The Crime Drop in Florida:
An Examination of the Trends and Possible Causes

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ABSTRACT

Research Purposes: The purposes of this research include: 1) present trends in total, violent, property, and specific crimes in Florida from 1980 to 2010; 2) examine possible conditions that may be influencing the significant and nearly persistent drop in crime over the past 20 years and how they are related to the decline in crime; 3) determine the primary correlates of the crime drop when considering multiple factors simultaneously.

Research Design and Methodology: Crimes reported to the police annually through the Annual Uniform Crime Reporting program (UCR) as well as a host of possible explanatory demographic, economic, law enforcement, and punishment measures from 1980 to 2010 are examined. Descriptive trend analysis of each measure individually is conducted and relationships between crime levels and possible explanatory factors are assessed to identify possible correlates of the crime drop. Additionally, time series Arima (AR1) and Prais-Winsten multivariate statistical models were estimated to determine the most important predictors of changes in the level of crime in Florida.

Research Results and Conclusions: In terms of overall crime, the first three years of the 1980s began with annual declines, followed by increases during virtually every year of the remainder of the decade. Crime rates then peaked in 1991 and have then declined every year with the exception of minimal increases in 2007 and 2008. In fact, the total crime rate in Florida declined by 52.1% over the past 20 years across the state. While the trends in violent, property, and each of the seven index crimes - murder, forcible sex crimes, robbery, aggravated assaults, burglary, larceny, and auto theft - vary somewhat, the fact is that as of 2010, each of the crime types have declined to their lowest levels in almost 20 years in Florida.

The answer to why crime has dropped significantly over a long period of time can be examined from the perspective of what factors may have impacted the decline as well as those that are not empirically related to the reduction in crime. Our analysis indicates that changes in the demographic makeup of the state, i.e., declines in populations at high risk of crime, do not explain the crime drop. Also, levels of law enforcement resources and efficiency, unemployment rates and poverty rates have not driven changes in crime rates over time. However, consistent with many other prior studies of the causes of changing crime rates over time, we conclude that the increasing prison populations in Florida have had a significant negative (deterrent) effect on several crime rate outcomes including the total index crime rate, total property crime, larceny, and most strongly on the crime of murder.

Recommendations: Two primary recommendations are made based on the research conducted here. First, additional areas of investigation should be pursued in the study of why Florida has experienced the crime drop. These include; 1) alternative conceptualizations of the variables used in this study such as alternative measures of police effectiveness and labor market participation; 2) consideration of factors not examined in this study such as changes in drug markets, changes in youth culture, shifts in immigration patterns, and changes in sentencing laws; 3) analyses which focuses on changes in Florida's crime rates across different counties and cities based on the possibility that some locations may be driving the overall crime drop.

The second primary recommendation emerges from the fact that the Florida crime drop over the past 20 years can certainly change in future years to one of increasing levels of crime. Policy makers, practitioners, and scholars need to be poised to closely examine the crime data and attempt to determine what has transpired to result in the reversal of the drop in crime. One avenue to ensure this happens is for state leaders to establish a working group or committee of individuals responsible for an annual assessment of the crime trends soon after the annual Uniform Crime Reporting data is published each year. This body of experts from disciplines such as criminology, education, economics, demography, law enforcement, the judiciary, etc. would assess the crime data and make a determination of why any annual increases occurred to ensure that policy makers will be in a position to respond accordingly.

I. Introduction

The purpose of this report is twofold. First, to examine the trends in crime in Florida over the past 30 years. Second, to explore possible explanations for why crime has decreased precipitously over the past twenty years. We begin with the presentation of detailed trend data and figures which demonstrate annual and decade changes from 1980 to 2010 in the number and rate per 100,000 residents in crime reported to the police through the Uniform Crime Reporting (UCR) program. This analysis includes overall crime, violent and property crimes, and each of the seven UCR index crimes; murder, forcible sex crimes, robbery, aggravated assault, burglary, larceny, and auto theft. The essential story told from this analysis is that Florida is a significantly safer place to live than it was 20 years ago in terms of the level of overall crime and every type of violent and property crime. This report tells the story of the changes in crime in stark detail to provide this information in a manner that can be easily understood and used by policy makers, the media, and citizens to better inform them of the changing nature of crime in Florida.

The ultimate goal of understanding the reasons for the crime drop in Florida over the past 20 years is, if we can identify what have been the driving forces behind the drastic improvement in public safety, it can inform policy makers what they should do to ensure the gains in making citizens safer from crime are not continued and to therefore further reduce crime in the future. Unfortunately, unraveling the causes of increases or decreases in the level of crime is far from an exact science. We can apply various research and analytic methodologies to attempt to answer the question of what has caused the drop in crime in Florida over the past two decades, however, the capacity to unequivocally state the precise reasons for the crime drop does not exist at this time.

II. Trends in Crime in Florida: 1980 - 2010

This section summarizes trends in crime in Florida from 1980 to 2010 based on the number and rate per 100,000 residents of crime reported to the police through the Uniform Crime Reporting (UCR) program managed by the Florida Department of Law Enforcement (FDLE). Specifically, we focus on the seven index crimes reported to law enforcement; murder, forcible sex crimes, robbery, aggravated assault, burglary, larceny, and motor vehicle theft. The number of reported crimes each year and the rate per 100,000 residents are examined to control for the growth in the resident population of Florida over time are presented in the tables and figures below. The total number and rate of the seven index crimes combined, totals for violent crimes (murder, forcible sex crimes, robbery, and aggravated assault) and totals for property crimes (burglary, larceny, and motor vehicle theft) are examined. The annual figures are presented along with annual changes from 1980 to 2010 and the numerical and percentage changes are summarized across the decades of the 1980's, 1990's, and the first decade of the 2000's. The total crime rate from 1980 to 1991 fluctuated with initial decreases in crime followed by significant increases, however, 1991 can be characterized as the peak in crime in Florida over this three decade period. Except

for minimal increases in 2007 and 2008 followed by significant decreases in 2009 and 2010, crime has been on a precipitous decline as it decreased from 1991 to 2010. Therefore, we also present changes in crime across this two decade period.

II.A Part I Index Crimes

Table II.1 and Figure II.1 present the number and rates of the total index crimes from 1980 to 2010. The number and rate of overall crime decreased from 1980 to 1983, increased slightly in 1984, and then increased each year through 1989. A modest decrease occurred in 1990 (rate -2.5%) and was followed by decreases in crime each year through 2006, ranging in magnitude from -.04% in 2001 to -10.8% in 1999. During the period from 1991 to 2010 of a precipitous decline in crime in Florida, the average annual drop in crime was 4.0%. This was followed by modest increases in the crime rate in 2007 (+1.4%) and 2008 (+0.1%) and then significant decreases in 2009 (-6.4%) and 2010 (-6.7%).

Table II.1: Total Part I Index Crimes in Florida: 1980 - 2010

Year	Part I Index Crimes	Part I Crime Rate Per 100,000 Residents	Annual Change in Part I Crime Rate	Annual Percent Change in Part I Crime Rate
1980	803,509	8,387.8	----	----
1981	816,439	8,085.4	-302.4	-3.6%
1982	777,516	7,493.9	-591.5	-7.3%
1983	724,247	6,837.9	-656.0	-8.8%
1984	749,231	6,854.6	16.7	0.2%
1985	860,957	7,633.6	779.0	11.4%
1986	960,374	8,238.0	604.4	7.9%
1987	1,021,283	8,479.9	241.9	2.9%
1988	1,070,899	8,622.1	142.2	1.7%
1989	1,120,515	8,755.9	133.8	1.6%
1990	1,122,935	8,539.4	-216.5	-2.5%
1991	1,129,704	8,561.0	21.6	0.3%
1992	1,112,746	8,289.0	-272.0	-3.2%
1993	1,116,567	8,204.8	-84.2	-1.0%
1994	1,130,875	8,148.2	-56.6	-0.7%
1995	1,078,619	7,623.1	-525.1	-6.4%
1996	1,079,623	7,491.4	-131.7	-1.7%
1997	1,073,757	7,298.1	-193.3	-2.6%
1998	1,025,100	6,833.8	-464.3	-6.4%
1999	934,349	6,098.1	-735.7	-10.8%
2000	895,708	5,604.3	-493.8	-8.1%
2001	911,292	5,579.9	-24.4	-0.4%
2002	900,155	5,398.4	-181.5	-3.3%
2003	881,615	5,164.2	-234.2	-4.3%
2004	850,490	4,855.3	-308.9	-6.0%
2005	838,063	4,677.2	-178.1	-3.7%
2006	849,926	4,632.0	-45.2	-1.0%
2007	876,981	4,694.7	62.7	1.4%
2008	883,905	4,699.8	5.1	0.1%
2009	824,559	4,397.5	-302.3	-6.4%
2010	770,518	4,104.7	-292.8	-6.7%

Figure II.1: Total Crime Rate per 100,000 Florida Residents: 1980 - 2010
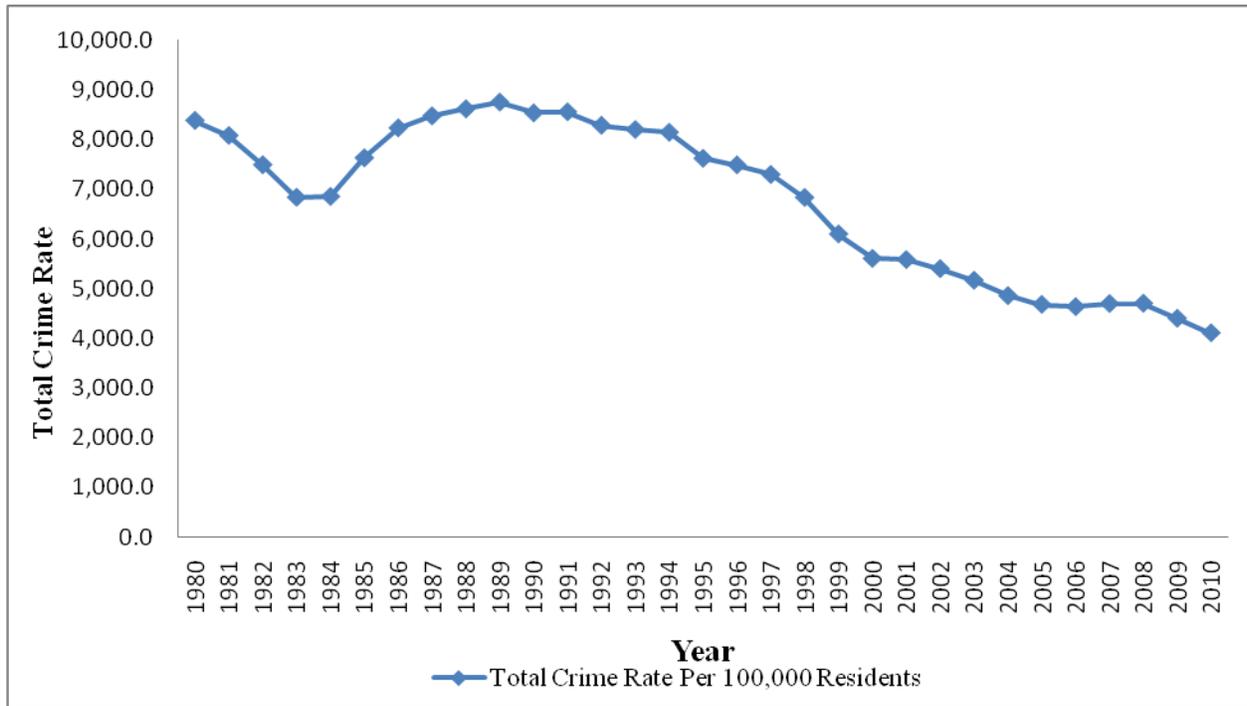
Table II.2 presents summary figures of changes in the total number and rate of index crimes over the past three decades and from 1991 to 2010. The number of crimes decreased by -319,426 from 1980 to 1990 and the crime rate increased by a modest 151.6 (1.8%). This trend was followed by significant reductions in both the overall number of crimes in the 1990's of -233,996 (-20.7%) and the crime rate of -2,956.7 (-34.5%). Crime continued to decline during the first decade of the 20th century. The number of crimes decreased by -125,190 (-15.4%) and the crime rate declined by -2,441.3 (-26.4%). During the past two decades, the number of crimes decreased by -359,186 (-31.8%) and the crime rate declined by -4,456.3 (-52.1%). In summary, it is clear that Florida residents are significantly safer and less at risk of being victimized by crime today than they were two decades ago.

Table II.2: Summary of Changes in Total Part I Index Crimes in Florida: 1980 - 2010

Numerical Change:	Number of Part I Index Crimes	Part I Crime Rate Per 100,000 Residents
1980 - 1990	319,426	151.6
1991 − 2000	−233,996	−2,956.7
2001 - 2010	-140,774	-1,475.2
1991 - 2010	-359,186	-4,456.3
Percent Change:		
1980 - 1990	39.8%	1.8%
1991 - 2000	-20.7%	-34.5%
2001 - 2010	-15.4%	-26.4%
1991 - 2010	-31.8%	-52.1%

II.B Murders

Table II.3 and Figure II.2 present the number and rates of the reported murders in Florida from 1980 to 2010. Over this 30 year period, the highest murder rates occurred in 1981 (15.1) and 1980 (14.5), while the worst year in terms of the number of murders was in 1981 (1,523). With some exceptions in which the annual changes in murders were slight increases ranging from 1.8% from 1983 to 1984 or no change from 1999 to 2000, 2002 to 2003, and 2003 to 2004, the murder rate declined precipitously from 15.1 in 1981 to 4.9 in 2005 and the number of murders were reduced by almost one-half from 1,523 to 881. This was followed by increases in the number and rates of murder from 2005 to 2006 in which the number increased from 881 to 1,129 and the rates from 4.9 to 6.1, or by 26.5%. Murders continued to increase in 2007 to 1,202 with a rate of 6.4 and then, with the exception of 2005 (4.9), declined each year through 2010 to the lowest rate since 1980 (5.3).

Table II.3: Murders in Florida: 1980 - 2010

Year	Number of Murders	Murder Rate Per 100,000 Residents	Annual Change in Murder Rate	Annual Percent Change in Murder Rate
1980	1,387	14.5	----	----
1981	1,523	15.1	0.6	4.1%
1982	1,410	13.6	-1.5	-9.9%
1983	1,203	11.4	-2.2	-16.2%
1984	1,264	11.6	0.2	1.8%
1985	1,297	11.5	-0.1	-0.9%
1986	1,371	11.8	0.3	2.6%
1987	1,368	11.4	-0.4	-3.4%
1988	1,387	11.2	-0.2	-1.8%
1989	1,405	11.0	-0.2	-1.8%
1990	1,387	10.5	-0.5	-4.5%
1991	1,276	9.7	-0.8	-7.6%
1992	1,191	8.9	-0.8	-8.2%
1993	1,187	8.7	-0.2	-2.2%
1994	1,152	8.3	-0.4	-4.6%
1995	1,030	7.3	-1.0	-12.0%
1996	1,077	7.5	0.2	2.7%
1997	1,014	6.9	-0.6	-8.0%
1998	966	6.4	-0.5	-7.2%
1999	856	5.6	-0.8	-12.5%
2000	890	5.6	0.0	0.0%
2001	867	5.3	-0.3	-5.4%
2002	906	5.4	0.1	1.9%
2003	924	5.4	0.0	0.0%
2004	946	5.4	0.0	0.0%
2005	881	4.9	-0.5	-9.3%
2006	1,129	6.2	1.3	26.5%
2007	1,202	6.4	0.2	3.2%
2008	1,168	6.2	-0.2	-3.1%
2009	1,017	5.4	-0.8	-12.9%
2010	987	5.3	-0.1	-1.9%

Figure II.2: Murder Rate per 100,000 Florida Residents: 1980 - 2010
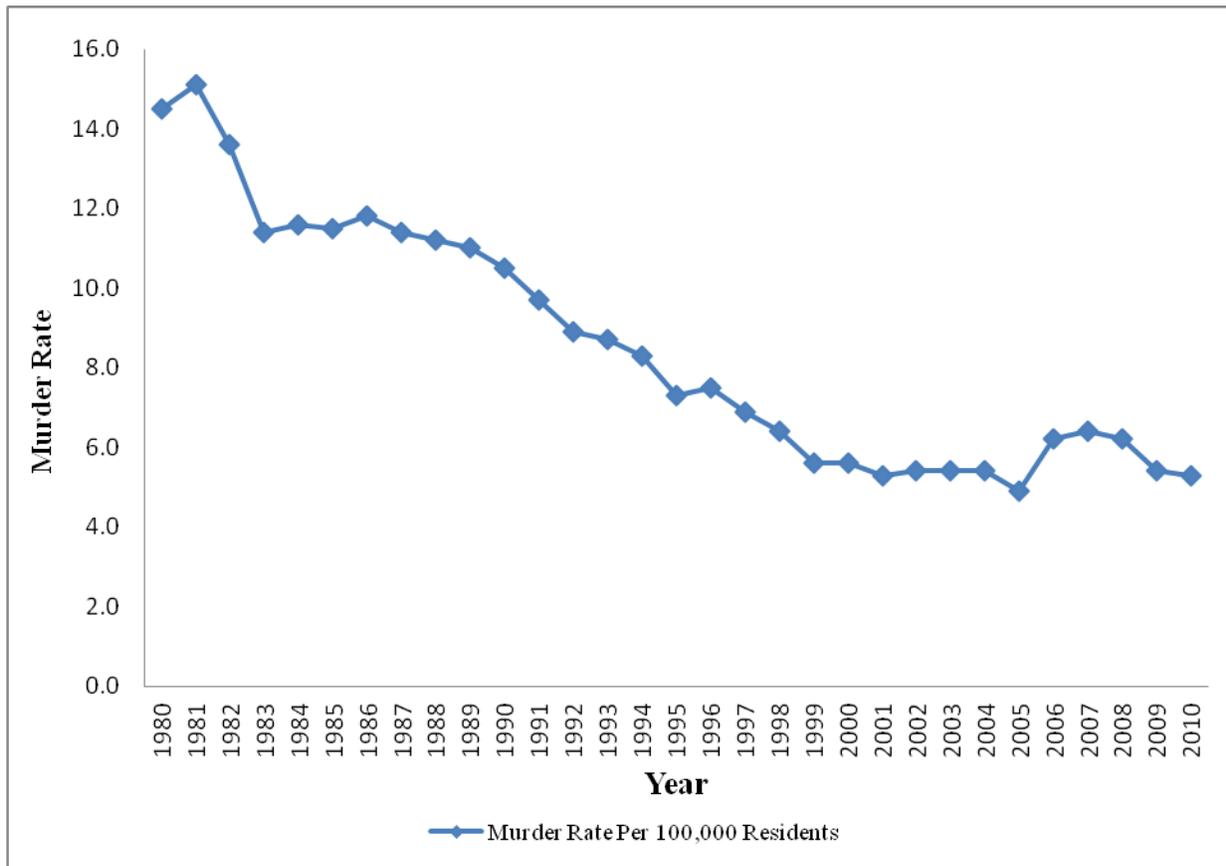
Table II.4 presents the summary murder rates by the decade periods and demonstrates a significant decrease in the 1980's (-27.6%), which was followed by even more dramatic declines in the 1990's (-42.3%). During the 2000's, however, the number of murders increased by 13.9%, while the murder rate remained the same. In summary, the prevalence of murders in Florida has abated significantly over the past 30 years, however, the upturn in this arguably most serious crime in the latter part of the 2000's indicates that a possible long-term increase is a possibility for the future.

