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How are violent crime rates in U.S. cities affected by poverty?

Abstract

There has been a lot of talk from many individuals about wiping out violent crime, but many times efforts are forfeited to rationalization that crime can never be stopped. This paper evaluates the impact poverty has on violent crime rates in cities across the United States. Rational choice theory suggests that individuals committing crimes are rational actors because their choices to commit crimes have the highest marginal benefit to them. This paper uses the American Community Survey Census database through IPUMS to test the hypothesis that when poverty increases, violent crime rates will also increase. This hypothesis is explored through descriptive statistics and OLS regression analysis of poverty, age, race, employment status, and educational attainment variables. The results indicated that there is a significant correlation between poverty and violent crime rates. On top of that, this paper also finds that there is a significant correlation between percentage of population being Black and violent crime rates in cities.

Introduction

The United States has seen a problem with crime since colonization. Crime rates have varied over time, with a sharp rise after 1900, reaching a peak between the 1970s and early 1990s. Since then, crime has declined significantly, however it is still a prevalent problem today. In 2019, there were an estimated 1,203,808 violent crimes in the United States (FBI National Press Office, 2020). Violent crime consists of five criminal offenses: murder and non-negligent manslaughter, rape, robbery, aggravated assault, and gang violence. Reasons for committing a crime can include greed, anger, jealously, revenge, or pride. Some people decide to commit a crime and carefully plan everything in advance to increase gain and decrease risk. These people are making choices about their behavior; some even consider a life of crime better than a regular job. This is due to the fact that they have better expected net gain from committing a crime rather than working a job.

There are economic reasons why people in poverty commit crimes. Poverty refers to people who lack sufficient income or material possessions for their needs. Although the United States is a relatively wealthy country by international standards, poverty has consistently been present throughout the United States, along with efforts to alleviate it such as New Deal-era legislation during the Great Depression to the national War on Poverty in the 1960s to poverty alleviation efforts during the 2008 Great Recession.

The U.S. federal government uses two measures to measure poverty: The Poverty Threshold set by the U.S. Census Bureau, used for statistical purposes, and the poverty guidelines issued by the Department of Health and Human Services, which are used for administrative purposes. Poverty thresholds, which recognize poverty as a lack of income. According to the U.S. Census Bureau, the official poverty rate in 2019 was 10.5 percent and approximately 34.0 million people were in poverty, which are some of the lowest levels ever recorded due to the record-long economic growth period. (Semega et. al, 2020).

The purpose of this paper is to discuss whether poverty has a positive relationship with violent crime rates in the United States. This paper is a cross-section analysis of cities in 2018, which will compare poverty and violent crime rates. To determine the relationship between poverty and crime, data will be taken from top 30 cities of my choice and poverty rates will be compared to violent crime rates in these cities. If there is a positive relationship, then cities with higher poverty rates will thus have higher rates of violent crime.

Literature Review

Published works on crime and poverty topics have consistently been an ongoing issue and it would seem that the topic is becoming more important, or at least more relevant. For example, the Black Lives Matter movement going on right now is a prevalent issue today. This paper will draw upon Gary S. Becker's papers approach. His approach follows the economists' usual analysis of choice and assumes that a person commits an offense if the expected utility to him exceeds the utility he could get by using his time and other resources in other activities and/or jobs. Some people become criminals, not because their basic motivations differs from that of other people, but because their benefits and costs differ (Becker, 1974). This is a similar to the approach that I'll be using in my research paper. I plan on using the rational choice theory, also by Gary S. Becker, which states aggregate social behavior results from the behavior of individual actors, each of whom is making their individual decisions. The theory also focuses on the determinants of the individual choices. Rational choice theory then assumes that an individual has preferences among the available choice alternatives that allow them to state which option they prefer. The rational choice theory is an extension of the approach Gary S. Becker (1974) used in his analysis of the motivation of criminals.

The main contribution of Becker's paper is to demonstrate that optimal policies to combat illegal behavior are part of an optimal allocation of resources. Since economics has been developed to handle resource allocation, an economic framework becomes applicable to, and helps enrich, the analysis of illegal behavior. At the same time, certain unique aspects of the latter enrich economic analysis. Some punishments such as imprisonments, are necessarily nonmonetary and are a cost to society as well as to offenders; the degree of uncertainty is a decision variable that enters both the revenue and cost functions (Becker, 1974).

