or graphics for easy understanding; it is easy to find useful information (**Figure B-2**).
How easy are the instructions to find? (1 = difficult to 3 = easy)?	1—The instructions are not on the main page, not on a clearly labeled link, and require at least two clicks to find. 2—The instructions are not on the main page but are able to be found within two clicks or through a clearly labeled link or icon. 3—The instructions are on the main page or are found by clicking a clearly labeled link or icon on the main page.

Question	Criteria
How useful are the instructions for filling out the application? (1 = not useful to 3 = useful)	1—The instructions simply link to the application and do not provide any steps for application. 2—The instructions provide some steps for completing the application but are not thorough for all of the steps. 3—The instructions are thorough and complete for all of the steps in the application.
Does the website have a FAQs page about online applications? (Y/N)	It is clearly linked anywhere before the application and labeled frequently asked questions, FAQs, or something similar, with information about the application.
Is the content of the FAQs useful for filling out the online application? (1 = not useful to 3 = useful)	1—It is not useful at all; it does not answer questions thoroughly or does not answer many questions (See **Figure B-3**). 2—It is somewhat useful; it answers some questions thoroughly. 3—It is very useful; it answers all questions thoroughly.
Postportal	
Does the website have instructions for completing the online application after entering the application? (Y/N)	Once a user enters the application section, is there information on how to fill out the application, clarification for application questions, etc.? (Y/N)
How are the instructions formatted?	Qualitative description of the format such as videos, brochure, help buttons, etc.
How user-friendly is the format? (1 = not user-friendly to 3 = user-friendly)	1—The video is not engaging or too long; the brochure or website is too text-heavy and dense; it is difficult to find useful information. 2—The video is slightly too long but engaging; the brochure or website is text-heavy but also contains screenshots or graphics for easy understanding; it is easy to find useful information. 3—The video is not too long, and it is engaging; the brochure or website is not too text-heavy or contains screenshots or graphics for easy understanding; it is easy to find useful information.
How easy are the instructions to find? (1 = difficult to 3 = easy)	1—The instructions are not on the main page, not on a clearly labeled link, and require at least two clicks to find. 2—The instructions are not on the main page but are able to be found within two clicks or through a clearly labeled link or icon. 3—The instructions are on the main page or are found by clicking a clearly labeled link or icon on the main page.
How useful are the instructions for filling out the application? (1 = not useful to 3 = useful)	1—The instructions simply link to the application and do not provide any steps for application. 2—The instructions provide some steps for completing the application but are not thorough for all of the steps. 3—The instructions are thorough and complete for all of the steps of the application.

Data source: Consumer experience rubric developed by study team.

Figure B-1: Example of User-Friendly Instructions (Preportal) with a Score of 2 (TX)

Applying for Benefits

How to Apply

Fill out an online application

You can apply for the following types of programs on YourTexasBenefits.com:

- SNAP food benefits
- Medicaid
- Children's Health Insurance Program (CHIP)
- Medicare Savings Programs
- TANF cash help
- Women's health services
- Long term care services

After you go to YourTexasBenefits.com:

1. Click on the "Apply" tab and click "Apply Now."
2. Log in or create an account.

Visit a Community Partner

You can get free help applying for HHSC benefits by visiting a Community Partner in your area.

Call us at 2-1-1

If you need help applying for benefits, call toll-free 2-1-1 or 1-877-541-7905. After you pick a language, press 2. Staff can help you Monday to Friday, 8 a.m. to 6 p.m.

Fill out a paper application

If you can't use YourTexasBenefits.com, you can print the form and fill it out by hand.

You will need to mail us a signed and dated copy of the form.

Data source: "How to Get Help: Applying for Benefits," Texas Health and Human Services, accessed August 24, 2020, https://yourtexasbenefits.hhsc.texas.gov/apply/how-to-apply.

Figure B-2: Example of User-Friendly Instructions (Preportal) with a Score of 3 (CO)

How Do I Apply?

Get an Application

- You can apply for benefits online at Colorado PEAK. *These applications are automatically submitted to your county office.*
- You can also print the application of your choice below, fill out the application and return it by mail, fax or in person to your local county human services office:
  - English Application
  - Spanish Application
  - Large Print Application

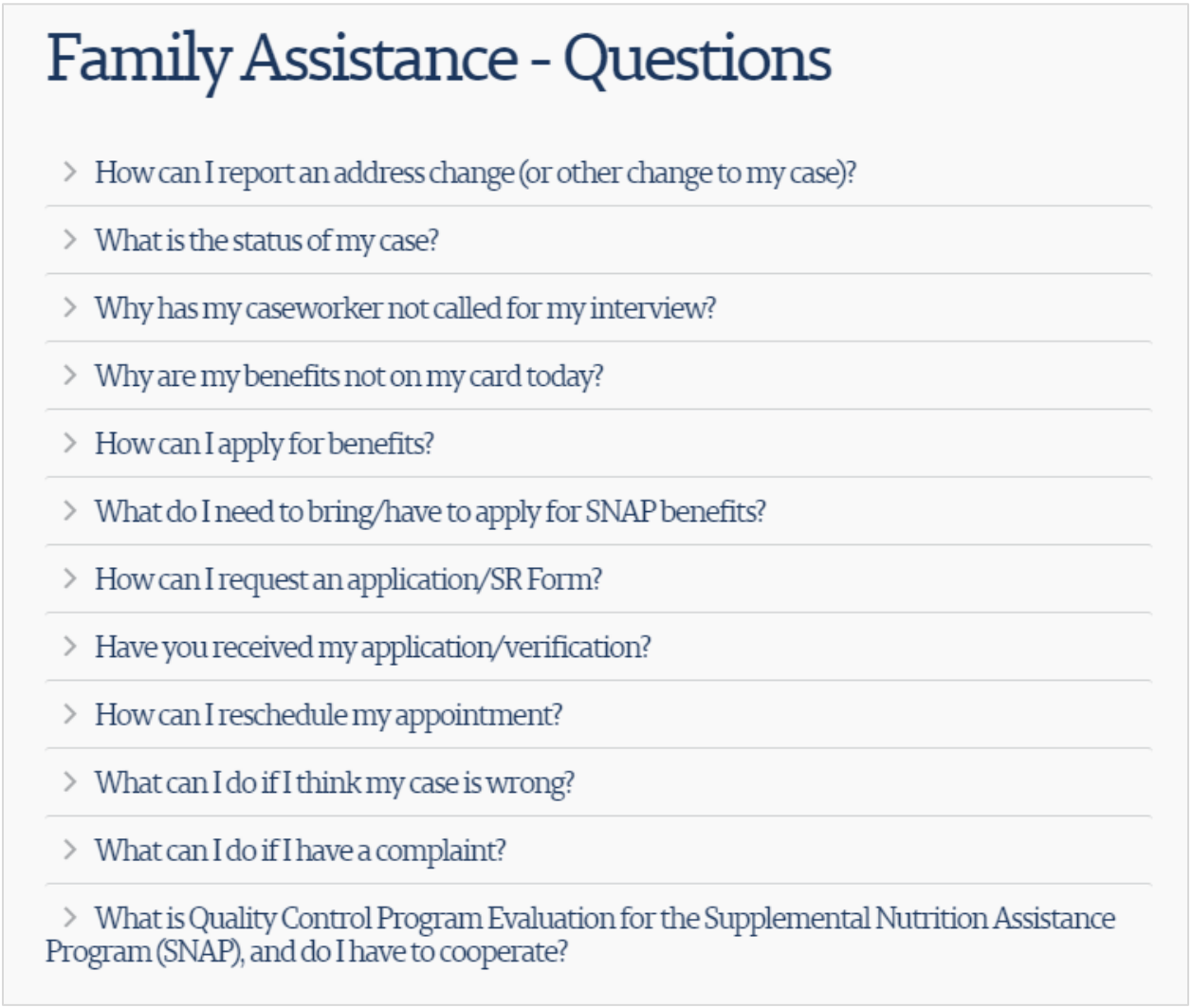
Please fill out as much of the application as you can. If you need help or don't understand a question, a staff member can help you complete your application.