Table II.4: Summary of Murders in Florida: 1980 - 2010

Numerical Change:	Number of Murders	Murder Rate Per 100,000 Residents
1980 - 1990	0	-4.0
1991 - 2000	-386	-4.1
2001 - 2010	120	0.0
1991 - 2010	-289	-4.4
Percent Change:		
1980 - 1990	0.0%	-27.6%
1991 - 2000	-30.3%	-42.3%
2001 - 2010	13.8%	0.0%
1991 - 2010	-22.6%	-45.4%

II.C Forcible Sex Crimes

Table II.5 and Figure II.3 present the number and rates of forcible sex crimes reported to the police in Florida from 1980 to 2010. During the first seven years of the 1980's, the rate of forcible sex crimes was on a downward trajectory, decreasing from 56.7 in 1980 to 50.0 in 1987. This trend was reversed over the next six years to 1993 with a doubling of the rate of forcible sex crimes to 101.1 in 1993 and the highest number (13,752) during any year over the three decades examined. However, from 1993 to 2010, the rate of forcible sex crimes reversed course and has declined each year except for a modest increase in 1996 (+3.7%) and minor increases in 1997 (+0.1%) and 2001 (+0.8%). From 2001 to 2010, the rate of forcible sex crimes has declined each year between -1.7% in 2002 and -7.8% in 2007, or an average annual decline of -4.3%. In fact, the rate of forcible sex crimes in 2010 (52.7) is the lowest it has been in 30 years except for the in 1984 (51.0) and 1987 (50.0).

Table II.5: Forcible Sex Crimes in Florida: 1980 - 2010

Year	Forcible Sex Crimes	Forcible Sex Crimes Rate Per 100,000 Residents	Annual Change in Forcible Sex Crimes Rate	Annual Percent Change in Forcible Sex Crimes Rate
1980	5,436	56.7	----	----
1981	5,707	56.5	-0.2	-0.4%
1982	5,585	53.8	-2.7	-4.8%
1983	5,170	48.8	-5.0	-9.3%
1984	5,576	51.0	2.2	4.5%
1985	6,004	53.2	2.2	4.3%
1986	6,153	52.8	-0.4	-0.8%
1987	6,017	50.0	-2.8	-5.3%
1988	8,607	69.3	19.3	38.6%
1989	11,197	87.5	18.2	26.3%
1990	12,110	92.1	4.6	5.3%
1991	12,390	93.9	1.8	2.0%
1992	13,429	100.0	6.1	6.5%
1993	13,752	101.1	1.1	1.1%
1994	13,413	96.6	-4.5	-4.5%
1995	12,259	86.6	-10.0	-10.4%
1996	12,942	89.8	3.2	3.7%
1997	13,224	89.9	0.1	0.1%
1998	12,702	84.7	-5.2	-5.8%
1999	12,583	82.1	-2.6	-3.1%
2000	12,388	77.5	-4.6	-5.6%
2001	12,756	78.1	0.6	0.8%
2002	12,810	76.8	-1.3	-1.7%
2003	12,756	74.7	-2.1	-2.7%
2004	12,427	70.9	-3.8	-5.1%
2005	12,230	68.3	-2.6	-3.7%
2006	11,567	63.0	-5.3	-7.8%
2007	11,214	60.0	-3.0	-4.8%
2008	10,823	57.5	-2.5	-4.2%
2009	10,227	54.5	-3.0	-5.2%
2010	9,885	52.7	-1.8	-3.3%

Figure II.3: Forcible Sex Crime Rate per 100,000 Florida Residents: 1980 - 2010
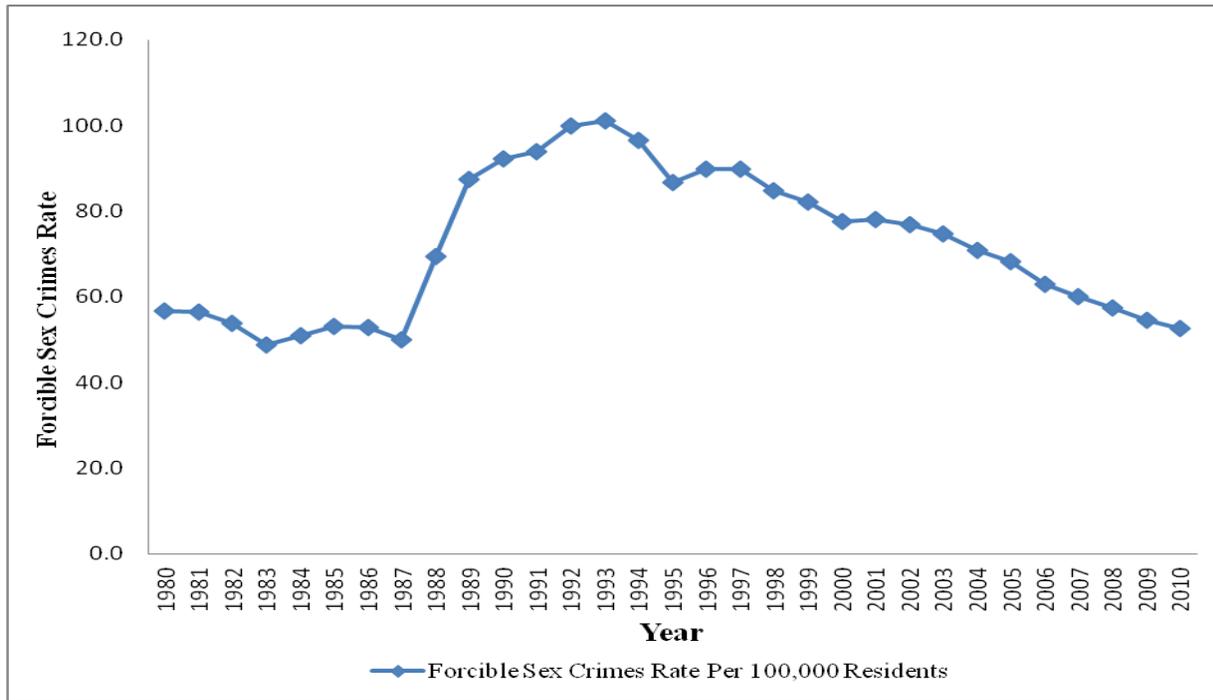
Examining changes in the level of forcible sex crimes in Florida over the three decade periods and from 1991 to 2010 presented in Table II.6, we see significant increases in the rate in 1980's (+62.4%) was followed by a decrease in the 1990's (-17.5%) and a more dramatic decline during the decade ending in 2010 (-32.5%). Since overall crime in Florida peaked in 1991, the rate of forcible sex crimes has decreased by 43.9% and the number (9,885) is less than it has been since 1988.

Table II.6: Summary of Forcible Sex Crimes in Florida: 1980 - 2010

Numerical Change:	Number of Forcible Sex Crimes	Forcible Sex Crimes Rate Per 100,000 Residents
1980 - 1990	6,674	35.4
1991 - 2000	-2	-16.4
2001 - 2010	-2,871	-25.4
1991 - 2010	-2,505	-41.2
Percent Change:		
1980 - 1990	122.8%	62.4%
1991 - 2000	0.0%	-17.5%
2001 - 2010	-22.5%	-32.5%
1991 - 2010	-20.2%	-43.9%

II.D Robbery

Table II.7 and Figure II.4 present the number and rates of robberies reported to the police over the past 30 years. Unlike the trends in murder and forcible sex crimes presented previously, the levels of robberies frequently fluctuated relatively dramatically from year-to-year, ranging from an annual increase from 1985 to 1986 of +16.7% to -15.7% from 2009 to 2010. After fluctuating up and down in the 1980's, the rate of robberies peaked over the past 30 years at 410.8 per 100,000 residents in 1990. Since then, 17 of the 20 annual changes in the rate of robberies were on the decline and the rate in 2010 of 138.9 was the lowest level since 1980 (355.1) and was one-half the rate Florida experienced in 1997 (276.6). However, there were two years recently when the rate of robberies increased significantly, specifically by +10.8% in 2006 and +9.7% in 2007, which was then followed by declines of -5.6% in 2008, -14.5% in 2009, and -15.7% in 2010.

Table II.7: Robbery in Florida: 1980 - 2010

Year	Robberies	Robbery Rate Per 100,000 Residents	Annual Change in Robbery Rate	Annual Percent Change in Robbery Rate
1980	34,014	355.1	----	----
1981	35,470	351.3	-3.8	-1.1%
1982	31,001	298.8	-52.5	-14.9%
1983	28,127	265.6	-33.2	-11.1%
1984	30,320	277.4	11.8	4.4%
1985	35,508	314.8	37.4	13.5%
1986	42,817	367.3	52.5	16.7%
1987	42,830	355.6	-11.7	-3.2%
1988	47,009	378.5	22.9	6.4%
1989	51,188	400.0	21.5	5.7%
1990	54,015	410.8	10.8	2.7%
1991	53,076	402.2	-8.6	-2.1%
1992	48,957	364.7	-37.5	-9.3%
1993	47,742	350.8	-13.9	-3.8%
1994	45,263	326.1	-24.7	-7.0%
1995	42,142	297.8	-28.3	-8.7%
1996	41,643	289.0	-8.8	-3.0%
1997	40,703	276.6	-12.4	-4.3%
1998	36,130	240.9	-35.7	-12.9%
1999	31,996	208.8	-32.1	-13.3%
2000	31,392	196.4	-12.4	-5.9%
2001	32,808	200.9	4.5	2.3%
2002	32,413	194.4	-6.5	-3.2%
2003	31,512	184.6	-9.8	-5.0%
2004	29,984	171.2	-13.4	-7.3%
2005	30,092	167.9	-3.3	-1.9%
2006	34,123	186.0	18.1	10.8%
2007	38,112	204.0	18.0	9.7%
2008	36,232	192.6	-11.4	-5.6%
2009	30,881	164.7	-27.9	-14.5%
2010	26,074	138.9	-25.8	-15.7%

Figure II.4: Robbery Rate per 100,000 Florida Residents: 1980 - 2010
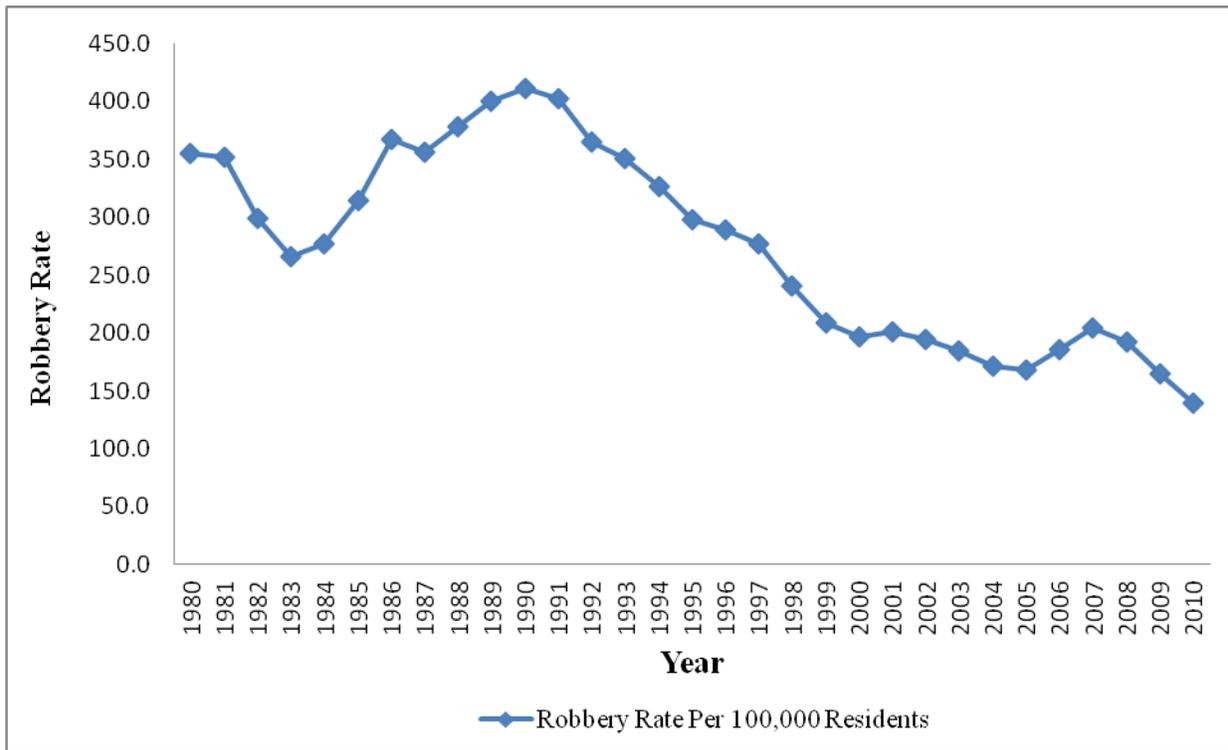
Table II.8 presents a summary of the changes in robbery rates across the decade periods and demonstrates that while the 1980's was a period of increasing levels (+15.7%), the 1990's and the first decade of the 2000's experienced steep declines (-51.2% and -30.9% respectively). Additionally, from 1991 to 2010, not only did the robbery rate decrease substantially (-65.5%), the number of these serious crimes plummeted by 50.9%. Stated differently, there were one-half as many robbery crimes in Florida in 2010 than in 1991 (26,074 versus 53,076).

Table II.8: Summary of Robbery in Florida: 1980 - 2010

Numerical Change:	Number of Robberies	Robbery Rate Per 100,000 Residents
1980 - 1990	20,001	55.7
1991 - 2000	-21,684	-205.8
2001 - 2010	-6,734	-62.0
1991 - 2010	-27,002	-263.3
Percent Change:		
1980 - 1990	58.8%	15.7%
1991 - 2000	-40.9%	-51.2%
2001 - 2010	-20.5%	-30.9%
1991 - 2010	-50.9%	-65.5%

II.E Aggravated Assault

Table II.9 and Figure II.5 present the number and rates of aggravated assaults over the past three decades. The peak year for these violent crimes was in 1993 when 99,108 were reported and the rate per 100,000 Floridians was 728.3. Prior to this year, the aggravated assault rate fluctuated somewhat, however, 8 of the 13 year-to-year changes indicate increases. Since 1993, 16 of the 17 annual changes were downward, ranging from -0.9% in 1996 to -9.1% in 1999 and averaged a -4.5% decline per year. The number of these violent crimes in 2010 was 34,148 lower than the peak in 1993 of 99,108 and the rate, to account for growth in the resident population, was reduced by one-half.

Tables II.9: Aggravated Assault in Florida: 1980 - 2010

Year	Aggravated Assaults	Aggravated Assault Rate Per 100,000 Residents	Annual Change in Aggravated Assault Rate	Annual Percent Change in Aggravated Assault Rate
1980	53,251	555.9	----	----
1981	55,390	548.5	-7.4	-1.3%
1982	55,409	534.0	-14.5	-2.6%
1983	53,798	507.9	-26.1	-4.9%
1984	58,208	532.5	24.6	4.8%
1985	64,171	569.0	36.5	6.9%
1986	70,636	605.9	36.9	6.5%
1987	72,815	604.6	-1.3	-0.2%
1988	77,249	621.9	17.3	2.9%
1989	81,683	638.3	16.4	2.6%
1990	93,042	707.5	69.2	10.8%
1991	91,439	692.9	-14.6	-2.1%
1992	97,560	726.7	33.8	4.9%
1993	99,108	728.3	1.6	0.2%
1994	98,007	706.2	-22.1	-3.0%
1995	94,777	669.8	-36.4	-5.2%
1996	95,688	664.0	-5.8	-0.9%
1997	95,860	651.5	-12.5	-1.9%
1998	89,875	599.1	-52.4	-8.0%
1999	83,424	544.5	-54.6	-9.1%
2000	83,371	521.6	-22.9	-4.2%
2001	83,892	513.7	-7.9	-1.5%
2002	81,776	490.4	-23.3	-4.5%
2003	79,044	463.0	-27.4	-5.6%
2004	80,340	458.6	-4.4	-1.0%
2005	82,622	461.1	2.5	0.5%
2006	82,682	450.6	-10.5	-2.3%
2007	81,253	435.0	-15.6	-3.5%
2008	77,849	413.9	-21.1	-4.9%
2009	71,290	380.2	-33.7	-8.1%
2010	64,960	346.1	-34.1	-9.0%

Figure II.5: Aggravated Assault Rate per 100,000 Florida Residents: 1980 – 2010
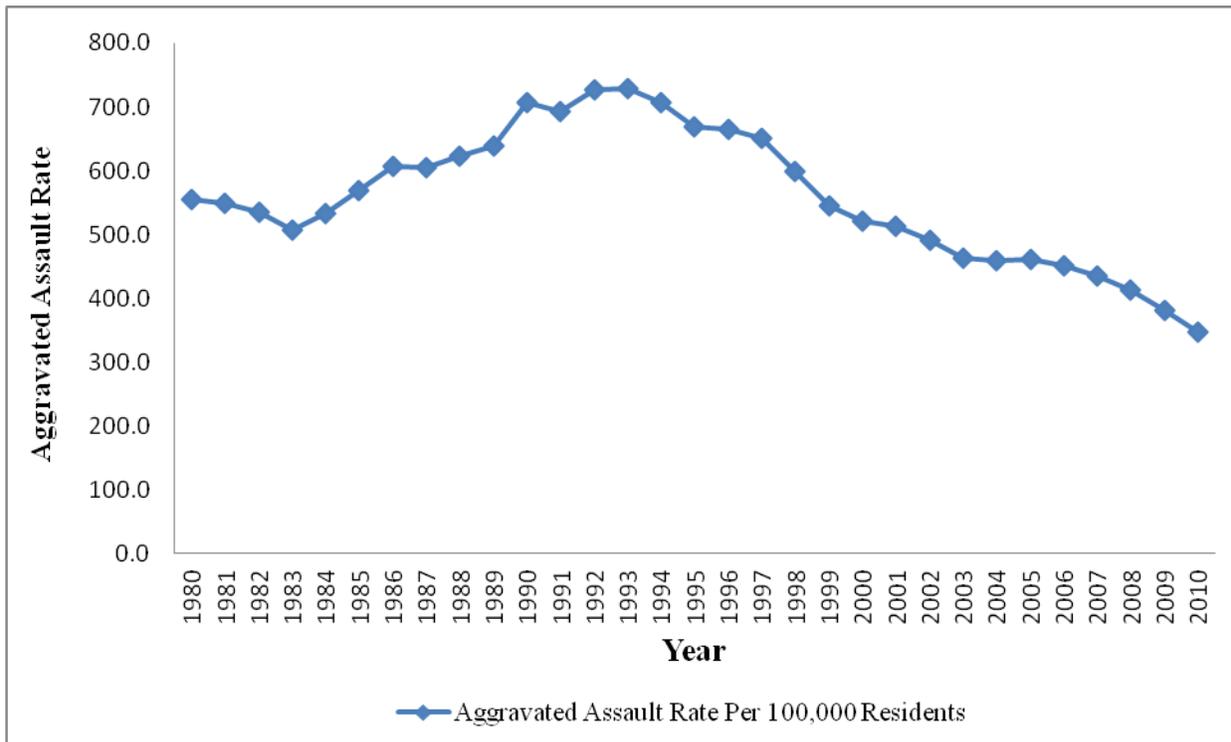
Table II.10 presents a summary of the changes in aggravated assault rates across the decade periods and reveals that while significant increases occurred in the 1980's (+27.3%), there was a commensurate decrease in the 1990's (-24.7%) and an even greater decrease in the last complete decade ending in 2010 (-32.6%). Additionally, since the peak of overall crime in Florida in 1991, the rate of aggravated assaults has declined by -50.1%.