The main results found by Chiu (1998) was simply that an increase in relative inequality increase the level of crime and has allowed him to show how the level of crime may be higher under regressive taxation (a tax applied uniformly, taking a larger percentage of income from low-income earners than from high-income earners) and in richer neighborhoods (Chiu, 1998). This ties directly into my research paper because Chiu proves that as income goes up, crime will go down. My results, hopefully, will follow similarly with Chiu's findings because I plan on proving that when poverty increases, violent crime rates will also increase.

According to strain theory, which is different from the rational choice theory, an individual may be more likely to commit a violent crime when they feel economically or socially alienated from a majority group (Merton, 1938). There is empirical evidence in favor of the idea that economic inequality generates violent criminal activity. For example, in a study of urban U.S. counties, Kelly finds that for violent crime the impact of inequality is large, even after controlling for the effects of poverty, race, and family composition (Kelly, 2000). One of the most difficult tasks is linking **violent** crime with poverty because violent crimes include:

homicide, murder, assault, manslaughter, sexual assault, rape, robbery, negligence, endangerment, kidnapping, extortion and harassment. Violent crime is often preplanned, especially because of the potential disciplinary implications it has on the offenders. However, Merton was able to link violent crimes to people who felt economically or socially alienated from majority groups. This will help me show the correlation between economics and violent crime. Also, it will allow me to make a connection between poverty and violent crime because someone who is in poverty feels economically alienated from the majority of the population.

Jiangli Zhu (2017) does a great job in showing why this is a relevant and important problem today. Zhu assumed that there are only two individuals in the society, A and B respectively. In the initial condition, individual A and B obtain their incomes equally. It all depends on their fixed working time and the wage rate per hour. However, suppose the situation changes and individual B receives a higher wage rate for the same amount and difficulty of work. Obviously, it is unfair for individual A who works as long as B but gets less than B. For the decrease of the income, individual a cannot make ends meet any more. He suffers badly from the unequal income distribution, which brings him about a sense of deprivation. In order to make his present living standards as good as the initial state, individual a start to think about taking extra work after work. Since it is impossible for him to ask higher hourly wage under such unequal society order, he has to extend working hours for more earnings. So, in this situation, individual A works much longer than B, but still cannot guarantee his life is as good as B's life. Individual A can hardly find a formal job, not to mention extra work during economic depression. Such an unequal experience does intensify individual A 's sense of frustration, deprivation and injustice, which probably leads him to fight for his life by all means, even by committing crimes (Zhu, 2017). This shows a basic cost and benefit analysis and rational choice

theory. Individual a found that he would benefit more from committing a crime than working extra hours at his same low wage job, he was a rational actor. One can also see that frustration, deprivation and injustice of individual A has upon individual B because he is doing just as much work as individual B but his income just doesn't show it and his life suffers because of it.

Rather than looking directly at the affects poverty and income inequality have on violent crime rates, Fajnzylber (2002) looks at what causes violent crime rates. It is shown that an increase in the growth rate is associated with a significant fall in the robbery rate. The magnitude of the estimated coefficient using the system estimator implies that a 1 percentage-point increase in the GDP growth rate is associated with a short-run 13.7% decline in the robbery rate. This result supports the view that economic conditions related to the economic cycle, such as employment opportunities and salaries in legal activities, have a strong impact on the incidence of crime. The effect of inequality on robbery rates is also significant. The estimated coefficient implies that a one percentage point increase in the Gini is associated with a short-run increase of 2.6% in the robbery rate. When Fajnzylber combined the crime-inducing impact of higher inequality with that of lower GDP growth, he found that the *rate* of poverty alleviation is a significant determinant of crime rates. This is different from my research paper because I plan on analyzing how violent crime rates are affected by poverty, while Fajnzylber looked directly at what variables cause someone to commit violent crimes. Nonetheless, it is relevant because Fajnzylber found that poverty is a significant determinant of violent crime which helps prove my case that much more.

Theory

Following the existing literature, the design of this research would employ one distinct theory. The paper would use the Rational Choice Theory by Gary S. Becker. The rational choice theory is a framework for understanding and often formally modeling social and economic behavior. The basic premise of rational choice theory is that aggregate social behavior results from the behavior of individual actors, each of whom is making their individual decisions. The theory also focuses on the determinants of the individual choices (methodological individualism). Rational choice theory then assumes that an individual has preferences among the available choice alternatives that allow them to state which option they prefer.