What happens after I have completed an application and returned it to the county office?

- An eligibility technician will begin processing your case as soon as possible to determine if we need to complete an interview or if your household needs to provide any additional information. The county office has up to 30 days to process your application.
- An interview needs to be completed once every 12 months for SNAP benefits due to Federal requirements.
  - If you have not completed an interview within the last 12 months, an eligibility technician will be attempting to contact you at the phone number you provided on your application to complete the interview. If the technician cannot reach you by phone, they will mail you a letter to inform you that an interview needs to be completed.
- If you have completed an interview within the last 12 months, an eligibility technician may attempt to contact you at the phone number you provided on your application to clarify the information you submitted on your application.
- You may need to provide additional information to your county office regarding your circumstances.
  - If there is additional information needed to complete your eligibility determination, you will receive a letter in the mail at the address you provided on your application telling you what information we need to complete your application.

Data source: "Supplemental Nutrition Assistance Program (SNAP)," Colorado Department of Human Services, Office of Economic Security, Division of Food and Energy Assistance, accessed August 24, 2020, https://www.colorado.gov/pacific/cdhs/supplemental-nutrition-assistance-program-snap#apply .

Figure B-3: Example of Helpfulness of FAQs Page with a Score of 1 (TN)



Data source: "Family Assistance—Questions," Tennessee Department of Human Services, accessed August 24, 2020, https://www.tn.gov/humanservices/need-help-/family-assistance-questions.html.

Findings

Preportal

The rubric assesses two aspects of the preportal information: application instructions and the FAQs page. **Table B-2** presents all of the preportal scores for each of the study States reviewed, followed by a discussion of the key findings.

Table B-2: Preportal Consumer Experience Scores by Study State

State	Does the website have instructions for completing the online application before entering the application?	How user-friendly is the format?	How easy are the instructions to find?	How useful are the instructions for filling out the application?	Does the website have a FAQs page about online applications?	Is the content of the FAQs useful for filling out the online application?
CO	Y	3	3	3	Y	1
NY	Y	3	3	1	N	NA
PA	Y	3	3	1	N	NA
TN	N	NA	NA	NA	Y	1
TX	Y	2	3	3	Y	1
UT	Y	3	3	2	Y	1
VA	Y	2	1	3	N	NA
WA	Y	3	3	3	Y	1

Data source: State scores as calculated by the consumer experience rubric.

Availability of Application Instructions. Seven of the study States—CO, NY, PA, TX, UT, VA, and WA—provided instructions for completing the online application before the portal; only TN did not have instructions. For six of the study States with instructions, the instructions were easy to find (a score of 3); only one study State (VA) was rated difficult to find (a score of 1) because the instructions were several pages from the main website page. Instructions most often appeared in the format of a "how to apply" page that ranged from listing complete, step-by-step instructions to simply providing a link to the online application. Some study States went beyond a "how to apply" page with videos (VA, WA), a chat box (CO), or, more commonly, a help center (CO, NY, TX, UT, WA). The videos were a unique way of presenting information that did not require the user to comb through text-heavy pages. However, long videos, such as VA's more than 10-minute-long "CommonHelp" video, may present a challenge for keeping the applicant's attention or ensuring the applicant can hear the information they need.

User-friendliness and Usefulness of Application Instructions. Even with the variety of formats for the instructions (e.g., the "how to apply page," videos, chat box), all of the study States' instructions were mostly user-friendly (as defined in **Table B-1**). Five study States (CO, NY, PA, UT, WA) scored a 3 (user-friendly) and two study States (TX, VA) scored a 2 (mostly user-friendly). Despite being in user-friendly formats, the instructions from about half of the study States lacked useful information for filling out the application. Two study States (NY, PA) scored a 1 on this criterion, meaning the instructions were rated not useful at all; one study State (UT) scored somewhat useful (a score of 2); and only four of those with instructions had fully useful instructions (a score of 3) for completing the online application.

FAQs Page. In addition to the instructions for completing an online application, study State websites were also scored preportal on their FAQs page. Over half of the study States have FAQs pages (CO, TN,

TX, UT, WA), all of which were determined to be not useful, or a score of 1 (as defined in **Table B-1**), for filling out the online application.

Postportal

Behind the portal login, the rubric evaluated whether there were instructions for completing an online application and how user-friendly and useful those instructions were. **Table B-3** presents all of the postportal scores for each of the study States reviewed, followed by a discussion of the findings.

Table B-3: Postportal Consumer Experience Scores by Study State

State	Does the website have instructions for completing the online application before entering the application?	How user-friendly is the format?	How easy are the instructions to find?	How useful are the instructions for filling out the application?
CO	Y	3	3	3
NY	Y	3	3	2
PA	Y	3	3	2
TN	Y	2	2	2
TX	*Reviewer was unable to enter portal*	NA	NA	NA
UT	Y	3	3	2
VA	N	NA	NA	NA
WA	Y	3	3	3

Data source: State scores as calculated by the consumer experience rubric.

Availability of Application Instructions. Six of the eight study States (CO, NY, PA, TN, UT, WA) reviewed had instructions after the portal login; one study State (VA) did not have instructions. For one study State (TX), the reviewers were unable to make their way behind the login wall because creating an account required a Social Security number, case number, and Eligibility Determination Group number or individual number. Most often instructions were in the form of a help button or a small question mark button next to the application entry field that expanded to provide further information. Two study States (TN, UT) had a chat box function, and one study State (WA) had videos. The instructions were mostly easy to find, with five study States (CO, NY, PA, UT, WA) scoring a 3 (easy to use) on this criterion.

User-friendliness and Usefulness of Application Instructions. When study States had postportal instructions, they were determined to be mostly user-friendly. Five study States (CO, NY, PA, UT, WA) scored a 3 (user-friendly) and one study State (TN) scored a 2 (mostly user-friendly). Additionally, the instructions were determined to be mostly useful to the client. Of those with postportal instructions, two study States (CO, WA) scored a 3 (useful), and four study States (NY, PA, TN, UT) scored a 2 (mostly useful).

Conclusions

The preportal analysis revealed differences in perceptions on the usefulness of available information. For example, some reported inconsistencies in how helpful available information was (such as instructions or FAQs pages) for filling out the application. Some study States were more thorough in describing how to complete the application before logging in to the application portal, and some study States simply directed the client to the portal. Possible problems with not having more detailed information before portal login include the client not having the information needed readily available, having incomplete or incorrect information when filling out the application, or taking longer to fill out

the application. The preportal content was conveyed in a variety of ways, including videos, which were a helpful way to convey information; however, study States could improve their information sharing by offering a thorough and easy-to-find FAQs page.

The reviewed study States' available information (excluding TX) did improve once the client was past the application login wall. Clients would find it user-friendly and useful as they fill out the application. However, while it is useful and important to answer user questions during the process, forewarning through instructions prior to the application portal could create a more efficient process.

Appendix C—State Profiles

This Appendix includes summaries of information gleaned from the data collected for each study State from the following two data sources:

1. **Documentation Review.** This included a review of publicly available information from Food and Nutrition Service (FNS), State, and County websites; other online resources; and literature from institutions such as Think Tanks. The State internal documentation review included information from standard operating procedures, manuals, internal technical reports, and memoranda from State administrators.
2. **Web-based Survey.** The study team designed and deployed a web-based survey to collect data on indicators for comparing the eight participating States. The survey collected qualitative data to capture in-depth information about each State's experience with online applications.

