READ\_ME - Social Assistance Outsourcing Project
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## 1. Introduction

Project Title: Social Assistance Outsourcing Project

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#### **Project overview:**

This project examines state choices around eligibility-system modernization for SNAP, TANF, and Medicaid. We focus on three linked decisions: (1) whether to modernize at all, (2) when to modernize (timing and sequencing), and (3) how to modernize—building in-house versus contracting with private vendors (e.g., Deloitte, Accenture), and related delivery models.

#### Research objective:

Estimate the cost-effectiveness ("bang for the buck") and broader value of modernization choices—modernize vs. not, earlier vs. later adoption, in-house vs. outsourced—and how these choices relate to administrative performance and program outcomes.

## **Decision space (what we study):**

- Whether to modernize: adoption vs. non-adoption and partial/attempted efforts
- When to modernize: timing, pace, and sequencing (modular vs. big-bang)
- How to modernize: in-house build, prime vendor, or hybrid models; vendor tenure and turnover

#### What the project compiles:

- Quantitative data: SNAP administrative series (administrative costs, error rates, participation, Program Access Index, Application Processing Timeliness, Case and Procedural Error Rates) and contextual indicators (ACS median rent, QCEW wages, LAUS unemployment).
- Qualitative/contextual data: 50-state histories of eligibility systems for SNAP/TANF/Medicaid—system names, timelines, attempted vs. completed implementations, vendor roles (in-house vs. outsourced), program coverage, and changes from 2000–2024 (e.g., Social Assistance Modernization Database,
- Modernization Timeline, SNAP Eligibility Services Database). Sources include state RFPs, agency reports, procurement portals, and the literature.

#### Data processing and integration:

Stata scripts clean, harmonize, and merge sources into an analysis-ready dataset (SNAP\_Data.dta) linking SNAP administrative outcomes to economic and policy variables, plus modernization timing and vendor indicators.

#### **Analysis:**

- Descriptive statistics and visuals: trends in administrative spending, performance, cost composition, and growth
- Econometric designs: fixed-effects panel models and event-study frameworks to estimate relationships between modernization choices (if/when/how) and program outcomes; robustness checks using alternative timing definitions (attempted vs. completed)

#### **Scope note:**

While modernization histories are compiled for SNAP, TANF, and Medicaid, the primary quantitative analysis centers on SNAP due to data availability.

#### **Current status:**

The project is actively maintained. We have begun linking modernization timelines (attempted and completed) to cleaned SNAP outcomes and administrative data to enable direct estimation of how modernize/not and timing relate to efficiency and effectiveness. Ongoing work will expand policy controls and robustness checks.

#### **About this README:**

This document explains the repository layout, raw data sources, processing and analysis scripts, key outputs, plots and charts, and the accompanying write-ups and databases.

#### 1.1 Quick Start

Dependencies (Stata 16+)

Packages required: reghdfe, estout, coefplot, outreg2, csdid.

#### • Install (copy/paste into Stata):

```
o ssc install reghdfe, replace
o ssc install estout, replace
o ssc install coefplot, replace
o ssc install outreg2, replace
o ssc install csdid, replace
```

## • Project path:

Set a global pointing to the project root. All paths in this project use forward slashes for portability across Windows/macOS/Linux. If you copy a Windows path from File Explorer, change "\" to "/".

- o Example:
  - global project\_path "C:/Users/YourName/Box/Social
    Assistance Outsourcing Project"
    cd "\$project path"

#### One-command run:

 Open Scripts/SNAP\_MASTER.do, set global project\_path at the top, then run the entire file. SNAP\_MASTER.do orchestrates the full pipeline (data cleaning, merges, figures, and tables) in the correct order.

## 2. Raw Data

This section details the raw datasets used in the "Social Assistance Outsourcing Project." All raw data files are located within the Social Assistance Outsourcing Project/Raw\_Data/ directory and its subfolders.

#### 2.1 ACS State Median Rent

- File Path: Social Assistance Outsourcing Project/Raw Data/ACS State Median Rent/
- Source: U.S. Census Bureau, American Community Survey (ACS)
- Table ID: B25064
- **Description:** This dataset provides state-level estimates of the median gross rent for renter-occupied housing units. Gross rent includes contract rent plus estimated average monthly costs of utilities and fuels if paid by the renter. Data is typically available as 1-year and 5-year estimates. The files in this project covers 2010-2022/2023 estimates.
- **Key Variables:** Estimates of median gross rent, margin of error (MOE).
- Notes: Ensure the correct estimate type (1-year or 5-year) and year are used for analysis.
- Example File Naming: ACSDT[1/5]Y[YYYY].B25064-Data.csv
- **Further Information:** General ACS Info (<a href="https://www.census.gov/programs-surveys/acs">https://www.census.gov/programs-surveys/acs</a>), Example Table Link for 2015 5-Year (<a href="https://data.census.gov/table/ACSDT5YSPT2015.B25064">https://data.census.gov/table/ACSDT5YSPT2015.B25064</a>)

#### 2.2 QCEW State Wages

- File Path: Social Assistance Outsourcing Project/Raw Data/QCEW State Wages/
- **Source:** U.S. Bureau of Labor Statistics (BLS), Quarterly Census of Employment and Wages (QCEW)
- **Description:** This program publishes a quarterly count of employment and wages reported by employers, covering 98% of U.S. jobs. Data is available at county, MSA, state, and national levels by industry (NAICS) and includes the number of establishments, monthly employment, and quarterly wages. For this project, state-level annual data is primarily used. Files observed cover annual data from 2004-2023.
- **Notes:** Data is aggregated by industry (NAICS codes) and ownership type (private, federal, state, local). Useful for tracking detailed industry employment and wage trends.
- Example File Naming: Annual data files, e.g., [YYYY].xlsx or [YYYY].xls.

• **Further Information:** QCEW Downloadable Data (<a href="https://www.bls.gov/cew/downloadable-data-files.htm">https://www.bls.gov/cew/downloadable-data-files.htm</a>)

#### 2.3 SNAP Error Rates

- File Path: Social Assistance Outsourcing Project/Raw Data/SNAP Error Rates/
- **Source:** U.S. Department of Agriculture (USDA), Food and Nutrition Service (FNS), SNAP Quality Control (QC)
- **Description:** This dataset provides state-level estimates of SNAP payment accuracy. Key metrics include Over Payment rate, Under Payment rate, and the combined Payment Error Rate (sum of absolute values of overpayments and underpayments as a percentage of total issuance). Data is released annually based on the federal fiscal year. Files observed cover fiscal years 2003-2014, 2017-2019, and 2022-2023.
- **Notes:** Measures the accuracy of benefit determination and issuance. Lower rates indicate higher accuracy.
- **Example File Naming:** [YYYY] Error Rates.xlsx, [YYYY]-rates.pdf, snap-fy[YY]-qc-payment-error-rate.pdf.
- **Further Information:** FNS SNAP QC Payment Error Rates (<a href="https://www.fns.usda.gov/snap/qc/per">https://www.fns.usda.gov/snap/qc/per</a>)

#### 2.4 SNAP Participation Reports

- File Path: Social Assistance Outsourcing Project/Raw Data/SNAP Participation Reports/
- **Source:** U.S. Department of Agriculture (USDA), Food and Nutrition Service (FNS), Office of Policy Support
- **Description:** This dataset provides state-level estimates of SNAP participation rates, defined as the percentage of eligible individuals who participate in the program. Estimates are typically derived using empirical Bayes shrinkage estimation methods, combining data from CPS ASEC, ACS, and administrative records. Data is released periodically in technical reports covering specific fiscal years. Files observed cover various multi-year periods from 2005-2020.
- **Notes:** A key measure of program access. Methodology uses statistical techniques to improve estimate precision.
- **Example File Naming:** snap-participation-[YYYY]-tech-report.pdf/.xlsx, techpartrate[YYYY]-[YYYY].pdf/.xlsx.
- **Further Information:** FNS SNAP Data & Research (https://www.fns.usda.gov/snap/data-research)

#### 2.5 SNAP Program Access Index

- File Path: Social Assistance Outsourcing Project/Raw\_Data/SNAP Program Access Index/
- Source: U.S. Department of Agriculture (USDA), Food and Nutrition Service (FNS)

- **Description:** The Program Access Index (PAI) measures how well states provide access to SNAP for low-income individuals. It is calculated by multiplying the SNAP Participation Rate for all low-income individuals by the state's application processing timeliness (APT) rate. Data is released annually based on the federal fiscal year. Files observed cover fiscal years 2003-2019 and 2021-2023.
- **Notes:** Provides a summary measure of state performance in providing access. Higher PAI (0 to 1) indicates better performance.
- **Example File Naming:** PAI[YYYY].xlsx, PAI[YYYY].pdf.
- Further Information: FNS SNAP QC Program Access Index (<a href="https://www.fns.usda.gov/snap/qc/pai">https://www.fns.usda.gov/snap/qc/pai</a>)

#### 2.6 SNAP State Options

- File Path: Social Assistance Outsourcing Project/Raw Data/SNAP State Options/
- **Source:** U.S. Department of Agriculture (USDA), Food and Nutrition Service (FNS), Program Development Division
- **Description:** This report summarizes various policy options and waivers available to and implemented by SNAP State agencies (50 States, DC, Guam, VI). It covers areas like program administration, reporting requirements, certification periods, income/deduction treatments, disqualification policies, work requirements, and specific demonstration projects (e.g., BBCE, TBA, ESAP, SMD, CAPs). Reports are released periodically, often annually. Files observed cover various years from 2001 to 2024.
- Notes: Provides a snapshot of how states exercise flexibility within the federal SNAP framework.
- Example File Naming: SNAP\_State\_Options\_[YYYY].pdf, SNAP\_SOR\_[YYYY]\_Trimmed.xlsx.
- **Further Information:** FNS SNAP State Options Report (<a href="https://www.fns.usda.gov/snap/waivers/state-options-report">https://www.fns.usda.gov/snap/waivers/state-options-report</a>)

## 2.7 SNAP\_APT (Application Processing Timeliness)

- File Path: Social Assistance Outsourcing Project/Raw Data/SNAP APT/
- Source: U.S. Department of Agriculture (USDA), Food and Nutrition Service (FNS)
- **Description:** This dataset measures the timeliness of SNAP application processing by state agencies, evaluated as part of the QC review. APT is calculated by dividing timely processed cases by total cases subject to the measure (timely: opportunity to participate within 7 days for expedited, 30 days for regular). This is a component of the PAI. Data is released annually based on the federal fiscal year. Files observed cover fiscal years 2012-2019 and 2022-2023.
- **Notes:** Key metric for evaluating timely access to benefits. Cases pended due to household failure to provide verification are typically excluded.

- **Example File Naming:** Application Processing Timeliness FY[YYYY].pdf/.xlsx, fy[YY]-reported-apt-rates.pdf/.xlsx.
- Further Information: Often found with PAI data: FNS SNAP QC Program Access Index (<a href="https://www.fns.usda.gov/snap/qc/pai">https://www.fns.usda.gov/snap/qc/pai</a>)

## 2.8 SNAP Case Procedural Error Rates (CAPER)

- File Path: Social Assistance Outsourcing Project/Raw Data/SNAP Case Procedural Error Rates/
- Source: U.S. Department of Agriculture (USDA), Food and Nutrition Service (FNS)
- **Description:** The Case and Procedural Error Rate (CAPER) measures the percentage of SNAP cases with errors in administrative procedures by state agencies. Since FY 2012, it includes compliance with Federal procedural requirements for timeliness of actions and notices of termination, denials, and suspensions. Data is released annually based on the federal fiscal year. Files observed cover fiscal years 2012-2019 and 2022-2023.
- **Notes:** Indicator of state agency operational accuracy according to federal regulations. Lower rates indicate better procedural compliance.
- **Example File Naming:** snap-qc-caper-fy[YY].pdf/.xlsx.
- **Further Information:** FNS SNAP QC CAPER (<a href="https://www.fns.usda.gov/snap/qc/caper">https://www.fns.usda.gov/snap/qc/caper</a>)
- 2.9 State Activity Report 2003-2020
  - File Path: Social Assistance Outsourcing Project/Raw\_Data/State Activity Report 2003-2020/
  - Source: U.S. Department of Agriculture (USDA), Food and Nutrition Service (FNS)
  - **Description:** This report provides a comprehensive overview of state-level SNAP activities. It includes data on participation and issuance (benefits, EBT/cash-out), state agency administrative costs (total and federal share for certification, issuance, fraud control), fair hearings, fraud control activities, and recipient claims. Data is released annually based on the federal fiscal year. Files observed cover fiscal years 1996-2020.
  - **Notes:** Detailed report on many facets of SNAP operations at the state level, primarily from state-reported data.
  - Example File Naming: [YYYY] state activity.pdf/.xlsx.
  - **Further Information:** FNS SNAP State Activity Reports (<a href="https://www.fns.usda.gov/pd/snap-state-activity-reports">https://www.fns.usda.gov/pd/snap-state-activity-reports</a>)
- 2.10 BLS LAUS State Unemployment Rate (NSA, Annual Average)
  - File Path: Social Assistance Outsourcing Project/Raw Data/BLS LAUS/

- **Source:** U.S. Bureau of Labor Statistics (BLS), Local Area Unemployment Statistics (LAUS)
- **Description:** CSV exported from BLS/Excel providing statewide unemployment rate (not seasonally adjusted) annual averages. Used to build a 50-state, merge-ready State—Year panel (1995–2023).
- Key Variables: series id, year, period, value (percent), footnote codes.
- **Notes:** Annual averages are identified by period "M13". File expected by the script: la allstatesu clean.csv (UTF-8).

