

The Criminalization of Poverty

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Abstract

This study explores the relationship between poverty rates and crime rates in New York State counties. Utilizing an OLS method, the study's regression analyses underscore a direct link between poverty and criminality. The results of the bivariate regression model show that a 1-percentage-point increase in the poverty rate correlates with a 34.06372 increase in the rate of index crime. The multivariate regression model finds that a 1-percentage-point increase in the poverty rate leads to a 38.571 increase in the rate of index crime. The results of the analyses are statistically significant.

1 Introduction

This study explores the criminalization of poverty. The design of the criminal legal system penalizes the behavior of segments of the population who have limited options for providing for themselves and their families. Structural barriers within the education, legal, and economic systems trap individuals in a cycle of poverty and incarceration. The most vulnerable members of society, who experience housing and food insecurity, inadequate education, unemployment, and other factors of economic inequality, are more likely to engage in criminal activity as a means of survival. The financial and psychological toll of interactions with the criminal legal system serves to perpetuate the oppression of poor, predominantly Black and Brown communities. In this way, the criminal legal system actively contributes to a cycle of poverty that harms vast segments of the American population.

Formerly incarcerated individuals face significant barriers in the labor market. The unemployment rate of formerly incarcerated people is more than twice the national rate during the Great Depression. A time series regression analysis examining the relationship between aggregate annual unemployment rates and aggregate incarceration rates revealed a statistically significant relationship: an increase in the national unemployment rate correlates with a subsequent increase in the national incarceration rate. This project is an initial step in building a robust body of research about the relationship between poverty and incarceration. Further development of this research

can provide an evidence-based framework for designing economic policies to support individuals impacted by the criminal legal system.

The central question this study aims to address is whether poverty rates are correlated with crime rates in NY State counties. To explore this, county-level data from New York State spanning several years (2017-2022) on poverty and crime rates are analyzed using a cross-sectional approach. It is hypothesized that poverty will be positively correlated with crime.

2 Literature Review

There is an established relationship between economic insecurity and crime. This section briefly outlines the existing literature on this topic, including quantitative research on the correlation between poverty indicators and crime, as well as qualitative studies addressing systemic racism and the oppression of low-income people within the criminal legal system.

In the late 1970s and early 1980s, several key literature reviews failed to reach a clear consensus on the relationship between economic conditions and violent crime. Quantitative research conducted by (Hsieh and Pugh 1993) employed meta-analysis techniques to examine 34 aggregate data studies exploring connections between violent crime, poverty, and income inequality. These studies provided 76 zero-order correlation coefficients for various measures of violent crime in relation to poverty or income inequality. Of these, 97 percent (all but two) were positive, suggesting a strong link between both poverty and income inequality with violent crime. The research also indicated that homicide and assault may have a stronger association with poverty and income inequality compared to rape or robbery.

Another study by (Freeman 1987) sought to estimate the impact of present and past criminal activity on the employment rates of inner-city Black male youths from high-poverty neighborhoods. The study revealed a significant inverse relationship between crime and employment, with criminal activity contributing to decreased employment opportunities for this population. Recidivism is a critical aspect of the criminalization of poverty, as the economic insecurity experienced by individuals involved with the criminal justice system can partly explain the tendency to reoffend. At the time she was writing, (Esparza Flores 2018) noted that U.S. recidivism rates were unprecedentedly high, with over 76.6 percent of offenders reoffending and returning to prison, often due to unemployment and lack of education. Her paper explored how race and socioeconomic disparities

exacerbate mass incarceration and recidivism.

The punitive nature of the criminal legal system further illuminates the criminalization of poverty. The system is designed to accommodate the financial means of economically privileged individuals, while restricting the liberties and rights of those who lack the financial resources to defend themselves. This issue is thoroughly examined in *Punishment Without Crime: How Our Massive Misdemeanor System Traps the Innocent and Makes America More Unequal* by (Natapoff 2018). The book exposes the harsh realities of the justice system, highlighting punitive bureaucracies that disproportionately devastate economically disadvantaged individuals ensnared in excessive policing and enforcement of minor offenses. Natapoff argued that state and local governments have constructed systems of injustice that undermine the principles of equal justice, imposing a de facto punitive tax on those least able to bear it.