Table II.10: Summary of Aggravated Assault in Florida: 1980 - 2010

Numerical Change:	Number of Aggravated Assaults	Aggravated Assault Rate Per 100,000 Residents
1980 - 1990	39,791	151.6
1991 - 2000	-8,068	-171.3
2001 - 2010	-18,932	-167.6
1991 - 2010	-26,479	-346.8
Percent Change:		
1980 - 1990	74.7%	27.3%
1991 - 2000	-8.8%	-24.7%
2001 - 2010	-22.6%	-32.6%
1991 - 2010	-29.0%	-50.1%

II.F Total Violent Crime

Table II.11 and Figure II.6 present the number and rates of total violent crime, i.e., the sum of murders, forcible sex crimes, robbery and aggravated assaults, over the past 30 years in Florida. After an initial period of declines in violent crime at the beginning of the 1980's, the rates increased to a peak of 1,220.9 in 1990. Over the next 20 years through 2010, there have been only two years in which violent crime increased slightly (1992 +0.1%, 2006 +0.5%), one year change that remained the same in 2007, and 17 annual changes that were declines. The most significant decline in violent crime occurred from 2009 to 2010 at -10.2%. The number of violent crimes reported to the police were some 60,000 less in 2010 than the peak of 161,789 in 1993 and the violent crime rate was less than one-half in 2010 than at its highest point in 1990 (542.9 versus 1,220.9).

Table II.11: Total Violent Crime Rate in Florida: 1980 - 2010

Year	Total Violent Crimes	Total Violent Crime Rate Per 100,000 Residents	Annual Change in Total Violent Crime Rate	Annual Percent Change in Total Violent Crime Rate
1980	94,088	982.2	----	----
1981	98,090	971.4	-10.8	-1.1%
1982	93,405	900.3	-71.1	-7.3%
1983	88,298	833.7	-66.6	-7.4%
1984	95,368	872.5	38.8	4.7%
1985	106,980	948.5	76.0	8.7%
1986	120,977	1,037.7	89.2	9.4%
1987	123,030	1,021.5	-16.2	-1.6%
1988	134,252	1,080.9	59.4	5.8%
1989	145,473	1,136.7	55.8	5.2%
1990	160,554	1,220.9	84.2	7.4%
1991	158,181	1,198.7	-22.2	-1.8%
1992	161,137	1,200.3	1.6	0.1%
1993	161,789	1,188.9	-11.4	-0.9%
1994	157,835	1,137.2	-51.7	-4.3%
1995	150,208	1,061.6	-75.6	-6.6%
1996	151,350	1,050.2	-11.4	-1.1%
1997	150,801	1,025.0	-25.2	-2.4%
1998	139,673	931.1	-93.9	-9.2%
1999	128,859	841.0	-90.1	-9.7%
2000	128,041	801.1	-39.9	-4.7%
2001	130,323	798.0	-3.1	-0.4%
2002	127,905	767.1	-30.9	-3.9%
2003	124,236	727.7	-39.4	-5.1%
2004	123,697	706.2	-21.5	-3.0%
2005	125,825	702.2	-4.0	-0.6%
2006	129,501	705.8	3.6	0.5%
2007	131,781	705.5	-0.3	0.0%
2008	126,072	670.3	-35.2	-5.0%
2009	113,415	604.9	-65.4	-9.8%
2010	101,906	542.9	-62.0	-10.2%

Figure II.6: Total Violent Crime Rate per 100,000 Florida Residents: 1980 - 2010
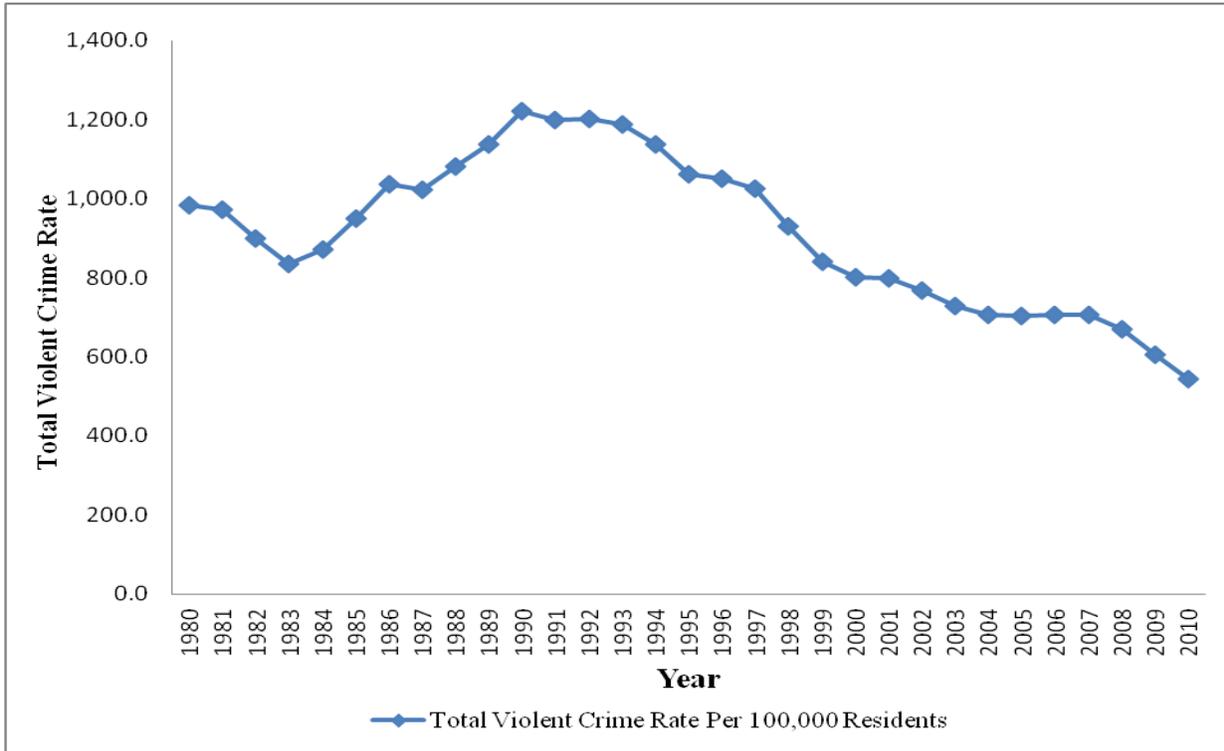
Table II.12 buttresses the conclusion drawn from the annual changes over the past 30 years in violent crime, showing that while violent crime rates increased by +24.3% and the volume of violent crimes increased by +70.6% in the 1980's, the rates declined by -33.2% in the 1990's and -32.0% the 2000's. Additionally, without adjusting for the growth in Florida's resident population over the past 20 years, the number of violent crimes declined by 35.6%. In summary, the public in Florida is substantially safer from the threat of violent crime in general and being victimized by murder, forcible sexual crimes, robbery, or aggravated assault today than anytime over the past three decades.

Table II.12: Summary of Total Violent Crime Rate in Florida: 1980 - 2010

Numerical Change:	Number of Total Violent Crimes	Total Violent Crime Rate Per 100,000 Residents
1980 - 1990	66,466	238.7
1991 - 2000	-30,140	-397.6
2001 - 2010	-28,417	-255.1
1991 - 2010	-56,275	-655.8
Percent Change:		
1980 - 1990	70.6%	24.3%
1991 - 2000	-19.1%	-33.2%
2001 - 2010	-21.8%	-32.0%
1991 - 2010	-35.6%	-54.7%

II.G Burglary

Table II.13 and Figure II.7 present the number and rates of burglary over the past three decades. The burglary rate per 100,000 Florida residents peaked in 1980 while the number of burglary reported to the police peaked at 289,254 in 1989. While there have been some periods when burglary rates were on the increase (1984 to 1989 and 2006 to 2008), the vast majority of the expansion in burglary rates were modest. Specifically, over the 30 year period, there were 11 annual changes when burglaries increased, however, only four of the changes were greater than +1.2%. The rate of burglaries was at its lowest level in 2010 (900.3), which is approaching one-third of the rate in 1980 and the number of burglaries reported was about 120,000 fewer in 2010 than at the highest level of 289,254 in 1989, or under one-half.

Table II.13: Burglary in Florida: 1980 - 2010

Year	Burglaries	Burglary Rate Per 100,000 Residents	Annual Change in Burglary Rate	Annual Percent Change in Burglary Rate
1980	239,782	2,503.1	----	----
1981	241,489	2,391.5	-111.6	-4.5%
1982	211,916	2,042.5	-349.0	-14.6%
1983	191,911	1,811.9	-230.6	-11.3%
1984	198,559	1,816.6	4.7	0.3%
1985	228,418	2,025.2	208.6	11.5%
1986	259,254	2,223.9	198.7	9.8%
1987	271,047	2,250.5	26.6	1.2%
1988	280,151	2,255.6	5.1	0.2%
1989	289,254	2,260.3	4.7	0.2%
1990	275,104	2,092.0	-168.3	-7.4%
1991	264,749	2,006.3	-85.7	-4.1%
1992	252,003	1,877.2	-129.1	-6.4%
1993	245,353	1,802.9	-74.3	-4.0%
1994	233,006	1,678.9	-124.0	-6.9%
1995	213,050	1,505.7	-173.2	-10.3%
1996	219,056	1,520.0	14.3	0.9%
1997	214,894	1,460.6	-59.4	-3.9%
1998	202,559	1,350.4	-110.2	-7.5%
1999	180,785	1,179.9	-170.5	-12.6%
2000	170,131	1,064.5	-115.4	-9.8%
2001	175,671	1,075.6	11.1	1.0%
2002	176,058	1,055.8	-19.8	-1.8%
2003	170,577	999.2	-56.6	-5.4%
2004	166,255	949.1	-50.1	-5.0%
2005	164,777	919.6	-29.5	-3.1%
2006	170,733	930.5	10.9	1.2%
2007	181,574	972.0	41.5	4.5%
2008	188,159	1,000.5	28.5	2.9%
2009	181,658	968.8	-31.7	-3.2%
2010	169,000	900.3	-68.5	-7.1%

Figure II.7: Burglary Rate per 100,000 Florida Residents: 1980 – 2010
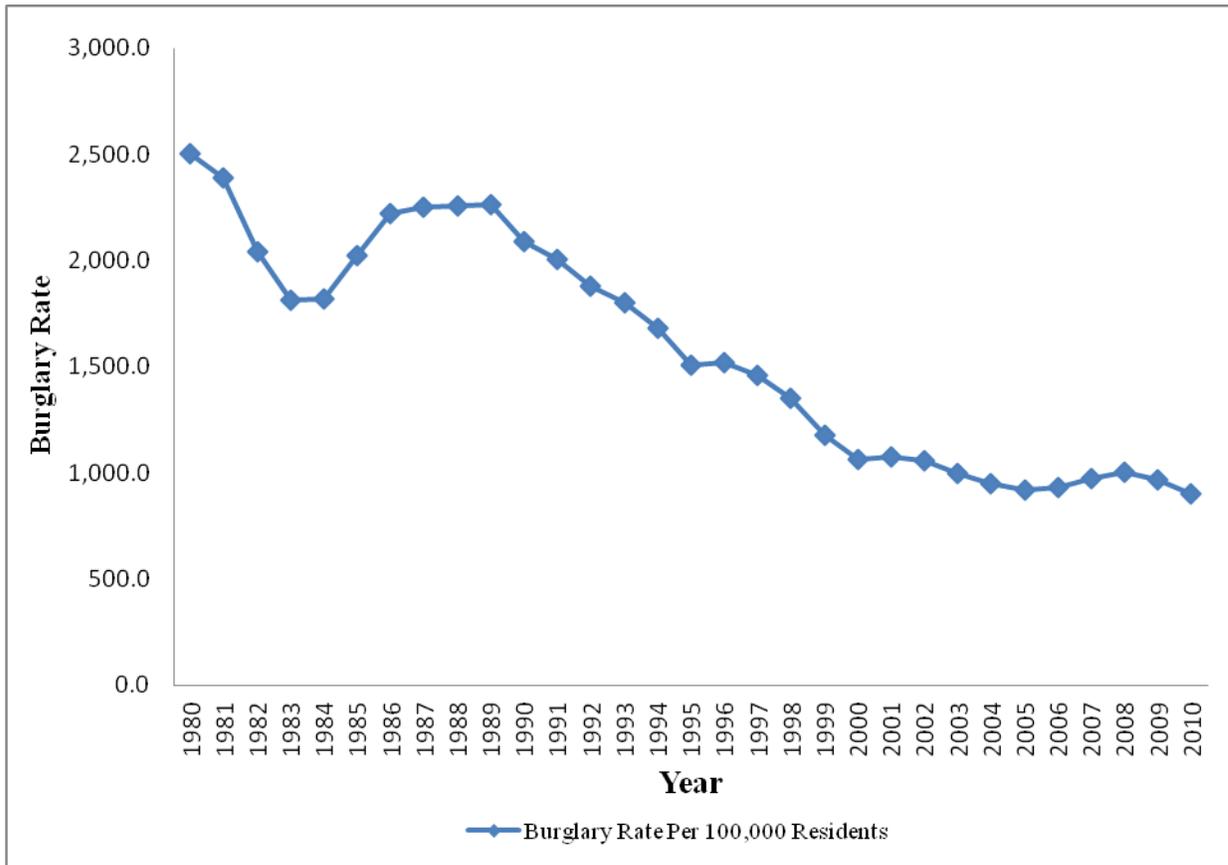
Table II.14 shows that burglary rates declined significantly in all three decade periods, with the most significant decline occurring in the 1990's (-46.9%). Additionally, without adjusting for the growth in Florida's population, while the number of burglaries increased by 14.7% in the 1980's, they declined by -36.2% from 1991 to 2010.

Table II.14: Summary of Burglary Rate in Florida: 1980 - 2010

Numerical Change:	Number of Burglaries	Burglary Rate Per 100,000 Residents
1980 - 1990	35,322	-411.1
1991 - 2000	-94,618	-941.8
2001 - 2010	-6,671	-175.3
1991 - 2010	-95,749	-1,106.0
Percent Change:		
1980 - 1990	14.7%	-16.4%
1991 - 2000	-35.7%	-46.9%
2001 - 2010	-3.8%	-16.3%
1991 - 2010	-36.2%	-55.1%

II.H Larceny

Table II.15 and Figure II.8 present the number and rates of larceny offenses reported to the police over the past thirty years. The 1980's began with four years of declining rates of larceny followed by annual increases through 1989. Larceny rates peaked in 1991 and then declined in 16 of the 19 annual changes through 2010. The only increases in larceny during this period were relatively modest in 1994 (+1.7%), 2007 (+1.7%) and 2008 (+2.6%). Since the year when the highest number of larcenies were reported to the police in 1995 (605,751), the number has declined by almost 150,000 to 458,179 in 2010. Additionally, the rate of larcenies in 2010 has been almost cut by one-half since the peak in 1991 (2,440.8 versus 4,576.6).

Table II.15: Larceny in Florida: 1980 - 2010

Year	Larcenies	Larceny Rate Per 100,000 Residents	Annual Change in Larceny Rate	Annual Percent Change in Larceny Rate
1980	423,962	4,425.7	----	----
1981	431,153	4,269.8	-155.9	-3.5%
1982	427,427	4,119.6	-150.2	-3.5%
1983	400,802	3,784.1	-335.5	-8.1%
1984	408,457	3,736.9	-47.2	-1.2%
1985	465,833	4,130.3	393.4	10.5%
1986	510,332	4,377.6	247.3	6.0%
1987	545,932	4,533.0	155.4	3.5%
1988	564,817	4,547.5	14.5	0.3%
1989	583,702	4,561.1	13.6	0.3%
1990	585,919	4,455.6	-105.5	-2.3%
1991	603,922	4,576.6	121.0	2.7%
1992	594,053	4,425.2	-151.4	-3.3%
1993	594,793	4,370.7	-54.5	-1.2%
1994	617,195	4,447.0	76.3	1.7%
1995	605,751	4,281.1	-165.9	-3.7%
1996	605,448	4,201.1	-80.0	-1.9%
1997	599,190	4,072.5	-128.6	-3.1%
1998	578,774	3,858.4	-214.1	-5.3%
1999	532,462	3,475.1	-383.3	-9.9%
2000	509,616	3,188.6	-286.5	-8.2%
2001	515,501	3,156.4	-32.2	-1.0%
2002	508,213	3,047.8	-108.6	-3.4%
2003	505,266	2,959.7	-88.1	-2.9%
2004	482,243	2,753.0	-206.7	-7.0%
2005	472,267	2,635.7	-117.3	-4.3%
2006	473,281	2,579.3	-56.4	-2.1%
2007	490,044	2,623.3	44.0	1.7%
2008	506,237	2,691.7	68.4	2.6%
2009	479,282	2,556.1	-135.6	-5.0%
2010	458,179	2,440.8	-115.3	-4.5%

Figure II.8: Larceny Rate per 100,000 Florida Residents: 1980 - 2010
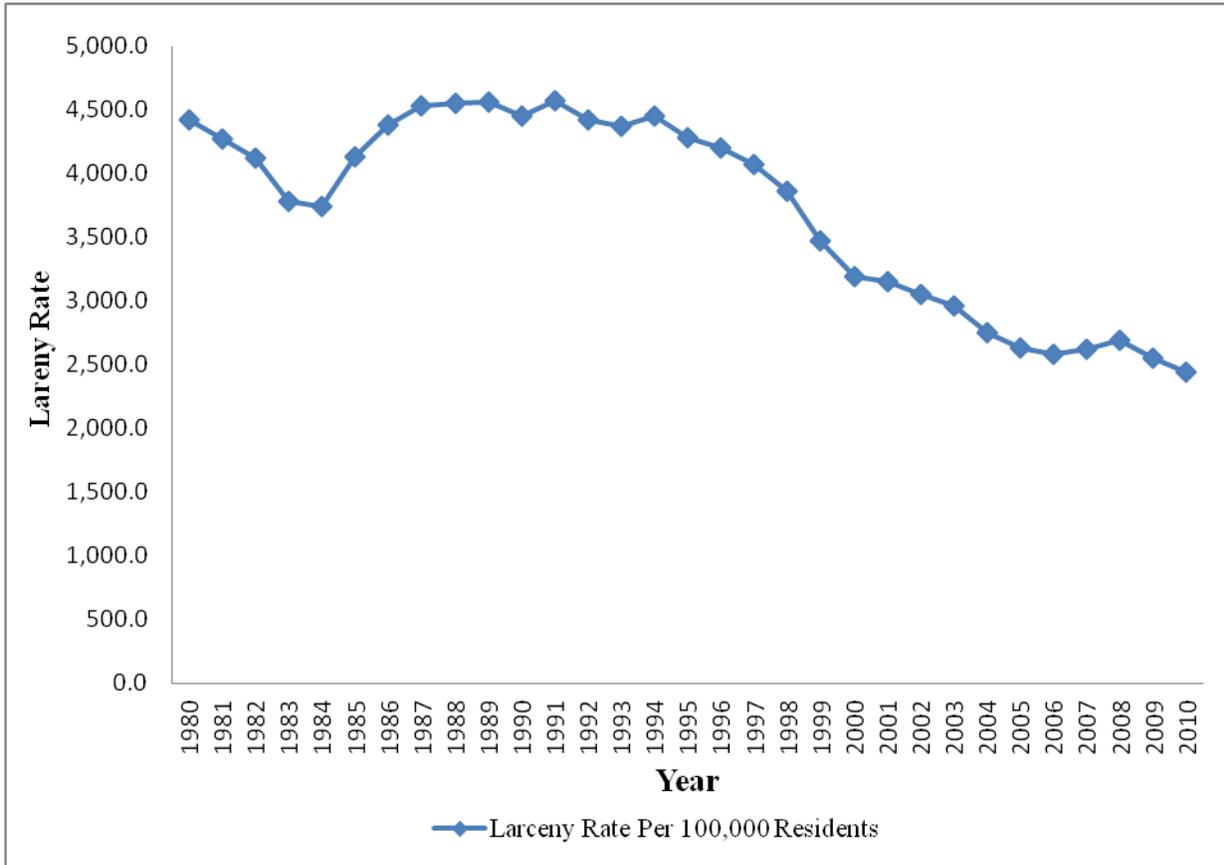
Table II.16 shows that larceny rates were stable from 1980 to 1990 (+0.7%). This was followed by a -30.3% decline in the 1990's and an additional reduction of -22.7% in the last decade. After a flat rate of change in the 1980's, the rate of larceny crimes in Florida has plummeted by -46.7% during the decades of the 1990's and the first decade of the 20th century.