Each State profile begins with a table providing an overview of each State's Supplemental Nutrition Assistance Program (SNAP) online application. The table highlights key features of each State's online application—for example, the languages available for applicants to complete their application, or whether the State offers a mobile SNAP app. Next, the State profile summarizes the data into six areas, namely each State's:

1. Background and experience with online applications
2. Features of their online applications
3. Approach for processing online applications
4. Experience and use of kiosks
5. Perspectives on potentially fraudulent activities associated with online applications
6. Perspectives on associations between online applications and program outcomes

Table C-1: Colorado's "PEAK"—SNAP Online Application

Colorado		
Feature	***Description***	***Reference Notes***
State/County Administration	County	
Program Name	SNAP	
Online Application Name	PEAK	https://coloradopeak.secure.force.com/
Date Implemented	2010	
Multibenefit Application	Yes	Medicaid, Temporary Assistance for Needy Families (TANF), Children's Health Insurance Program (CHIP), Low-Income Home Energy Assistance Program (LIHEAP), Metro Denver public transportation
Languages Available	English Spanish	
Mobile-Friendly Website	Yes	
Mobile App	Yes	
Application Kiosks in Office Lobbies	Yes—varies by County	
Application Kiosks at Community Partners	No	

CO's Background and Experience with Online Applications

CO, a County-administered State, implemented "Colorado PEAK," their online application, in 2010. They reported that their online submission rate over the last three years was 41–60 percent.

The State reported that the most important advantage of Colorado PEAK is the improved customer service. Clients can submit an application from multiple locations. It is also easier for SNAP outreach partners to assist clients with submitting applications.

The biggest challenge for CO is the volume of online applications. Staff have trouble managing the workload with the amount of applications that come through. The second biggest challenge is insufficient capacity in the call center to support online applications. Most Counties in CO struggle with the call volume associated with online applications. The third biggest challenge is insufficient funding to improve online applications. Because of the lack of funding, Colorado PEAK has not had significant modifications or improvements since 2010.

Features of CO's Online Application

Colorado PEAK is a multibenefit application that works with Medicaid, TANF, CHIP, LIHEAP, and Metro Denver public transportation. It is available in English and Spanish. Staff reported that the online interface was helpful because clients can check benefit status by logging into their PEAK accounts. Clients can verify documents by uploading scanned documents or sending photos of documents by mail, fax, or email. The online application allows for electronic signatures as well, making it more accessible to customers who cannot personally go to an office to submit their application.

PEAK has a mobile application, or app, and a mobile-friendly website. The app allows for uploads of documents by scan or photo for verification. It also allows clients to view Electronic Benefits Transfer (EBT) balances.

How CO Offices Process Online Applications

For the sake of timeliness, any online application submitted after business hours or on weekends is processed the next business day. All applications are assigned to Counties by zip code. Those Counties then assign applications to workers based on a task-based or caseload assignment. These workers also process applications for other programs as well.

The online application screens eligibility for expedited service. In-person applications are often processed the same day. Other submission methods, such as paper or fax, usually do not result in the application being processed the same day it is submitted.

In all Counties, a team or person is assigned to the PEAK inbox. That person downloads the application from PEAK and uploads the application to the County's work management system or provides a hard copy to a worker. In work management systems, the uploading of the application PDF assigns a task to a worker for a task-based system to complete the interview and eligibility determination.

Paper applications received by fax or mail are processed the same way. For applications that are dropped off in the office, most Counties directly assign a worker to the application. The application is scanned or stored in a paper file after processing.

CO's Experience and Use of Kiosk

CO reported that some County agency offices provide kiosks that are available to all potentially eligible clients, but some smaller Counties do not provide them. Counties that do provide kiosks offer assistance at any point in the application process, either in person from someone in the office or via toll-free hotline or live support through an office phone.

There are no kiosks located in communities other than those in County agency offices. There is no data on who uses the kiosks, or whether it is mainly people without access to a computer or internet that use them.

CO's Perspective on Potentially Fraudulent Activities

CO reported that they do not perceive the use of online applications as an increased risk for fraudulent applications. Currently, CO does not scan for online fraud through web analytics, internet protocol (IP) data, or geolocation.

CO's Perspectives on Associations Between Online Applications and Program Outcomes

CO's perception is that the online application has not decreased the time it takes to process an application or increased general timeliness, nor has it decreased the amount of work for each staff member handling applications. Counties must have staff to download the application from the PEAK online system and put either the print or the PDF application into the eligibility system or the County workload management system. There is no tracking of processing timeliness nor comparison to paper application timeliness.

CO has not noticed any increase in payment accuracy with the implementation of the online application. Medicaid uses real-time eligibility processing through the online application. Because of this, the online application autopopulates information from the Medicaid application into Colorado Benefits Management System, the State's eligibility system. At times, this autopopulation introduces incorrect or contradictory information for SNAP that can negatively affect accuracy.

There is no indication that the online application has increased participation in the SNAP program.

Table C-2: NY's "myBenefits"—SNAP Online Application

New York		
Feature	***Description***	***Reference Notes***
State/County Administration	County	
Program Name	SNAP	
Online Application Name	myBenefits	https://www.mybenefits.ny.gov/mybenefits/begin
Date Implemented	2009	
Multibenefit Application	Yes	LIHEAP
Languages Available	English Arabic Russian Spanish Chinese Korean Haitian Creole	
Mobile-Friendly Website	Yes	
Mobile App	Yes	
Application Kiosks in Office Lobbies	Yes—varies by County	
Application Kiosks at Community Partners	No	

NY's Background and Experience with Online Applications

NY, a County-administered State, implemented its online SNAP application, called myBenefits, in 2009. NY reported an online submission rate of 21–40 percent for the 2015–2016 fiscal year and 41–60 percent for the next two years.

The biggest advantage of SNAP online applications for NY is the decreased time it takes to process an application. The second biggest advantage is the reduced time it takes to enter and register cases into the eligibility system. The third biggest advantage is the improved timeliness. Timeliness is a key performance measure for how Counties are doing their jobs.

NY's perspective is that the biggest challenge with online applications is the difficulty in reaching clients who apply online for subsequent followups. As stressful and chaotic as it was for all involved, the in-person application process was easier on the County agency eligibility worker in one regard: they were not actively involved in every step of the interview process. Once an interview was scheduled, they did not have to remember it and call a client. The client decided whether to participate in the interview. With scheduled phone interviews, the eligibility worker has to call the applicant to interview them, which is why the on-demand interview is a mutually beneficial scenario. Clients call at their convenience, and the eligibility worker does not have to remember to call or try—often repeatedly—to reach them.

The second biggest challenge the State reported is the insufficient call center capacity to support online applicants. The third biggest challenge is the insufficient capacity to address technological issues related to online applications. Even though the State agency directs online application users to call the State for assistance with any difficulties navigating the online SNAP application, County agencies get calls from applicants asking them for assistance.

Features of NY's Online Application

NY's multibenefit application also supports low-income energy assistance. In addition to English and Spanish, the application is offered in Arabic, Russian, Spanish, Chinese, Korean, and Haitian Creole. Clients can upload scanned documents and photos of documents for verification through the online application. Traditional submission methods such as in-person, postal mail, or fax are also available. Emailed documents are accepted but discouraged because encrypted emails are not a secure means of transmission.

In 2019, NY implemented a mobile app for benefit applications. With the app, clients can initiate an online application and finish it later. They can also submit an application and create an online account. The app allows documents to be uploaded for verification as well.