With relation to crime, the rational choice theory then argues that individuals committing crimes are rational actors because their choices to commit crimes have the highest marginal benefit to them. This then argues that those who commit crimes expect the net benefits to be positive. Since risk is involved, the calculation of whether to commit the crime must include the risk of apprehension, etc. Clearly, criminals who are unlucky enough to be caught don't benefit from the crime even though they had a positive net expected benefit.

Research Hypothesis

With all of this in mind, the research question is as follows: How are violent crime rates in cities affected by poverty? Because criminals benefit from committing a crime, I hypothesize that when poverty increases, violent crime rates will also increase. This is justified through rational choice theory because if poverty is taken into effect, criminals will benefit more from committing a crime than working a low, unstable income job. Many people that fall under poverty is because they are working a minimum wage job or do not have a job at all. They can either continue working this job and remain in poverty, search for a new job which it is likely they will not find a job at all or they can commit a crime like robbery and make more money than they do in a whole year in one night. Those with low-income jobs have less to lose if caught committing a crime because their opportunity costs in terms of lost income is low. They are already on the bottom of the food chain, barely making it. If they successfully pull off the crime, like robbery, then they benefit greatly. If they do get caught in the act, they are sent to jail where food, water and shelter is provided for them. While on the other side, someone who falls above the poverty line is making a sufficient income for their basic needs. They have more to lose if they were to commit a violent crime like robbery. They have a job that provides them enough income to get by and committing a violent crime would cause them to lose that job. On top of that, they would not benefit from going to jail because jail provides nothing for them since they can obtain all of these necessities in their current state of living.

Empirical Methodology

Testing this hypothesis will be undertaken by using a basic Ordinary Least Squares (OLS) regression testing and descriptive statistics to determine the impact poverty has on violent crime. An OLS regression model creates a linear equation to estimate how much the dependent variable is affected by changes in the independent or control variables. The dependent variable being investigated in this section is crime. While the independent variable being investigated in this section is crime. While the independent variable being investigated in this section is crime. While the used for my dependent variable (Crime) in this study is City-Data, which is statistics about all US cities. These statistics include: real estate, relocation information, **crime**, housing prices, schools, races, income, photos, sex offenders, maps, education, weather, home value, etc. City-Data and its statistics are well maintained and

up to date. This study uses one main time period of 2019 as it is the most recent full year with most recent up to date information. The second data source that will be used in this study will be for my independent variable (Poverty) which is Statista. Statista is a huge data base that has statistics from over 22500 sources on over 60000 topics. Statista is said to be the internet's leading statistics database. I feel confident with the data provided by Statista as it is recent and correct. The data/statistic I plan on looking at is about poverty in the top 25 most populated cities. The control variables I plan on using would include: Age (AGE), Highschool dropout rate (HDR), Employment Status (EMP), and Race (RAC). I was able to get these statistics through the American Community Survey (ACS), which is a Census data base that I was able to access through IPUMS. Also, I decided to split up my control variables into smaller sub-groups. For my variable age, I focused on percent ages from 18-25 because I felt like this is the age someone is most likely to commit a crime. For my variable race, I decided to focus on percent White, Black, and other. For my high school dropout rate variable, I split it up into percent high school grads, college grad, some college and high school dropout. Finally, for my last variable, which is employment status. I split it up into percent employed, unemployed and not in labor force. Thus, my main regression equation is as follows.

Main Regression Equation:

$(Eq1) CRIME_i = \beta_0 + \beta_1 POV + \beta_2 AGE + \beta_3 HDR + \beta_4 EMP + \beta_5 RAC + \epsilon_i$

It should be important to note that this is more of an aspirational model. In the end, I was able to do a descriptive analysis with these variables. Unfortunately, small sample size issues caused the OLS estimation to be restricted to two independent variables (Poverty and Black).

Results

Before reporting on the OLS regression results, I will discuss descriptive statistics for high crime and low crime cities. The results below in Table 1 display the descriptive statistics results for high-crime cities and low-crime cities. From the data one can see that high-crime cities have higher property, violent and overall crime rates compared to low-crime cities. Property crime is a category of crime, usually involving private property which includes burglary, larceny, theft, motor vehicle theft, arson, shoplifting, and vandalism. Property crime is a crime to obtain money, property, or some other benefit. While violent crime includes murder, rape, sexual assault, robbery, and assault. In a violent crime, a victim is harmed by or threatened with violence. Lastly, crime rate is the total crime rate and includes both violent and property crime.