Table II.16: Summary of Larceny in Florida: 1980 - 2010

Numerical Change:	Number of Larcenies	Larceny Rate Per 100,000 Residents
1980 - 1990	161,957	29.9
1991 - 2000	-94,306	-1,388.0
2001 - 2010	-57,322	-715.6
1991 - 2010	-145,743	-2,135.8
Percent Change:		
1980 - 1990	38.2%	0.7%
1991 - 2000	-15.6%	-30.3%
2001 - 2010	-11.1%	-22.7%
1991 - 2010	-24.1%	-46.7%

II.I Motor Vehicle Theft

Table II.17 and Figure II.9 present the annual number and rates of motor vehicle theft reported to the police from 1980 to 2010. The rate of motor vehicle theft began a downward trajectory during the first three years of the 1980's, then increased each year except for a decrease of -3.4% in 1990, until it peaked in 1994. Specifically, the number of auto thefts increased from 45,677 in 1980 to 122,839 (approximately +80,000, or a three-fold increase) and the rate per 100,000 residents almost doubled from 476.8 to 885.1 during this same time period. This upward trend was drastically reversed over the next 16 years in which the number and rate of motor vehicle theft decreased annually in 14 of these years and only increased by +2.8% in 1997 and +1.7% in 2005. The most dramatic decreases occurred in 2008, 2009 and 2010 when the annual decreases were -14.4%, -20.6%, and -17.6% respectively. The significant reduction in auto thefts over the past 16 years in Florida are reflected in the fact that since the peak in 1994 with 122,839 occurrences, the number decreased by approximately 80,000 to a level of 41,433 in 2010. Additionally, the rate of motor vehicle theft in 2010 was 220.7, about one-fourth of the rate of 885.1 in 1994 when it was at its highest level over the past three decades.

Table II.17: Motor Vehicle Theft in Florida: 1980 - 2010

| Year	Motor Vehicle Thefts	Motor Vehicle Theft Crime Rate Per 100,000 Residents	Annual Change in Motor Vehicle Theft Rate	Annual Percent Change in Motor Vehicle Theft Rate
1980	45,677	476.8	----	----
1981	45,707	452.6	-24.2	-5.1%
1982	44,768	431.5	-21.1	-4.7%
1983	43,236	408.2	-23.3	-5.4%
1984	46,847	428.6	20.4	5.0%
1985	59,726	529.6	101.0	23.6%
1986	69,811	598.8	69.2	13.1%
1987	81,274	674.8	76.0	12.7%
1988	91,680	738.1	63.3	9.4%
1989	102,086	797.7	59.6	8.1%
1990	101,358	770.8	-26.9	-3.4%
1991	102,852	779.4	8.6	1.1%
1992	105,553	786.3	6.9	0.9%
1993	114,632	842.3	56.0	7.1%
1994	122,839	885.1	42.8	5.1%
1995	109,610	774.7	-110.4	-12.5%
1996	103,769	720.0	-54.7	-7.1%
1997	108,872	740.0	20.0	2.8%
1998	104,094	693.9	-46.1	-6.2%
1999	92,243	602.0	-91.9	-13.2%
2000	87,920	550.1	-51.9	-8.6%
2001	89,797	549.8	-0.3	-0.1%
2002	87,979	527.6	-22.2	-4.0%
2003	81,536	477.6	-50.0	-9.5%
2004	72,295	412.7	-64.9	-13.6%
2005	75,204	419.7	7.0	1.7%
2006	76,411	416.4	-3.3	-0.8%
2007	73,582	393.9	-22.5	-5.4%
2008	63,437	337.3	-56.6	-14.4%
2009	50,204	267.7	-69.6	-20.6%
2010	41,433	220.7	-47.0	-17.6%

Figure II.9: Motor Vehicle Theft Rate per 100,000 Florida Residents: 1980 – 2010
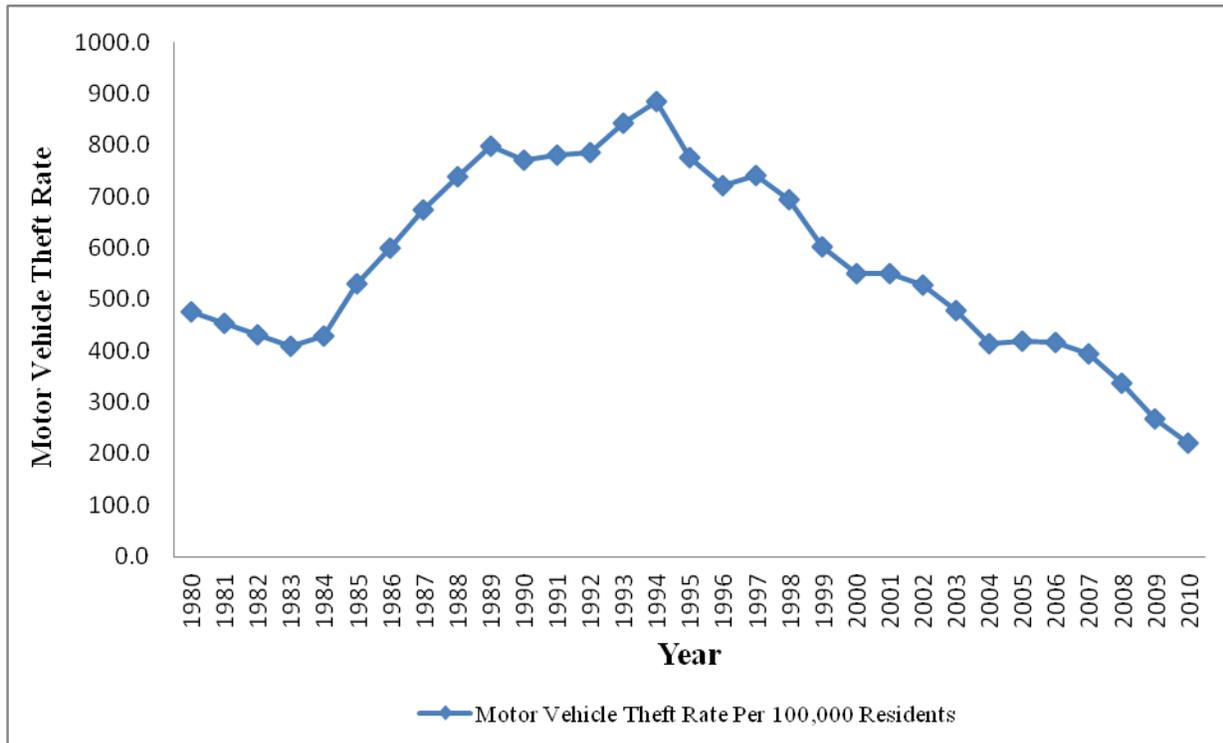
Consistent with the annual trends in motor vehicle theft, Table II.18 shows that the number and rate of this type of property crime increased dramatically in 1980's (+121.9% and +61.7% respectively). This was followed by a decrease of -14.5% in the number of motor vehicle thefts and a decrease of -29.4% in the rates in the 1990's and dramatic decreases of -53.9% in the rates in the 2000's and -59.9% in the number of these crimes reported. Additionally, over the past two decades beginning in 2001, the number of reported auto thefts have declined by -59.7%, while the rate declined by -71.7%. While Florida has experienced significant declines in all of the seven Part I Index crimes examined in this research, none have the consistency and significance in magnitude we see with motor vehicle theft.

Table II.18: Summary of Motor Vehicle Theft in Florida: 1980 - 2010

	Number of Motor Vehicle Thefts	Motor Vehicle Theft Rate Per 100,000 Residents
Numerical Change:		
1980 - 1990	55,681	294.0
1991 - 2000	-14,932	-229.3
2001 - 2010	-48,364	-329.1
1991 - 2010	-61,419	-558.7
Percent Change:		
1980 - 1990	121.9%	61.7%
1991 - 2000	-14.5%	-29.4%
2001 - 2010	-53.9%	-59.9%
1991 - 2010	-59.7%	-71.7%

II.J Total Property Crime

Table II.19 and Figure II.10 present the number and rates of total property crime, i.e., the sum of burglary, larceny, and motor vehicle theft, over the past 30 years in Florida. After an initial period of declines in property crime from 1981 to 1984, the rates increased to a peak of 7,619.2 in 1989. With the exception of minimal increases in 1991, 2007, and 2008 (+0.6%, +1.6%, +1.0% respectively), the rates of property crime decreased in 18 of the 21 annual change comparisons through 2010. Additionally, the property crime rate of 3,561.8 in 2010 was less than one-half the rate during the peak year level of 7,619.1 in 1989. Examining the number of property crimes reported to the police without adjusting for the growth in the resident population, the data shows that there were about 300,000 fewer such crimes in 2010 (668,612) compared to the peak of 973,040 in 1994.

Table II.19: Total Property Crime in Florida: 1980 - 2010

Year	Total Property Crimes	Total Property Crime Rate Per 100,000 Residents	Annual Change in Total Property Crime Rate	Annual Percent Change in Total Property Crime Rate
1980	709,421	7,405.6	----	----
1981	718,349	7,113.9	-291.7	-3.9%
1982	684,111	6,593.6	-520.3	-7.3%
1983	635,949	6,004.2	-589.4	-8.9%
1984	653,863	5,982.1	-22.1	-0.4%
1985	753,977	6,685.1	703.0	11.8%
1986	839,397	7,200.3	515.2	7.7%
1987	898,253	7,458.3	258.0	3.6%
1988	936,648	7,541.2	82.9	1.1%
1989	975,042	7,619.1	77.9	1.0%
1990	962,381	7,318.5	-300.6	-3.9%
1991	971,523	7,362.3	43.8	0.6%
1992	951,609	7,088.6	-273.7	-3.7%
1993	954,778	7,016.0	-72.6	-1.0%
1994	973,040	7,010.9	-5.1	-0.1%
1995	928,411	6,561.5	-449.4	-6.4%
1996	928,273	6,441.2	-120.3	-1.8%
1997	922,956	6,273.1	-168.1	-2.6%
1998	885,427	5,902.7	-370.4	-5.9%
1999	805,490	5,257.1	-645.6	-10.9%
2000	767,667	4,803.2	-453.9	-8.6%
2001	780,969	4,781.9	-21.3	-0.4%
2002	772,250	4,631.3	-150.6	-3.1%
2003	757,379	4,436.5	-194.8	-4.2%
2004	720,793	4,114.9	-321.6	-7.2%
2005	712,248	3,975.0	-139.9	-3.4%
2006	720,425	3,926.2	-48.8	-1.2%
2007	745,200	3,989.2	63.0	1.6%
2008	757,833	4,029.5	40.3	1.0%
2009	711,144	3,792.7	-236.8	-5.9%

2010	668,612	3,561.8	-230.9	-6.1%

Figure II.10: Total Property Crime Rate per 100,000 Florida Residents: 1980 – 2010
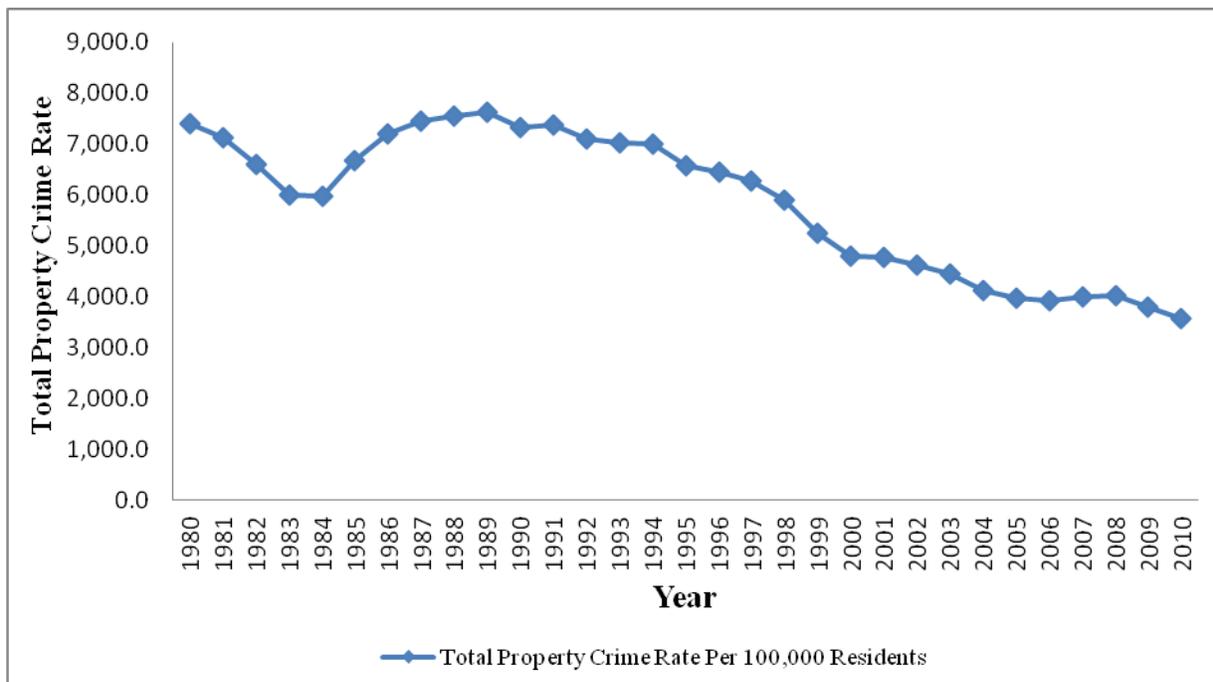

Table II.20 shows that total property crime rates were relatively stable from 1980 to 1990 (-1.2%). This was followed by a -34.8% decline in the 1990's and an additional reduction of -25.5% in the 2000's. The volume of property crimes also increased significantly in the 1980's (+35.7%) and then decreased in the 1990's (-21.0%) and the 2000's (-14.4%). Additionally, over the most recent

two decades, the number of property crimes decreased by -302,911 or -31.2% and the property crime rate decreased by -51.6%.

Table II.20: Summary of Total Property Crimes in Florida: 1980 - 2010

Numerical Change:	Number of Total Property Crimes	Property Crime Rate
1980 - 1990	252,960	-87.1
1991 - 2000	-203,856	-2,559.1
2001 - 2010	-112,357	-1,220.1
1991 - 2010	-302,911	-3,800.5
Percent Change:		
1980 - 1990	35.7%	-1.2%
1991 - 2000	-21.0%	-34.8%
2001 - 2010	-14.4%	-25.5%
1991 - 2010	-31.2%	-51.6%

III. Possible Explanations of the Drop in Crime in Florida

A considerable body of scientific evidence has been generated by researchers over the past few decades to identify the correlates of changes in the crime rates. This report will not attempt to summarize this substantive evidence. Rather, the factors that researchers have identified as the most salient possible predictors of changes in the level of crime over time will be discussed along with a summary of the empirical evidence related to each of these correlates of crime trends. This will be followed by an examination of the changes in these explanatory crime trend factors in Florida from 1980 to 2010 relative to changes in the rates of total, violent and property crimes over this period. This analysis and findings will be followed by time series models which quantify the impact of each predictor or crime trends when considering all of the factors.

III.A Resident Demographic Groups at Higher Risk of Crime and Changes in Crime Rates

Numerous researchers have argued that crime trends are impacted by changes in the proportion of the resident population in a jurisdiction most prone to engage in crime. One of the few empirical certainties in the criminological scientific evidence is the "age crime curve". Specifically, the majority of individuals who engage in crime will age out of this behavior by their early to middle 20's and the overwhelming majority will refrain from criminal activity by their middle 30's. Additionally, the evidence is clear that males are significantly more likely to engage in crime than females and black males contribute more to the crime problem relative to their numbers in the resident population than other race and gender groups.

Determining which age, gender, and race groups in a resident population are the most crime prone and therefore the most likely to influence changes in crime in the community over time is

not an exact science. For the current study, we relied on Part I arrest figures in Florida from 1986 to identify the age groups which are most likely to contribute to changes in the level of reported crimes. These data reveal that 72.4% of all arrests in Florida during that year were individuals between the ages of 15 and 34. Therefore, it seems logical to examine whether changes in the proportion of the total resident population in Florida comprised of this age group that is most crime prone is related to the drop in crime over the past two decades. Based on Part I arrests in 1998, it is clear that males are significantly more likely to contribute to crime trends than females. Specifically, 75.4% of all arrests in that year involved males versus 24.6% females. Therefore, we also examine the relationship between the proportion of the resident population comprised of males ages 15 to 34 over time and changes in crime rates. Additionally, the UCR arrest data from 2010 indicates that 36.3% of Part I arrests involved blacks. This suggests that defining the proportion of Florida's population who were black males between the ages of 15 to 34 as a possible explanatory factor in changing crime rates is appropriate.

