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THE ECONOMY-CRIME RELATIONSHIP REVISITED: THE SIGNIFICANCE OF
RECENT MACROECONOMIC AND SOCIAL POLICY CHANGES FOR CHILD
POVERTY AND YOUTH VIOLENCE TRENDS

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A Dissertation submitted to The Graduate School at the University of Missouri-St. Louis
in partial fulfillment of the requirements for the degree of
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Criminology and Criminal Justice

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TABLE OF CONTENTS

LIST OF TABLES	4
LIST OF FIGURES	5
ACKNOWLEDGEMENTS	6
ABSTRACT	7
CHAPTER 1: INTRODUCTION	8
CHAPTER 2: LITERATURE REVIEW	20
Economic Deprivation and Youth Crime	21
Measuring Youth Economic Deprivation	30
Trends in Child Poverty, 1993-2004	34
The Crime Drop	40
Macroeconomic Conditions and Violent Crime	43
Poverty and the Risk for Violence	47
Summary and Objectives	50
CHAPTER 3: GOALS, DATA, AND MEASURES	54
Research Goals	54
Data	56
Measures	65
Summary	76
CHAPTER 4: MACRO-LEVEL ANALYTIC STRATEGY AND FINDINGS	78
Analytic Strategy	78
Results	81
Summary	118
CHAPTER 5: MICRO-LEVEL ANALYTIC STRATEGY AND FINDINGS	126
Analytic Strategy	127
Results	130
Summary	141
CHAPTER 6: SUMMARY AND CONCLUSION	143
REFERENCES	162
APPENDICES	176
Appendix A: Comparison of NCVS and CPS National Youth Poverty Estimates, 1993-2004	177

Appendix B: Comparison of Children’s Living Arrangements in the NCVS and CPS	178
Appendix C: Male Youth Poverty and Violent Victimization Rates by Race and Ethnicity, 1993-2004	180
Appendix D: Female Youth Poverty and Violent Victimization Rates by Race and Ethnicity, 1993-2004	182
Appendix E: 12 to 14 Youth Poverty and Violent Victimization Rates by Race and Ethnicity, 1993-2004	184
Appendix F: 15 to 17 Youth Poverty and Violent Victimization Rates by Race and Ethnicity, 1993-2004	186
Appendix G: Urban Youth Poverty and Violent Victimization Rates by Race and Ethnicity, 1993-2004	188
Appendix H: Non-Urban Youth Poverty and Violent Victimization Rates by Race and Ethnicity, 1993-2004	190
Appendix I: Male Youth Poverty and Violent Victimization Rates by Family Structure	192
Appendix J: Female Youth Poverty and Violent Victimization Rates by Family Structure, 1993-2004	194
Appendix K: 12 to 14 Youth Poverty and Violent Victimization Rates by Family Structure, 1993-2004	196
Appendix L: 15 to 17 Youth Poverty and Violent Victimization Rates by Family Structure, 1993-2004	198
Appendix M: Urban Youth Poverty and Violent Victimization Rates by Family Structure, 1993-2004	200
Appendix N: Non-Urban Youth Poverty and Violent Victimization Rates by Family Structure, 1993-2004	202

LIST OF TABLES

Table 2.1. Changes in Child and Family Poverty in the Current Population Survey, 1993-2004	41
Table 3.1. Summary of Macro- and Micro-Level Research Questions	57
Table 3.2. Characteristics of NCVS Youth Sample, 1993-2004	66
Table 3.3. Example of Census Bureau Poverty Thresholds and NCVS Threshold Categories, 2004	72
Table 3.4. Categories in NCVS Family Structure Code	74
Table 4.1. First Differenced Correlations of Total Youth Poverty and Violent Victimization by Race, Ethnicity, and Family Structure	96
Table 4.2. First-Differenced Correlations of Group-Specific Poverty and Violent Victimization by Race, Ethnicity, and Family Structure	99
Table 4.3. Summary of Significant Findings for Macroeconomic Conditions and Welfare Reform Effects on Poverty-Violence Relationships	119
Table 5.1. Descriptive Statistics for Logistic Regression Explanatory Variables	131
Table 5.2. Logistic Regression Analysis of Youth's Risk for Violence on Poverty Status	132
Table 5.3. Logistic Regression Analysis of Youth's Risk for Violence on Poverty Status, Race and Ethnicity, and Family Structure	135
Table 5.4. Logistic Regression Analysis of Youth's Risk for Violence on Poverty Status, Race and Ethnicity, Family Structure, and Demographic Controls	138