Looking at Table 1 below, one can see the first control variable is percent poor. From the data, it is shown that high-crime cities are on average 22.25% poor while compared to low-crime cities that are on average 20.13% poor. So, one can conclude that high-crime cities population is more poor than low-crime cities, which follows along with my hypothesis because poor causes anxiety and frustration in oneself which can cause some people to act out, thus creating a higher crime rate. Even though this data defends my hypothesis it was still surprising given the expectation that I expected that high-crime cities would have a much higher percent of the population that was poor compared to low-crime cities but this could be due to my small sample size.

The next control variable in Table 1 is race. I decided to divide up race into 3 sub-groups which include: White, Black and Other. One can see that high-crime cities have, on average, less white people compared to low-crime cities. This is the complete opposite for Black. Results

show that 30.43% of the population in high-crime cities is black while on average only 14.22% of the population is black in low-crime cities. When we take a look at Other Races one can see that there isn't much of a percent difference between high and low-crime cities.

While Hispanic is not a race, it has more to do with the language affinity (Spanish) of the country of origin of the respondent or the respondent parents or grandparents. Nonetheless, I decided to include this variable because it was very interesting to say the least. According to my data the percent of the population that is Hispanic in high-crime cities is significantly lower than compared to low-crime cities. According to Table 1, 11.19% of the population in high-crime cities is Hispanic.

The next variable I took into effect was employment status. To do so I divided up my variable into 3 sub-groups labeled percent employed, percent unemployed and percent not in the labor force (NILF). However, one can see that all three of these variables have similar averages in high and low-crime cities. The only variable that is slightly different is percent unemployed. High-crime cities tend to have a higher unemployment rate compared to low-crime cities which makes sense because someone is more motivated to commit a crime if they do not have a job to make a healthy, survivable income.

The next variable I explored was educational attainment. I divided this variable into 4 subgroups that include: Percent High School Dropout, Percent High School Graduate, Percent with Some College and Percent College Graduate. From the Table 1 shown below, one can see that the percent of population that drops out of high school is almost identical in high and low-crime cities at 18.5%. On top of that, the high school graduation rate is also similar in both high and low-crime cities, however high-crime cities have a little bit lower high school graduation rate. The percent of population that has some college is also very similar in both high and low-

crime cities with high-crime cities having a slightly lower percentage of population that has had some college experience. I was very surprised by the average percent college grad in high and low-crime cities because high-crime cities had a higher percent of population that graduated college compared to low-crime cities.

The last variable I looked into was age. I assumed that the younger the person is the more likely they are to commit a crime. I also assumed that ages 18-25 were more likely to commit a crime than any other age. However, my results show otherwise. The average age in high-crime cities is 40 while the average age in low-crime cities is actually lower at 39.6. Not much of a difference but this does show us that high-crime cities tend to have an older population compared to low-crime cities. Also, the percent of population in high-crime cities that are ages 18 to 25 is around 11.74%. This is surprisingly lower than low-crime cities that have a 12.79% of population that is 18 to 25.

Table 1: Descriptive Statistics for High and Low Crime Cities				
Variable name:	High-Crime Cities:	Low-Crime Cities:		
Crime Rates	600.8	284.1		
Property Crime Rates	402.6	204.8		
Violent Crime Rates	678.8	301.9		
Percent Poor	0.2225	0.2013		
Percent White	0.5257	0.6604		
Percent Black	0.3043	0.1422		
Percent Other	0.1699	0.1974		
Percent Hispanic	0.1119	0.2744		
Percent Employed	0.5012	0.4953		
Percent Unemployed	0.0331	0.0279		
Percent NILF	0.3125	0.3128		
Percent HS Dropout	0.1852	0.1866		
Percent HS Grad	0.2703	0.2898		
Percent Some College	0.2141	0.2371		
Percent College Grad	0.3304	0.2865		
Age	40.05	39.59		
Percent 18-25	0.1174	0.1279		
Sample Size	15	15		

The Tables below display the regression results for my 30 cities. Table 2 and 3 show the regression results where my independent variable entered is poor. In Table 2 my dependent variable is violent crime rates, while in Table 3 my dependent variable is crime rates. Table 4, 5 and 6 show the regression results where my independent variables entered are poor and black. In Table 4 my dependent variable is violent crime rates, while Table 5 my dependent variable is property crime rates, and finally Table 6 my dependent variable is crime rates.