Table III.1 presents the percent of Florida's population from 1980 to 2010 in the three crime prone age, gender, and race groups identified above. The percent of the resident population who were 15 to 34 years of age decreased on a relatively incremental basis each year from 34.5% in 1980 to 27.7% in 2000. In contrast, over the last 10 years of our time period through 2010, we find a virtual stationary level of this age group, ranging from 27.5% to 27.7%. Table III.2 presents the changes in this demographic group across the three decades periods. The proportion of the resident population who were 15 to 34 years of age decreased during the 1980's (-2.4%) and the 1990's (-3.5%) and then remained virtually unchanged in the 2000's (-0.2%). The percent changes across the decades provide a similar depiction in that this demographic group as a percentage of the total resident population decreased in the 1980's (-7.1%) and during the 1990's (-11.2%), and then declined minimally in the 2000's (-0.8%).

Examining changes in the resident population comprised of males 15 to 34 years of age from 1980 to 2010, Table III.1 a relatively consistent downward trend in which the percentage of the total population in this crime prone group declined from 19.1% in 1980 to 15.9% in 2010. Table III.2 indicates that the population declined by -1.3% in the 1980s, -1.4% in the 1990s, followed by a reduced downward trajectory of -0.4% in the 2000s.

Table III.1 reveals that the no meaningful change in the resident population comprised of black males 15 to 34 years of age from 1980 to 2010. The percentage this crime prone group comprised of the total population ranged from a low of 2.5% between 1990 and 2003 and a high of 2.7% from 1980 to 1985. Changes across the three decades show almost no movement from -0.2% in the 1980s to 0.1% in the 1990s and 2000s.

Table III.1: Demographic Groups at Risk of Crime in Florida: 1980 - 2010

Year	Percent of Resident Population: 15 to 34 Years Old	Percent of Resident Population: Males 15 to 34 Years Old	Percent of Resident Population: Black Males 15 to 34 Years Old
1980	34.5%	19.1%	2.7%
1981	34.8%	19.3%	2.7%
1982	34.7%	19.2%	2.7%
1983	34.5%	19.1%	2.7%
1984	34.2%	19.0%	2.7%
1985	33.9%	18.8%	2.7%
1986	33.7%	18.6%	2.6%
1987	33.4%	18.5%	2.6%
1988	33.1%	18.2%	2.6%
1989	32.6%	18.0%	2.5%
1990	32.1%	17.8%	2.5%
1991	31.2%	17.6%	2.5%
1992	30.7%	17.5%	2.5%
1993	30.1%	17.3%	2.5%
1994	29.6%	17.1%	2.5%
1995	29.1%	16.9%	2.5%
1996	28.7%	16.7%	2.5%
1997	28.4%	16.5%	2.5%
1998	28.1%	16.4%	2.5%
1999	27.9%	16.3%	2.5%
2000	27.7%	16.2%	2.5%
2001	27.7%	16.2%	2.5%
2002	27.5%	16.0%	2.5%
2003	27.6%	16.1%	2.5%
2004	27.5%	16.1%	2.6%
2005	27.6%	16.1%	2.6%
2006	27.6%	16.0%	2.6%
2007	27.7%	16.1%	2.6%
2008	27.6%	16.0%	2.6%

2009	27.5%	15.9%	2.6%
2010	27.5%	15.9%	2.6%

Table III.2: Summary of Demographic Groups in Florida at Risk of Crime: 1980 - 2010

Numerical Change:	Percent of Resident Population: 15 to 34 Years Old	Percent of Resident Population: Males 15 to 34 Years Old	Percent of Resident Population: Black Males 15 to 34 Years Old	Total Crime Rate Per 100,000 Residents
1980 - 1990	-2.4%	-1.3%	-0.2%	151.6
1991 - 2000	-3.5%	-1.4%	0.1%	-2,956.7
2001 - 2010	-0.2%	-0.4%	0.1%	-2,441.3
1991 - 2010	-3.7%	-1.8%	0.1%	-4,456.3
Percent Change:				
1980 - 1990	-7.1%	-6.8%	-6.6%	1.8%
1991 - 2000	-11.2%	-8.1%	2.1%	-34.5%
2001 - 2010	-0.8%	-2.0%	2.2%	-26.4%
1991 - 2010	-11.9%	-10.2%	5.5%	-52.1%

We next examine the relationship between changes in the percentage of the resident population 15 to 34 years of age and changes in total crime rates. Table III.2 shows that while this population at risk of crime exhibited a percentage decrease of -7.1% in the 1980's, total crime increased +1.8%. In the 1990's the percentage of residents 15 to 34 years old decreased by -34.5% and the total crime rate decreased by -11.2%. In contrast, in the 2000's this more crime prone population decreased by only -0.8% and the total crime rate decreased by a substantial -26.4%. Therefore, while there were similar changes in the total crime rates in the 1990's and 2000's, the change in the percentage of residents 15 to 35 years of age were quite different, i.e., significant decreases in 1990's and virtually no change in the 2000's. Additionally, Figure III.1 presents the trends in this population and total crime rates and there is no apparent relationship in changes in this population at risk of crime and the level of crime in Florida.

Focusing on change in the percentage of the resident population comprised of males 15 to 34 years old, Table III.2 shows a minimal decrease in this population at risk in the 1980s was associated with an increase in crime (+151.6 per 100,000 residents). In contrast, this population decreased by -1.4% in the 1990s when the crime rate declined by -2,956.7 and by only -0.4% in the 2000s when the crime rate decreased by -2,441.3. Figure III.2 fails to demonstrate a meaningful consistency in changes in this crime prone demographic group and the crime rate from 1980 to 2010.

Turning to population at risk made up of black males 15 to 34 years of age, we see in Table III.2 that while the proportion of the total resident population this demographic group comprised remained substantively the same over the three decades, the crime rate increased in the 1980s then declined precipitously in the 1990s and 2000s. Figure III.3 buttresses this finding graphically.

In summary, these data fail to provide compelling evidence that the significant and relatively consistent drop in overall crime in Florida during the 1990's and 2000's can be attributed to changes in the age structure of the resident population.

Figure III.1: Percent of Florida's Population 15 to 34 Years of Age and Total Crime Rate per 100,000 Residents: 1980 - 2010
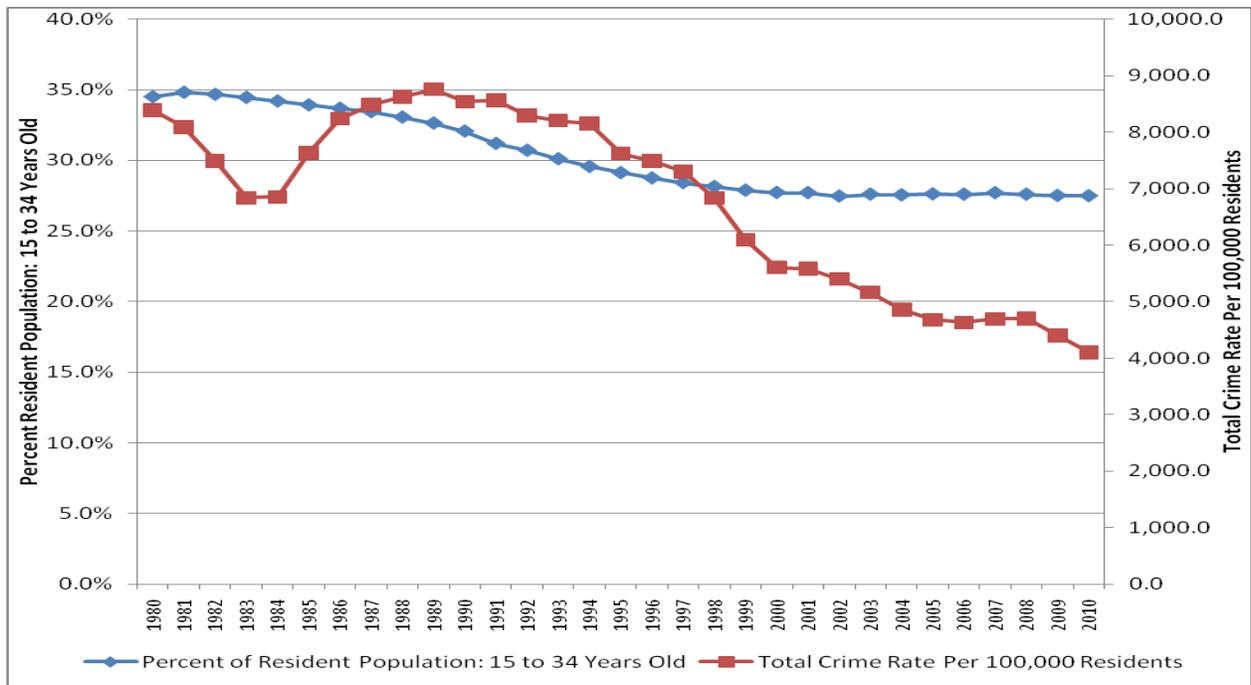

Figure III.2: Percent of Florida's Population Males 15 to 34 Years of Age and Total Crime Rate per 100,000 Residents: 1980 - 2010
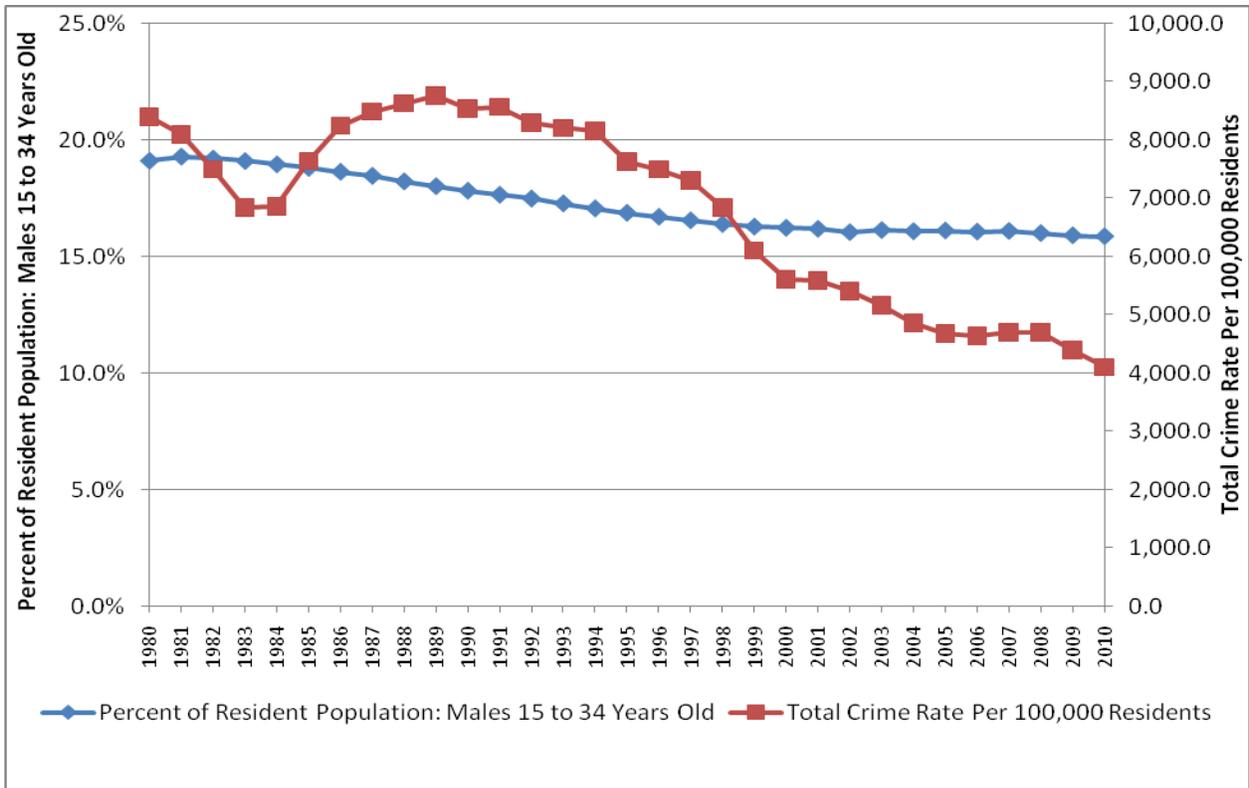
Figure III.3: Percent of Florida's Population Black Males 15 to 34 Years of Age and Total Crime Rate per 100,000 Residents: 1980 - 2010
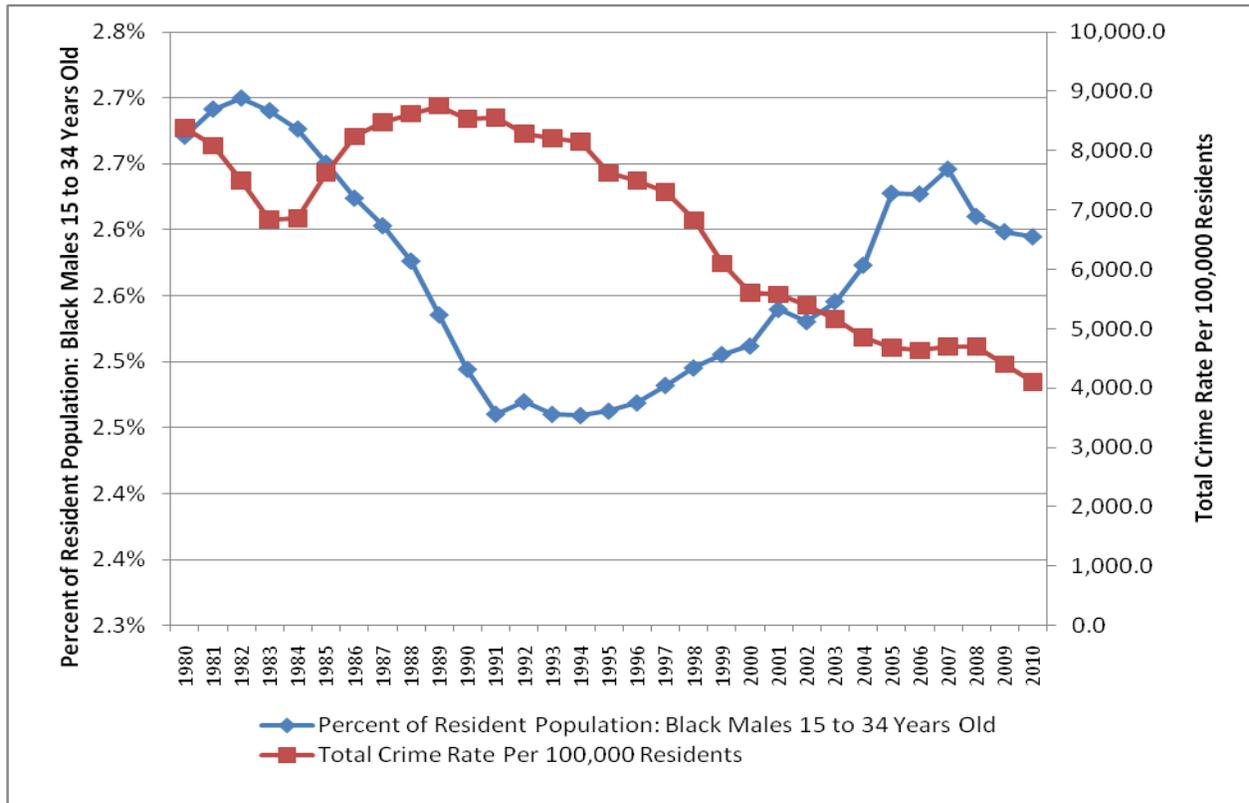
III.B Economic Indicators and Changes in Crime Rates

We examined the relationship between the economic indicators of unemployment rates and poverty rates measured by the percent of residents living under the poverty level and crime rates from 1980 to 2010 to assess whether changes in the economic well-being of Floridians has contributed to the dramatic decline in crime rates (total, violent and property) over the past two decades.

III.B.1 Unemployment Rates and Crime

Table III.3 and Figure III.4 present the trends in Florida's unemployment rate and the percentage of residents living under the poverty level from 1980 to 2010. Focusing first on unemployment rates, we see that the decade of the 1980's can be characterized as experiencing fluctuating rates from a high of 8.6 in 1983 to a low of 5.0 in 1988. In contrast, the 1990's can be characterized as initially experiencing increases in unemployment during the first three year to a level of 8.4 in 1992, but then continuous declines to a level of 4.0 in 1999. During the first three years of 2000's, the unemployment rate increased from 3.8 to 5.7 in 2002, but then declined consistently

through 2006 to a low of 3.3. This was followed by modest increases to 4.0 in 2007 and 6.2 in 2008 and then significant increases to 10.2 in 2009 and 11.5 in 2010.

**Table III.3: Economic Indicators in
Florida: 1980 - 2010**

Year	Unemployment Rate	Percent Living in Poverty
1980	5.9	n/a
1981	6.8	n/a
1982	8.2	n/a
1983	8.6	n/a
1984	6.3	n/a
1985	6.0	n/a
1986	5.7	n/a
1987	5.3	n/a
1988	5.0	n/a
1989	5.6	12.9
1990	6.3	13.7
1991	7.6	14.5
1992	8.4	15.2
1993	7.2	16.0
1994	6.5	15.6
1995	5.7	15.2
1996	5.3	14.2
1997	5.0	14.4
1998	4.5	13.6
1999	4.0	12.4
2000	3.8	11.7
2001	4.7	12.6
2002	5.7	12.8
2003	5.3	13.0
2004	4.7	11.9
2005	3.8	12.8
2006	3.3	12.6
2007	4.0	12.1
2008	6.2	13.3
2009	10.2	15.0
2010	11.5	16.9

We next examine the relationship between changes in unemployment rates and total crime rates as well as violent and property crime rates separately. Table III.4 shows the unemployment rate increased by 6.8% in the 1980's and total crime increased +1.8%, while in the 1990's, unemployment rates decreased by 50.0% and the total crime rate decreased by -34.5%. In contrast, during the decade of the 2000's, unemployment increased +144.7% and the total crime rate decreased by a substantial -26.4%. Therefore, while there were similar changes in the total crime rates in the 1990's and 2000's, changes in the unemployment rate were quite different with the earlier decade experiencing significant decreases and the latter decade experiencing even more significant increases. Additionally, Figure III.4 graphically portrays no meaningful nexus between changes in unemployment rates and total crime rates over the 30 year period. In

summary, these trend data in unemployment rates and total crime rates fail to provide compelling evidence that the significant drop in overall crime in Florida during the 1990's and 2000's can be attributed to changes in unemployment rates.