LIST OF FIGURES

Figure 2.1. Unemployment and Child Poverty Rates by Race and Ethnicity, 1974-2008	37
Figure 3.1. Illustration of NCVS Hierarchical File Structure	61
Figure 4.1. Total Youth Poverty and Violent Victimization Rates, 1993-2004	85
Figure 4.2. Total Youth Poverty and Violent Victimization Rates by Race and Ethnicity, 1993-2004	89
Figure 4.3. Group-Specific Poverty and Violent Victimization Rates by Race and Ethnicity, 1993-2004	90
Figure 4.4. Rape and Sexual Assault Rates by Race and Ethnicity, 1993-2004	94
Figure 4.5. Robbery Rates by Race and Ethnicity, 1993-2004	95
Figure 4.6. Aggravated Assault Rates by Race and Ethnicity, 1993-2004	96
Figure 4.7. Simple Assault Rates by Race and Ethnicity, 1993-2004	97
Figure 4.8. Total Youth Poverty and Violent Victimization Rates by Family Structure, 1993-2004	112
Figure 4.9. Group-Specific Poverty and Violent Victimization Rates by Family Structure, 1993-2004	113

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ABSTRACT

The relationship between economic deprivation and violent crime has been extensively studied in the field of criminology, yet little is known about the impact of recent macroeconomic and social policy changes on the relationship between child poverty and youth violence trends. The current study aims to fill this gap in the literature by assessing whether the macroeconomic conditions and welfare reform policies that contributed to child poverty trends during the 1990s and early 2000s also contributed to youth violent victimization trends variously disaggregated by race, ethnicity, and family structure. Also, the changing effects of poverty on youth's violence risks were assessed to determine the potential impact of welfare reform on the individual-level relationship between poverty and violence.

For the overwhelming majority of youth, findings suggest that recent changes in macroeconomic conditions and federal welfare policies did not influence trends in violent victimization. However, significant impacts were found for certain groups of youth, most notably those in female-headed families. Also, results from the micro-level analysis revealed that the 'female-headed family' variable fully mediated the relationship between poverty and youth's violence risks both before and after the passage of welfare reform-- the sum of the evidence suggesting that family structure is a key contingency in the poverty-violence relationship. Other noteworthy findings include substantive differences in the poverty-violence relationships of non-Hispanic and Hispanic youth.

CHAPTER 1

INTRODUCTION

Multidisciplinary research has widely documented the detriments of economic deprivation for child and adolescent well-being; it has been linked to a number of family and child outcomes that adversely affect youth welfare and adjustment including inadequate parenting (e.g. Grant et al., 2003), poor family functioning (e.g. Bradley et al., 2001), cognitive and academic deficits (e.g. Sirin, 2005), emotional and behavioral problems (e.g. Felner, 1995), and poor physical health (e.g. Brooks-Gunn & Duncan, 1997). In addition, criminologists have established numerous theoretical and empirical connections between economic deprivation and youth crime via family, community, and social processes that affect the socialization and regulation of youth behavior.

Despite a vast body of knowledge on the effects of economic deprivation on youth, there is still much to learn about this relationship. Past research has paid little attention to the effects of larger economic and social policy changes on youth violence trends, and even less is known about these effects on youth sub-groups such as racial and ethnic minorities, married couple and female-headed family members, etc. This research will utilize the wealth of demographic and victimization data available in the National Crime Victimization Survey to address these specific issues. Moreover, this research will employ the use of repeated multivariate models to assess the independent effects of economic deprivation, race and ethnicity, and family structure on youths' - violent victimization risks over the years, thus filling an important gap in the youth victimization literature.

An important first step towards fulfilling these research goals is selecting an appropriate indicator of youth economic deprivation. Children under 18 are obviously limited in their ability to work and earn income and as a result, they depend predominately on their families for financial support (Brooks-Gunn & Duncan, 1997). Therefore, family income-based measures such as the official definition of poverty are particularly relevant to youth economic well-being. As determined by the Census Bureau, the poverty status of children is based on the total cash income of the family unit, which differs from the household unit in that it only includes those persons within the household that are related by birth, marriage, or adoption (Hoynes, Page, & Stevens, 2006). If the total family income before taxes is less than the designated poverty threshold for their family size and composition, the family and all of its members is considered to be poor; the proportion of 0 to 18 years olds in poverty is represented by the official child poverty rate.

An additional advantage of the child poverty rate for the purposes of this research is its relationship with macroeconomic conditions. As measured by the unemployment rate, for example, the state of the economy is an important determinant of child poverty rates (Nichols, 2006). More importantly, there has been a close historical association between changes in the unemployment and child poverty rate that may have important implications for youth violence trends. Though prior research overwhelmingly refutes a relationship between changes in the economy and violence trends, there is evidence that child poverty and youth violence trends are significantly associated (Messner, Raffalovich, & McMillan, 2001). It stands to reason, therefore, that the macroeconomic conditions that affect child poverty rates also affect youth violence. The child poverty

trends that occurred throughout the 1990s and early 2000s offer a unique opportunity to confirm this supposition.