NY noted that all Counties offer kiosks to complete online applications and provide assistance to users. The kiosks are meant for people without access to the internet, although anyone who is potentially eligible for benefits is free to apply with them.

How NY Offices Process Online Applications

If an online application is submitted after business hours or over the weekend, it is processed the next business day, for purposes of the timeliness clock. Application processing assignment varies across Counties. Some districts, including New York City (which is about 60 percent of the caseload), process applications using a task-based assignment process. Other districts, particularly smaller ones, use a case-based process. Some Counties have workers who specialize in SNAP to process online applications, while others have workers who also process applications for other programs process online SNAP applications.

Processing a SNAP application is much the same regardless of whether the application is submitted online or in person. The main difference is that an online application is automatically registered into NY's legacy system, but information from a paper application must be manually entered. Applications are filed, documentation is collected and reviewed, and interviews are scheduled and conducted. If necessary, additional documentation is requested and collected. An eligibility determination and benefit calculation are done, and notices regarding eligibility are issued.

The reinstatement waiver had a high impact on the online application process. No interview is necessary for reinstatement, and not having to interview saves time and labor. The on-demand interview waiver also had a large impact on how NY processes online applications, and it is quite possibly the most useful waiver. This is especially true when it is coupled with the autocallback function so clients do not have to wait on the phone. Applicants can call at their convenience instead of the County agency having to contact them. This process is exponentially more efficient than scheduling interviews.

NY's Experience and Use of Kiosk

NY reported that most Counties have kiosks located in agency office lobbies. All districts that have kiosks provide in-person assistance to those who need help using the kiosk. Some County agencies, such as those in New York City centers, have devoted considerable staff to assisting applicants. Some smaller districts may only have one or two people to assist applicants. This assistance is the same that someone would get if they were submitting a paper application in person.

NY's Perspective on Potentially Fraudulent Activities

NY did not perceive online applications as having a higher risk of being fraudulent compared to paper applications. The most common types of fraud in SNAP's online application are duplicate benefits and false identification. The State uses online data and web analytics to monitor and track fraud for online applications. Fraud can be identified using applicant data, IP addresses, geolocation, and internet service provider (ISP) data. Tracking the last web address accessed by a browser prior to loading a particular web page is another method for discovering fraud. NY is using a third-party national fraud workgroup, hosted by the American Public Human Services Association and the American Association of SNAP Directors, to prevent potentially fraudulent activities.

NY's Perspectives on Associations Between Online Applications and Program Outcomes

NY reported that online applications have made payment accuracy somewhat more accurate. The autoregistration and immediate availability of online applications facilitate the use of data matching and document review prior to conducting interviews in a way that the paper application process does not. Online applications facilitate better interviews, the acquisition of better, more complete information, and better eligibility decisions and benefit calculations. The processing timeliness for nonexpedited applications has slightly increased. The availability of online applications, particularly when coupled with the availability of on-demand interviews, pushes more of the case processing activity to the beginning of the 30-day cycle. The household's provision of verification and documentation still presents the potential delay in the process. Mobile document uploads are helpful but use of this method is just beginning to grow.

The processing timeliness for expedited online applications and paper applications are about the same. If someone submits a paper application in person at the agency, and they can wait for an interview that same day (if the agency can interview them that day), then that person will likely be served more quickly than if someone filed an online application and the agency had to schedule an interview. With the on-demand interview capabilities in New York City, expedited service is faster if an applicant files online.

Table C-3: PA's "COMPASS"—SNAP Online Application

Pennsylvania		
Feature	***Description***	***Reference Notes***
State/County Administration	State	
Program Name	SNAP	
Online Application Name	COMPASS	https://www.compass.state.pa.us/compass.web/Public/CMPHome
Date Implemented	2001	
Multibenefit Application	Yes	Medicaid, TANF, CHIP, Childcare Assistance, LIHEAP, National School Lunch Program (NSLP)
Languages Available	English Spanish	
Mobile-Friendly Website	Yes	
Mobile App	Yes	
Application Kiosks in Office Lobbies	Yes	
Application Kiosks at Community Partners	Yes	

PA's Background and Experience with Online Applications

PA's SNAP online application is State-administered. PA implemented its "COMPASS" SNAP online application in 2001. They reported that the online submission rate for the past 3 fiscal years was 21–40 percent.

PA reported that the most important advantage of the SNAP online application is improved customer service. Customers are able to submit an application for benefits at their convenience instead of finding time to travel to an office during business hours. The online application process provides security that the local County Assistance Office (CAO) will receive the application, along with uploaded documents, without fear of the material getting lost in the mail. There is also an increase in the speed with which CAOs receive applications. They receive applications nearly in realtime after the customer submits the online application, and this alleviates the additional time needed for mail delivery, dropping off the application, or finding a fax machine to send in necessary documents. Customers' frustration is reduced due to quick access to the status of their applications. The online application process allows customers to track the progress of their applications quickly and easily at any time.

The second biggest advantage is the administrative cost reduction. Costs are reduced with an online application compared to paper applications given that clerical staff do not perform data entry. Additionally, clients can sign up for electronic notices, which saves future mailing costs.

The third biggest advantage is the reduced time spent entering and registering a case into the eligibility system. Online applications are entered by a client or third-party provider. The information is then imported into a location where workers determine eligibility prior to committing the case to the system. Therefore, the eligibility worker's administrative time is saved when a client or third-party provider performs data entry.

PA perceived that the biggest challenge with SNAP online applications is the insufficient capacity to address technological issues related to online applications. PA is working to improve their capacity to handle technological issues. The portal is the main application for a variety of services, and updates take longer following a typical system development life cycle due to the volume of regression testing. Updates to PA's online application require at least four releases, so it could take up to 8 months to flesh out an idea. Other agencies in PA also use the online system, called COMPASS. It takes time to collect input from all agencies that have programs in COMPASS.

PA believes that the online application process is a benefit to both the individuals that are served and the staff that process online applications. The State does not believe that the online application process creates many challenges.

Features of PA's Online Application

COMPASS enables customers to apply for multiple programs, including Medicaid, TANF, CHIP, childcare assistance, LIHEAP, and NSLP. The State offers the application in English and Spanish. Verification is accepted in the form of scanned and photographed documents. Email is also accepted as well as more traditional methods, such as in-person or postal mail submissions.

COMPASS has a mobile-friendly website as well as a mobile app that was implemented in 2016. Documents for verification can be uploaded through the app as photos or scanned documents.

How PA Offices Process Online Applications

Based on survey responses, PA reported that processing times vary depending on the submission details. For example, any applications submitted after business hours or on the weekends are processed the next business day. Applications are assigned for processing by zip code, then by caseload or task depending on the CAO. Screening for expedited and nonexpedited applications happens online following submission.

The clerical staff that process paper applications must manually enter information, while information from online applications is already in the system. However, nonexpedited online applications take longer to process than nonexpedited paper applications. To demonstrate, unlike online applications, paper applications often receive same-day review in PA. In followup interviews, PA noted that a potential reason for this concerns the timing and convenience of paper reviews by clerical staff, since paper applications are placed in workers' hands the same day they are reviewed. Expedited online applications take the same time to process as expedited paper applications.

Online submissions are processed the same way as paper applications. They are received, assigned, and sent to a worker who processes applications for other programs as well.

PA's Experience and Use of Kiosk Assistance

PA reported that kiosks are also available in County assistance offices as well as some community partner locations. They are primarily meant for people who do not have access to internet or computers. Generally, the people who use kiosks avoid the in-person customer service that comes with traditional applications.

Kiosks are found within CAOs and community partner locations in rural and nonrural areas. They offer in-person assistance as well as a toll-free hotline. If a potentially eligible client does not have access to a kiosk or assistance office, then the local library is also available for applications. Computers are free to use with easy access to the PA COMPASS website.