# 3. Scripts

This section details the Stata .do files and .stswp project files used for data processing, analysis, and visualization in the "Social Assistance Outsourcing Project." All scripts are located within the Social Assistance Outsourcing Project/Scripts/ directory.

#### 3.1 SNAP MASTER.do

• File Name: SNAP\_MASTER.do

• File Path: Social Assistance Outsourcing Project/Scripts/SNAP MASTER.do

Author: Dylan Craig

Date Created: 11/25/2024Date Updated: 08/20/2025

• **Purpose:** This master script sets the global project path and then executes all subsidiary data cleaning and analysis scripts in the correct order. It serves as the main control file for the entire Stata-based workflow.

#### • Key Steps & Execution Order:

- 1. **Set Global Path:** Defines a global macro project\_path pointing to the root directory of the "Social Assistance Outsourcing Project." *Users must ensure this path is correctly set for their local environment.*
- 2. **Run** QCEW\_Data\_Cleaning.do: Executes the script to clean Quarterly Census of Employment and Wages (QCEW) data.
- 3. **Run** ACS\_Median\_Rent\_Cleaning.do: Executes the script to clean American Community Survey (ACS) Median Rent data.
- 4. **Run** SNAP\_Policy\_Database\_Cleaning.do: Executes the script to clean the SNAP Policy Database.

- Run BLS\_LAUS\_Ann\_Unemployment.do: Builds merge-ready state unemployment (NSA, annual average) dataset for 1995–2023 and saves to Data Outputs/BLS\_LAUS/
- 6. **Run** SNAP\_Data\_Cleaning.do: Executes the main script for cleaning core SNAP administrative data.

## 7. Run SNAP Data Analysis Scripts:

- Executes SNAP Analysis Admin Performance Graphs.do
- Executes SNAP\_Analysis\_Admin\_Spending\_Growth\_Graphs.do
- Executes SNAP\_Analysis\_Admin\_Spending\_Shares\_Graphs.do
- Executes SNAP\_Analysis\_Regressions.do
- **Inputs:** This script itself does not take direct data inputs but calls other scripts which have their own specific inputs (detailed under their respective sections).
- **Key Outputs:** This script orchestrates the creation of all cleaned datasets and analysis outputs (plots, regression results) generated by the subsidiary scripts.

#### Notes:

- Crucial: Before running, the user must verify and, if necessary, update the global project\_path definition at the beginning of this script to match the location of the "Social Assistance Outsourcing Project" folder on their local machine. The script includes a commented-out template line for this purpose.
- o This script provides di (display) commands to track progress through the execution of each subsidiary script.

#### 3.2 QCEW Data Cleaning.do

• File Name: QCEW Data Cleaning.do

• File Path: Social Assistance Outsourcing Project/Scripts/QCEW Data Cleaning.do

• Author: Dylan Craig

Date Created: 12/10/2024Date Updated: 05/14/2025

• **Purpose:** This script imports annual state-level wage data from the Quarterly Census of Employment and Wages (QCEW) for multiple years, combines these individual year files into a single master dataset, and then cleans the data for subsequent analysis.

## • Key Steps:

1. **Initialization:** Sets the global project path (relies on SNAP\_MASTER.do if run as part of the master script, or needs to be defined if run standalone). Creates a temporary empty Stata dataset (master data) to append individual year files.

## 2. Process .xlsx Files (2014-2023):

- Iteratively imports each annual QCEW Excel file (e.g., 2014.xlsx, 2015.xlsx, ..., 2023.xlsx) from the Raw\_Data/QCEW State Wages/ directory.
- For each imported file, a Year variable is generated corresponding to the file's year.
- The data for each year is appended to the master data temp file.

#### 3. **Process** .xls **Files** (2004-2013):

- Similar to step 2, iteratively imports older annual QCEW Excel files (e.g., 2004.xls, ..., 2013.xls) from the Raw Data/QCEW State Wages/ directory.
- A Year variable is generated for each, and the data is appended to master data.

## 4. Cleaning and Processing:

- Loads the combined master data.
- Variable Unification: Combines data from columns that may have slightly different names across years (e.g., area\_title, AREA\_TITLE, STATE are unified into AREA\_TITLE\_FINAL). This is also done for median wage (a\_median, A\_MEDIAN) and occupation title (OCC\_TITLE, occ\_title).
- **Drop Redundant Variables:** Removes the original, now redundant, variable name columns.
- Rename Unified Variables: Renames the unified variables to standardized names (e.g., AREA TITLE, A MEDIAN, OCC TITLE).
- **Filter Data:** Keeps only observations where OCC\_TITLE is "All Occupations."
- **Select Columns:** Keeps only the AREA\_TITLE, A\_MEDIAN, and Year columns.
- Rename for Clarity: Renames AREA TITLE to State.
- Label Variable: Labels A\_MEDIAN as "Annual Median Salary for All Occupations."
- **Ensure Numeric Type:** Converts A\_MEDIAN to a numeric type using destring, replacing any non-numeric characters.

### • Inputs:

 Annual QCEW state wage data files (format: .xlsx for 2014-2023, .xls for 2004-2013) located in Social Assistance Outsourcing Project/Raw\_Data/QCEW State Wages/.

## • Key Output:

 QCEW\_State\_Wages\_Cleaned.dta: A cleaned Stata dataset containing state-level annual median salaries for "All Occupations" from 2004 to 2023. This file is saved in Social Assistance Outsourcing Project/Data Outputs/QCEW State Wages/.

#### Notes:

- This script assumes the global \${project\_path} is correctly defined, typically by the SNAP\_MASTER.do script. If running this script standalone, the global path definition at the beginning of the script would need to be un-commented and set.
- The script handles variations in column naming conventions found in the raw QCEW files from different years.

## 3.3 ACS\_Median\_Rent\_Cleaning.do

- File Name: ACS\_Median\_Rent\_Cleaning.do
- File Path: Social Assistance Outsourcing Project/Scripts/ACS Median Rent Cleaning.do
- Author: Dylan Craig
- Date Created: 12/10/2024Date Updated: 05/14/2025
- **Purpose:** This script processes multiple annual American Community Survey (ACS) median gross rent data files (in .csv format), combines them into a single dataset, and cleans the data for analysis.

## • Key Steps:

- 1. **Initialization:** Clears the Stata workspace. Sets the global project path (relies on SNAP\_MASTER.do or needs to be set if run standalone). Changes the Stata working directory to Raw\_Data/ACS State Median Rent/.
- 2. **List Files:** Identifies all .csv files within the current working directory.
- 3. **Create Master Dataset:** Initializes an empty temporary Stata dataset (master\_data) to append data from each year.

#### 4. Process Each CSV File:

- Iterates through each identified .csv file.
- Extract Year: Extracts the four-digit year from the filename (e.g., from "ACSDT5Y2023.B25064-Data.csv", it extracts "2023").
- **Import Data:** Imports the .csv file, using the second row as variable names (skipping the metadata in the first row).

- Add Year Variable: Creates a new variable Year and populates it with the extracted year (converted to a real number).
- **Append Data:** Appends the data from the current file to the master\_data temporary dataset and saves the updated master\_data.

#### 5. Clean and Process Combined Data:

- Loads the combined master data.
- Drop Unnecessary Variables: Removes v5, marginoferrormediangrossrent, and geography.
- Rename Variables: Renames geographicareaname to State and estimatemediangrossrent to A Med Gross Rent.
- Label Variables: Adds descriptive labels to State, A\_Med\_Gross\_Rent, and Year.

## • Inputs:

 Annual ACS Median Gross Rent data files (format: .csv, e.g., ACSDT5Y2023.B25064-Data.csv) located in Social Assistance Outsourcing Project/Raw\_Data/ACS State Median Rent/.

#### Key Output:

ACS\_State\_Median\_Rent\_Cleaned.dta: A cleaned Stata dataset containing state-level annual median gross rent data. This file is saved in Social Assistance Outsourcing Project/Data Outputs/ACS State Median Rent/.

#### Notes:

- This script assumes the global \${project\_path} is correctly defined. If running standalone, the global path definition needs to be un-commented and set.
- The script is designed to handle the specific naming convention of the ACS .csv files to extract the year.
- o It skips the first row of each .csv file, assuming it contains metadata rather than data headers.

#### 3.4 SNAP Policy Database Cleaning.do

• File Name: SNAP Policy Database Cleaning.do

• File Path: Social Assistance Outsourcing Project/Scripts/SNAP Policy Database Cleaning.do

• Author: Dylan Craig

Date Created: 12/30/2024Date Updated: 05/14/2025

• **Purpose:** This script imports the "SNAPPolicyDatabase.xlsx" file, which contains various SNAP policy variables at the state-month level, preprocesses this data, converts it to the federal fiscal year level, and applies labels for clarity.

## Key Steps:

- 1. **Initialization:** Sets global paths for the project root, the raw Excel data file, and the output Stata dataset.
- 2. **Import Excel Data:** Imports the "SNAP Policy Database" sheet from the specified Excel file, using the first row as variable names.

## 3. Initial Data Cleaning and Transformation:

- Renames statename to State, state\_fips to StateFIPS, and state\_pc to State Abbrev, and applies labels.
- Creates Year and Month variables from the yearmonth variable.
- Drops the original yearmonth variable.
- Converts State, StateFIPS, and Year to string types for initial manipulation.

## 4. Convert to Federal Fiscal Year (Oct-Sep):

- Creates a fiscal\_year variable based on the calendar Year and Month.
- The script then converts fiscal\_year to a string, drops the original calendar Year, and renames fiscal year to Year, labeling it "Federal Fiscal Year."

#### 5. Collapse to Federal Fiscal Year-Level Data:

- Collapses the data by StateFIPS, State\_Abbrev, State, and the newly defined federal fiscal Year.
- For a comprehensive list of policy variables (e.g., bbce, bbce\_asset, cap, faceini, etc.), the script takes the (max) value within each state-fiscal year. This implies that if a policy was active for any part of the months that fall into that fiscal year, it's considered active for that fiscal year.

#### 6. Apply Variable and Value Labels Post-Collapse:

- Applies descriptive variable labels to all the collapsed policy variables (e.g., "Broad-Based Categorical Eligibility (Max)").
- Defines and applies value labels for many of the binary or categorical policy variables (e.g., for bbce: 0 "No", 1 "Yes").

#### 7. Finalize Data Types and Save:

- Converts Year (Federal Fiscal Year) and StateFIPS back to numeric types using destring.
- Saves the processed dataset.

8. Clean Up: Clears the Stata workspace.

#### • Inputs:

SNAPPolicyDatabase.xlsx (specifically the "SNAP Policy Database" sheet)
 located in Social Assistance Outsourcing Project/Raw Data/SNAP State Options/.

## • Key Output:

SNAP\_Policy\_Database.dta: A cleaned Stata dataset containing state-level SNAP
policy variables aggregated to the federal fiscal year. This file is saved in Social
Assistance Outsourcing Project/Data Outputs/SNAP Policy Database/.

#### • Notes:

- This script assumes the global \${project\_path} is correctly defined.
- The collapse (max) command implies that if a policy was active at any point during the months contributing to a given fiscal year, it will be marked as active for the entire fiscal year in the collapsed data.