Table III.4: Economic Indicators and Total, Violent and Property Crime Rates
in Florida: 1980 - 2010

Numerical Change:	Unemployment Rate	Percent Living in Poverty	Total Crime Rate	Violent Crime Rate	Property Crime Rate
1980 - 1990	0.4	---	151.6	238.7	-87.1
1991 - 2000	-3.8	-2.8	-2,956.7	-397.6	-2,559.1
2001 - 2010	6.8	4.3	-2,441.3	-379.9	-2,061.4
1991 - 2010	3.9	2.5	-4,456.3	-655.8	-3,800.5
Percent Change:					
1980 - 1990	6.8%	---	1.8%	24.3%	-1.2%
1991 - 2000	-50.0%	-19.0%	-34.5%	-33.2%	-34.8%
2001 - 2010	144.7%	34.3%	-26.4%	-32.0%	-25.5%
1991 - 2010	51.3%	17.1%	-52.1%	-54.7%	-51.6%

Figure III.4: Unemployment Rate and Total Crime Rate per 100,000 Florida Residents: 1980 - 2010
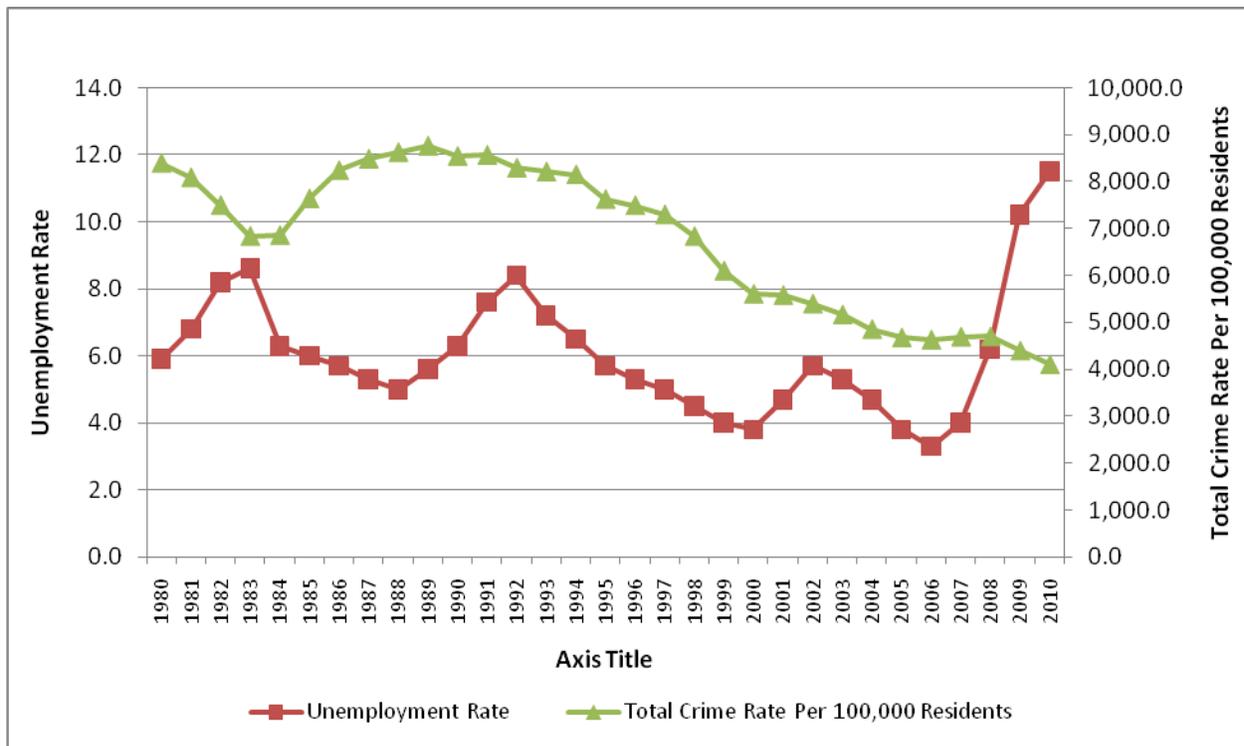
Turning to the question of whether unemployment rates influence violent crime rates, Table III.4 shows that during the 1980's when unemployment rates were fluctuating from year to year and increased by only +0.4 (+6.8%) from the beginning to the end of the decade, the violent crime rate increased substantially (+24.3%). Contrasting the trend in the 1990's and 2000's across these two measures, very different results emerge. Specifically, in the 1990's violent crime

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decreased by -33.2% and the unemployment rate also decreased (-50.0%). In the 2000's, however, the violent crime rate continued to significantly decline at an almost equivalent rate as in the 1990's (-32.0%), and yet the unemployment rate increased by +144.7%. Therefore, consistent with our conclusions relative to the link between unemployment rates and total crime, we find that the significant drop in violent crime in Florida over the past two decades is not linked to changes in the level of unemployment.

One may expect that the drop in property crime over the past two decades in Florida would have been impacted by increases in unemployment rates. Table III.4 shows that during the 1980's, when unemployment rates fluctuated and increased modestly from the beginning to the end of the decade (+0.4 or +6.8%), the property crime rate increased substantially (+24.3%). In the 1990's and 2000's, property crime decreased by -34.8% and -25.5%, respectively. However, unemployment rates decreased significantly in the 1990's (-50.9%) and then increased dramatically in the 2000's (+144.7%), and especially during the last three years of the decade to a level of 11.5. Therefore, the trend analysis of property crime rates and unemployment rates indicates that the significant drop in property crime in Florida over the past two decades is not related to changes in the level of unemployment.

III.B.2 Poverty and Crime

The next measure of the economic well-being of Floridians is based on the percentage of Florida residents living in poverty each year. Table III.3 and Figure III.3 present the trends in the percentage of Florida's residents living under the poverty level from 1990 to 2010 (data prior to 1990 was not available). During this 22 year period, the poverty level fluctuated from a low of 11.7% in 2000 to a high of 16.9% in 2010. In terms of annual changes, there were 12 years when the poverty rate increased and 9 in which the poverty rate declined. Poverty increased each year from 1990 to 1993 and then declined from 1994 to 1996. This was followed by a slight increase in 1997 to 14.7% and then declines in 1998 to 2000. The next three years experienced increases in poverty, followed by a decline in 2004 and an increase in 2005. Over the next two years, poverty decreased and then from 2009 to 2010, it increased considerably. In short, the trend in poverty rates in Florida between 1989 and 2010 can be characterized as fluctuating upward and downward without a clear pattern.

We next examine the relationship between changes in levels of poverty total crime rates as well as violent and property crime rates separately. Table III.3 shows that the poverty decreased by -19.0% in the 1990's and the total crime rate decreased by -34.5%. In the 2000's, however, the level of poverty increased 34.3% while the crime rate decreased by -26.4%. When examining violent crime specifically, we see that it decreased by -33.2% in the 1990's, while poverty also decreased by -19.0%. In contrast, violent crime decreased in the 2000's at about the same level as observed in the 1990's (-32.0%), but poverty increased by 34.3%. The relationship between changes in poverty rates over the two decade periods and changes in the crime rate for property crimes is virtually the same as what was described for the total crime rate.

Figure III.5: Percent of Residents Living in Poverty in Florida and Total Crime Rate per 100,000 Residents: 1989 - 2010
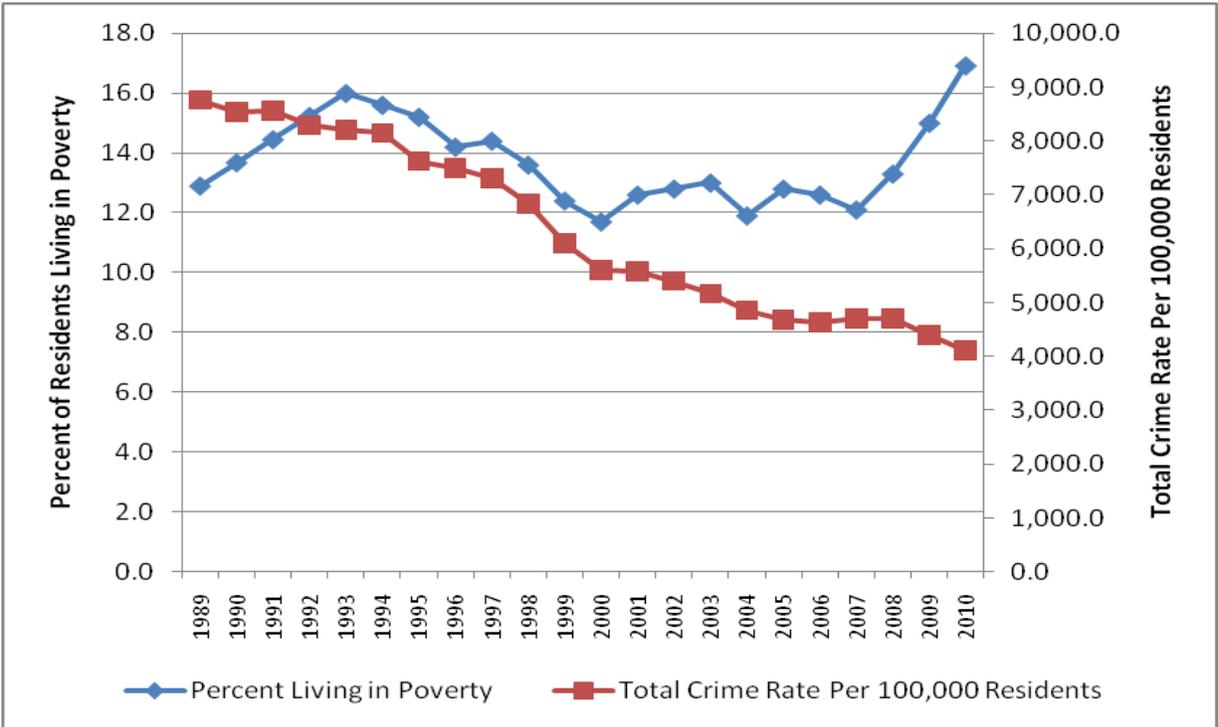
In summary, using economic measures of unemployment rates and the percent of Floridians living in poverty, there is no compelling evidence that changes in the economic well-being of citizens has any empirical relationship to changes in the level of crime. Therefore, the significant and relatively consistent precipitous drop in crime in Florida does not appear to be a result of changes in the economic conditions in the state.

III.C Police Presence and Efficiency and Changes in Crime Rates

Researchers have examined the impact of the level of police presence in communities and the efficiency of law enforcement on changes in the level of crime in communities. We examine the relationship between level of police presence based on the number of police officers per 10,000 residents and the efficiency in policing based on the likelihood an arrest results when a crime is reported to the police and crime rates from 1980 to 2010.

III.C.1 Police Presence and Crime

Table III.5 and Figure III.6 present trends in the number of law enforcement officers and the rates per 10,000 residents in Florida and crime rates from 1980 to 2010. The number of police per 10,000 residents increased from 1981 to 1990, from 18.8 to 22.2, or +18.3%. This trend was followed by somewhat fluctuating rates in the 1990's but an overall increase of +8.2% from 1991 to 2000. The level of police presence in the 2000's can be characterized as vacillating at the

beginning of the decade, decreasing from 2003 to 2006, increasing through 2009, then ending on a somewhat downward trend in 2010 (-2.2%). Overall from 2001 to 2010, police presence decreased by -5.5%.

Table III.6 presents the trends in the changes in the level of police presence across the decades of the 1980's, 1990's, and 2000's and the total, violent and property crime rates during these same time periods. Police presence, measured by the number of police per 10,000 residents increased by 18.3% in the 1980's while the total crime rate increased by only 1.9%. In contrast, the rate of police presence increased at a low level of 8.2% in the 1990's when overall crime declined by -34.5%. Additionally, police presence declined in the 2000's (rate -5.5%) while the crime rate declined by 26.4%. Examining violent crime rates, we find that they increased dramatically in the 1980's (+24.3%) when police presence increased by 18.3%. This was followed in the 1990's with significant decreases in violent crime (-34.5%) and at the same time a diminished increase in the number of police officer per 10,000 residents (+8.2%). In the 2000's, violent crime continued to decline significantly (-26.4%) while police presence declined by -5.5%. In summary, comparing trends in police presence based on the number of officers per 10,000 residents and changes in the crime rates over these three decade periods fails to support that the deployment of more officers has had no meaningful effect on the significant drop in crime in Florida over the past two decades.

Table III.5: Law Enforcement Officer Numbers and Rates Per 10,000 Residents in Florida: 1980 - 2010

Year	Number	Rate Per 10,000 Residents	Annual Percent Change in Rate
1980	18,308	18.8	----
1981	19,499	19.2	2.4%
1982	20,080	19.3	0.1%
1983	20,826	19.5	1.3%
1984	21,738	19.8	1.5%
1985	22,403	19.8	0.0%
1986	23,453	20.1	1.7%
1987	24,956	20.8	3.3%
1988	26,321	21.4	2.7%
1989	27,512	21.7	1.9%
1990	28,749	22.2	2.2%
1991	28,992	21.9	-1.6%
1992	29,556	21.9	0.1%
1993	29,986	21.8	-0.3%
1994	30,998	22.1	1.1%
1995	30,589	21.3	-3.3%
1996	33,769	23.1	8.2%
1997	34,868	23.3	1.1%
1998	35,800	23.5	0.7%
1999	36,968	23.7	0.9%
2000	37,819	23.7	-0.3%
2001	38,428	23.5	-0.6%
2002	39,353	23.6	0.3%
2003	39,866	23.4	-1.1%
2004	40,539	23.1	-0.9%
2005	39,870	22.3	-3.9%
2006	40,555	22.1	-0.7%
2007	42,020	22.5	1.8%
2008	42,196	22.4	-0.3%
2009	42,650	22.7	1.4%
2010	41,753	22.2	-2.2%

Table III.6: Changes in Law Enforcement Officer Numbers and Rates Per 10,000 Residents and Total, Violent and Property Crime Rates in Florida: 1980 to 2010

Numerical Change:	Number of Law Enforcement Officers	Number of Law Enforcement Officers Per 10,000 Residents	Total Crime Rate	Violent Crime Rate	Property Crime Rate
1980 - 1990	10,441.0	3.4	151.6	238.7	-87.1
1991 - 2000	8,827.0	1.8	-2,956.7	-397.6	-2559.1
2001 - 2010	3,934.0	1.5	-2,441.3	-379.9	-2061.4
1991 - 2010	12,761.0	0.4	-4,456.3	-655.8	-3800.5
Percent Change:					
1980 - 1990	57.0%	18.3%	1.8%	24.3%	-1.2%
1991 - 2000	30.4%	8.2%	-34.5%	-33.2%	-34.8%
2001 - 2010	8.7%	-5.5%	-26.4%	-32.0%	-25.5%
1991 - 2010	44.0%	1.7%	-52.1%	-54.7%	-51.6%

Figure III.6: Number of Law Enforcement Officers Per 10,000 Residents and Total Crime Rates: 1980 - 2010
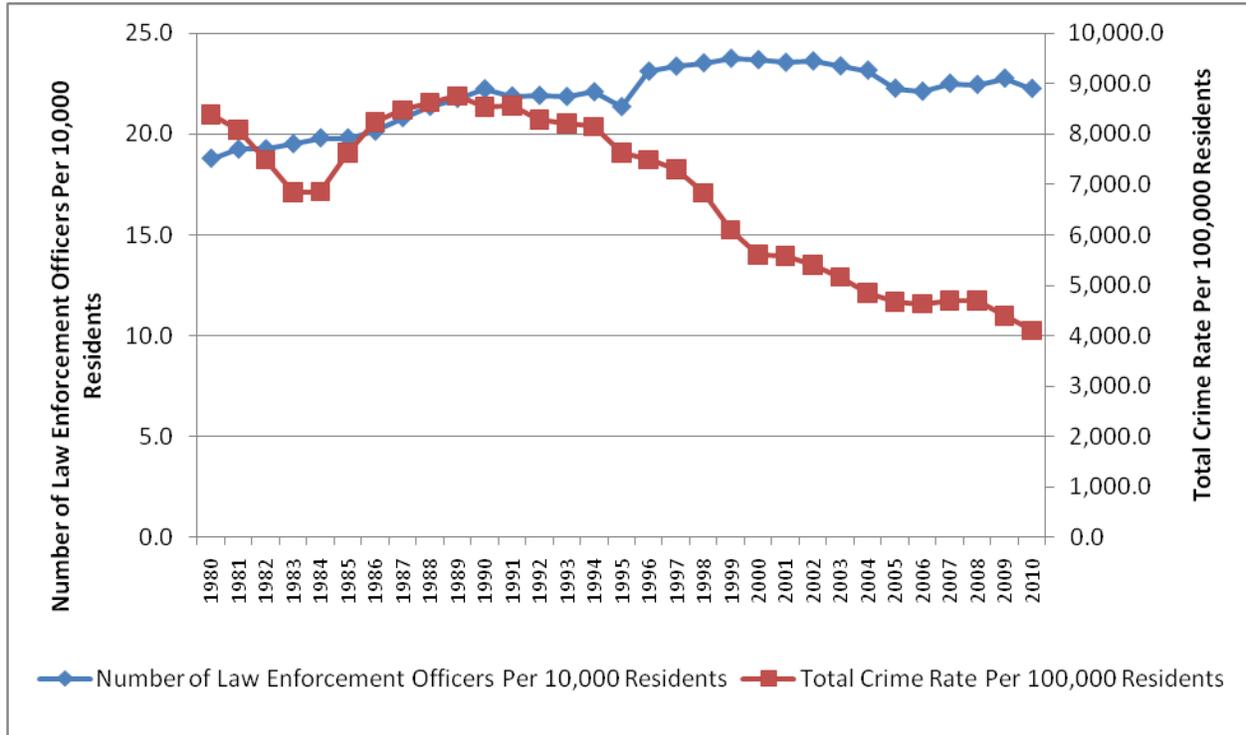
III.C.2 Clearance Rates and Crime

Table III.7 and Figure III.7 present trends in the percentage of crimes reported to law enforcement agencies in which an arrest occurs, i.e., clearance rates, and crime rates from 1980 to 2010. Some observations are salient in terms of the annual percentage changes in this measure. First, the magnitude of the annual changes are typically minimal. Over the 30 year annual comparisons, only three are about 5% (1981-82, 2007-08, and 2008-09) and nine are 1% or less. Second, there are no long-term periods of consistent increasing or decreasing changes in the clearance rates. This is evidenced by the fact that 19 of the annual changes were increases, 11 were decreases, and one in which no change occurred. Also, the longest period of continuous annual changes is four years, all of which were increases (1981 to 1984, 1994 to 1997, and 2001 to 2004). It is also noteworthy that the clearance rates over this three decade period varied from a low of 20.7% in 1980 to a high of 25.2% in 2009, which indicates that this measure of policing efficiency is not particularly volatile to dramatic changes over time. Finally, it is encouraging that, except for a minimal decrease from 2009 to 2010 (from 25.2% to 24.7%), the clearance rate has been increasing since 2005.