A key part of regression analysis is testing the significance of the results, or the likelihood that the coefficient is significantly different from zero. The lower the significance level, the less likely the results are random. For example, if one were to say this result is significant at the 10 percent level, then there is less than a 10 percent likelihood that the coefficient is zero. P-value or significant value is stated on the far-right side of the following tables. The p-value should be lower than .05, so we can accept our research hypothesis that the coefficient is different from zero with a high level of confidence. The standard error is another measure of statistical significance. The standard error relative to the coefficient means the coefficient is more precisely estimated. The standard error is presented in the tables below in the middle column.

Table 2 displays the OLS regression results that explores percent poor to violent crime. In the results shown below one can see poor significance level is less than 5 percent at .025 or 2.5%, so the results are significant at the 5 percent level. Thus, there is less than a 5 percent chance that being poor and committing a violent crime being a random occurrence. Since the p-value or sig. value is less than .05, we can accept our research hypothesis that being poor or in poverty has a correlation with violent crime with a high level of confidence. Another important data point to look at in Table 2 is the coefficient. The coefficient for poor is .408 which means that being poor increases the crime rate by .408.

Table 2: Regression Results: Dependent Variable = Violent Crime Rates			
	Coefficient	Std. Error	Sig. Value
Constant		144.999	.265
Poor	.408	648.608	.025
R-Squared	.167		
Sample Size	30		
1			

Table 3 displays the OLS regression results that explores percent poor in cities to overall crime rates. One can see from the results shown below that the poor significant value is .101 or 10.1%, so the results are significant at the 10 percent level. I would have liked to see the significant level a little lower (around the 5 percent level) because since the significance value is greater than 5 percent it is hard to accept the hypothesis that poor causes higher crime rates. You can see some connection between the two but not enough to say for-sure. Also, the poor coefficient is .306 which shows that percent poor does not really affect crime rates by much.

Table 3: Regression Results: Dependent Variable = Crime Rates			
	Coefficient	Std. Error	Sig. Value
Constant		114.654	.033
Poor	.306	512.870	.101
R-Squared	.093		
Sample Size	30		

Table 4 displays the OLS regression results that explores percent poor and percent Black to violent crime rates. One can see that once we add the percent Black variable our poor significance value shoots up to .532. Why is that? This is likely due to the collinearity between race and poor; one variable affects the other. Thus, Blacks are more likely to be poor. The most interesting piece of information from Table 4 shown below is the Black significance level and coefficient. According to the regression results percent Black has a less than 1 percent significance level which means there is less than a 1 percent chance of being Black and committing a violent crime being a random occurrence. This means cities with a high percentage of blacks have higher crime rates. This then becomes a politicized topic of why this is. The right wingers would argue that Black people are more likely to commit a crime, while left wingers would argue that over-policing and Black people having the highest average levels of disadvantaged social conditions. The coefficient level of Black also defends this claim because the coefficient level is .829, which shows us that percent Black affects violent crime rates!

Table 4: Regression Results: Dependent Variable = Violent Crime Rates			
	Coefficient	Std. Error	Sig. Value
Constant		104.255	.018
Poor	098	580.056	.532
Black	.829	255.238	.000
R-Squared	.597		
Sample Size	30		

In Table 5 shown below, one can see the regression results that explores the effects of percent poor and percent Black on property crime rates. From the data shown, it is easy to notice that the coefficient to Black is statistically significant. Thus, there is a correlation between the percent of a city's population being Black and the city's property crime rate. With that being said, it should also be important to note that the coefficient level for Black is .449 which means that Blacks do somewhat affect property crime rates.

Table 5: Regression Results: Dependent Variable = Property Crime Rates				
Table 5. Regression Results. Dependent variable – Hoperty ennie Rates				
	Coefficient	Std. Error	Sig. Value	
Constant		74.491	.001	
Poor	167	414.453	.465	
Black	.449	182.369	.057	
R-Squared		.138		
Sample Size		30		

Lastly, Table 6 displays the regression results that explores into percent poor and percent Black to overall crime rates. One can see that the coefficient to the variable "Black" is statistically significant. Thee coefficient level defends this claim because the Black coefficient level is .752 which shows us that there is an underlying affect between percent Black and city's crime rates.