#### 3.5 BLS LAUS Ann Unemployment.do

- File Name: BLS\_LAUS\_Ann\_Unemployment.do
- File Path: Social Assistance Outsourcing Project/Scripts/BLS LAUS Ann Unemployment.do
- Author: Dylan Craig
- Date Created: 08/11/2025Date Updated: 08/11/2025
- **Purpose:** Build a merge-ready dataset of statewide unemployment rate (NSA) annual averages for 1995–2023, keyed by State and Year.
- **Key Steps:** (i) Import la\_allstatesu\_clean.csv; (ii) normalize series\_id; (iii) filter to statewide unemployment rate series (LAUST...003) and annual averages (period=="M13"); (iv) extract 2-digit state FIPS, decode to state names; (v) drop DC and PR (keep 50 states); (vi) output tidy panel with State StateFips Year UnempRate AnnNSA.
- Inputs: Raw CSV at Raw\_Data/BLS\_LAUS/la\_allstatesu\_clean.csv.
- **Key Outputs:** See Section 4.10 for .dta and .csv files.
- Notes: Produces numeric UnempRate AnnNSA suitable for merges/regressions.

#### 3.6 SNAP Data Cleaning.do

- File Name: SNAP\_Data\_Cleaning.do
- File Path: Social Assistance Outsourcing Project/Scripts/SNAP Data Cleaning.do
- Author: Dylan Craig
- Date Created: 11/24/2024

- **Date Updated:** 08/11/2025
- **Purpose:** This is a central script for cleaning and merging core SNAP administrative data with various supplementary datasets including QCEW wages, ACS rent, SNAP participation rates, and the SNAP policy database.
- Key Steps:

#### 1. Initialization & Path Definition:

- Clears the Stata workspace.
- Defines local macros for paths to pre-cleaned input datasets: SNAP\_Policy\_Database.dta, SNAP Participation.dta, QCEW\_State\_Wages\_Cleaned.dta, ACS\_State\_Median\_Rent\_Cleaned.dta, and the primary Excel source SNAP Data Outsourcing.xlsx.

## 2. Import and Clean Sheets from SNAP Data Outsourcing.xlsx:

- Creates an output directory Data Outputs/SNAP Dataset/ if it doesn't exist and changes the working directory to it.
- Defines local macros for temporary Stata file names.
- Sequentially imports data from multiple sheets within SNAP Data Outsourcing.xlsx:
  - "SAR Participation and Issuance"
  - "SAR Fair Hearings"
  - "SAR Recipient"
  - "SAR Fraud Hearings"
  - "SAR Administrative Cost"
  - "SNAP Error Rates"
  - "SNAP PAI"
  - "SNAP Case Procedural Error Rate"
  - "SNAP APT"
- For each imported sheet:
  - It uses import excel, specifying firstrow and appropriate cellrange (A2 for SAR sheets, A1 for others).
  - It iterates through all variables. If a variable is not "State", "State FIPS", or "Year", it attempts to destring it, ignoring "NA" values and forcing conversion.

• Each cleaned sheet is saved as a temporary .dta file (e.g., temp participation.dta).

## 3. Merge Datasets:

- Starts with the cleaned participation data (temp participation fn).
- Sequentially merges (1:1 on State and Year) the other temporary datasets derived from SNAP Data Outsourcing.xlsx.
- Merges (1:1 on State and Year) the pre-cleaned QCEW\_State\_Wages\_Cleaned.dta,
   ACS\_State\_Median\_Rent\_Cleaned.dta, LAUS, and SNAP Participation.dta.
- Prepares the SNAP\_Policy\_Database.dta for merging by ensuring Year is numeric and sorting, then merges it (1:1 on State and Year).
- Checks the \_merge variable after the policy data merge.
- Ensures State, StateFIPS, and Year variables are string type in the final merged dataset.

#### 4. Add State Abbreviations:

- Creates a State Abbrev variable.
- Populates State\_Abbrev based on the full State name using a series of replace commands for all states, DC, and territories.

#### 5. Label Variables:

 Applies descriptive labels to a comprehensive list of variables in the merged dataset, covering participation, issuance, benefits, fair hearings, fraud, claims, administrative costs, error rates, PAI, APT, and SNAP participation percentages.

#### 6. Save Final Dataset:

- Sorts the data by State, Year, and State Abbrev.
- Saves the final merged and cleaned dataset as SNAP\_Data.dta in the Data Outputs/SNAP Dataset/ directory.

#### 7. Final Clean Up:

- Erases all temporary .dta files created in step 2.
- Changes the working directory back to the project root.
- Clears the Stata workspace.

#### • Inputs:

- SNAP Data\_Outsourcing.xlsx located in Social Assistance Outsourcing Project/Data Outputs/SNAP Dataset/. This Excel file contains multiple sheets with core SNAP administrative data.
- SNAP\_Policy\_Database.dta located in Social Assistance Outsourcing Project/Data Outputs/SNAP Policy Database/.
- SNAP Participation.dta located in Social Assistance Outsourcing Project/Data Outputs/SNAP Participation/.
- QCEW\_State\_Wages\_Cleaned.dta located in Social Assistance Outsourcing Project/Data Outputs/QCEW State Wages/.
- ACS\_State\_Median\_Rent\_Cleaned.dta located in Social Assistance Outsourcing Project/Data Outputs/ACS State Median Rent/.

## • Key Output:

 SNAP\_Data.dta: A comprehensive, cleaned Stata dataset merging various SNAP administrative metrics with policy, wage, and rent data at the state-year level. This file is saved in Social Assistance Outsourcing Project/Data Outputs/SNAP Dataset/.

#### Notes:

- This script assumes the global \${project\_path} is correctly defined, typically by the SNAP\_MASTER.do script.
- It relies on several pre-cleaned datasets from other scripts
   (QCEW\_Data\_Cleaning.do, ACS\_Median\_Rent\_Cleaning.do,
   SNAP\_Policy\_Database\_Cleaning.do, and a presumed script that creates SNAP
   Participation.dta).
- o The script performs extensive data type conversion (destring) for variables imported from Excel, handling "NA" strings.
- o A large number of variable labels are applied for clarity in the final dataset.

### 3.7 SNAP Analysis Admin Performance Graphs.do

- File Name: SNAP Analysis Admin Performance Graphs.do
- File Path: Social Assistance Outsourcing Project/Scripts/SNAP Analysis Admin Performance Graphs.do

• Author: Dylan Craig

Date Created: 12/10/2024Date Updated: 05/15/2025

• **Purpose:** This script generates various time-series and scatterplot graphs to visualize SNAP administrative costs and their relationship with different state-level performance metrics, economic indicators, and participation figures.

#### • Key Steps:

## 1. Setup:

- Loads the main SNAP Data.dta dataset.
- Ensures the Year variable is numeric.

#### 2. Generate Time-Series Graphs for State Performance Metrics:

- Defines an output directory: Plots\_Charts/SNAP
   Plots Charts/Admin Spending/State Performance Metrics/.
- Specifies a list of variables for time-series plotting: Tot\_Admn\_Cost,
   Tot\_Admn\_Cost\_Per\_Case\_Per\_Mnth, Over\_Payments, Under\_Payments,
   Payment\_Error\_Rate, A\_MEDIAN (QCEW median wage),
   A Med Gross Rent (ACS median rent).
- Loops through each state:
  - For each state, loops through the specified variables.
  - Generates a line graph of the variable over Year.
  - Saves each graph as a .png file (e.g., [State]\_[Variable].png) in the defined output directory.

## 3. Generate Scatterplots: Admin Costs vs. State Performance Metrics:

- Defines an output directory: Plots\_Charts/SNAP
   Plots\_Charts/Admin\_Spending/Admin\_Costs\_Vs\_State\_Performance\_Me trics/.
- Sets Tot Admn Cost Per Case Per Mnth as the x-axis variable.
- Defines a list of y-axis variables: Over\_Payments, Under\_Payments,
   Payment\_Error\_Rate, Program\_Access\_Index, Case\_Proc\_Err\_Rate,
   App\_Proc\_Tmln, A\_MEDIAN, A\_Med\_Gross\_Rent, SNAP\_Part\_Perc,
   SNAP\_Eligibles.
- Specifies corresponding y-axis minimums, maximums, and manual tick intervals for customized plot scaling.
- Loops through selected years (2008, 2012, 2019):
  - For each year, loops through the y-axis variables.
  - Generates a scatterplot of the y-variable against
     Tot\_Admn\_Cost\_Per\_Case\_Per\_Mnth, including a linear fit line (lfit). States are labeled with their abbreviations. US territories (US, VI, GU, PR) are excluded.

 Saves each scatterplot as a .png file (e.g., AdminCosts\_vs\_[Y\_Variable]\_[Year].png) in the defined output directory.

# 4. Generate Scatterplot: Admin Costs Per Case vs. Household Monthly Average Participation:

- Defines an output directory: Plots\_Charts/SNAP
   Plots\_Charts/Admin\_Spending/Admin\_Costs\_Vs\_Household\_Avg\_Partici pation/.
- Loops through selected years (2008, 2012, 2019):
  - Generates a scatterplot of Part\_HH\_Mnthly\_Avg against
     Tot\_Admn\_Cost\_Per\_Case\_Per\_Mnth, with a linear fit line and state labels (excluding US territories).
  - Saves each graph as a .png file (e.g., AdminCosts\_vs\_HouseholdAvgParticipation\_Scatter\_[Year].png).

# 5. Generate Bar Chart: Admin Costs as Percentage of Average Household Benefit Amount:

- Defines an output directory: Plots\_Charts/SNAP
   Plots\_Charts/Admin\_Spending/Admin\_Costs\_Vs\_Household\_Avg\_Benefit/.
- Reloads SNAP Data.dta to ensure data freshness.
- Calculates a new variable Admin\_Cost\_Percentage =
   (Tot\_Admn\_Cost\_Per\_Case\_Per\_Mnth / Avg\_Mnthly\_Benefit\_Per\_HH) \*
   100.
- Loops through selected years (2008, 2012, 2019):
  - Generates a bar chart of Admin\_Cost\_Percentage by state (sorted descending), with state abbreviations on the x-axis.
  - Saves each graph as a .png file (e.g., AdminCosts\_Percentage\_of\_AvgHshldBenefit\_BarChart\_[Year].p ng).

#### • Inputs:

 SNAP\_Data.dta located in Social Assistance Outsourcing Project/Data Outputs/SNAP Dataset/.

## • Key Outputs:

 A series of .png graph files saved in various subdirectories under Social Assistance Outsourcing Project/Plots\_Charts/SNAP Plots\_Charts/Admin\_Spending/, including:

- Time-series graphs for individual states showing trends in costs, error rates, and economic indicators.
- Scatterplots for specific years showing the relationship between administrative costs per case and various performance/economic metrics.
- Scatterplots for specific years showing the relationship between administrative costs per case and average household participation.
- Bar charts for specific years showing administrative costs as a percentage of average household benefits by state.

#### Notes:

- o This script assumes the global \${project path} is correctly defined.
- o It creates output directories for the plots if they do not already exist.
- The scatterplots in Section 3 have customized y-axis scaling for better visualization of different variables.
- o US territories (VI, GU, PR) and "US" national aggregates are generally excluded from scatterplots to focus on state-level comparisons.

## 3.8 SNAP Analysis Admin Spending Growth Graphs.do

- File Name: SNAP\_Analysis\_Admin\_Spending\_Growth\_Graphs.do
- File Path: Social Assistance Outsourcing Project/Scripts/SNAP Analysis Admin Spending Growth Graphs.do

• Author: Dylan Craig

Date Created: 12/10/2024Date Updated: 05/15/2025

• **Purpose:** This script calculates and logs year-over-year growth rates for key SNAP administrative spending variables (Tot\_Admn\_Cost, Tot\_Admn\_Cost\_Per\_Case\_Per\_Mnth) and selected performance metrics (Over\_Payments, Under\_Payments, Payment\_Error\_Rate). It also generates flags for growth exceeding certain thresholds.

## • Key Steps:

#### 1. **Setup:**

- Loads the main SNAP\_Data.dta dataset.
- Ensures the Year variable is numeric.

## 2. Calculate Year-Over-Year Growth Rates and Flags:

Sorts the data by State and Year.

- Defines a list of variables and their corresponding short prefixes for new variable names (e.g., Tot\_Admn\_Cost becomes TCost).
- For each variable in the list:
  - Calculates 1-year, 2-year, and 3-year lagged growth rates (e.g., TCostG1, TCostG2, TCostG3).
  - Generates binary flag variables indicating if the 1, 2, or 3-year growth rates exceed 5%, 50%, 100%, and 200% (e.g., TCostG1\_5, TCostG1\_50, etc.).
  - Applies descriptive labels to all newly generated growth rate and flag variables.

#### 3. Count Growth Rate Indicators:

- Creates a list of all generated flag variables.
- Loops through each flag variable and displays a count of observations where the flag is equal to 1 (i.e., the growth threshold was met).