Table III.7: Crime Clearance Rates in Florida: 1980 - 2010

Year	Percentage of Crimes Cleared by Arrest	Annual Percent Change
1980	20.7%	----
1981	20.9%	1.0%
1982	22.4%	7.2%
1983	23.0%	2.7%
1984	23.2%	0.9%
1985	22.3%	-3.9%
1986	22.3%	0.0%
1987	22.5%	0.9%
1988	21.7%	-3.6%
1989	20.9%	-3.7%
1990	21.0%	0.5%
1991	22.0%	4.8%
1992	21.3%	-3.2%
1993	21.0%	-1.4%
1994	21.2%	1.0%
1995	21.5%	1.4%
1996	22.2%	3.3%
1997	22.5%	1.3%
1998	22.1%	-1.7%
1999	22.4%	1.2%
2000	22.3%	-0.4%
2001	22.4%	0.6%
2002	22.5%	0.5%
2003	23.0%	2.1%
2004	23.0%	0.3%
2005	22.6%	-2.1%
2006	22.0%	-2.5%
2007	22.7%	3.1%
2008	24.0%	5.7%
2009	25.2%	5.2%
2010	24.7%	-2.2%

Table III.8 provides a comparison in changes in the clearance rate in the 1980's, 1990's and 2000's and the total, violent and property crime rates. In the 1980's, the change in clearance rates and total crime rates were similar with the former increasing by +1.4% and the latter increasing by +1.8%. In contrast, clearance rates in the 1990's increased by only +1.2%, while the total crime rate during that decade declined by -34.5%. Clearance rates then increased significantly in the 2000's as crime rates decreased by -26.4%. Examining the relationship between changes in clearance rates and violent crime rates specifically, we see that clearance rates increased at essentially the same magnitude in the 1980's (+1.4%) and the 1990's (+1.2%) while the violent crime rate increased by +24.3% in the 1980's but decreased significantly (-33.2%) in the 1990's. In contrast, during the 2000's, clearance rates increased significantly (+10.2%) and violent crime rates declined by -32.0%, which is more consistent with the argument that increasing police efficiency will result in less crime. The relationship between changing clearance rates and property crime rates across the three decade periods is similar to the description of the total crime rates. Property crime changed minimally in the 1980's (-1.2%) as did clearance rates (+1.4%). In the 1990's, clearance rates again had a minimal increase (+1.2%) while the property crime rate

decreased by -34.8%. In the 2000's, property crime continued a significant decline (-25.5%) and clearance rate increased appreciably (+10.2%).

In summary, the changes in clearance rates and crime rates over the three decade periods fail to find a consistent pattern that would lead to the conclusion that there is an empirical link between the level of police efficiency (clearance rates) and the level of crime in the community.

Table III.8. Changes in Clearance Rates and Total, Violent and Property Crime Rates in Florida: 1980 - 2010

Numerical Change:	Percentage of Crimes Cleared by Arrest	Total Crime Rate	Violent Crime Rate	Property Crime Rate
1980 - 1990	0.3%	151.6	238.7	-87.1
1991 - 2000	0.3%	-2,956.7	-397.6	-2559.1
2001 - 2010	1.4%	-2,441.3	-379.9	-2061.4
1991 - 2010	2.7%	-4,456.3	-655.8	-3800.5
Percent Change:				
1980 - 1990	1.4%	1.8%	24.3%	-1.2%
1991 - 2000	1.2%	-34.5%	-33.2%	-34.8%
2001 - 2010	10.2%	-26.4%	-32.0%	-25.5%
1991 - 2010	12.2%	-52.1%	-54.7%	-51.6%

Figure III.7: Percentage of Crimes Cleared by Arrest and Total Crime Rates: 1980 - 2010
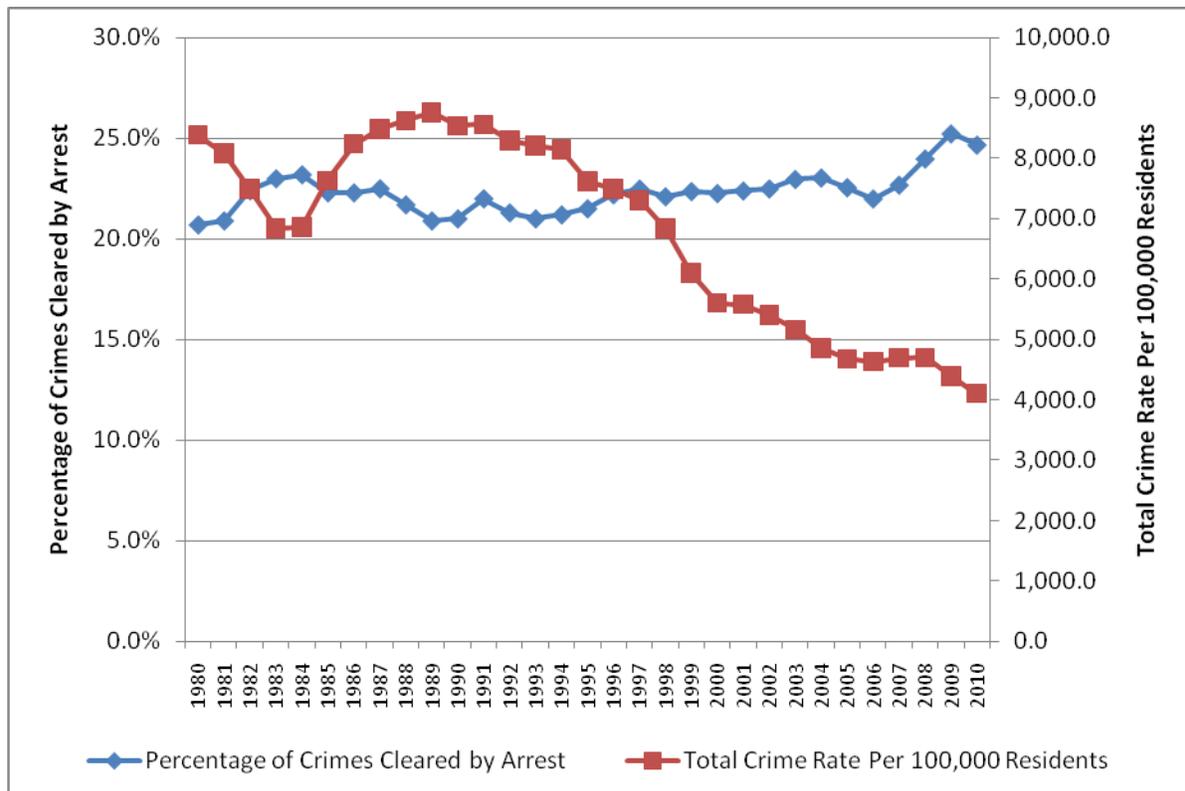
III.D. Punishment Measures and Changes in Crime Rates

Researchers have examined the impact of various measures of criminal punishment over time and changes in the level of crime in communities. We examine the relationship between imprisonment rates (the number of offenders in prison per 100,000 residents), percent of the total population under the control of the Florida Department of Corrections (i.e., prison versus community supervision), the percent of convicted felony offenders who were sentenced to prison versus local jail or community supervision, and the percent of prison admissions that were sentenced as habitual offenders.

III.D.2 Imprisonment Rates and Crime

Table III.9 and Figure III.8 present trends in the number of offenders in prison each year per 100,000 Florida residents, i.e., the imprisonment rate, from 1980 to 2010. One of the most salient aspects of this 31 year trend in the imprisonment rate is that there have been only four years when the rate decreased; 1984, 1992, 1997 and 2001. Additionally, three of these annual declines were minimal in magnitude (1992 -0.1%, 1997 -1.5%, 2001 -1.1%) and the only significant reduction was early in the time period (1984 -7.1%). Over the entire 31 year period, the imprisonment rate increased from 202.0 in 1980 to 544.6 in 2010; a +342.5 or 169.5% increase. Also illustrating growth in imprisonment relative to the resident population, the number of incarcerated offenders increased from19,692 in 1980 to 102,232 in 2010 (+419.2%), as the resident population of Florida increased from 9,746,961 in 1980 to 18,773,356 in 2010 (+92.6%). In other words, the prison population in Florida over the past three decades has expanded over fivefold while the resident population has approximately doubled.

Table III.9: Punishment Measures in Florida: 1980 - 2010

Year	Prison Population Rate Per 100,000 Residents	Annual Percent Change in the Prison Population Rate	Percent of Felons Sentenced to Prison	Percent of Prison Admissions Habitualized
1980	202.0	----	21.3%	0.6%
1981	212.8	5.4%	19.9%	0.5%
1982	250.8	17.8%	21.0%	0.6%
1983	259.6	3.5%	19.7%	0.6%
1984	241.0	-7.1%	18.7%	0.7%
1985	250.0	3.7%	21.4%	0.6%
1986	254.9	2.0%	23.1%	0.5%
1987	273.0	7.1%	25.6%	0.2%
1988	273.2	0.1%	28.5%	0.3%
1989	300.8	10.1%	31.3%	2.5%
1990	330.3	9.8%	30.6%	6.3%
1991	348.7	5.6%	25.0%	8.4%
1992	348.3	-0.1%	25.2%	9.2%
1993	368.6	5.8%	23.1%	8.2%
1994	399.1	8.3%	19.5%	8.7%
1995	432.4	8.3%	16.0%	11.2%
1996	439.9	1.7%	15.8%	12.5%
1997	433.2	-1.5%	15.8%	13.5%
1998	435.2	0.5%	16.0%	12.7%
1999	440.3	1.2%	16.7%	12.0%
2000	445.7	1.2%	18.7%	11.6%
2001	440.9	-1.1%	18.3%	11.8%
2002	441.1	0.0%	19.2%	11.7%
2003	452.9	2.7%	20.7%	11.5%
2004	468.0	3.3%	21.3%	10.4%
2005	473.8	1.3%	21.1%	9.8%
2006	482.7	1.9%	20.9%	8.3%
2007	497.0	3.0%	21.3%	8.3%
2008	522.1	5.0%	21.5%	8.3%
2009	538.1	3.1%	23.2%	8.6%
2010	544.6	1.2%	24.1%	8.4%

Figure III.8: Florida Imprisonment Rates per 100,000 Resident and Total Crime Rates: 1980 - 2010
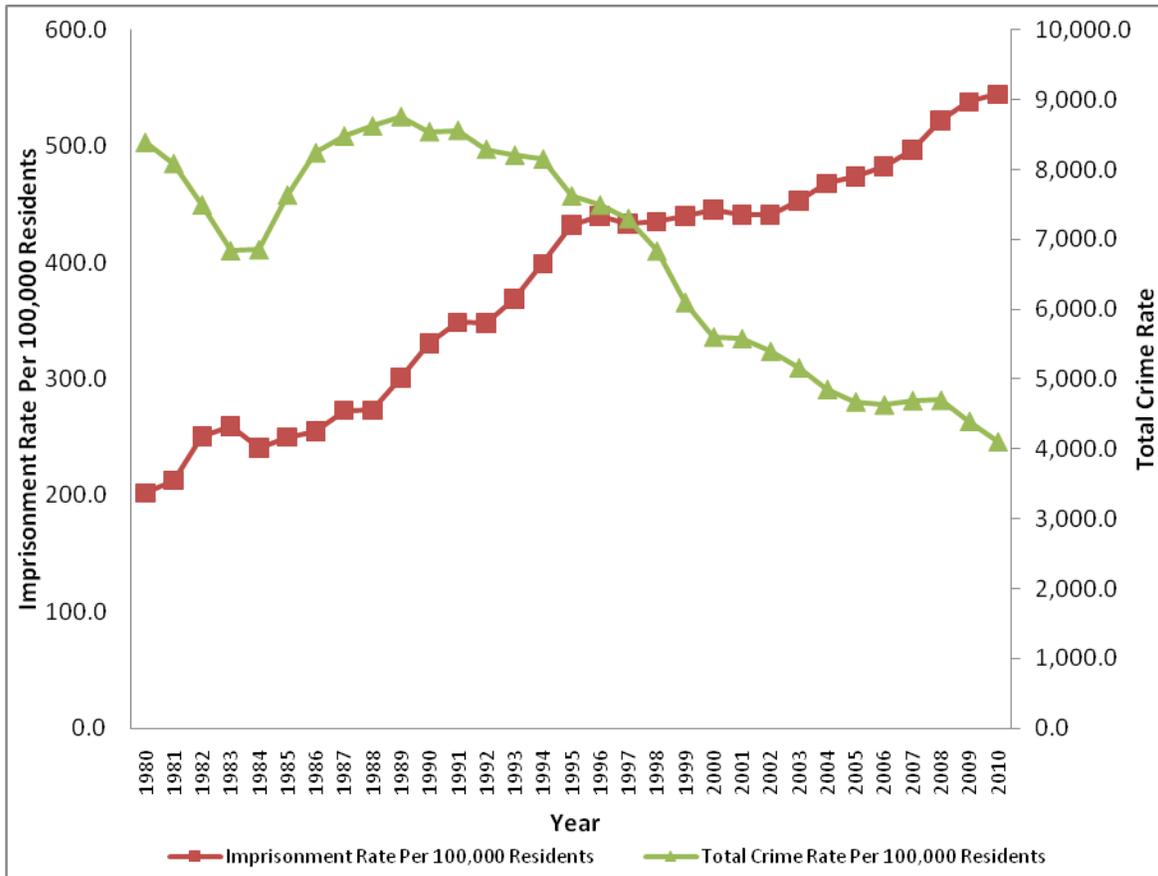

Table III.10 and Figure III.8 present changes in the imprisonment rate and crime rate in the 1980's, 1990's, and 2000's. The most significant increase in the imprisonment rate occurred in the 1980's when it rose by +63.5%. However, the 1980's experienced a significant decrease in the imprisonment rate for one year (1984 -7.1%). The significant increase in imprisonment rates from 1980 to 1990 can largely be attributed to significant increases observed from 1988 to 1989 (+10.1%) and from 1989 to 1990 (+9.8%). The imprisonment rate continued to increase in the 1990's (+27.8%). There was annual growth in all but two years during this period, though, the downturns were minimal (1992 -0.1%, 1997 -1.5%). While the imprisonment rate increased by +23.5% in the 2000's, the only annual decline was not significant in 2001 (-1.1%).

Table III.10: Changes in Punishment Measures and Total, Violent and Property Crime Rates in Florida: 1980 - 2010

Numerical Change:	Prison Population Rate Per 100,000 Residents	Percent of Felons Sentenced to Prison	Percent of Prison Admissions Habitualized	Total Crime Rate Per 100,000 Residents	Violent Crime Rate	Property Crime Rate
1980 - 1990	128.3	9.3%	5.7%	151.6	238.7	-87.1
1991 - 2000	97.0	-6.2%	3.2%	-2,956.7	-397.6	-2,559.1
2001 - 2010	103.6	5.8%	-3.3%	-2,441.3	-379.9	-2,061.4
1991 - 2010	195.9	-0.9%	0.0%	-4,456.3	-655.8	-3,800.5
Percent Change:						
1980 - 1990	63.5%	43.6%	907.3%	1.8%	24.3%	-1.2%
1991 - 2000	27.8%	-24.9%	38.1%	-34.5%	-33.2%	-34.8%
2001 - 2010	23.5%	31.5%	-28.3%	-26.4%	-32.0%	-25.5%
1991 - 2010	56.2%	-3.5%	0.1%	-52.1%	-54.7%	-51.6%

In summary, the evidence based on the trends in imprisonment rates and crime rates suggests that, in general, increasing imprisonment rates are associated with the crime decline in Florida.

III.D.3 Percentage of Felons Sentenced to Prison and Crime

Table III.9 presents the annual trends in the percentage of felons sentenced to prison from 1980 to 2010 as well as the changes across the three decade periods. This measure of the level of punishment ranged from a low of 15.8% in 1996 and 1997 to a high of 31.3% in 1989. Over the 30 annual changes, there were decreases across 12 years and decreases across 18 years. There were three decreases in the early 1980's, six in the 1990's and only three in the 2000's. Changes in the percent of felons sentenced to prison the 1980's can be characterized as fluctuating significantly from a low of 18.7% in 1984 to a high of 31.3% in 1989. During the 1990's, there was a significant decrease in the annual rate from 30.6% in 1990 to 15.8% in 1997, followed by a modest increase to 16.7% in 1999. The percent of felons sentenced to prison fluctuated somewhat in the 2000's, however, the overall trend was on the incline from 18.7% in 2000 to 24.1% in 2010.

Relative to changes in the total crime rate, Table III.9 shows that the percentage of felons sentenced to prison increased by +43.6% in the 1980's while the crime rate increased minimally (+1.8%). In contrast, in the 1990s, the percent of felons sentenced to prison decreased by -24.9% as the crime rate decreased by -34.5%. During the 2000's, the felon prison sentencing rate increased by +31.5% and the crime rate continued to decrease in the 2000s' (-26.4%). Examining the relationship between changes in the percentage of felons sentenced to prison and violent crime rates, a different pattern emerges in the 1980's. Specifically, a -19.9% decrease in the felon prison sentencing rate is associated with a +24.3% increase in the violent crime rate. In the 1990's, the violent crime rate decreased significantly (-33.2%) and the percent of felons sentenced to prison decreased by -24.9%. This pattern changed in the 2000's when the percent of

felons entering prison increased by +31.5% and the violent crime rate decreased by a similar degree (-32.0%). The nexus between the percentage of felons sentenced to prison and the level of property crime is similar to that which was found when examining the total crime rate; the exception being during the 1980's when the property crime rate only slightly decreased (-1.2%). In summary, juxtaposing changes in the percentage of felons sentenced to prison with change in crime rates provide no convincing evidence that there is an empirical link between these two measures.

Figure III.9: Percent of Felons Sentenced to Prison and Total Crime Rates in Florida: 1980 – 2010
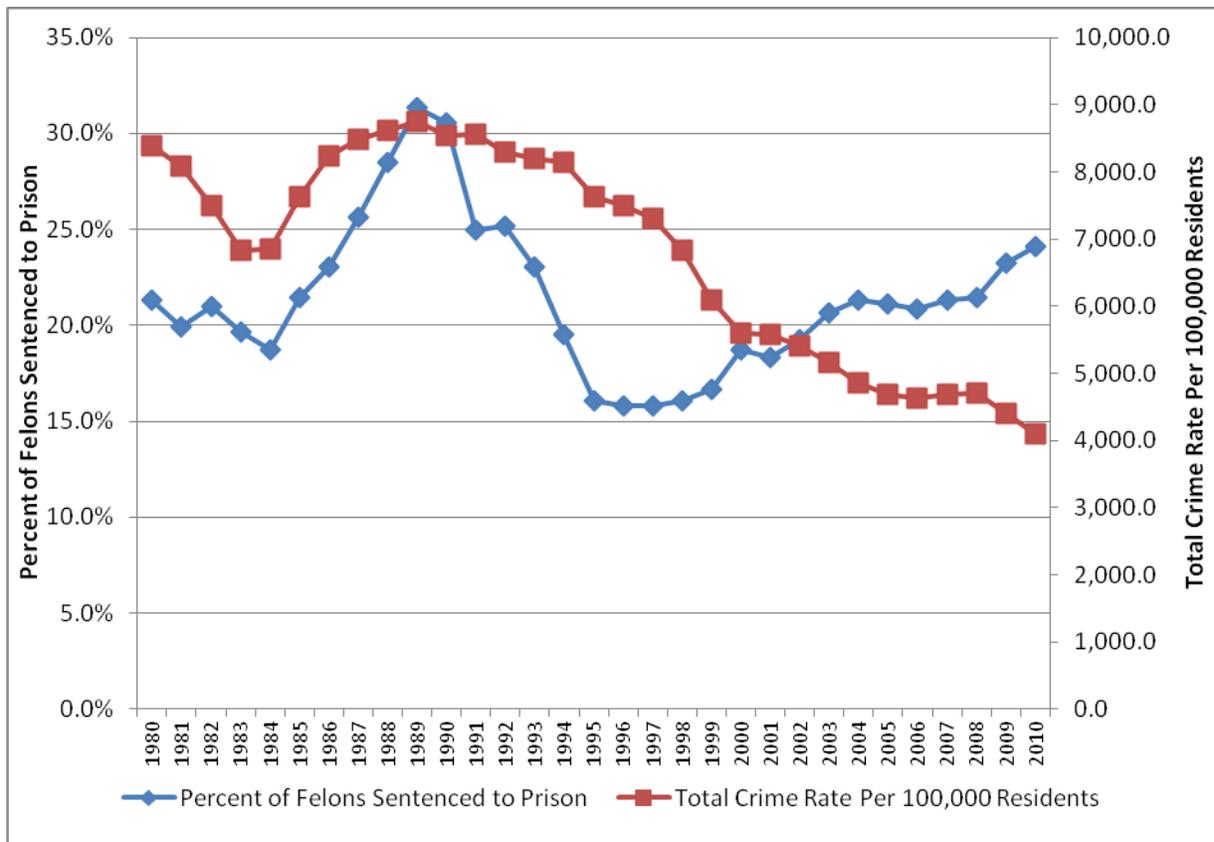
### III.D.4 Percentage of Prison Admissions Habitualized

While there has been a Florida statute on the books for many decades which provide courts the authority to designate offenders as habitual felons, the law was rarely used prior to the enactment of a new habitual offender law in 1988. More specifically, the law applied to crimes committed on or after October 1, 1988. However, a substantial period of time can pass between when a crime is committed and the offender is prosecuted, convicted, and then sentenced to prison. Therefore, a minimal number of offenders entering prison were habitualized under this law until several months after the law was enacted. An offender with two prior felony convictions may

qualify a habitual offender or as a habitual violent felony offender if being prosecuted for a felony classified as violent with one prior felony conviction. The primary consequence of being sentenced as habitual is a doubling of the maximum prison sentence that may be imposed by a judge. The habitual designation also resulted in the ineligibility of "basic gain-time" until this form of gain-time was eliminated in 1994. Basic gain-time was awarded to inmates entering prison and comprised one-third reduction in the court imposed sentence. Additionally, during the period when Florida was forced to reduce prison sentences by significant amounts from the time when the habitual law became effective to December of 1994 when early release was eliminated, these offenders were not eligible for early release credits.