Several other scholars have addressed the intersection of inequality, poverty, and incarceration. In 2009, (Gustafson n.d.) argued that the U.S. welfare and criminal justice systems were becoming increasingly intertwined, though the full implications of this convergence were yet to be explored. Her article mapped the criminalization of welfare, detailing the rise of welfare fraud as a government focus and the integration of criminal justice strategies into the welfare system. It also examined how welfare recipients are treated in courts, where they are granted limited rights akin to parolees. More recently, in 2019, scholars (Edelman 2019) and (Yungman 2019) published work highlighting the persistent criminalization of poverty.

This project aims to provide an updated exploratory data analysis on the criminalization of poverty, contributing to a growing body of research on the systemic inequalities perpetuated by the criminal legal system.

3 Data and Methodology

3.1 Data

The data on poverty rates and control variables at the county level was sourced from the United States Census Bureau. (Access the data tool [here](#).)

Crime data was obtained from the Division of Criminal Justice Services. (Explore this data [here](#).)

A substantial portion of observations was excluded from the multivariate analysis due to the limited

availability of control variable data, which was restricted to a single year and a small subset of counties.

3.2 Methodology

This study employs an Ordinary Least Squares (OLS) regression method to examine the correlation between poverty rates and crime rates.

Model:

$$IndexRate = \beta_1 PovertyRate + \beta_2 LowEdu + \beta_3 Disability + \beta_4 NILF + \beta_5 Computer + \beta_6 Unemployment + \beta_7$$

4 Descriptive Statistics

Table 1: The summary statistics of control variables.

	count	mean	var	sd	min	max
withcashpublicassistanceinco	33	4.49697		3.028148	.3	10.6
withadisability	33	10.86667		4.348036	3.9	20.8
singlemotherhouseholds	33	18.48182		10.04855	5.3	38.9
notinlaborforce	33	35.73333		3.721531	27.4	44.8
withacomputer	33	90.86364		4.030184	81.3	98.4
lessthanhighschooldiploma	33	18.46061		9.521914	5.6	35.9
unemploymentrate	33	6.439394		2.967421	2.7	12.7

Table 2: The summary statistics of poverty rate and crime rates variables.

	count	mean	var	sd	min	max
index_rate	310	1466.435		594.5927	276.5334	3392.357
violent_rate	310	218.4179		143.3958	37.93004	1039.002
property_rate	310	1248.018		500.6796	221.126	2649.743
firearm_rate	310	25.50347		27.61321	0	179.8393
percentinpoverty	305	16.89607		5.270385	5.1	38.5

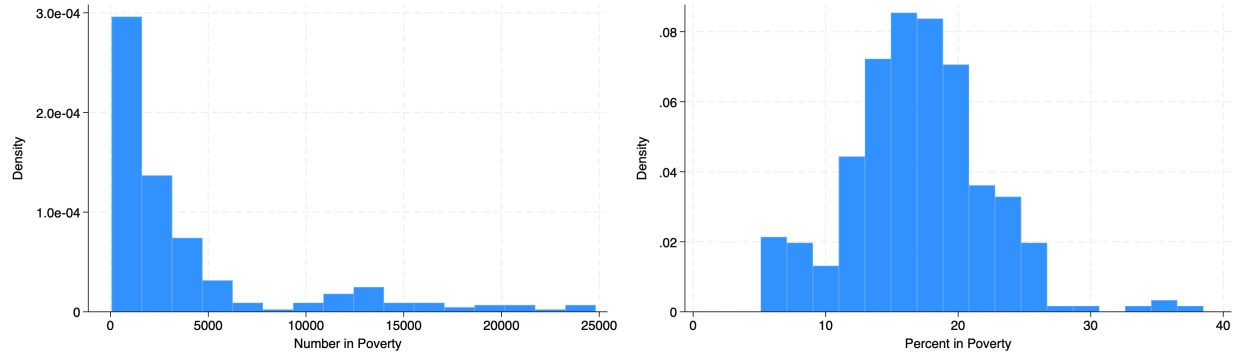


Figure 1: Poverty variables distributions.

The percent in poverty variable has a normal distribution, while the number in poverty variable has a significant right skew.