Table 6: Regression Results: Dependent Variable = Crime Rates			
	Coefficient	Std. Error	Sig. Value
Constant		92.509	.002
Poor	154	514.706	.402
Black	.752	226.483	.000
R-Squared	.448		
Sample Size	30		

Policy Implications

Overall, the results show that poverty drives violent crime. Thus, one policy implication is that a city could simultaneously fight violent crime and poverty by funding welfare or poverty reducing projects or initiatives. What are some welfare or poverty reducing projects? One example could be sustained economic growth projects. The argument is that promoting economic growth increases total income in society, creating more jobs and income which could be redistributed. Economic growth has been a major factor in reducing the levels of poverty which were seen in pre-war Britain and the US. However, it is not necessarily the case that income and wealth will trickle down to the poorest. There is a concern that economic growth could widen relative poverty because it benefits the highly skilled and wealthy classes more than those at the bottom.

Another poverty reducing project could be to reduce unemployment. Unemployment is a major cause of poverty because the unemployed have little income, relying on state benefits. Unemployment can be reduced through both supply-side policies, such as free training schemes for those who are structurally unemployed. Policies to overcome geographical poverty could

include government subsidies for firms to set up in depressed areas. Also building better infrastructure (transport and communication) in depressed areas can provide an economic stimulus to create new jobs.

Another poverty reducing project could include progressive taxes. Increasing progressive taxes such as the higher rate of income tax from 40% to 50%, will take more income from those on high-income levels. This enables cuts in regressive taxes (e.g. VAT/Sales tax) and increased welfare benefits which help increase the income of the poor. This can be an effective way to reduce relative poverty. However, critics argue higher income taxes create a disincentive to work., leading to less output. This is because higher tax makes work less attractive and reduces the opportunity cost of leisure. Therefore, people work less and enjoy more leisure. This is known as the substitution effect.

Another poverty reducing project could be to increase benefits to the poor. Means-tested benefits involve increasing welfare benefits to those on low incomes. For example, universal tax credit, food stamps or child benefit. This would allow money to be targeted to those who need it most (e.g. family tax credit or pension credit) and it is cheaper than universal benefits and reduces the burden on the taxpayer. However, the problem with using benefits to reduce poverty is that Means-tested benefits are often unpopular because people are stigmatized as being poor. Also, it may create a disincentive to earn a higher wage because if you do get a higher paid job you will lose at least some of your benefits and pay more tax. This is known as "the benefits trap" or the "poverty trap". The poverty trap occurs where people on low incomes are discouraged from working extra hours or getting a higher paid job because any extra income they earn will be taken away in lost benefits and higher taxes.

Lastly, another policy implication would include to increase jobs to fight violent crime. For example, if we were to increase police officers in the United States, we would be reducing the amount of violent crime because we would have more officers out protecting our streets, stores, houses, friends, neighbors and etc. This protection would disincentivize people from committing a violent crime because they are more likely to be caught. Thus, we can create more jobs which would lower overall poverty rate and increase protection for violent crimes.

Conclusion

In conclusion, the tested research question is: How are violent crime rates in cities affected by poverty? Due to the use of rational choice theory by Gary S. Becker, this allows me to assume that individuals committing crimes are rational actors because their choices to commit crimes have the highest marginal benefit to them. This then argues that those who commit crimes expect the net benefits to be positive. Since, criminals expect to benefit from committing a crime, I hypothesize that when poverty increases, violent crime rates will also increase. My findings throughout this paper support this claim that there is a direct correlation between poverty and violent crime rates. However, that is not the only significant finding I found. On top of that, we see that as percent of the population that is Black increases, crime rates in cities increase as well.

Since poverty is directly linked to violent crime rates that means we can stop violent crime through poverty reducing projects or initiatives. I found that sustained economic growth projects, reducing unemployment, progressive taxes, increasing benefits to the poor, and increasing jobs to fight violent crime are all valid ways at reducing poverty and fighting violent crime. There are many possible extensions to this research paper. For one, it would be interesting to see if the cost of incarcerating individuals is less than the cost of social welfare systems designed to keep lower income individuals from expecting net benefits from committing a crime. According to Gary S. Becker, some punishments such as imprisonments, are necessarily nonmonetary and are a cost to society as well as to offenders; the degree of uncertainty is a decision variable that enters both the revenue and cost functions (Becker, 1974). From this, one can assume that Becker interprets that prisons are a cost to society as well as to offenders? I feel like criminals can benefit from imprisonment rather than a cost. This is because someone who is in poverty and can barely provide sufficient funds to survive will benefit more from the food, water, shelter and possibly educational systems that they receive in jail rather than someone who is not in poverty.

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