Table III.9 demonstrates that the habitual offender law available to the courts prior to the enactment of the new law in October 1988 was rarely used. Specifically, only 0.3% to 0.7% of the felons sentenced to prison each year between 1980 and 1988 were habitualized. The percentage of prison admissions sentenced under the 1988 law increased from 2.5% in 1989 to 13.5% in 1997 and then tapered off to 8.4% in 2010.

Figure III.10 displays the trend in the application of the habitual offender law and the crime rate from 1980 to 2010. The impact of this law, resulting in significant increases in the lengths of stay in prison of offenders habitualized, on the level of crime in Florida can be considered from various perspectives. First, the timing of the new habitual statute in October 1988 and the fact that there is a considerable lag period from when offenders commit the crime(s) which result in imprisonment suggests the expectation that any effect it could have on the crime rate would be delayed. Given that the crime rate peaked in 1991 and has declined precipitously since then, when the habitual law was used aggressively by the courts to incapacitate selected repeat offenders, suggests that this "get tough" punishment strategy has contributed to Florida's crime drop. More research is needed to more definitively determine how much the habitual law has affected crime rates. Second, it is possible that the nexus between habitualization and crime in the community would be better understood by examining the cumulative number of habitual offenders incapacitated in prison over time and changes in the level of crime. Third, a comparison in how much crime can be attributed to felons sentenced to prison who were and were not sentenced as habitual offenders would further our understanding of how this law may impact the level of crime in communities.

Figure III.10: Percent of Prison Admissions Habitualized in Florida: 1980 - 2010
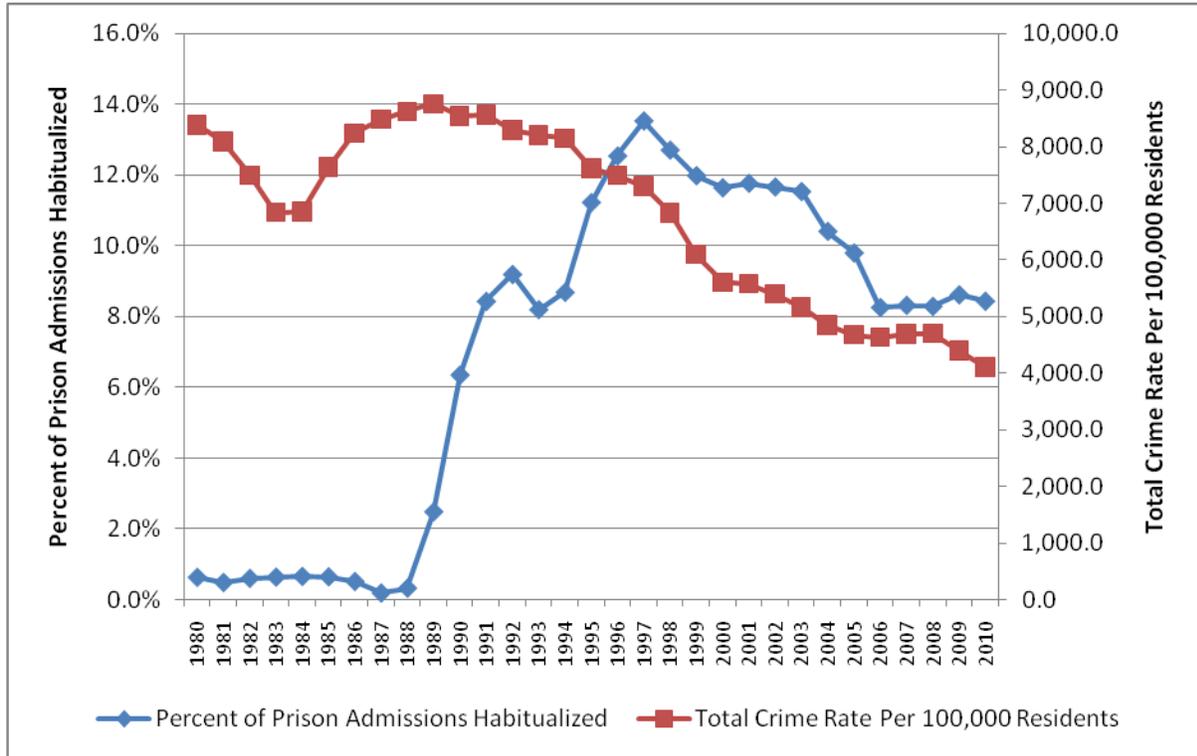
IV. Time Series Analysis of Predictors of Changes in Crime Rates

We next present findings addressing the question of why crime in Florida decreased by 52.1% between 1991 and 2010 using statistical methodologies which consider multiple possible causal factors simultaneously. Two types of time-series models of estimation were examined in this study. They included ARIMA and Prais-Winsten approaches, two common methods for estimating analysis of variables collected over time. Over 100 time-series analyses were estimated, and space precludes a detailed review of all of these findings. Thus, we summarize these results in Table IV.3 by focusing on whether each of the seven predictors was a significant correlate of each of the crime outcomes. (Note: Each outcome variable is predicted by only one predictor, so Table should be read across. For example, the effect of prison on the index crime rate does not consider any other variables due to sample size.). Finally, to summarize and simplify the results in this section we focus on the effect of each of the specific predictor variables one at a time.

Table IV.1: Percent Change in Crime Variables: 1980 - 2010

	1980	2010	% Change 1980-2010
Total Index Crime Rate	8,387.8	4,104.7	-51.06
Total Violent Crime Rate	982.2	542.9	-44.73
Total Property Crime Rate	7,405.6	3,561.8	-51.90
Total Murder Rate	14.5	5.3	-63.45
Total Forcible Sex Rate	56.7	52.7	-7.05
Total Robbery Rate	355.1	138.9	-60.88
Total Aggravated Assault	555.9	346.1	-37.74
Total Burglary Rate	2,503.1	900.3	-64.03
Total Larceny Rate	4,425.7	2,440.8	-44.85
Total Motor Vehicle Theft	476.8	220.7	-53.71
Total Clearance Rate	20.7	24.7	19.21

Table IV.2: Percent Change in Predictors of the Crime Drop: 1980 - 2010

Crime Drop Predictor	1980	2010	% Change 1980-2010
Number of Prisoners	19,692	102,232	419.15
Number of Police	18,308	41,753	128.06
Percentage Habitual Offender	0.0063	0.084	1,238.25 ^^
Unemployment Rate	5.9%	11.5%	94.92 ^
Number of Registered Voters	4,809,721	11,157,412	131.98
Male Population Age 10-17	596,440	950,786	59.41
% of Court Felony Filings that Result in a Conviction	0.3446	0.7442	115.96
Police Per 100k	187.832	222.405	18.40
Prisoners Per 100k	202.0322	544.559	169.54
Registered Voters Per 100k	49,345.85	59,432.16	20.44
Percentage Male Population 10-17	0.0611	0.0506	-17.18

Note: For Number of Prisoners, Number of Police, Number of Voters, and Male Population Age 10-17 I have left those as raw numbers for this table so that people can see the raw value increases. In the analyses they are all standardized per 100,000. For Male Population, it is listed as a percentage of the total 10-17 population. Unemployment Rate and Percentage Habitual Offender remains the same here and in the analyses.

Note: ^, in 2009 and 2010 the Florida unemployment rate evinced sizable increases of 10.2% and 11.5%, respectively where it was 6.2% in 2008.

Note: ^^, in 1988, Florida instituted the Habitual Offender Statute.

Table IV.3: Summary of Time-Series Analysis Predicting Each Crime Outcome Variable (per 100,000) with Seven Key Predictors

	Total Index Rate	Violent Rate	Property Rate	Murder	Forcible Sex	Robbery	Aggravated Assault
Prison	- ^	0	- ^	-	0	0	0
Police	0	0	0	0	+	0	0
Habitualized	0	0	0	-	+	0	0
Court Felony Convict Rate	0	0	0	0	0	0	0
Unemployment Rate	0	0	0	0	0	0	0
Voters	0	0	0	0	0	0	0
Males 10-17	0	0	0	0	0	0	0

	Burglary	Larceny	Motor Vehicle Theft	Clearance
Prison	0	- ^	0	+
Police	0	0	0	0
Habitualized	-	0	0	0
Court Felony Convict Rate	0	0	0	0
Unemployment Rate	0	0	- ^	+
Voters	0	0	-	+
Males 10-17	0	0	0	0

Legend: a (-) indicates that higher values of the variable in question is associated with lower crime per 100,000; a (+) indicates that higher values of the variable in question is associated with higher crime per 100,000; a (0) indicates that the variable in question is not significantly associated with crime per 100,000.

Notes:
1. ^ indicates marginally significant effect (i.e., not very strong).
2. Arima (AR1) models as well as Prais-Winsten Models are estimated for all outcome variables.
3. When we find evidence of a strong effect, as in the case of the effect of prison on murder, we also estimated the model with a year covariate and then again using an Arima (0,1,0), integrated (difference) order. Both of these supplemental analyses produced substantively similar conclusions.

IV.1. Imprisonment

Among all of the predictors of crime in Florida between 1980 and 2010, the effect of the prison population had the most consistent effects. The strongest effect of the prison population per 100,000 occurred for murder; here it can be seen that a higher prison population was associated with a decreasing murder rate. This effect was observed across both the ARIMA (AR1) and

Prais-Winsten models, as well as an alternative types of ARIMA model (difference model), as well as in alternative models that included the year as a covariate. The prison population also had a significant, negative relationship to the index crime rate, the property crime rate, and the larceny crime rate (though these effects were marginally significant and not very strong).

IV.2. Police

With one minor exception, the effect of the police on all of the crime rates examined was not significant. The one exception was for the effect of police on forcible sex, which was positive and significant (though not very strong) in the Prais-Winsten model.

IV.3. Habitualized Felons

The effect of habitualized felony rate was significant for three crime rate outcomes, including murder, forcible sex, and burglary. For two of these outcomes, a higher percentage of habitualized felony rate was associated with lower crime rates (murder and burglary). The exception was for the forcible sex crime rate, where a higher habitualized felon rate was related to a higher forcible sex rate in the Prais-Winsten model.

IV.4. Court Felony Conviction Rate

For all but one of the crime rate outcomes, the percentage of felony cases leading to a conviction was not a significant correlate of any crime rate measure. The sole exception was for robbery, where the effect was positive and marginally significant in the Prais-Winsten model.

IV.5. Unemployment Rates

For all but one of the crime rate outcomes, the unemployment rate was not a significant correlate of any crime rate measure. The sole exception was for motor vehicle theft, where the effect was negative and marginally significant in the Prais Winsten model indicating that as the unemployment rate increased the motor vehicle crime rate decreased. However, it is important to not place much stock in this result because of the two-year idisyncracy of the unemployment rate in 2009 and 2010 where it increased significantly compared to the prior 29 years. In fact, when the Prais-Winsten model was re-estimated with those two years removed, the effect of the unemployment rate on the motor vehicle theft rate became insignificant.

IV.6. Percentage of Registered Voters

For all but one of the crime rate outcomes, the percentage of registered voters was not a significant correlate of any crime rate measure. The sole exception was for motor vehicle theft, where the effect was negative and significant in the Prais-Winsten model indicating that a higher percentage of registered voters was associated with a decrease in the motor vehicle theft rate.

IV.7. Population of Males, 10-17

The effect of the percentage of males aged 10-17 of the total population was not a significant correlate of any of the crime rate measures.

IV.8. Limitations

As with any methodological approach, some cautions should be borne in hand with respect to time series analysis. First, as we only have one unit of analysis (State of Florida) and we are analyzing crime trends over time, we have a very small sample size (n=31) for the 1980-2010 period. As a result, it is ill-advisable to include many independent variables in the sample space. Thus, we have to consider the relationship between one variable and each of the outcome variables without control variables included, thereby making our analyses very preliminary because it is difficult to determine the precise relationship.

Second, we considered seven variables that have been identified as having some role in the crime-drop observed in the US and Florida. Of course, not only were many of the effects of these variables operating at the same time—thereby making it virtually impossible to isolate any specific effect—it also curtailed our ability to consider several other factors not considered here or that were considered by data were unavailable over the time series of analysis. All of this is to suggest that it will be very difficult to discern completely the factor(s) that were responsible for the crime drop, thus we can only look at trends and make suggestive conclusions. Subsequent analysis should consider inclusion of other potential factors as well as study county-level changes in crime rates over the 1980-2010 period in the State of Florida and further consider examining crime trends in certain cities to see how crime rates ebbed and flowed within a city across sections in a city.

Finally, it is important to note that analysis of aggregate data (measured at levels of analysis higher than the individual, such as county, city, or state) are measuring one source of activity but may not be capturing the full extent of that effect. As a case in point with respect to the current investigation, consider the effect of police per 100,000. During the 1980-2010 period, there was a sizable increase in the number of police officers in the State of Florida, yet the effect of this particular measure of police was not a significant correlate of most crime rates. This should not be interpreted as a 'fault' of the police per se, but could indicate that other ways of measuring the effect of police on crime should be considered in subsequent research. For example, Sherman (1995) has noted that it is not the number of police per se that affects crime, but instead it is what the police do that matters. An example of this includes the effect of COMPSTAT and hot-spots-oriented policing in the New York City crime decline (see Kelling, 2009; Zimring, 2011). The problem of course is measuring the effect of these sorts of police action at the state level.

IV.9. Interpretations

In many ways, our investigation of the crime drop in Florida yielded evidence consistent with many other investigations of the crime drop in other states and nationally as a whole. For example, we observed an effect for increasing prison populations having a negative (deterrent) effect on several crime rate outcomes such as the index crime rate, the property crime rate, and the larceny crime rate—and most strongly on the murder rate. On the other hand, our results are similar to other studies which fail to find a large set of consistently significant effects of a large array of variables (see Stowell et al., 2009; Rosenfeld and Messner, 2009). In fact, much of the research on crime drop has not been based on statistical analysis but more on correlational or conjectural analysis (see review in Blumstein and Wallman, 2000; Levitt, 2004). Two recent analyses by Stowell et al. (2009) and Rosenfeld and Messner (2009) performed crime-drop analyses. The former study found that the concentration of immigration was associated with a decrease in the crime rate—especially for robbery , while the latter study's crime drop analysis on the economy and imprisonment on American and European burglary rates found that consumer confidence and imprisonment rates were the only significant predictors of burglary rates that included a larger set of explanatory variables such as police strength (police officers per 100,000 population), the sex ratio, the percentage of the population between the ages of 15-24, the unemployment rate, and the divorce rate. Many of these studies fail to find many significant effects of the crime drop, which could be due to several reasons including a lack of measuring the 'right' crime-drop variables. Nevertheless, our analyses of Florida's crime rate between 1980-2010 are similar to many other studies showing evidence in line with an imprisonment effect, at the aggregate level (see Levitt, 2004; Rosenfeld and Messner, 2009).

IV.10. Future Research on Explanations of Changes in Crime Levels

Additional areas of investigation should be considered as researchers continue to study the crime drop in Florida. Here, we identify a few of these for consideration. First, researchers should consider alternative conceptualizations of the variables used in this study, perhaps to include alternative measures of police effectiveness and labor market participation. Other factors not considered here may include changes in drug markets—especially crack-cocaine markets, changes in youth culture, changes in immigration patterns (which would be especially relevant for Florida), and changes in sentencing laws. Additional investigation should be given to analyses that includes changes in Florida's crime rates across different counties and cities, bearing in mind that some counties and cities may be driving the overall crime drops while other cities may be have very few crime problems—especially of the size of their more crime-riddled counterparts.

In sum, although it is very difficult to isolate one cause of the crime drop, it seems that an increase in the prison population had some effect. This does not necessarily mean that the State of Florida should continue expanding the prison population, not only is that costly but crime rates have been very low now for some time and it may be that other factors that have helped to

sustain the crime drop may have taken over. Identifying, measuring, and studying these factors remains a top priority.

IV.11. Proposal to Monitor Changes in Crime Levels

The research presented in this report has documented a long and significant decline in the level of crime in Florida over the past 20 years and suggests some possible reasons why this has occurred. However, this trend can certainly change in future years to one of increasing levels of crime in terms of total crime and/or specific types of crimes. If this occurs, it is incumbent that policy makers, practitioners, and scholars be poised to closely examine the crime data and attempt to determine what has transpired that has resulted in the reversal of the drop in crime. Without this scrutiny, the gains that Florida has achieved in reducing crime over the past two decades may be erased.

Therefore, it is proposed here that a group or committee of individuals be established that are responsible for an annual assessment of the current crime trends soon after the annual Uniform Crime Reporting data is published, which typically occurs in April or May of each year. In the event that the level of crime in the most recent year does not continue on a downward trajectory, the possible reasons for this change should be identified by this body of experts from disciplines such as criminology, education, economics, demography, law enforcement, the judiciary, etc. Without this or some variant of this process of annual reviews and assessments of the crime data and a determination of why any annual increases occur, policy makers will likely not be in a position to respond accordingly.

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