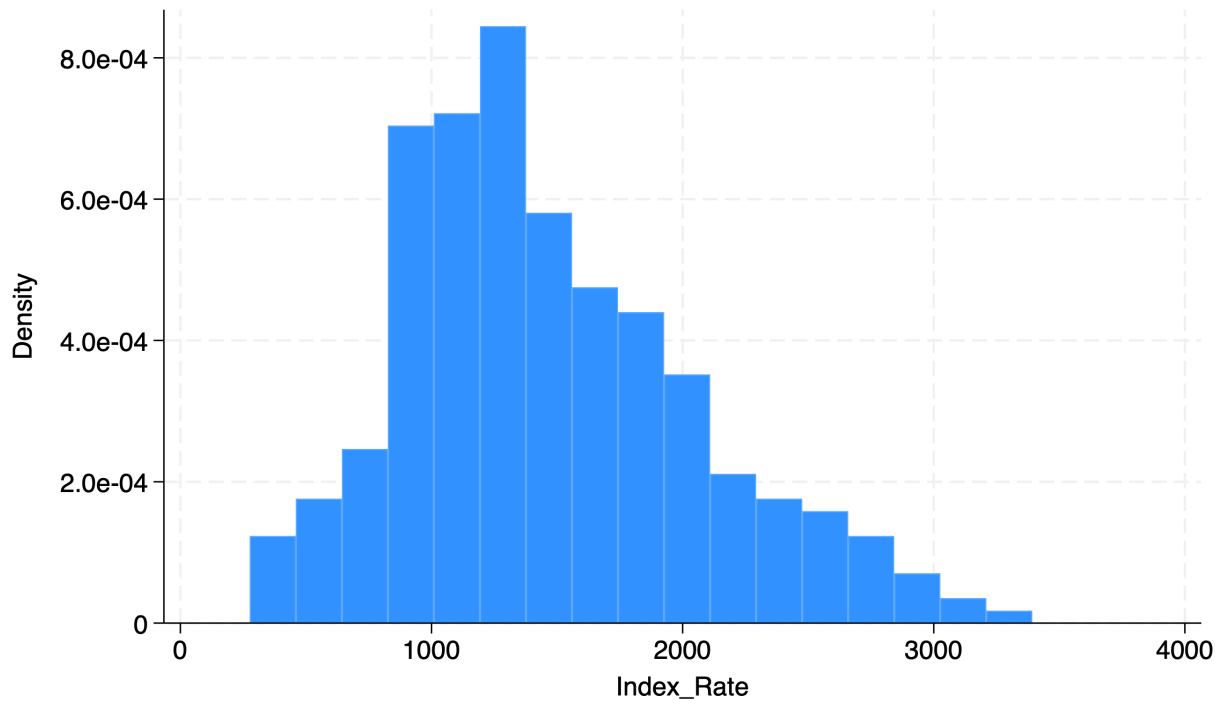


Figure 2: Index Crime Rate variable distribution.

