

Exploratory Data Analysis, Project Proposal

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GitHub Repo: [Project2_Farooq_Russell_Fields](#)

Primary Dataset:

We will explore a dataset from the U.S. Department of Health & Human Services, Office of Child Support, *FY 2022 Preliminary Data Report and Tables* (<https://www.acf.hhs.gov/css/data>). We in part chose this dataset to support [finEQUITY](#), a non-profit that is considering programs alleviating the burdens of child support debts as barriers to financial stability. Our analysis may be helpful to them as they develop new programs in the prison-to-prosperity space.

Questions:

Payment Trends Over Time [Asma]

1. How have total child support payments evolved over the last five years?
2. Are there specific trends or changes in child support payments during this period?
3. Breakdown by state
4. Which years saw the most significant growth or decline in total child support payments?
5. Is there a consistent pattern in the increase or decrease of these payments?
6. Combining actual figures with percentage changes (from a table like P-3) enables a more nuanced trend analysis. It can illustrate not just the trend but also the rate of change, which can be crucial for understanding the dynamics of the program.
7. What is the average child support payment per case in each year?
8. How has the average payment amount changed annually?

Obligation Trends [Madison]

1. *Repeat questions from above section*

Arrearages Trends [Asma]

1. *Repeat questions from above section*

Payments by State [Dave]

1. Which states pay the most and least in child support?
2. Which states pay the most and least when normalized by population?
3. Do any of the states that finEQUITY currently operates in (NY, KY, IN) present a particular need or opportunity? What about the states that finEQUITY intends to expand to (GA, NJ, AL, CA, TX, CO)?

Comparison of Assistance Types [Asma]

1. How do payments under different assistance programs (like "Current Assistance IV-A and IV-E" and "Former Assistance IV-A and IV-E") compare?
2. Which assistance programs have seen the most significant payment increase/decrease over time?
3. By combining financial data (from a table like P-1) with statistical data (from a table like P-2), we can explore correlations between financial figures and statistical measures. For example, understanding how changes in financial allocations or collections are related to changes in case loads or assistance numbers.
4. What proportion of the total payments does each assistance category represent each year?
5. Are there noticeable shifts in the distribution of payments among different categories?

Number of Children per Family [Madison]

1. Does the number of kids in a family increase the likelihood of being trapped in debt?

Most Vulnerable Age Groups [Madison]

1. At what age do debts begin to accumulate?
2. At what age does the debt trap become insurmountable?
3. Snapshot: what groups hold the largest share of outstanding child support debt?

Most Vulnerable Demographics [Dave]

1. What gender and race crosstabs account for the largest share of outstanding debt?
2. Does this view change when looking at aggregate versus normalized values (e.g., by population or by population of incarcerated)?

Variables

Variables we expect to use while researching this dataset include the corresponding years (2018 to 2022), monetary payments by state, number of support orders, current/former assistance collections totals, obligation totals, total arrearages due, and more. We expect to glean insights related to how child support payments have changed over time from 2018 to 2022, how different assistance programs compare, trends related to arrearages, and potential states that finEQUITY could expand to in their aid to formerly/currently incarcerated individuals and their families.

Supplemental Datasets

United States Census Bureau

- Table Dashboard Search [[LINK](#)] *In order to normalize by population on state, gender, race, and other variables.*
- Shapefiles [[LINK](#)] *In order to plot DataFrames as maps using geopandas and matplotlib.*

Report Objectives and Organization

We plan to cover the potential insights mentioned above in the “Variables” section related to child support payment trends, arrearages trends, and how assistance programs compare. We will discuss whether or not we derived actionable insights from these trends and findings. We plan to organize the final report by first discussing a brief history of finEQUITY and child support within the United States to address potential pitfalls and needs within the current system. We then will go into our findings on a broad level to discuss overall trends in child support payments as well as other variables. We will discuss how the assistance programs compare and potentially affect a family’s financial stability. After, we will narrow our focus further by reporting our findings within specific demographics, age groups, states, and family head count. While describing our findings we will illustrate our points further with graphs. Finally, we will draw conclusions from our findings as a whole.