## 4. Log Year-Over-Year Growth Results:

- Defines an output directory and log file path: Plots\_Charts/SNAP
   Plots\_Charts/Admin\_Spending/Year\_Over\_Year\_Growth/Year\_Over\_Year\_Growth.txt.
- Ensures the output directory structure exists.
- Starts a Stata log file, replacing it if it already exists.
- Prints a header to the log file.
- Loops through each flag variable again, displaying the variable name, the count of observations where it equals 1, and its descriptive label to the log file.
- Closes the log file.

#### • Inputs:

 SNAP\_Data.dta located in Social Assistance Outsourcing Project/Data Outputs/SNAP Dataset/.

#### Key Outputs:

- o **Modified Dataset (in memory, not saved by this script):** The script adds numerous new variables to the loaded SNAP\_Data.dta representing growth rates and growth flags. These changes are not saved back to SNAP\_Data.dta by *this specific script* but are used for the logging output.
- Log File: Year\_Over\_Year\_Growth.txt saved in Social Assistance Outsourcing Project/Plots Charts/SNAP

Plots\_Charts/Admin\_Spending/Year\_Over\_Year\_Growth/. This text file contains a summary count of how many state-year observations met each defined growth threshold for the analyzed variables.

#### Notes:

- o This script assumes the global \${project path} is correctly defined.
- o The primary output is a text log file summarizing growth rate occurrences, not graphical plots as the filename might initially suggest. The "Graphs" in the filename might be a misnomer or refer to an intended future use.
- The script creates output directories for the log file if they do not already exist.

## 3.9 SNAP Analysis Admin Spending Shares Graphs.do

- File Name: SNAP\_Analysis\_Admin\_Spending\_Shares\_Graphs.do
- File Path: Social Assistance Outsourcing Project/Scripts/SNAP Analysis Admin Spending Shares Graphs.do
- Author: Dylan Craig
- **Date Created:** 12/10/2024
- **Date Updated:** 05/15/2025
- **Purpose:** This script generates a variety of bar charts to visualize the composition and shares of SNAP administrative spending at the state level for selected years.
- Key Steps:

#### 1. **Setup:**

- Loads the main SNAP Data.dta dataset.
- Ensures the Year variable is numeric.

#### 2. Bar Chart: Administrative Costs Per Case Per Month by State:

- Defines an output directory: Plots\_Charts/SNAP
   Plots\_Charts/Admin\_Spending/Per\_Case\_Per\_Month/.
- For years 2008, 2012, and 2019:
  - Generates a bar chart showing
     Tot\_Admn\_Cost\_Per\_Case\_Per\_Mnth for each state, sorted descending.
  - Saves each graph as a .png file (e.g., AdminCosts Per Case Per Month BarChart [Year].png).

#### 3. Bar Chart: Federal Share of Admin Costs by Percentage, By State, By Year:

Defines an output directory: Plots\_Charts/SNAP
 Plots\_Charts/Admin\_Spending/Federal\_Share\_By\_Type\_By\_State/.

- For years 2008, 2012, and 2019:
  - Loops through each state.
  - Calculates the percentage share of total federal administrative costs for different categories: Certification (Fed\_Share\_Cert\_Cost),
     Issuance (Fed\_Share\_Iss\_Cost), Fraud Control
     (Fed\_Share\_Fraud\_Control\_Cost), ADP Development
     (Fed\_Share\_ADP\_Dev\_Cost), and ADP Operations
     (Fed\_Share\_ADP\_Oper\_Cost).
  - Generates a bar chart for each state showing these percentage shares.
  - Saves each graph as a .png file (e.g.,
     [State] [Year] Admin Costs Percentage.png).

# 4. Stacked Bar Chart: Federal Share of Admin Costs by Percentage (All States):

- Defines an output directory: Plots\_Charts/SNAP
   Plots Charts/Admin Spending/Federal Share By Type Summary/.
- For years 2008, 2012, and 2019:
  - Calculates the percentage shares for the same cost categories as in step 3, plus a "Miscellaneous" category to sum to 100%.
  - Generates a stacked bar chart showing these percentage shares for all states, with states sorted by total federal admin costs.
  - Saves each graph as a .png file (e.g., AdminCosts Shares AllStates [Year].png).

# 5. Stacked Bar Chart: Federal Share of Admin Costs by Absolute Value (All States):

- Uses the same output directory as step 4.
- For years 2008, 2012, and 2019:
  - Calculates a "Miscellaneous" cost category as the difference between total federal admin costs and the sum of the specified cost categories.
  - Generates a stacked bar chart showing the absolute dollar values for Certification, Issuance, Fraud Control, ADP Development, ADP Operations, and Miscellaneous costs for all states (excluding "US" national aggregate), sorted by total federal admin costs.
  - Saves each graph as a .png file (e.g., AdminCosts\_Absolute\_AllStates\_[Year].png).

# 6. Stacked Bar Chart: Federal Share of Admin Costs Per Case Per Month by Type (All States):

- Defines an output directory: Plots\_Charts/SNAP
   Plots Charts/Admin Spending/Federal Share Per Case By Type/.
- For years 2008, 2012, and 2019:
  - Calculates per case per month costs for Certification, Issuance, Fraud Control, ADP Development, and ADP Operations by dividing the respective annual federal share by 12 and then by Part HH Mnthly Avg.
  - Calculates a "Miscellaneous" per case per month cost.
  - Generates a stacked bar chart showing these per case per month costs for all states (excluding "US" and territories GU, VI, PR), sorted by total federal admin cost per case per month.
  - Saves each graph as a .png file (e.g., AdminCosts\_PerCase\_AllStates\_[Year].png).

#### 7. List of States with Significant Non-50/50 Admin Cost Splits:

- Calculates the percentage share of total admin costs for both state and federal contributions.
- Flags states where either share deviates by more than 5 percentage points from a 50/50 split.
- Displays a list of these flagged states.

#### 8. Generate Time-Series Graphs for Federal and State Admin Cost Shares:

- Defines an output directory: Plots\_Charts/SNAP
   Plots Charts/Admin Spending/Federal Vs State Share/.
- Calculates state and federal percentage shares of total admin costs.
- Loops through each state:
  - Generates a time-series line graph showing both the state share and federal share over Year, with a reference line at 50%.
  - Saves each graph as a .png file (e.g., AdminCostShares OverTime [State].png).

#### • Inputs:

 SNAP\_Data.dta located in Social Assistance Outsourcing Project/Data Outputs/SNAP Dataset/.

#### Key Outputs:

- A series of .png graph files saved in various subdirectories under Social Assistance Outsourcing Project/Plots\_Charts/SNAP Plots\_Charts/Admin\_Spending/, including:
  - Bar charts of administrative costs per case per month by state for selected years.
  - Bar charts showing the percentage breakdown of federal administrative cost categories for each state in selected years.
  - Stacked bar charts summarizing the percentage breakdown of federal administrative cost categories across all states for selected years.
  - Stacked bar charts summarizing the absolute dollar values of federal administrative cost categories across all states for selected years.
  - Stacked bar charts summarizing the federal administrative cost per case per month by category across all states for selected years.
  - Time-series graphs for each state showing the federal vs. state share of total administrative costs over time.
- Console Output: A list of states identified as having administrative cost splits significantly deviating from 50/50.

#### Notes:

- o This script assumes the global \${project path} is correctly defined.
- o It creates output directories for the plots if they do not already exist.
- Various graphs exclude "US" national aggregates and/or specific territories (GU, VI, PR) to focus on state-level comparisons.
- The script reloads the SNAP\_Data.dta dataset multiple times; this is often done to
  ensure a clean starting point for different types of calculations or graph
  generations.

#### 3.10 SNAP Analysis Regressions.do

• File Name: SNAP Analysis Regressions.do

• File Path: Social Assistance Outsourcing Project/Scripts/SNAP\_Analysis\_Regressions.do

• Author: Dylan Craig

Date Created: 12/10/2024Date Updated: 05/14/2025

• **Purpose:** This script performs fixed-effects panel data regression analyses to examine the relationship between SNAP state administrative spending (per case per month) and various program evaluation metrics.

## • Key Steps:

## 1. Setup:

- Loads the main SNAP Data.dta dataset.
- Encodes the string State variable into a numeric variable State\_num for panel data setup.
- Sets the panel structure using xtset State num Year.

#### 2. Define Variables and Directories:

- Defines a local macro eval\_metrics containing the list of dependent variables for regression: Over\_Payments, Under\_Payments,
   Payment\_Error\_Rate, Program\_Access\_Index, Case\_Proc\_Err\_Rate,
   App Proc Tmln.
- Defines output directories for regression results: Plots\_Charts/SNAP Plots\_Charts/Admin\_Spending/Regressions/ and a subdirectory Regression\_Results/.
- Ensures these directories exist.

## 3. Run and Save Simple Regressions:

- Loops through each evaluation metric in eval\_metrics.
- For each metric, runs a fixed-effects (fe) panel regression (xtreg) with robust standard errors. The dependent variable is the current metric, and the independent variable is Tot Admn Cost Per Case Per Mnth.
- Uses the outreg2 command to save the regression output to a Word document (.doc file). Each regression result is saved in a separate file named based on the metric (e.g., Over Payments vs Admin Costs.doc).
- The outreg2 command includes options to add various R-squared values (within, between, overall) and F-test statistics to the output tables.

#### • Inputs:

 SNAP\_Data.dta located in Social Assistance Outsourcing Project/Data Outputs/SNAP Dataset/.

#### • Key Outputs:

 A series of Word document (.doc) files, each containing the formatted regression table for one of the specified evaluation metrics regressed on total administrative cost per case per month. These files are saved in Social Assistance Outsourcing Project/Plots\_Charts/SNAP

Plots Charts/Admin Spending/Regressions/Regression Results/.

#### • Notes:

- o This script assumes the global \${project path} is correctly defined.
- o It requires the user-written outreg2 command to be installed in Stata for saving regression tables.
- The regressions are simple fixed-effects models with one independent variable (Tot Admn Cost Per Case Per Mnth).
- The script creates output directories for the regression results if they do not already exist.

## 3.11 SNAP\_Modernization\_Regressions.do

• File Name: SNAP\_Modernization\_Regressions.do

• File Path: Social Assistance Outsourcing Project/Scripts/SNAP Modernization Regressions.do

• Author: Dylan Craig

• **Date Created**: 08/01/2025

• **Date Updated**: 08/18/2025

- **Purpose**: Analyze the effects of attempted (initiation) and actual (completion) SNAP eligibility system modernization on program participation and administrative costs **per recipient** (logged), using: (1) Two-Way Fixed Effects (TWFE), (2) traditional dummy-based event studies, (3) Callaway-Sant'Anna difference-in-differences (CSDID). Generates descriptive figures and cohort-based plots.
- Key Steps:
- 1. **Setup & Results Directory:** Defines outcome macros (log\_participation, log\_admin\_costs\_pr), sets a results folder at \${project\_path}/Plots\_Charts/SNAP Regression Outputs, and creates it if missing.
- 2. **Data Loading & Panel Setup:** Loads **SNAP\_Data.dta**, drops US/DC/territories to keep 50 states, encodes State → State num, destrings Year, and xtset State num Year.
- 3. **Outcome Construction:** Builds admin\_cost\_per\_recipient = Tot\_Admn\_Cost / Part\_Prsn\_Mnthly\_Avg, then logs: log\_participation, log\_admin\_costs\_pr.
- 4. **Modernization Variables:** Hard-codes sourced years for initiation (snap\_init\_yr) and completion (snap\_comp\_yr), labels them, and creates treatment flags snap\_initiated and snap completed.
- 5. **Descriptive Figures:** Contracts counts by year and exports bar charts of initiation/completion timing; prints summary counts and lists states with missing modernization data.
- 6. Cohort-Based Plots (-5..+5 window): Builds relative-time variables for initiation/completion, collapses to cohort-time means, and plots participation and

admin cost per recipient by cohort; includes a dashed placebo (never modernized) anchored at 2015.

7. Per-Cohort Raw Trends (-5..+5, treated vs controls with 5-yr buffer):

For each cohort year y (initiation and completion separately), define **treated** as states with snap\_[init|comp]\_yr == y. Define **controls** as states that **never** modernized (for that dimension) **or first modernized in year**  $\geq$  y+6. For completion cohorts, controls also must have no initiation during the event window—operationally, we exclude any state with snap\_init\_yr < y+6 (i.e., controls are never-initiated or initiate  $\geq$  y+6, and never-completed or complete  $\geq$  y+6). Exports two figures per cohort (Participation; Admin Cost per Recipient) with legends outside the plot and fixed control composition across the whole window.

Outputs: see 5.7 "Raw Trends by Cohort."