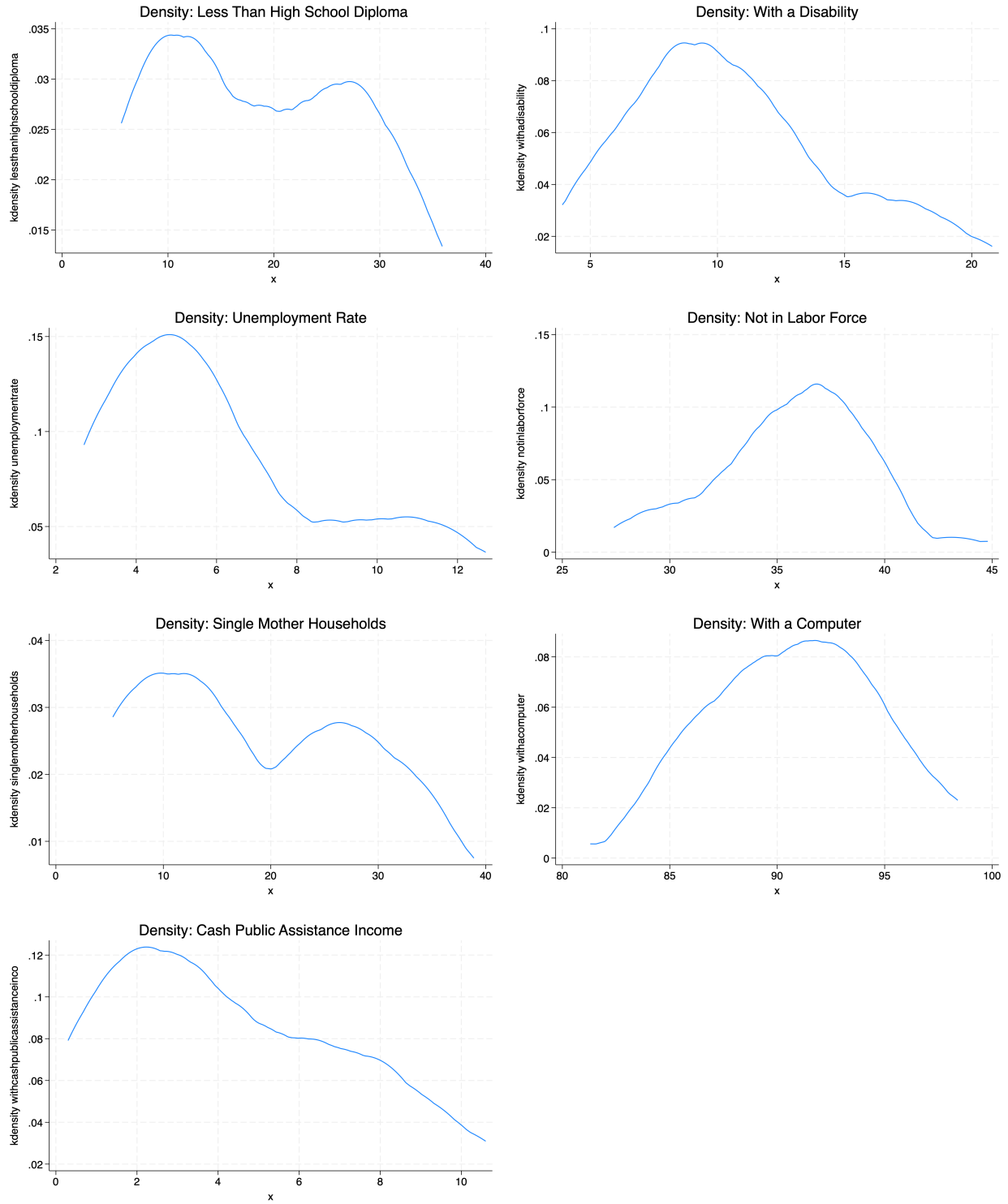


Figure 3: Control variables distributions.

Table 3: Poverty Rate and Crime Rate

	(1)
	index_rate
percentinpoverty	38.70*** (6.32)
__cons	817.4*** (7.54)
<i>N</i>	305