PA's Perspective on Potentially Fraudulent Activities

PA checks for potentially fraudulent online applications. Notably, PA perceived the risk of fraud for online applications and paper applications to be the same. The State uses online data and web analytics, including applicant data, IP addresses, message-open or click-through rates, and Google analytics. Risk-based authentication also decreases the risk of fraud. This method checks logins from new devices and locations and locks accounts with authentication failures. Google Analytics is used for page times and counts. The State verifies there are not multiple users with the same ASP.NET session ID accessing the online application from different IP addresses. There are also references to certain names and Social Security number (SSN) combinations that are unacceptable (e.g., Donald Duck, 111-11-1111). PA expected to implement remote identify proofing within a few months of the data collection period. This service will allow recipients to confirm their identity immediately through Experian. In addition, FNS has announced a duplicate eligibility database that the State plans to use.

PA's Perspectives on Associations Between Online Applications and Program Outcomes

PA believes that the time it takes to process an expedited application and to process an application overall is neither negatively nor positively affected by the online process. All applications that the State

offices receive, whether submitted via paper or online, are held to the same timeliness processing guidelines. Payment accuracy rates are no higher with online processing.

In general, paper applications are processed faster than online applications—8.5 days to 13.3 days for August 2019. The State agency did not report a higher rate of applications with the implementation of online applications. PAs online SNAP application generally did not improve or decrease efficiency for SNAP itself, but it did increase customer service and satisfaction.

Table C-4: TN's "Family Assistance"—SNAP Online Application

Tennessee		
Feature	***Description***	***Reference Notes***
State/County Administration	State	
Program Name	SNAP	
Online Application Name	Family Assistance Online Application	https://faonlineapp.dhs.tn.gov/
Date Implemented	2016	
Multibenefit Application	Yes	TANF
Integrated with Eligibility System	No	Plans to integrate in the next 2 years
Languages Available	Arabic Spanish Somali	
Mobile-Friendly Website	Yes	
Mobile App	Yes	
Application Kiosks in Office Lobbies	Yes	
Application Kiosks at Community Partners	No	
Clock Start (if applications submitted after business hours)	Next business day	
Waivers That Support Online Applications		

TN's Background and Experience with Online Applications

TN SNAP is State-administered. TN implemented its online SNAP application, called Family Assistance, in 2016. They reported an online submission rate of 0–20 percent for the 2016-2017 and 2017-2018 fiscal years.

TN's perceived advantage of SNAP online applications was improved customer service. Clients did not have to spend postage to mail the application to the office or drive to local offices to apply, and online submission allows applications in realtime.

The biggest challenge for TN is the volume of online applications that causes difficulties for managing staff workload. There has been an increase in unnecessary applications submitted online instead of the interim reporting forms or reporting changes. All after-hours, weekend, and holiday applications the office receives cause eligibility staff to play catchup the next business day. The second biggest challenge is reaching clients who apply online for subsequent followup because entering the phone number is not mandatory. This causes staff to have to schedule appointments a few weeks into the future in order to give the client time to provide a phone number or come to the office for an interview. The third biggest

challenge in TN is the increase in potentially fraudulent applications related to false identification because a household can apply for benefits online remotely and be interviewed by telephone, never having to present themselves in-person at the SNAP office.

Features of TN's Online Application

TN reported that Family Assistance is a multibenefit application that includes both TANF and SNAP, and is available in English, Spanish, Arabic, and Somali. The application website is mobile-friendly, but TN does not have a mobile app and does not have plans to develop one. Once individuals create an account in Family Assistance they can initiate and finish the application later, submit a single-program or multibenefit application, sign electronically, and submit their recertification application. An important feature available through TN's mobile-friendly website is the ability to submit case documents by uploading a scanned document or photo of a document.

Local offices in TN provide kiosks in their office lobbies so clients can apply online. If an application is submitted after normal business hours, the date of the application (for purposes of the timeliness clock) is the next business day. Clients who apply online can submit verification paperwork through postal mail, email, fax, or by uploading scanned documents or photos of documents. TN reports that the three most helpful features are the ability for clients to initiate an application and save it to finish later, the electronic signature, and the ability to submit an integrated application.

How TN Offices Process Online Applications

TN reported that SNAP applications are prescreened for expedited service and processed within the expedited guidelines. If the application is not expedited, it is processed following regular SNAP guidelines. There is no difference in how online applications are processed.

The SNAP online applications are assigned for processing first by County and then by District within the County. In TN, workers responsible for SNAP eligibility also process applications for other programs. SNAP online applications are processed the same way as traditional methods.

TN has a SNAP waiver allowing the State to deny an application before the 30th day, but reports this has a low impact on processing online applications. They also have a SNAP waiver for the face-to-face interview. They report it helps clients avoid coming into the local office, but it has a low impact on processing SNAP applications.

TN's Experience and Use of Kiosk Assistance

TN provides kiosks in its office lobbies so people can apply online there, and in-person assistance from someone in the office is available for kiosk clients. No other forms of assistance are available.

TN's Perspective on Potentially Fraudulent Activities

TN reports that, compared to paper applications, online SNAP applications are more likely to be fraudulent because they make it easier to receive duplicate benefits, submit false identification, or submit misleading information about household circumstances. TN has an online team that uses Google Docs to track online applications. Because of this, TN was able to determine duplicate telephone number usage, which led to the discovery of potentially fraudulent applications. TN's perception is that the State receives more fraudulent applications because clients do not have to come into the office if they waive the face-to-face interview. TN will be using the National Accuracy Clearinghouse to verify identity for its clients and prevent fraud.

TN's Perspectives on Associations Between Online Applications and Program Outcomes

TN reports SNAP online applications have not increased payment accuracy. The State also reports no difference in the timeliness of online versus paper applications for either expedited or regular applications.

Table C-5: "Your Texas Benefits"—SNAP Online Application

Texas		
Feature	***Description***	***Reference Notes***
State/County Administration	State	
Program Name	SNAP	
Online Application Name	Your Texas Benefits	https://yourtexasbenefits.com/Learn/Home
Date Implemented	2006	
Multibenefit Application	Yes	SNAP, TANF, Medicaid, CHIP
Languages Available	English Spanish	
Mobile-Friendly Website	Yes	
Mobile App	No	
Application Kiosks in Office Lobbies	Yes	
Application Kiosks at Community Partners	Yes	

TX's Background and Experience with Online Applications

TX SNAP online applications are State-administered. TX implemented the "Your Texas Benefits" SNAP online application in 2006. TX reported that the online submission rate was 61–80 percent over the past 3 years.

TX perceived that the biggest advantage of the SNAP online application for TX is improved customer service. The yourtexasbenefits.com website and Your Texas Benefits mobile app are self-service systems that enable clients to easily access Health and Human Services Commission (HHSC) services and benefits without waiting in line at the HHSC eligibility office. Clients can manage their Your Texas Benefits account anywhere and anytime at their convenience.

The second biggest advantage is the reduced administrative cost. The Document Processing Center (DPC) processes inbound eligibility documents received from clients through postal mail and overnight couriers. DPC staff sort and scan all incoming mail to convert paper documents into electronic images, which are automatically transmitted to HHSC systems. This process allows Access and Eligibility Services (AES) to assign eligibility determination tasks to caseworkers statewide without regard to geographic location. The document processing service incurs administrative costs. The online application submission is a streamlined process that reduces associated administrative costs because no manual intervention is needed.

TX reported that the third biggest advantage is decreased staff workloads. Online applications allow clients to obtain case information or apply for benefits without waiting in line at an HHSC eligibility office. Clients can access case information, resources, and forms, and can manage their account from anywhere and anytime at their convenience, thereby reducing lobby traffic and workload. Information

in the eligibility system is also prepopulated for applications submitted online, which reduces staff workload.