- 8. **Simple TWFE Regressions:** Regresses logged outcomes on snap\_initiated or snap\_completed with state and year FE (clustered by state); exports Word tables.
- 9. **Traditional Event Studies (TWFE):** Creates event dummies with tails collapsed (≤−5, ≥+5) and omitted baseline around −1; runs reghdfe and exports coefficient plots for both outcomes and both events.
- 10. **CSDID** (Callaway-Sant'Anna): Runs csdid for attempted and completed modernization, with and without controls (UnempRate\_AnnNSA, bbce), exports event-study tables and plots using estat event and csdid\_plot.

## • Inputs:

 SNAP\_Data.dta located in Social Assistance Outsourcing Project/Data Outputs/SNAP Dataset/.

#### • Key Outputs:

- 1. Descriptive Timing Figures (Section 3):
- o Modernization Initiation by Year.png
- o Modernization Completion by Year.png
- 2. Cohort-Based Plots (Section 4):
  - Cohort Analysis Participation Attempted.png
  - Cohort Analysis Admin Costs Attempted.png
  - Cohort Analysis Participation Completed.png
  - Cohort Analysis Admin Costs Completed.png
- 3. TWFE Tables (Section 5):
  - TWFE Participation Attempted Logged.doc
  - TWFE Admin Costs Per Recipient Attempted Logged.doc

- TWFE Participation Completed Logged.doc
- TWFE\_Admin\_Costs\_Per\_Recipient\_Completed\_Logged.doc

## 4. Traditional Event Study Plots (Section 6):

- Event\_Study\_Traditional\_Participation\_Attempted\_Logged.png
- Event\_Study\_Traditional\_Admin\_Costs\_Per\_Recipient\_Attempted\_Logg ed.png
- Event\_Study\_Traditional\_Participation\_Completed\_Logged.png
- Event\_Study\_Traditional\_Admin\_Costs\_Per\_Recipient\_Completed\_Logg ed.png

## 5. CSDID Tables (Section 7):

- CS\_DID\_Participation\_Attempted\_Logged\_NC.doc
- CS\_DID\_Admin\_Costs\_Per\_Recipient\_Attempted\_Logged\_NC.doc
- CS DID Participation Attempted Logged WC.doc
- CS\_DID\_Admin\_Costs\_Per\_Recipient\_Attempted\_Logged\_WC.doc
- CS DID Participation Completed Logged NC.doc
- CS DID Admin Costs Per Recipient Completed Logged NC.doc
- CS\_DID\_Participation\_Completed\_Logged\_WC.doc
- CS DID Admin Costs Per Recipient Completed Logged WC.doc

#### 6. CSDID Plots (Section 7):

- CS DID Event Study Participation Attempted Logged NC.png
- CS\_DID\_Event\_Study\_Admin\_Costs\_Per\_Recipient\_Attempted\_Logged \_NC.png
- CS\_DID\_Event\_Study\_Participation\_Attempted\_Logged\_WC.png
- CS\_DID\_Event\_Study\_Admin\_Costs\_Per\_Recipient\_Attempted\_Logged \_WC.png
- CS\_DID\_Event\_Study\_Participation\_Completed\_Logged\_NC.png
- CS\_DID\_Event\_Study\_Admin\_Costs\_Per\_Recipient\_Completed\_Logged \_NC.png
- CS\_DID\_Event\_Study\_Participation\_Completed\_Logged\_WC.png
- CS\_DID\_Event\_Study\_Admin\_Costs\_Per\_Recipient\_Completed\_Logged WC.png

#### • Notes:

- o Packages: reghdfe, estout, coefplot, and csdid (user-written; install via SSC).
- o Sample: 50 states only (US/DC/territories dropped).
- Placebo: Never-modernized states are assigned a placebo year 2015 and appear as a dashed series in cohort plots (applies to attempted and completed).
- O Placebo vs Raw-Trends: The dashed placebo "never modernized (2015)" series applies only to the Section 4 cohort-average plots. Part C raw-trend figures do not use a placebo year; they use the 5-year-buffer control rule described above.
- Event-Study Spec: Relative-time dummies span −5..+5 with tails collapsed; the usual pre-period around −1 is the omitted baseline in coefficient plots.
- o Paths: Script uses forward slashes inside Stata (e.g., \${project\_path}/...); the ReadMe shows the equivalent Windows path for convenience.

# 4. Data Outputs

This section describes the key processed datasets and compiled data files generated or used as primary inputs by the analysis scripts.

- 4.1 ACS State Median Rent Cleaned.dta
  - File Name: ACS\_State\_Median\_Rent\_Cleaned.dta
  - File Path: Social Assistance Outsourcing Project/Data Outputs/ACS State Median Rent/ACS State Median Rent Cleaned.dta
  - **Description:** This Stata dataset contains cleaned state-level annual median gross rent data, processed from raw American Community Survey (ACS) files.
  - Source Script(s): ACS Median Rent Cleaning.do (detailed in section 3.3).
  - **Key Variables:** State (State Name), Year, A\_Med\_Gross\_Rent (Annual Median Gross Rent).
  - **Format:** Stata (.dta)
- 4.2 QCEW State Wages Cleaned.dta
  - File Name: QCEW State Wages Cleaned.dta
  - File Path: Social Assistance Outsourcing Project/Data Outputs/QCEW State Wages/QCEW\_State\_Wages\_Cleaned.dta
  - Description: This Stata dataset contains cleaned state-level annual median salaries for "All Occupations," processed from raw Quarterly Census of Employment and Wages (QCEW) data.
  - Source Script(s): QCEW Data Cleaning.do (detailed in section 3.2).
  - **Key Variables:** State (State Name), Year, A\_MEDIAN (Annual Median Salary for All Occupations).
  - Format: Stata (.dta)

- 4.3 Flagged Admin Cost Deviations.dta
  - File Name: Flagged\_Admin\_Cost\_Deviations.dta
  - File Path: Social Assistance Outsourcing Project/Data Outputs/SNAP Dataset/Flagged Admin Cost Deviations.dta
  - **Description:** This Stata dataset likely contains state-year observations flagged for significant deviations in SNAP administrative costs from an expected value or norm (e.g., deviations from a 50/50 federal/state cost share, as explored in SNAP Analysis Admin Spending Shares Graphs.do).
  - Source Script(s): The specific script generating this exact .dta file is not explicitly detailed in the provided script summaries but is related to analyses performed in SNAP Analysis Admin Spending Shares Graphs.do (section 3.9).
  - **Key Variables:** Likely includes State, Year, cost variables, and flag(s) indicating deviation.
  - Format: Stata (.dta)
- 4.4 Flagged Admin Cost Variation.dta
  - File Name: Flagged Admin Cost Variation.dta
  - File Path: Social Assistance Outsourcing Project/Data Outputs/SNAP Dataset/Flagged Admin Cost Variation.dta
  - **Description:** This Stata dataset likely identifies state-year observations with high year-over-year variation or growth in SNAP administrative costs, potentially based on thresholds defined in SNAP Analysis Admin Spending Growth Graphs.do.
  - **Source Script(s):** The specific script generating this exact .dta file is not explicitly detailed, but the analysis is related to calculations in SNAP Analysis Admin Spending Growth Graphs.do (section 3.8).
  - **Key Variables:** Likely includes State, Year, cost variables, growth rate variables, and flag(s) indicating high variation.
  - **Format:** Stata (.dta)
- 4.5 SNAP Data Outsourcing.xlsx
  - File Name: SNAP Data Outsourcing.xlsx
  - File Path: Social Assistance Outsourcing Project/Data Outputs/SNAP Dataset/SNAP Data\_Outsourcing.xlsx
  - **Description:** This Excel workbook serves as a primary input for the SNAP\_Data\_Cleaning.do script. It contains multiple sheets with compiled raw or semi-processed SNAP administrative data, including State Activity Report (SAR) data (Participation and Issuance, Fair Hearings, Recipient Claims, Fraud Hearings, Administrative Costs), SNAP Error Rates, SNAP Program Access Index (PAI), SNAP

Case Procedural Error Rates (CAPER), and SNAP Application Processing Timeliness (APT).

- **Source Script(s):** This is an input file, primarily used by SNAP\_Data\_Cleaning.do (detailed in section 3.6).
- **Key Variables:** Varies by sheet; includes state identifiers, years, and numerous SNAP program metrics.
- Format: Microsoft Excel (.xlsx)

## 4.6 SNAP Data.dta

- File Name: SNAP\_Data.dta
- File Path: Social Assistance Outsourcing Project/Data Outputs/SNAP Dataset/SNAP Data.dta
- **Description:** This is the main analytical Stata dataset for the project. It is a comprehensive state-year level dataset created by merging various cleaned SNAP administrative metrics (from SNAP Data\_Outsourcing.xlsx), QCEW wage data, ACS rent data, SNAP participation data, and SNAP policy data. It forms the basis for most of the graphical and regression analyses.
- Source Script(s): SNAP Data Cleaning.do (detailed in section 3.6).
- **Key Variables:** Includes State, StateFIPS, Year, State\_Abbrev, and a wide array of variables related to SNAP participation, issuance, benefits, administrative costs (e.g., Tot\_Admn\_Cost\_Per\_Case\_Per\_Mnth), error rates (e.g., Payment\_Error\_Rate), PAI, APT, economic indicators (A\_MEDIAN, A\_Med\_Gross\_Rent), and policy variables. Many variables are labeled within the creation script.
- Format: Stata (.dta)

### 4.7 SNAP Data w Policy.dta

- File Name: SNAP Data w Policy.dta
- File Path: Social Assistance Outsourcing Project/Data Outputs/SNAP Dataset/SNAP\_Data\_w\_Policy.dta
- **Description:** This Stata dataset is likely a variation or extension of SNAP\_Data.dta. It may include a more detailed set of policy variables, different transformations of policy data, or represent an intermediate stage before final policy variable selection for the main SNAP Data.dta.
- **Source Script(s):** The specific script generating this exact file is not explicitly detailed in the provided script summaries but would be related to SNAP\_Data\_Cleaning.do and/or SNAP Policy Database Cleaning.do.
- **Key Variables:** Similar to SNAP\_Data.dta, but potentially with more granular or differently processed policy variables.
- **Format:** Stata (.dta)

#### 4.8 SNAP Participation.dta

- File Name: SNAP Participation.dta
- File Path: Social Assistance Outsourcing Project/Data Outputs/SNAP Participation/SNAP Participation.dta
- **Description:** This Stata dataset contains cleaned state-level SNAP participation data, likely including participation rates and counts of eligible individuals. It serves as an input for merging into the main SNAP Data.dta.
- Source Script(s): The script that cleans/creates this specific .dta file from raw SNAP Participation Reports is not explicitly detailed in the provided script summaries, but this file is used as an input by SNAP\_Data\_Cleaning.do (section 3.6).
- **Key Variables:** Likely includes State, Year, SNAP\_Part\_Perc (SNAP Participation Percentage), SNAP Eligibles (SNAP Eligible Participants).
- Format: Stata (.dta)
- 4.9 SNAP Policy Database.dta
  - File Name: SNAP\_Policy\_Database.dta
  - File Path: Social Assistance Outsourcing Project/Data Outputs/SNAP Policy Database/SNAP Policy Database.dta
  - **Description:** This Stata dataset contains state-level SNAP policy variables aggregated to the federal fiscal year. It includes information on various state options and waivers, such as Broad-Based Categorical Eligibility (BBCE), asset tests, recertification periods, and online application availability.
  - **Source Script(s):** SNAP\_Policy\_Database\_Cleaning.do (detailed in section 3.4).
  - **Key Variables:** StateFIPS, State\_Abbrev, State, Year (Federal Fiscal Year), and numerous binary/categorical variables representing specific SNAP policies (e.g., bbce, cap, faceini).
  - Format: Stata (.dta)
- 4.10 LAUS State Unemp Annual 1995 2023 (.dta/.csv)
  - File Path: Social Assistance Outsourcing Project/Data Outputs/BLS LAUS/
  - **Description:** 50-state panel (1995–2023) with annual average unemployment rate (NSA), keyed by State (name), StateFips (numeric), and Year.
  - **Key Variables:** UnempRate AnnNSA (percent, numeric).
  - Source Script(s): BLS LAUS Ann Unemployment.do (Section 3.11).
  - Format: Stata (.dta) and CSV (.csv).

# 5. Plots, Charts, and Regression Outputs

This section describes the various analytical outputs generated by the project scripts, including graphical visualizations and regression results. These outputs are primarily located within the Social Assistance Outsourcing Project/Plots Charts/ directory and its subfolders.