t statistics in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

5 Bivariate Analysis

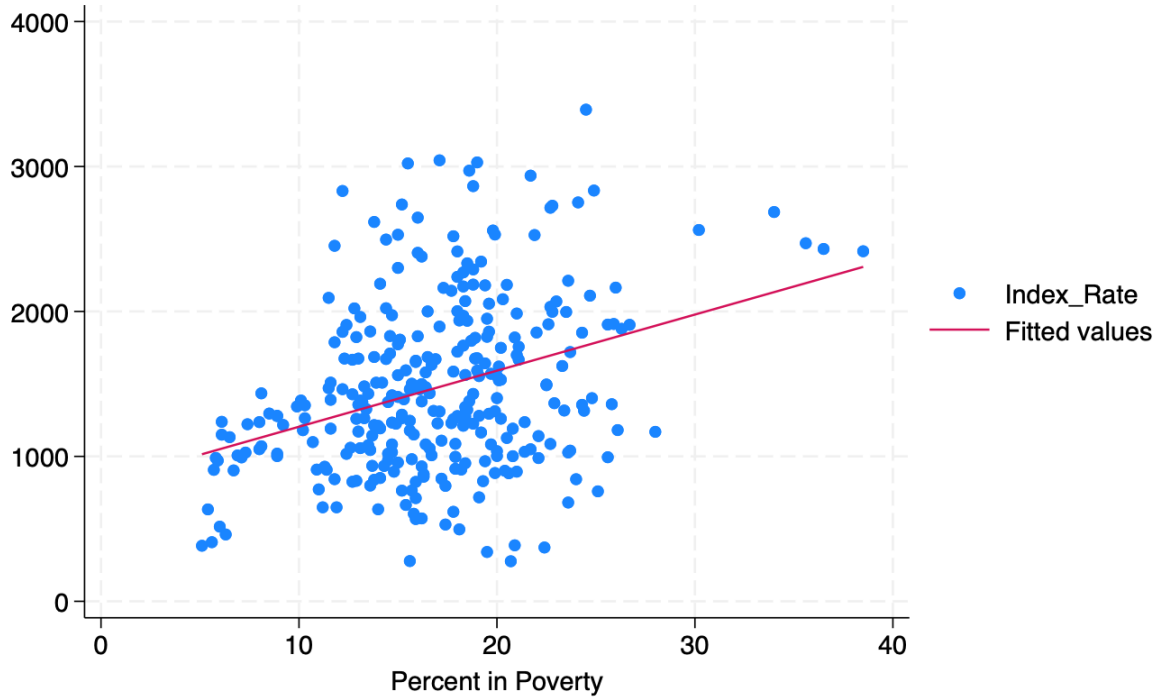


Figure 4: Index Crime Rate Predicted by Poverty Rate.

This shows a strong positive correlation between the percentage of index crimes (as a share of total crime) and the percentage of the county population living in poverty.

The bivariate regression analysis indicates that, on average, for every one-percentage-point increase in the poverty rate, the index crime rate increases by 38.704. This result is statistically significant, as demonstrated by the 95% confidence interval and a p-value of 0.000.

6 Multivariate

Table 4: Full Model Regression

	Index Crime Rate
percentinpoverty	34.064*** (11.212)
lessthanhighschool diploma	-6.146 (9.101)
withadisability	33.869 (34.312)
notinlaborforce	-59.176** (27.185)
withacomputer	-66.347** (28.775)
unemploymentrate	35.266 (61.477)
singlemotherhouseholds	-34.552* (17.182)
withcashpublicassistanceinco	69.010 (61.306)
__cons	9199.283*** (3110.031)
<i>N</i>	33
<i>R</i> ²	0.750
adj. <i>R</i> ²	0.667

The regression analysis indicates that the model explains 75.04% of the variance in the dependent variable. After including control variables in the model, the coefficient for the poverty rate variable decreased slightly but remained statistically significant. The coefficient reveals that every percentage-point increase in the poverty rate is associated with a 34.06372 increase in the crime rate, supported by a low p-value.

Computer access is also significant at the 95% confidence interval ($P = 0.048$) and has a negative coefficient of -58.19, suggesting that increased computer access in households is associated with reduced crime rates in the county. However, other predictors, such as the unemployment rate and the percentage of the population not in the labor force, are not statistically significant at conventional levels ($P > 0.05$). This lack of significance may be due to these variables' close relationship with poverty, potentially leading to multicollinearity or diminished individual effects.

6.1 Multicollinearity and Heteroskedasticity Checks

The results of the Breusch–Pagan/Cook–Weisberg test for heteroskedasticity indicate that the regression model is homoskedastic. The p-value of the test is approximately 0.2 ($\text{Prob} > \chi^2 = 0.1435$), which is sufficiently high to support the null hypothesis of homoskedasticity. This suggests that the residuals exhibit constant variance, as further evidenced by the plotted residuals.

The Variance Inflation Factor (VIF) analysis indicates that most predictors have VIF values below 5, suggesting no severe multicollinearity, with a mean VIF of 4.68. However, three variables—unemployment ($\text{VIF} = 7.60$), single mother households ($\text{VIF} = 6.80$), and cash public assistance income ($\text{VIF} = 7.87$)—exhibit moderate multicollinearity. While this level of multicollinearity is not extreme, it may slightly affect the stability and interpretability of the regression coefficients for these variables.