The biggest challenge is insufficient funding to improve online applications. Updates to the eligibility and online application system are prioritized based on available funding. At times, competing priorities prevent necessary changes from being sufficiently funded. The second biggest challenge is the increase in potential for fraudulent applications. The yourtexasbenefits.com website is accessible to anyone from anywhere with internet access, and this ability to submit an online application increases potentially fraudulent applications. The authentication feature of the online application process is the control to mitigate potentially fraudulent application. TX did not select a third challenge, as no others applied to them.

Features of TX's Online Application

TX reported that a client can apply for multiple benefits with the online application, including SNAP, TANF, and medical assistance. The application is offered in Spanish and English. Documents can be uploaded as a scan or photo for verification. Traditional methods like faxing documents or providing them in person are also accepted.

The SNAP online application has a mobile-friendly website. Clients can submit scanned or photographed documents for verification as well as view their case status. The State does not provide a mobile app, nor do they plan to create one.

How TX Offices Process Online Applications

Processing times vary depending on the submission details. Any applications received after business hours or on weekends are processed the next business day. Online applications are assigned to local offices for processing the same day, if possible. Applications are processed in task-based work queues. The Eligibility Workload Management System (EWMS) is a centralized system used to distribute applications, redeterminations, and missing information statewide. EWMS enables staff to process tasks using a "Get Next" feature.

Applications, redeterminations, and missing information tasks are prioritized by "due today," "priority," and "oldest received" date. Tasks are not assigned as caseloads to staff nor by geographic location. A Texas Works Advisor or Eligibility Specialist processes applications—these are workers who also process other programs, like TANF and medical assistance. Workers process applications as they are triaged in different work queues depending on the programs applied for, and local office triage tracks are different depending on the programs included on applications. If the application is for SNAP and TANF, it is assigned to the Texas Works "Red Track" for processing. If the application is for SNAP only, or SNAP and Medicaid, it is assigned to the Texas Works "Green track." The Red and Green tracks are separate work queues, and local office staff work both tracks. If clients are applying in the office, they are offered same-day interviews. If clients are applying online, eligibility specialists make cold calls to complete interviews and process applications. Processing applications is standardized across the State. SNAP online applications are scanned for expedited processing the same way as paper applications. HHSC does not compare the timeliness of paper applications with online applications.

TX's Experience and Use of Kiosk Assistance

Clients can also apply for benefits online at kiosks located at community partner locations and HHSC offices. Kiosks are primarily meant for potential clients who do not have access to internet or a

computer. TX reported that the only type of assistance available for those applying on a kiosk is in-person assistance. Paper applications or regular online applications receive more customer service support than kiosk applications do.

TX's Perspective on Potentially Fraudulent Activities

TX reported that there are various common types of fraud associated with the SNAP online application. Duplicate benefits, false identification, and misinformation about household circumstances seem to be the most problematic areas. TX uses online data and web analytics, including applicant data and IP addresses, to detect fraud. To combat this perceived issue, TX has been using Integrity Support Services (ISS), an area within HHSC AES that provides oversight of the program's accuracy and fraud detection and prevention systems. The streamlined process allows an appropriate level of staff to evaluate cases with a high degree of accuracy. All applications are subject to being referred to ISS, regardless of the method they were submitted. ISS uses multiple data sources when reviewing an application for accuracy. These include information from:

- Social Security Administration
- Texas Driver's License office
- Social media
- Birth Verification System
- Marriage and divorce records
- Phone calls to collateral contacts
- Texas Workforce Commission
- Other data sources

Beginning October 2019, previous ISS findings regarding individuals known to be associated with identity theft related to erroneously receiving SNAP benefits are flagged in a Data Broker report, which is requested for applicants age 16 and above. This information is available to eligibility staff prior to making a decision on the application. All individuals associated with past identity theft will be referred to ISS for further review of the application. Previous findings will be provided so staff can review past case comments and address any issues. When staff are not able to clear issues with the application, they may refer the application to ISS for further review and analysis. Enhancements to the authentication process of setting up an online account for online applications is also underway.

TX's Perspectives on Associations Between Online Applications and Program Outcomes

TX noted that HHSC does not capture the application sources when conducting quality control reviews, therefore it does not have information on payment accuracy. HHSC also does not differentiate the timeliness of online applications from paper applications. Based on its observations, HHSC believes it takes less time overall to process online applications than paper applications.

Table C-6: UT's "myCase"—SNAP Online Application

Utah		
Feature	***Description***	***Reference Notes***
State/County Administration	State	
Program Name	SNAP	
Online Application Name	myCase	https://jobs.utah.gov/mycase/
Date Implemented	2012	
Multibenefit Application	Yes	SNAP, TANF/GA, Medicaid, Childcare Assistance
Integrated with Eligibility System	Yes	
Languages Available	English Spanish	
Mobile-Friendly Website	Yes	
Mobile App	Yes	
Application Kiosks in Office Lobbies	Yes	
Application Kiosks at Community Partners	Yes	
Clock Start (if apps submitted after business hours)	Next business day	
Waivers That Support Online Apps		

UT's Background and Experience with Online Applications

UT, a State-administered program, implemented the online SNAP application, called myCase, in 2012. They reported an online submission rate of 61–90 percent over the past 3 years for UT.

In UT, the most important perceived advantage of the SNAP online application is that it takes less time for workers to process an application. The second most important advantage is improved customer service. The third most important advantage is the reduced time for entering (registering) cases into the eligibility system. In UT, online SNAP applications are integrated with the eligibility system, so they are autoregistered and assigned to eligibility workers. Having applications autoregistered means that, if an applicant calls for a phone interview immediately after submitting the application, the worker can still complete the process because the application can be viewed within minutes, which helps the interview process. Depending on how much information the customer includes in the online application, it can save time because eligibility workers do not have to enter as much information and can focus on the accuracy of the information entered.

The biggest perceived challenge with SNAP online applications in UT is the increase in potentially fraudulent applications. Customers can apply from anywhere online, including out of State, so UT tracks IP addresses. The second biggest challenge for UT is the difficulty of reaching clients who apply online for subsequent followup if they do not provide a phone number, or the number they provide is inaccurate. The third most difficult challenge for UT's online application process is the insufficient capacity to address technological issues for online applications. If a worker cannot find an online application in the eligibility system, they have to contact a dedicated email address for support, which is not provided immediately.

UT conducts customer experience feedback surveys about its online application, and that data shows that the ability to upload documentation is the most popular feature. Overall, UT's online application gets very favorable responses from the public.

Features of UT's Online Application

A customer can apply for multiple programs at once, including SNAP, TANF/General Assistance, Medicaid, and childcare assistance, using myCase. The application is available in English and Spanish. The myCase website is mobile-friendly, but they do not have a mobile app. The site is best viewed on a desktop computer because some features may not be available in the mobile-friendly version.

UT provides kiosks in its office lobbies so clients can apply online. If an application is submitted after normal business hours, the date of application (for purposes of the timeliness clock) is the next business day.

Clients who apply online can submit verification paperwork through the traditional methods of postal mail, email, and fax. Clients can upload documents from their computers or mobile devices, but only those that apply to the five categories of income, assets, shelter, medical, or authorization of information, as long as the file type is JPEG, PDF, DOC, or XLS. Documents for other sections of the application must be submitted manually. UT does not encourage customers to email verifications because it is not secure.

UT perceives the three most helpful features of myCase are the abilities for clients to submit the application electronically, upload case documentation, and check benefit status by logging into their account.