#### 5.1 Overview

The project generates a range of visual and tabular outputs to explore trends in SNAP administrative spending, performance metrics, and the relationships between them. These include:

- Time-series graphs for individual states.
- Cross-sectional scatterplots comparing administrative costs to various metrics for specific years.
- Bar charts and stacked bar charts detailing the composition of administrative costs.
- Formatted regression tables.
- Text-based logs summarizing specific calculations (e.g., growth rates).

The specific scripts responsible for generating these outputs are detailed in Section 3.

#### 5.2 Time-Series Visualizations

These graphs illustrate trends over time for individual states.

#### • State-Level Performance Metrics & Economic Indicators Over Time:

- Description: Line graphs showing the trend of various metrics for each state over the available years.
- Metrics Plotted: Tot\_Admn\_Cost (Total Administrative Cost),
   Tot\_Admn\_Cost\_Per\_Case\_Per\_Mnth (Total Administrative Cost Per Case Per Month), Over\_Payments, Under\_Payments, Payment\_Error\_Rate, A\_MEDIAN (QCEW Annual Median Salary), A\_Med\_Gross\_Rent (ACS Annual Median Gross Rent).
- Source Script(s): SNAP\_Analysis\_Admin\_Performance\_Graphs.do (see section 3.7).
- Location: Social Assistance Outsourcing Project/Plots\_Charts/SNAP
   Plots Charts/Admin Spending/State Performance Metrics/
- o File Naming: [State] [Variable].png (e.g., Alabama Tot Admn Cost.png)

#### • Federal vs. State Administrative Cost Shares Over Time:

o **Description:** Line graphs for each state showing the percentage share of total administrative costs borne by the federal government versus the state government over time. A 50% reference line is included.

- Source Script(s): SNAP\_Analysis\_Admin\_Spending\_Shares\_Graphs.do (see section 3.9).
- Location: Social Assistance Outsourcing Project/Plots\_Charts/SNAP Plots\_Charts/Admin\_Spending/Federal\_Vs\_State\_Share/
- File Naming: AdminCostShares\_OverTime\_[State].png (e.g., AdminCostShares OverTime Alabama.png)

## 5.3 Cross-Sectional Visualizations (Scatterplots)

These graphs explore relationships between variables across states for specific snapshot years (typically 2008, 2012, 2019). US territories and national aggregates are generally excluded.

#### • Administrative Costs vs. State Performance Metrics:

- Description: Scatterplots for selected years showing the relationship between
   Tot\_Admn\_Cost\_Per\_Case\_Per\_Mnth (X-axis) and various Y-axis variables.
   Includes a linear fit line and state abbreviation labels.
- Y-Axis Variables: Over\_Payments, Under\_Payments, Payment\_Error\_Rate,
   Program\_Access\_Index, Case\_Proc\_Err\_Rate, App\_Proc\_Tmln, A\_MEDIAN,
   A\_Med\_Gross\_Rent, SNAP\_Part\_Perc, SNAP\_Eligibles.
- Source Script(s): SNAP\_Analysis\_Admin\_Performance\_Graphs.do (see section 3.7).
- Location: Social Assistance Outsourcing Project/Plots\_Charts/SNAP
   Plots\_Charts/Admin\_Spending/Admin\_Costs\_Vs\_State\_Performance\_Metrics/
- File Naming: AdminCosts\_vs\_[Y\_Variable]\_[Year].png (e.g., AdminCosts vs Over Payments 2008.png)

## • Administrative Costs Per Case vs. Household Monthly Average Participation:

- Description: Scatterplots for selected years showing the relationship between Tot\_Admn\_Cost\_Per\_Case\_Per\_Mnth (X-axis) and Part\_HH\_Mnthly\_Avg (Y-axis). Includes a linear fit line and state abbreviation labels.
- Source Script(s): SNAP\_Analysis\_Admin\_Performance\_Graphs.do (see section 3.7).
- Location: Social Assistance Outsourcing Project/Plots\_Charts/SNAP
   Plots\_Charts/Admin\_Spending/Admin\_Costs\_Vs\_Household\_Avg\_Participation/
- o File Naming: AdminCosts vs HouseholdAvgParticipation Scatter [Year].png

#### 5.4 Administrative Cost Composition Visualizations (Bar and Stacked Bar Charts)

These charts break down administrative costs for selected years (typically 2008, 2012, 2019).

#### • Administrative Costs Per Case Per Month by State:

- Description: Bar charts for selected years showing
   Tot\_Admn\_Cost\_Per\_Case\_Per\_Mnth for each state, sorted descending.
- Source Script(s): SNAP\_Analysis\_Admin\_Spending\_Shares\_Graphs.do (see section 3.9). *Note: A similar chart is also producible by SNAP Analysis Admin Performance Graphs.do.*
- Location: Social Assistance Outsourcing Project/Plots\_Charts/SNAP
   Plots Charts/Admin Spending/Per Case Per Month/
- o File Naming: AdminCosts Per Case Per Month BarChart [Year].png

# Administrative Costs as Percentage of Average Household Benefit by State:

- Description: Bar charts for selected years showing total administrative cost per case per month as a percentage of the average monthly household benefit for each state, sorted descending.
- Source Script(s): SNAP\_Analysis\_Admin\_Performance\_Graphs.do (see section 3.7).
- Location: Social Assistance Outsourcing Project/Plots\_Charts/SNAP
   Plots Charts/Admin Spending/Admin Costs Vs Household Avg Benefit/
- File Naming:
   AdminCosts\_Percentage\_of\_AvgHshldBenefit\_BarChart\_[Year].png

## • Federal Share of Admin Costs by Type (Percentage, By Individual State):

- Description: For selected years, individual bar charts for each state showing the percentage breakdown of total federal administrative costs into categories:
   Certification, Issuance, Fraud Control, ADP Development, and ADP Operations.
- Source Script(s): SNAP\_Analysis\_Admin\_Spending\_Shares\_Graphs.do (see section 3.9).
- Location: Social Assistance Outsourcing Project/Plots\_Charts/SNAP
   Plots Charts/Admin Spending/Federal Share By Type By State/
- o File Naming: [State] [Year] Admin Costs Percentage.png

## • Federal Share of Admin Costs by Type (Percentage, All States Summary):

- Description: Stacked bar charts for selected years summarizing the percentage breakdown of federal administrative cost categories (Certification, Issuance, Fraud Control, ADP Development, ADP Operations, Miscellaneous) across all states. States are sorted by total federal admin costs.
- Source Script(s): SNAP\_Analysis\_Admin\_Spending\_Shares\_Graphs.do (see section 3.9).
- Location: Social Assistance Outsourcing Project/Plots\_Charts/SNAP Plots\_Charts/Admin\_Spending/Federal\_Share\_By\_Type\_Summary/

- o File Naming: AdminCosts Shares AllStates [Year].png
- Federal Share of Admin Costs by Type (Absolute Value, All States Summary):
  - Description: Stacked bar charts for selected years summarizing the absolute dollar values of federal administrative cost categories (Certification, Issuance, Fraud Control, ADP Development, ADP Operations, Miscellaneous) across all states (excluding "US" national aggregate). States are sorted by total federal admin costs.
  - **Source Script(s):** SNAP\_Analysis\_Admin\_Spending\_Shares\_Graphs.do (see section 3.9).
  - Location: Social Assistance Outsourcing Project/Plots\_Charts/SNAP
     Plots\_Charts/Admin\_Spending/Federal\_Share\_By\_Type\_Summary/
  - o File Naming: AdminCosts Absolute AllStates [Year].png
- Federal Share of Admin Costs Per Case Per Month by Type (All States Summary):
  - Description: Stacked bar charts for selected years summarizing the federal administrative cost per case per month broken down by category (Certification, Issuance, Fraud Control, ADP Development, ADP Operations, Miscellaneous) across all states (excluding "US" and territories). States are sorted by total federal admin cost per case per month.
  - Source Script(s): SNAP\_Analysis\_Admin\_Spending\_Shares\_Graphs.do (see section 3.9).
  - Location: Social Assistance Outsourcing Project/Plots\_Charts/SNAP
     Plots Charts/Admin Spending/Federal Share Per Case By Type/
  - o File Naming: AdminCosts\_PerCase\_AllStates\_[Year].png

## 5.5 Regression Analysis Outputs

- **Description:** Fixed-effects panel data regression results examining the relationship between state administrative spending per case per month (Tot\_Admn\_Cost\_Per\_Case\_Per\_Mnth) and various SNAP program evaluation metrics.
- Evaluation Metrics (Dependent Variables): Over\_Payments, Under\_Payments, Payment Error Rate, Program Access Index, Case Proc Err Rate, App Proc Tmln.
- Source Script(s): SNAP Analysis Regressions.do (see section 3.10).
- **Format:** Formatted tables in Microsoft Word (.doc) documents. Each document contains the results for one regression model.
- Location: Social Assistance Outsourcing Project/Plots\_Charts/SNAP Plots Charts/Admin Spending/Regressions/Regression Results/
- **File Naming:** [metric]\_vs\_Admin\_Costs.doc (e.g., Over\_Payments\_vs\_Admin\_Costs.doc)

# • Year-Over-Year Growth Rate Summary:

- o **Description:** A text log file summarizing the count of state-year observations where year-over-year growth rates for key administrative spending and performance metrics exceeded predefined thresholds (5%, 50%, 100%, 200% over 1, 2, or 3 years).
- Metrics Analyzed: Tot\_Admn\_Cost, Tot\_Admn\_Cost\_Per\_Case\_Per\_Mnth,
   Over\_Payments, Under\_Payments, Payment\_Error\_Rate.
- Source Script(s): SNAP\_Analysis\_Admin\_Spending\_Growth\_Graphs.do (see section 3.8).
- o Format: Text file (.txt).
- Location: Social Assistance Outsourcing Project/Plots\_Charts/SNAP
   Plots Charts/Admin Spending/Year Over Year Growth/
- o File Naming: Year Over Year Growth.txt

# • List of States with Significant Non-50/50 Admin Cost Splits:

- Obscription: Console output (displayed during script execution) listing states where the federal or state share of total administrative costs deviates by more than 5 percentage points from a 50/50 split.
- o **Source Script(s):** SNAP\_Analysis\_Admin\_Spending\_Shares\_Graphs.do (see section 3.9).
- o **Format:** Displayed in Stata console during script execution; not saved to a separate file by default by this part of the script.

## 5.7 Modernization Effects Regression and Event Study Outputs

**Description:** Outputs generated by SNAP\_Modernization\_Regressions.do providing causal estimates of the impact of SNAP eligibility system modernization using: (1) Two-Way Fixed Effects (TWFE), (2) traditional dummy-based event studies (TWFE), and (3) Callaway-Sant'Anna DiD (CSDID). Outcomes are log participation and log administrative cost per recipient.

**Source Script(s):** SNAP Modernization Regressions.do (see section 3.11).

Location: Social Assistance Outsourcing Project/Plots Charts/SNAP Regression Outputs/

## **Output Details:**

- TWFE Regression Tables (.doc): Word tables showing average effects of attempted and completed modernization on logged outcomes with state and year fixed effects (clustered by state).
  - File Naming Convention: TWFE\_[Participation|Admin\_Costs\_Per\_Recipient]\_[Attempted|Completed]\_Logged.do

```
c (e.g., TWFE_Participation_Attempted_Logged.doc, TWFE Admin Costs Per Recipient Completed Logged.doc).
```

- Traditional Event Study Plots (.png): Coefficient plots from dummy-based TWFE event studies (tails collapsed at ≤−5, ≥+5; omitted pre-period around −1), with 95% CIs, for both attempted and completed events.
  - File Naming Convention:

    Event\_Study\_Traditional\_[Participation|Admin\_Costs\_Per\_Recipient]\_[Attempted|Comp leted]\_Logged.png (e.g.,

    Event\_Study\_Traditional\_Participation\_Attempted\_Logged.png).
- Cohort-Based Plots (.png): Mean outcomes by cohort in the window -5..+5 around initiation/completion; includes a placebo "never modernized" cohort anchored at 2015 shown as a dashed series.
  - File Naming Convention:
    Cohort\_Analysis\_[Participation|Admin\_Costs]\_[Attempted|Completed].png (e.g.,
    Cohort\_Analysis\_Participation\_Completed.png,
    Cohort\_Analysis\_Admin\_Costs\_Attempted.png).
- Raw Trends by Cohort (.png): For each initiation and completion cohort y, line plots of treated vs controls within -5..+5. Controls = never-treated/completed OR first treated/completed in year ≥ y+6.
   Location: .../Plots\_Charts/SNAP Regression Outputs/Raw\_Trends\_By\_Cohort/ with subfolders attempted\_participation, attempted\_admin, completed\_participation, completed\_admin.
  - File Naming Convention: part\_attempted\_YYYY.png, admin\_attempted\_YYYY.png, part\_completed\_YYYY.png, admin\_completed\_YYYY.png.
- CSDID Event Study Tables (.doc): Event-time estimates from csdid for attempted and completed modernization, produced with controls and without controls. Controls used: UnempRate\_AnnNSA, bbce.
  - File Naming Convention:
     CS\_DID\_[Participation|Admin\_Costs\_Per\_Recipient]\_[Attempted|Completed]\_Logged\_
     [NC|WC].doc (e.g., CS\_DID\_Participation\_Attempted\_Logged\_NC.doc,
     CS\_DID\_Admin\_Costs\_Per\_Recipient\_Completed\_Logged\_WC.doc).
- CSDID Event Study Plots (.png): Plots from estat event + csdid\_plot for attempted/completed, No Controls (NC) and With Controls (WC), with 95% CIs.
  - File Naming Convention:

    CS\_DID\_Event\_Study\_[Participation|Admin\_Costs\_Per\_Recipient]\_[Attempted|Comple
    ted]\_Logged\_[NC|WC].png (e.g.,

    CS\_DID\_Event\_Study\_Participation\_Completed\_Logged\_WC.png).