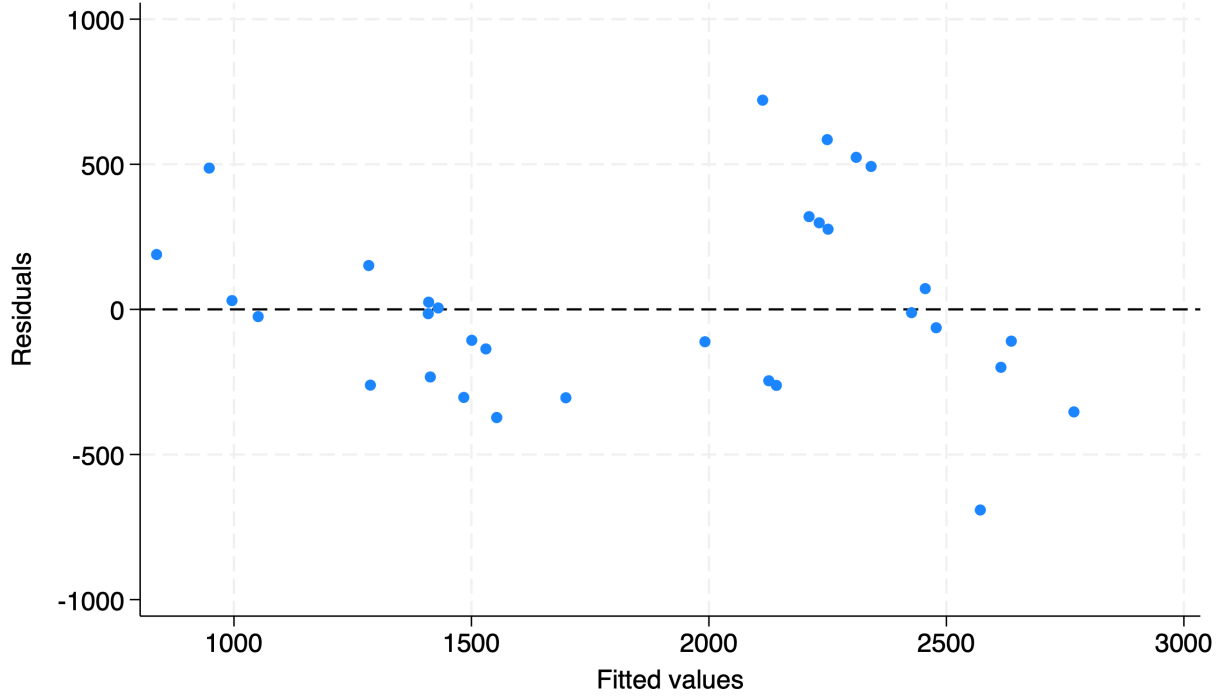


Figure 5: Plotted Residuals

7 Conclusion

This study reestablishes the strong, statistically significant relationship between poverty rates and crime rates, highlighting the broader social and economic consequences of economic insecurity. The findings reveal that higher poverty rates are associated with increases in index crime, while control variables such as unemployment and the prevalence of disability also play notable roles in explaining crime patterns, though their statistical significance varies depending on the specific crime type analyzed. The study demonstrates that poverty remains a key driver of crime, illustrating the importance of addressing economic inequality as a strategy for crime prevention.

7.1 Limitations

The scope of this study was limited due to the loss of observations for the multivariate analysis. Despite this, the regression analyses revealed a statistically significant positive correlation between poverty and crime. Despite these findings, the study's scope was limited by the availability of data, resulting in the loss of observations in the multivariate analysis. This limitation likely influenced the statistical significance of some control variables. For instance, the relationship between unem-

ployment and index crime was insignificant. However, a separate regression analysis demonstrated a statistically significant relationship between unemployment and violent crime, with a coefficient indicating that every one-percentage-point increase in the unemployment rate is associated with a 42.30309 increase in the violent crime rate.

Additionally, a separate bivariate regression found that a one-percentage-point increase in the prevalence of disability correlates with a 93.35525 increase in the index crime rate. The inconsistencies in the relationships between the coefficients of some control variables could likely be addressed through regression analyses with a larger number of observations, which would improve the reliability and robustness of the findings.

7.2 Future Research

This study could be significantly enhanced by incorporating a racial bias analysis of the criminal justice system through the inclusion of racial variables in the model. Doing so would provide valuable insights into how systemic racial disparities interact with poverty and crime rates. Furthermore, replicating this study in rural areas is essential, as much of the existing geospatial research on this topic is concentrated on metropolitan areas. Expanding the analysis to rural contexts would contribute to a more comprehensive understanding of the relationship between poverty, crime, and systemic bias across diverse geographic settings. By addressing these gaps, future research could provide a more nuanced understanding of the intersection between poverty, systemic inequality, and crime, offering actionable insights for policymakers aiming to break the cycle of poverty and criminalization.

8 References

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