How UT Offices Process Online Applications

UT noted that the Department of Workforce Services (DWS) has a statewide eligibility model. Statewide, the majority of SNAP applications (as many as 90 percent) are submitted online. SNAP is processed at various call centers statewide. All eligibility workers follow the same procedures, policies, and resources. Anyone can apply at any employment center located in the State. Employment center locations can be found on the DWS website. Employment counselors located in employment centers will assist applicants with the online (myCase) or paper application, if requested.

All applications are screened for expedited service; the type of application does not matter. There is no difference in processing for a paper or online application. All applications are registered and assigned to be screened and processed within required timeframes.

Once the customer has completed the online application, they click on the "Submit" button and the application is uploaded to the eREP—the State's eligibility system. Eligibility workers screen the application and attempt a telephone call to complete the interview. DWS has an on-demand waiver to allow for telephone interviews. Face-to-face interviews are completed at the customer's request.

Eligibility workers are assigned applications through a work queue. Because the State is one service area, the geographical location of the applicant or eligibility worker or the type of application do not matter. Both paper and online applications are assigned through the work queue. Specific workers register paper applications in myCase.

If customers already have an open assistance program or programs in eRep, the application is considered an add-on application and is assigned to the current worker. If there are no open programs on the customer's case, the applicants provide their SSN. If the applicant is applying for SNAP or medical assistance, the application is assigned to the SNAP/Medical Work Queue.

UT's Experience and Use of Kiosk Assistance

UT reported that anyone can apply at any employment center located in the State. Employment center locations can be found at Jobs.utah.gov. Employment counselors located in employment centers will assist applicants with filling out an online (myCase) or paper application, if requested. If during the online application process a customer has questions or runs into difficulties, they can click on the "Chat" feature to contact a DWS customer service representative during business hours. This can be completed in any DWS office or in the comfort of the customer's own home. If applying in an office, DWS has multiple computer kiosks available.

UT reported that kiosks are provided in employment centers for clients without computers, and they are located were they are most needed.

UT's Perspective on Potentially Fraudulent Activities

DWS uses data analytics to detect duplicate issuance on customer transactions, including when the transactions happen. Data analytics for tracking online and paper applications includes reviews of dollar transactions, transactions within minutes of each other, and multiple card issuance. Analytics are also done for customers receiving benefits while incarcerated, which can represent potential identity theft or an intentional program violation. Analytics are also conducted on stores with large spikes in SNAP activity.

Eligibility workers can run an interface with Social Security, Workers Compensation, Public Assistance Reporting Information System, Office of Recovery Services, new hire, prisoner, work number, motor vehicle, unemployment, qualifying quarters, wages, alien, birth, and death records. The full search occurs at application and recertification. Targeted searches can happen at any time.

UT's Perspectives on Associations Between Online Applications and Program Outcomes

UT perceives that SNAP online applications have improved payment accuracy because the system provides a streamlined process to acquire information and verification from applicants and recipients. Information entered into myCase is compared to ensure accuracy for each household prior to approval.

The State tracks timeliness for all applications; the type of application does not matter. Managers, supervisors, and staff can track timeliness through the eligibility system and reports. SNAP online applications are submitted in a realtime environment. As soon as customers submit their online application, the information is transferred to eRep, the eligibility determination system. Then, internal data matching begins, the case is assigned to an eligibility specialist, notification is set for application processing, and timeliness and due date monitoring are actively engaged to ensure the application is completed not only on the due date, but significantly earlier than the due date.

Paper applications are submitted through the online application portal and the information is then transferred to eRep in the same manner. However, delays could occur in submitting the paper application to the portal and during the time it takes to enter the information into the portal. These delays can be a couple of days, but on an infrequent basis, longer than a week.

Table C-7: VA's "CommonHelp"—SNAP Online Application

Virginia		
Feature	***Description***	***Reference Notes***
State/County Administration	County	
Program Name	SNAP	
Online Application Name	CommonHelp	https://commonhelp.virginia.gov/access/
Date Implemented	2012	
Multibenefit Application	Yes	SNAP, TANF, Medical, Energy Assistance, Childcare
Languages Available	English Spanish	
Mobile-Friendly Website	No	
Mobile App	No	
Application Kiosks in Office Lobbies	Yes	
Application Kiosks at Community Partners	No	
Clock Start (if apps submitted after business hours)	Next business day	
Waivers That Support Online Apps	Electronic Notices waiver	

VA's Experience with Online Applications

VA, a County-administered State, implemented its online SNAP application, called CommonHelp, in 2012. VA's online submission rate was 0–20 percent for the 2015–2016 fiscal year and 21–40 percent for the 2016–2017 and 2017–2018 fiscal years.

VA perceived that the most important advantage to the State is the online application's improved customer service because an individual does not have to go to a Local Department of Social Service (LDSS) to apply, and staff spend less time assisting with the application. The second most important advantage is decreased staff workloads because the online application information is prefilled in the eligibility system, saving data entry time for workers. The third most important advantage of VA's online application is that it increases completeness of application information because it is user-friendly; answers to certain questions trigger more questions, whereas the paper application does not have explanations or lead-in questions. VA reported another advantage of the CommonHelp SNAP online application is the ability for individuals to apply for medical assistance, SNAP, TANF, energy assistance, and childcare with one electronic application. The website is also customized to provide individuals with the opportunity to upload documents during the application process.

The biggest perceived challenge with VA's CommonHelp application is difficulty reaching clients who apply online for subsequent followup because the phone number on the application could change before a worker attempts to contact the household for an interview. The second most difficult challenge is insufficient funding to improve the online application because the changes the State would like to make are not a priority for the information technology (IT) funds available. The third most difficult challenge is the perception of an increase in potentially fraudulent applications. Local staff may feel individuals other than the applicant named are completing the application. They also have a perception that people are more likely to give false information online versus on a paper application that they personally complete.

Features of VA's Online Application

CommonHelp is a multibenefit application available in English and Spanish. The State currently does not have a mobile-friendly website or mobile app, but it does have plans to roll out a mobile app in 2020. An individual that sets up an account in CommonHelp can screen for eligibility, initiate and finish the application later, submit a single-program or multibenefit application, update personal information, submit case documents by uploading, sign electronically, check on benefit status, and submit their recertification application.

The LDSS provides kiosks in its office lobbies so clients can apply online. If an application is submitted after normal business hours, the date of application (for purposes of the timeliness clock) is the next business day. Clients who apply online can submit verification paperwork through postal mail, email, fax, or by uploading scanned documents or photos of documents. The three most helpful features VA reports are the abilities for clients to submit recertifications, verifications, and the actual application electronically.

How VA Offices Process Online Applications

VA reported that it has 120 LDSS and each has its own procedures for processing an online application. In some LDSS, administrative staff register the applications, pull computer matches, schedule interviews, etc. In other LDSS, a worker handles all aspects of processing. Some LDSS have workers that work on all applications while others have staff that only handle certain programs.

SNAP-only online applications are not processed differently than multiprogram applications. For multiprogram applications, different screens display to capture the requirements of the various programs, but the process remains the same.

Some medical assistance applications can "self-direct," requiring no worker intervention to process. Different program rules also create variation. For example, some medical assistance applications do not require interviews, while applications for SNAP do.

Administrative staff process nonexpedited online SNAP applications in many of the LDSS, and their responsibilities depend on the LDSS. Duties may include monitoring the Locality Inbox in the Virginia Case Management System (VaCMS) for applications, screening applications for expedited processing, assigning applications to workers for processing, pulling system inquiries, and registering applications in the VaCMS. Each worker at an LDSS that does not have administrative staff is responsible for pulling applications from the Locality Inbox and screening and processing them.