# 6. Write-Ups

This section details various qualitative research documents, compiled databases, background information, and supporting documentation used or generated by the "Social Assistance Outsourcing Project." These files are primarily located within the Social Assistance Outsourcing Project/Write-Ups/ directory and its subfolders.

- 6.1 State Public Records Request Links.xlsx
  - File Name: State Public Records Request Links.xlsx
  - File Path: Social Assistance Outsourcing Project/Write-Ups/State Public Records Request Links.xlsx
  - **Description:** This Excel workbook compiles direct links to state-level public records request portals or relevant agency pages, categorized by the type of services the agency oversees (e.g., combined Health and Human Services, Health Only, Human Services Only). It also notes whether state residency is typically required to make a request.
  - Sheet(s) & Content:
    - o Sheet1 (Primary Sheet): Contains a table with the following columns:
      - State: The name of the state.
      - State Residency Required?: Indicates if state residency is a prerequisite for submitting a public records request (e.g., "Yes", "No").
      - Health and Human Services: Contains direct hyperlinks to the public records request portal or information page for the state's combined Health and Human Services agency, where applicable.
      - Health Only: Contains direct hyperlinks to the public records request portal or information page for the state's Health-specific agency (if distinct from a combined HHS agency), where applicable.
      - Human Services Only: Contains direct hyperlinks to the public records request portal or information page for the state's Human Services-specific agency (if distinct from a combined HHS agency), where applicable.
  - **Purpose:** To provide a quick reference guide for accessing public records request information for state agencies relevant to social assistance programs, facilitating the acquisition of documents related to program administration, modernization, and vendor contracts.
  - Format: Microsoft Excel (.xlsx)
  - **Source:** Compiled by the research team.
- 6.2 State Caseworker Data Sources.docx
  - File Name: State Caseworker Data Sources.docx

- File Path: Social Assistance Outsourcing Project/Write-Ups/State Caseworkers/State Caseworker Data Sources.docx
- **Description:** This Word document is a memorandum outlining the research strategy and findings from an effort to collect state-by-state data on the number of social assistance caseworkers and related expenditures. It details the methodologies used for data collection and lists various sources that were consulted.

- **Purpose:** To evaluate and document sources for state-level caseworker employment and expenditure per caseworker.
- Research Strategy: Describes methods employed, including:
  - Using Chat-GPT and Google to search for state-specific caseworker employment/expenditure data and annual agency reports.
  - Keyword searches (e.g., "caseworker," "worker," "employee") within documents.
  - Downloading and reviewing detailed state and department budgets for selected states (Alabama, California, Florida, Pennsylvania, Virginia) using Google Notebook LM.
- o **Sources Consulted:** Lists various data sources explored, such as:
  - Occupational Employment and Wage Statistics (OEWS) for occupationspecific employment and wage data.
  - State Budgets by Year for human resource and Health and Human Services appropriations.
  - GovSalaries for caseworker counts and average salaries.
  - ZipRecruiter for salary benchmarks.
  - Specific state annual reports (e.g., Alabama DHR Annual report, SFY 2019 Arizona DES Annual Report).
- **State-by-State Findings:** Provides a detailed breakdown for numerous states, outlining:
  - Specific data points found (e.g., number of employees in relevant departments, salary figures, budget allocations).
  - Sources for these data points (e.g., specific reports, websites like Salary.com, Wikipedia entries for agency employee counts).
  - Instances where no specific data was found ("None found").
- **Purpose in Project:** This document serves as a record of the data sourcing efforts for caseworker statistics, highlighting available data and gaps, which can inform analyses related to administrative capacity and costs.

- Format: Microsoft Word (.docx)
- Author: Dylan Craig (as per memorandum details)
- 6.3 Literature on Modernization Efforts (Folder)
  - **Folder Name:** Literature on Modernization Efforts
  - **File Path:** Social Assistance Outsourcing Project/Write-Ups/Eligibility System Modernization Databases and Timelines/Literature on Modernization Efforts/
  - **Description:** This folder contains a collection of academic articles, government reports, research briefs, and other publications related to the modernization of eligibility and enrollment (E&E) systems for health and human services programs (such as SNAP, TANF, Medicaid). The literature covers topics such as systems integration, data interoperability, challenges faced by states, federal guidance, and evaluations of modernization initiatives.

- o The folder primarily contains PDF documents.
- Examples of included literature (based on filenames and provided example):
  - "Status of State Efforts to Integrate Health and Human Services Systems and Data: 2016" (ASPE\_2016.pdf) - An ASPE research brief discussing state progress and challenges in integrating health and human services systems.
  - Reports from organizations like the Center on Budget and Policy Priorities (CBPP\_2015.pdf), the Government Accountability Office (GAO\_2016.pdf), and the Kaiser Family Foundation (Kaiser Foundation 2015.pdf).
  - Articles and reports focusing on specific aspects of modernization, data sharing, and policy implications (e.g., Coughlin\_2012.pdf, Dorn\_2014.pdf, FNS\_2010.pdf, FNS\_2013.pdf, Heberlein\_2018.pdf, Kamdem 2022.pdf, Loprest 2016.pdf, SHADAC 2018.pdf).
- **Purpose in Project:** To serve as a repository of background research and foundational literature informing the project's understanding of the context, history, challenges, and outcomes associated with the modernization of social assistance eligibility systems.
- **Format:** Collection of files, primarily PDFs.
- 6.4 State Eligibility Sources (Folder)
  - Folder Name: State Eligibility Sources
  - **File Path:** Social Assistance Outsourcing Project/Write-Ups/Eligibility System Modernization\_Databases and Timelines/State\_Eligibility\_Sources/

• **Description:** This folder serves as a comprehensive repository for documents and source materials related to the eligibility determination systems and modernization efforts of individual states. It is organized with subfolders for each state.

- o The main folder contains individual subfolders for each U.S. state (e.g., Alabama, Alaska, Arizona, etc.).
- Each state-specific subfolder (e.g., Alabama) contains a collection of relevant documents, primarily in PDF format. These documents can include:
  - State-specific reports on Medicaid, SNAP, TANF, and other social assistance programs.
  - Requests for Proposals (RFPs) related to eligibility system modernization or vendor contracts.
  - System design documents, implementation plans, or phasing plans.
  - Agency presentations or updates on modernization projects.
  - News articles or press releases announcing system changes or vendor selections.
  - Program manuals or EBT-related documents.
  - Responses to RFIs or Q&A documents related to procurement processes.
  - Any other source materials gathered that provide insight into a specific state's approach to its eligibility systems.
- **Purpose in Project:** To collect and organize primary and secondary source documents that detail the history, current status, vendor involvement, and specific characteristics of eligibility determination systems for social assistance programs within each state. This information is crucial for understanding the context of modernization efforts and for comparative analysis.
- **Format:** A main folder containing state-named subfolders, which in turn contain various document files (primarily PDFs).
- 6.5 Eligibility System Email Template for State Agencies.docx
  - File Name: Eligibility System Email Template for State Agencies.docx
  - File Path: Social Assistance Outsourcing Project/Write-Ups/Eligibility System Modernization\_Databases and Timelines/Eligibility System Email Template for State Agencies.docx
  - **Description:** This Word document provides a standardized email template for corresponding with state agencies. The template is designed to request confirmation of current eligibility systems and gather historical information about past systems used for SNAP, TANF, and Medicaid.

#### • Content Overview:

- o Introduction of the research team (Dylan Craig, Derek Wu, Ph.D., and Tim Layton, Ph.D. from the University of Virginia) and the research project's focus on eligibility systems.
- o A placeholder to insert the state's name and the system believed to be currently in use (e.g., [State] using [System Name]).
- o A request for confirmation of the current system.
- A request for details about other past eligibility systems used in the state, including their names and periods of use.
- Explanation of the importance of this information for understanding the evolution of eligibility systems.
- A request to be directed to the appropriate contact if the recipient is not the correct person.
- o Contact information for follow-up (jdc9uj@virginia.edu).
- **Purpose in Project:** To facilitate consistent and clear communication with state agencies when seeking primary information about their eligibility system histories.
- Format: Microsoft Word (.docx)
- Author: Dylan Craig

6.6 Catalog of State Procurement Portals for Contracts.docx

- File Name: Catalog of State Procurement Portals for Contracts.docx
- File Path: Social Assistance Outsourcing Project/Write-Ups/Eligibility System Modernization\_Databases and Timelines/Catalog of State Procurement Portals for Contracts.docx
- **Description:** This Word document is a memorandum that serves as a catalog and guide for identifying and reviewing state procurement websites and portals. The objective is to locate publicly available contracts related to eligibility determination systems for SNAP, TANF, and Medicaid.

- o **Overview:** States the purpose of the document.
- **Methodology:** Briefly outlines the approach: identifying official procurement websites and focusing on relevant contracts.
- o State-by-State Listing: For each of the 50 states, the memo lists:
  - **Procurement Websites:** Names and/or links to official state procurement portals (e.g., "Alabama Buys," "Alaska Centers of Procurement Excellence (ACoPE)").

- Contracts Found: Details of relevant contracts found, or "None found." This includes specific RFP numbers, project names, or links to contract documents where available (e.g., Alaska's "RFP 19-33-02 AN EXAMINATION OF ARIES...", Texas HHS contracts with Deloitte and Accenture).
- Notes: Includes occasional observations, such as the potential utility or limitations of certain sources (e.g., The Accountability Project - Alabama).
- **Purpose in Project:** To systematically identify and document sources for state contracts with vendors for eligibility determination systems. This information is crucial for understanding vendor involvement, contract terms, and the financial aspects of system modernization.
- Format: Microsoft Word (.docx)
- Author: Dylan Craig (as per memorandum details)
- 6.7 Social Assistance Modernization Database Notes AI (and Notes Dylan)
  - File Names:
    - o Social Assistance Modernization Database Notes Al.docx
    - Social Assistance Modernization Database Notes Dylan.docx
  - File Path (Base): Social Assistance Outsourcing Project/Write-Ups/Eligibility System Modernization Databases and Timelines/
  - **Description:** These Word documents contain detailed narrative research notes and summaries compiled on a state-by-state basis regarding the modernization of eligibility determination systems for SNAP, TANF, and Medicaid. Is a qualitative backbone supporting a structured "Social Assistance Modernization Database" (likely an Excel file).

- The documents are structured by state (e.g., Alabama, Alaska, Arizona, Arkansas, California, Colorado, Connecticut, Delaware, Florida, Georgia, Hawaii, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, Wyoming).
- o For each state, the notes typically cover:
  - Legacy Systems: Information on systems used in the past (e.g., Alabama's SCI-II for SNAP, FACETS for TANF; Arizona's AZTECS).
  - Modernization Efforts: Details on new systems implemented (e.g., Alabama's CARES for Medicaid, STIS in development; Arizona's

- HEAplus). This includes system names, implementation dates/periods, programs covered.
- Contractors/Vendors: Identification of key vendors involved in development and maintenance (e.g., Alabama's GDIT for Medicaid; Arizona's Social Interest Solutions/Alluma then Accenture for HEAplus).
- **System Integration:** Notes on how different systems interact or if they are integrated.
- Challenges and Delays: Mentions of failed attempts, delays, or issues encountered during modernization (e.g., Alabama's retracted 2012 Medicaid award; Indiana's IBM contract termination).
- **Sources/Citations:** Often includes links to reports, RFPs, news articles, and other source documents that inform the notes.
- **Purpose in Project:** To provide detailed qualitative background, historical context, and source documentation for each state's journey in modernizing its social assistance eligibility systems. These notes are essential for understanding the nuances not captured in a purely structured database.
- Format: Microsoft Word (.docx)
- 6.8 Modernization Timeline Dylan.docx
  - File Name: Modernization Timeline Dylan.docx
  - File Path: Social Assistance Outsourcing Project/Write-Ups/Eligibility System Modernization Databases and Timelines/Modernization Timeline Dylan.docx
  - **Description:** This Word document outlines a structured timeline for each state, detailing when they modernized their eligibility determination systems. The timeline is broken down by program type (SNAP, TANF, Medicaid) and further categorized by backend and frontend system status.

- Objective: To produce a clear timeline of modernization for each state's eligibility systems.
- State-by-State Breakdown: For each state (e.g., Alabama, Alaska, Arizona, Arkansas, California, Colorado, Connecticut, Delaware, Florida, Georgia, Hawaii, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, Wyoming):
  - Program Specifics (SNAP, TANF, Medicaid):

- Backend Systems: Details on legacy systems (name, status), current/modernized systems (name, launch date), and systems in development.
- **Frontend Systems:** Information on current frontend portals (name, launch date) and any in-development frontend systems.

## Examples:

- Alabama SNAP: Legacy backend SCI-II, caseworker system OACIS (2010), MyDHR frontend (2013), STIS in development (began 2023).
- Alaska Medicaid: Legacy EIS, ARIES for MAGI (Oct 2014), EIS still for Non-MAGI.
- Arizona SNAP/TANF: Legacy AZTECS backend, HEAplus frontend (Oct 2013).
- Purpose in Project: To provide a clear, comparative, and chronological overview of
  when and how different states modernized their eligibility systems for key social
  assistance programs, distinguishing between backend infrastructure and client/caseworker
  interfaces.

• Format: Microsoft Word (.docx)

• Author: Dylan Craig

6.9 SNAP State Options Reports Write-up.docx

- File Name: SNAP State Options Reports Write-up.docx
- File Path: Social Assistance Outsourcing Project/Write-Ups/Eligibility System Modernization Databases and Timelines/SNAP State Options Reports Write-up.docx
- **Description:** This Word document is a memorandum that summarizes findings from a review of USDA FNS SNAP State Options Reports covering the years 2001 to 2024. The primary focus is on determining whether states administer SNAP at the state level or if administration is delegated to counties or regions.

- o **Subject:** SNAP State and County Administration.
- Key Findings:
  - Reports from 2015 to 2024 consistently document the administrative structure (state vs. county/regional).
  - Reports from 2001 to 2013 do not explicitly include this specific information.

- Among the 2015-2024 reports, the distribution is stable: 43 states administer SNAP at the state level, and 10 states administer it at the county or regional level.
- o **Implications:** The consistency suggests that the administrative structure (state vs. county) is largely fixed and does not change frequently.
- **Visualizations:** Includes a list of county-administered and state-administered states and a map illustrating this distribution.
- **Purpose in Project:** To document a key characteristic of SNAP program administration across states (centralized vs. decentralized), which can be an important contextual variable for analyzing administrative costs and system choices.
- Format: Microsoft Word (.docx)
- Author: Dylan Craig (as per memorandum details)

# 6.10 SNAP Data.dta Data Dictionary.docx

- File Name: SNAP\_Data.dta Data Dictionary.docx
- File Path: Social Assistance Outsourcing Project/Write-Ups/Eligibility System Modernization Databases and Timelines/SNAP Data.dta Data Dictionary.docx
- **Description:** This Word document serves as a data dictionary for the SNAP\_Data.dta Stata dataset. It provides metadata for each variable in the dataset.
- Content Overview:
  - o For each variable in SNAP Data.dta, the dictionary lists:
    - Variable Name: (e.g., State, StateFIPS, Year, Part\_Prsn\_Mnthly\_Avg, Tot Admn Cost Per Case Per Mnth, Over Payments).
    - Type: Data type (e.g., String, Numeric).
    - Label: A descriptive label for the variable (e.g., "State observed," "Persons Participating (Monthly Average)," "Overpayment Error Rate (Percent)").
    - **Source:** The original data source for the variable (e.g., "SNAP Activity Report," "SNAP Payment Error Rates by Fiscal Year").
    - **Years Measured:** The range of years for which the data is available for that variable (e.g., "2003-2019," "2003-2014, 2017-2019, 2022-2023").
- **Purpose in Project:** To provide a comprehensive reference guide for understanding the variables contained within the main analytical dataset (SNAP\_Data.dta), their meanings, sources, and temporal coverage. This is essential for anyone using the dataset for analysis.
- Format: Microsoft Word (.docx)

## 6.11 SNAP Eligibility Services Database.xlsx

- File Name: SNAP Eligibility Services Database.xlsx
- **File Path:** Social Assistance Outsourcing Project/Write-Ups/Eligibility System Modernization\_Databases and Timelines/SNAP Eligibility Services Database.xlsx
- **Description:** This Excel workbook is a comprehensive database tracking details about SNAP eligibility systems across states. It includes information on system names, program coverage, operational dates, contractors, state agency contacts, and the status of correspondence with states.
- Sheet(s) & Content (inferred from provided images):
  - o Eligibility\_Systems\_Dylan / Eligibility\_Systems\_State\_Corr: These sheets likely contain core data about each state's eligibility system(s).
    - Columns may include: State, Eligibility System (system name), Date (operational dates/years), SNAP? (Yes/No), Medicaid? (Yes/No), TANF? (Yes/No), Client/Worker (indicates if the system is client-facing or for worker use), Contract Website, Contractor 1 (and potentially Contractor 1: Years, Contractor 1: Amount, Contractor 1: Title, Contractor 1.2, Contractor 1.3), and similar fields for subsequent contractors or system iterations (System 2, Contractor 2, etc.).
  - State\_Contacts\_Correspondence: This sheet likely tracks contact information for state agencies.
    - Columns may include: State, Email 1, Email 2, Email 3, Email 4, Email 5 (and potentially other contact details like names or departments).
  - State\_Correspondence\_Status: This sheet monitors the status of communications with state agencies.
    - Columns may include: State, Contact Status (e.g., "Question Answered,"
      "Request Forwarded," "Successfully Sent," "Email Failed to Send," "No
      Email Found"), Date of Last Update.
  - Systems\_Contracts\_Google\_Notebk: This sheet is a more granular, potentially yearly breakdown of systems and contractors, possibly derived from research notes (e.g., Google Notebook).
    - Columns may include: State, Year, System\_1, SNAP\_1, TANF\_1, Medicaid\_1, Contractor\_1, and subsequent system/contractor iterations for that year.
- Purpose in Project: To serve as a centralized, detailed database for tracking and
  managing information about SNAP eligibility systems, vendor contracts, and research
  communications with state agencies. This database is crucial for identifying system
  characteristics, modernization timelines, and vendor landscapes for SNAP across
  different states.

- **Format:** Microsoft Excel (.xlsx)
- 6.12 Modernization Dates (Dylan).xlsx
  - File Name: Modernization Dates (Dylan).xlsx
  - File Path: Social Assistance Outsourcing Project/Write-Ups/Eligibility System Modernization Databases and Timelines/Modernization Dates (Dylan).xlsx
  - Description: This Excel workbook is dedicated to tracking the specific years when states
    modernized the backend and frontend components of their eligibility systems for SNAP,
    TANF, and Medicaid.
  - Sheet(s) & Content (inferred from provided images):
    - o Dylan **Sheet:** Lists states and has columns for the year of modernization for:
      - Backend SNAP
      - Backend TANF
      - Backend Medicaid
      - Frontend SNAP
      - Frontend TANF
      - Frontend Medicaid
      - A Notes column is also present, likely for clarifications or source information for the dates.
    - Derek **Sheet:** Follows a similar structure to the Dylan sheet, also capturing modernization years for backend and frontend systems across the three programs (SNAP, TANF, Medicaid) by state. The Notes column in this sheet appears to contain more detailed textual explanations and justifications for the dates listed.
    - Matches Sheet: A comparison or reconciliation sheet. For each state and each system component (e.g., Backend SNAP, Frontend Medicaid), it indicates whether the dates provided in the "Dylan" and "Derek" sheets (or other source sheets) "MATCH" or "MISMATCH".
  - **Purpose in Project:** To consolidate and compare researched modernization dates for state eligibility systems, distinguishing between backend infrastructure changes and frontend interface updates for SNAP, TANF, and Medicaid. This is crucial for creating an accurate timeline of system changes for the project's analysis.
  - Format: Microsoft Excel (.xlsx)
- 6.13 Social Assistance Modernization Database.xlsx
  - File Name: Social Assistance Modernization Database.xlsx
  - File Path: Social Assistance Outsourcing Project/Write-Ups/Eligibility System Modernization\_Databases and Timelines/Social Assistance Modernization Database.xlsx

- **Description:** This Excel workbook is a comprehensive database tracking the evolution of state-level social assistance eligibility determination systems on a year-by-year basis (from 2000 onwards). It documents the systems in use, their legacy status, program coverage (SNAP, TANF, Medicaid), and associated contractors.
- Sheet(s) & Content (inferred from the provided image image 7f16c5.png):
  - o **Primary Sheet:** Contains a detailed table with rows for each state-year combination.
    - Columns include: State, Year, System\_1 (name of the primary system), System\_1\_Legacy (binary indicator of legacy status, e.g., 1 for legacy, 0 for modernized), SNAP\_1 (Yes/No if System 1 covers SNAP), TANF\_1 (Yes/No for TANF), Medicaid\_1 (Yes/No for Medicaid), Contractor\_1 (primary contractor for System 1), Contractor\_1\_2, Contractor\_1\_3 (potentially for additional or sub-contractors).
    - The structure repeats for System\_2 (e.g., System\_2, System\_2\_Legacy, SNAP\_2, TANF\_2, Medicaid\_2, Contractor\_2), allowing for documentation of multiple concurrent systems within a state for a given year.
- **Purpose in Project:** To provide a structured, longitudinal dataset detailing the specific eligibility systems used by each state for SNAP, TANF, and Medicaid annually, including their modernization status and primary vendors. This database is fundamental for analyzing trends in system modernization, vendor market share, and the relationship between system types and program outcomes.
- Format: Microsoft Excel (.xlsx)

## 6.14 KFF Medicaid Eligibility Systems.xlsx

- File Name: KFF Medicaid Eligibility Systems.xlsx
- **File Path:** Social Assistance Outsourcing Project/Write-Ups/Eligibility System Modernization\_Databases and Timelines/
- **Description:** Excel dataset compiled from Kaiser Family Foundation (KFF) surveys on Medicaid eligibility and enrollment systems. Captures state-reported characteristics of Medicaid eligibility determination platforms, integration with federal and state systems, and modernization timelines.
- Contents: Variables include system type (legacy vs. modernized), vendor or in-house operation, system integration with other benefit programs (SNAP, TANF), and implementation year(s).
- Use: Provides contextual information on Medicaid modernization efforts to compare across states and align with SNAP/TANF eligibility modernization histories. Useful for triangulating modernization timing across programs.

• Format: Microsoft Excel (.xlsx)

## 6.15 Modernization Dates Matching.xlsx

- File Name: Modernization Dates Matching.xlsx
- **File Path:** Social Assistance Outsourcing Project/Write-Ups/Eligibility System Modernization Databases and Timelines/
- **Description:** Internal crosswalk file aligning modernization initiation and completion dates across different sources (e.g., procurement records, agency reports, literature). Ensures consistency when coding "attempted" vs. "completed" modernization in analysis.
- Contents: State—year panel with side-by-side comparison of modernization dates from multiple datasets (Social Assistance Modernization Database, SNAP Eligibility Services Database, KFF Medicaid data). Includes reconciliation notes where sources differ.
- Use: Serves as the authoritative reference for defining modernization event timing in regression analysis (e.g., TWFE, event studies, csdid).
- Format: Microsoft Excel (.xlsx)

#### 6.16 Welfare Integration Spreadsheet.xlsx

- File Name: Welfare Integration Spreadsheet.xlsx
- **File Path:** Social Assistance Outsourcing Project/Write-Ups/Eligibility System Modernization Databases and Timelines/
- **Description:** Spreadsheet compiling information on state integration of eligibility systems across SNAP, TANF, and Medicaid. Focuses on whether states pursued single integrated platforms or separate program-specific systems.
- **Contents:** State-by-state coding of integration status, vendor involvement, timeline of integration milestones, and system replacement efforts.
- Use: Provides a cross-program perspective on modernization, allowing evaluation of how integration choices influence administrative costs, error rates, and access across safety net programs.
- Format: Microsoft Excel (.xlsx)