State merit system personnel process SNAP applications. Depending on the LDSS, these workers are known as eligibility workers, benefit program specialists, and human service workers or specialists. In some LDSS, workers are designated as "intake" or "ongoing." Intake workers process new applications, then forward them to an ongoing worker to maintain them. The ongoing staff process renewal applications on the cases they maintain as well as new applications submitted for a different program. Other LDSS have all workers processing new applications and maintaining the cases combined with other programs.

Expedited online SNAP applications may be screened and assigned more quickly than nonexpedited, but there is no difference in processing. One LDSS reported that they had designated staff who handled all expedited applications.

VA offers an electronic notices SNAP waiver. Customers have to set up an account in the online system to receive notices, which may result in more online applications because some individuals may not have been aware of the online application before this. It could also result in more online renewals and change requests.

Due to the implementation of a new eligibility system for SNAP in 2017, in the past 3 years, LDSS have made changes to how online applications are assigned to workers; how online applications are registered in the eligibility system; how interviews are scheduled for online applications; how call centers that process online applications are organized; how electronic documents or case files are managed; and how online applications are screened for expedited service eligibility. The goals of those changes were to improve client services, program operations, and program integration.

VA's Experience and Use of Kiosk Assistance

Of the 94 LDSS who responded to a State inquiry, 64 indicated they offer a kiosk, computer, or iPads for customers to apply online if they wish. All provide assistance if needed. Of the 26 that did not have a kiosk, computer, or iPads, 16 were in far western VA where internet service availability varies. The remaining 10 were mostly rural Counties. Some of those with no kiosk, computers, or iPads indicated they had one previously but they removed it because it was not used. In LDSS that provide kiosks, assistance is available in-person from someone in the office or via live support through a toll-free hotline from an office phone near the kiosk. However, VA does not provide live support using an online chat feature or through a local phone number.

VA's Perspective on Potentially Fraudulent Activities

The State agency representative in VA was not aware of any LDSS that have specific practices in place to detect potentially fraudulent activities related to SNAP online applications.

VA's Perspectives on Associations Between Online Applications and Program Outcomes

The State agency representative in VA did not think the online application had any impact on payment accuracy. The State currently uses the same timeliness measures for online and paper applications and does not track applications separately. Application timeliness is tracked by monitoring the Locality Inbox, the Pending Point in Time and the SNAP AppTrack report. The Locality Inbox displays applications received and the status of the application prior to assigning it to a worker.

Table C-8: "Washington Connection"—SNAP Online Application

Washington		
Feature	***Description***	***Reference Notes***
State/County Administration	State	
Program Name	Basic Food	
Online Application Name	Washington Connection	https://www.washingtonconnection.org/home/
Date Implemented	2011	
Multibenefit Application	Yes	Food, Cash, Childcare, Long-Term Care (LTC), Medicare Savings Program
Languages Available	English Cambodian Chinese Korean Laotian Russian Somali Spanish Vietnamese	
Mobile-Friendly Website	No	
Mobile App	No	
Application Kiosks in Office Lobbies	Yes	
Application Kiosks at Community Partners	Yes	

WA's Experience with Online Applications

WA SNAP online applications are State-administered. WA implemented its "Washington Connection" SNAP online application in 2011.[54] They reported an online submission rate for WA of 21–40 percent over the past 3 years.

In WA, the most important perceived advantage of the SNAP online application is its integration with various programs. The second most important advantage is that it supports electronic signatures, which allows for more productivity because it improves access to programs. Customers can determine eligibility by telephone, which increases timeliness. Customers are able to get on-demand interviews by completing the online application and calling in, which allows staff to achieve timeliness by avoiding client queues.

The third most important advantage is the ability of clients to check their benefit status by logging into their account. The ability for customers to view their account is also helpful for staff because it decreases the volume of client calls or walk-ins seeking answers to questions about document receipts, work status, case history, etc.

[54] Although Washington Connection was implemented in 2011, it replaced an online application system that was implemented 2001. Source: Alicia Koné, a former SNAP director from the State of WA, where she served in that capacity from 2001 to 2005. She is also a former board member of the American Association of SNAP Directors. Since then, she has worked as a consultant with over half of the State Health and Human Services agencies in the United States.

The biggest perceived challenge with SNAP online applications in WA is insufficient capacity to address technological issues of online applications. Washington State Department of Social Health Services Economic Services Administration's IT infrastructure capacity places significant challenges for the State's ability to advance online technology to keep up with business needs. Recent attempts to build a mobile app failed due to escalating budget estimates and the inability to hire qualified IT or mobile infrastructure support staff. The State is continuing work to decouple the online website from the existing development processes and release cycles to provide a more agile, responsive environment. Industry standards and technology tools are ever changing, making it very difficult to respond in a timely manner with current online tools that meet the customer's desired multilevel experience.

The second biggest challenge is insufficient funding to improve online applications. The third biggest challenge is the increase in potentially fraudulent applications.

Features of WA's Online Application

A customer can apply for multiple programs at a time, including programs for food, cash, childcare, LTC, and Medicare Savings Program. Unfortunately, the online application is not mobile-friendly. It is most easily viewed on a computer because many features may not be accessible on a mobile device. The application can be completed in many languages including English, Cambodian, Chinese, Korean, Laotian, Russian, Somali, Spanish, and Vietnamese.

Online applications can be completed at kiosks in office lobbies as well as community partner locations. This gives those who do not have access to a computer, or only have access to a mobile device, opportunities to apply online.

How WA Offices Process Online Applications

WA reported that any applications received after business hours or on the weekend in Washington Connection are processed the next business day. The process for screening online applications for expedited service as well as assigning workers to them are the same as paper applications.

Online applications for SNAP are submitted directly to the client's Electronic Case Reporting (ECR) in the Document Management System (DMS) through the Online Service Access portal and processed in the exact same manner as a paper application. Public benefit specialists and WorkFirst program specialists process SNAP applications. Screening is done either by the person doing the interview for applications not yet screened or by the person assigned to work the queue for other applications received in DMS.

The worker addresses eligibility and completes the interview, then they check electronic verification sources through Spider and other available crossmatches for each household member and document in the system. If the worker discovers inconsistencies during the interview, they ask additional questions to clarify the issues identified and document them; this may include clarifying the following:

- "Living above means" issues
- Any changes from what is on the application or in ACES 3G
- Any discrepancies with documentation or crossmatches

WA's Experience and Use of Kiosk Assistance

Washington Connection kiosks are located in State office lobbies as well as some community partner locations. Anyone is eligible to apply from one of those locations. In-person help is available to those

who request it, as well as a toll-free hotline. Kiosks are placed in areas where they are seemingly most needed, although data collection on how much clients' needs are being met does not exist.

WA's Perspective on Potentially Fraudulent Activities

WA reported that they have many approaches to identifying fraudulent applications. Online applications do not have a higher fraudulent application rate than traditional applications. One of the largest issues with the online application, in terms of fraud, is false identification.

WA crossmatches online applications and eligibility reviews with the EBT transaction data to identify any clients who are applying for benefits that are currently using their benefits in another State. They also check for foreign and out-of-State IP addresses, Virtual Private Networks that can change IP location, frequently used addresses and phone numbers, identities matching reported deaths, and the amount of applications from the same IP per day.

The information used to determine if an application may be fraudulent comes from online data and web analytics, which includes geolocation, IP addresses, or ISP data. Applicant data is always screened before any other methods are used.

WA's Perspectives on Associations Between Online Applications and Program Outcomes

WA's online application has increased accessibility for clients. The number of languages offered and the number of kiosk locations increases the amount of people the application is able to reach. It additionally improved workflow for staff because they can quickly receive applications online with electronic signatures. The timeliness of processing increased without a huge increase in risk of fraud.