Between 1993 and 2004, child poverty rates followed two distinct trends: a steady and significant decline from 1993 to 2000 and a modest but steady increase from 2001 to 2004 (Nichols, 2006). As important as these trends, however, were the economic and social policy changes that contributed to them. The 1990s were marked predominately by the longest economic expansion of the post-World War II United States. This unprecedented expansion led to significant improvements in the job market for low-skilled, less-educated workers and the first sustained increase in their real wage in over thirty years (Jargowsky, 2003). These economic developments contributed to substantial reductions in poverty for children and families, but markedly so for minorities and female-headed families who are more likely to occupy the bottom of the job market.

If the economic expansion contributed to reductions in child poverty, economic and social policy developments such as Earned Income Tax Credit (EITC) expansions and the passage of the Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA) of 1996 also served as important stimuli. Enacted in 1975, the EITC provided refundable tax credits and wage supplements to low-income working families and the expansions in 1993 and 2000 were the largest in the program's history (Gunderson & Ziliak, 2004). Prior research has identified the EITC as a major impetus for the growth in maternal employment from the mid-1980s to the mid-1990s (Meyer & Rosenbaum, 2001).

PRWORA also had significant implications for maternal employment. This legislation introduced major reforms to the federal welfare system which included

mandatory work requirements, permanent time limits, sanctions for noncompliance, and replacement of the Aid to Families with Dependent Children program with block grants to states entitled Temporary Assistance to Needy Families (Greenberg et al., 2002).

Collectively, these policies contributed to increased work efforts among welfare recipients and low-income single mothers, but more importantly the reductions in child poverty accelerated in the wake of these reforms.

The economy entered a recession in 2001 that hit all families and demographic groups (Langdon, McMenamin, & Krolik, 2002). As the economy weakened, the sustained reductions in child poverty that occurred over the previous decade began to stall and rates increased modestly throughout 2004. Although the recession affected all groups of people, the gains in poverty for black children and female-headed families were more than three times larger than their counterparts, which suggest that the weakening of the economy had the greatest impact on the most disadvantaged groups.

What is the significance of these developments for youth violence? The violent crime trends that occurred in the 1990s may offer some clue. The economic expansion coincided with substantial reductions in violent crime, particularly among youth. This decline in youth violence was particularly noteworthy because it was an unexpected departure from the sharp increases that occurred over the previous decade (Butts & Travis, 2002). At first glance, these trends share similarities that are suggestive of a causal relationship; in addition to the fact that the crime decline occurred amidst an unprecedented expansion of the U.S. economy, both trends seem to have pronounced benefits for youth. But despite these commonalities, empirical support for a relationship

between the economic expansion and concomitant reductions in youth violent crime is generally lacking.

The lack of empirical support for a relationship between macroeconomic conditions and youth violent crime does not warrant the dismissal of a possible relationship, however. The economy-crime relationship is complex and it is possible that it cannot be understood in terms of a direct causal connection. Instead it may be the case that the economic state affects violent crime through its association with other factors such as the child poverty rate. Research has already uncovered a significant association between child poverty and youth violence trends (Messner et al., 2001), but has failed to consider how macroeconomic conditions and social policy changes influence this relationship. The state of the economy in the 1990s and early 2000s contributed to distinct trends in child poverty and by assessing the impact of these trends on youth violence rates, this research aims to identify the larger influence of the economic state on changes in youth violence.

The economic expansion was also characterized by pronounced reductions in poverty for minority youth and female-headed families, the former being consistent with past patterns in child poverty trends. This research will examine the relationship between disaggregated child poverty and youth violent victimization trends to determine how changes in the economy influence violence among sub-groups such as racial and ethnic minorities. Because researchers have relied heavily on data sources such as the Uniform Crime Reports to study racial patterns in violent crime trends, much of our knowledge is based on the differences between blacks and whites. By utilizing the race and Hispanic origin variables available in the NCVS, this research will contribute to the understanding

of how Hispanic youth violence has changed in recent decades and how those changes are related to child poverty trends.

Also contributing to the trends in child poverty were the significant changes to the nation's welfare system. Prior research has extensively examined the effects of welfare reform on children's academic achievement, emotional and behavioral adjustment, and physical health, but comparatively less is known about the effects of welfare reform on adolescents. By assessing post-reform relationships between child poverty and youth violence trends, this research will contribute to the understanding of how welfare reform may have affected violence among youth--an aspect of child well-being that has been overlooked in the welfare reform literature.

Because researchers failed predominately to anticipate the effects of welfare reform and maternal employment on adolescent well-being, it was somewhat surprising that several evaluations of welfare-to-work programs found negative impacts on youth that included smoking, alcohol and drug abuse, and delinquency (Gennetian et al., 2002). The avenues through which maternal employment may harm adolescents are largely unknown, but researchers have advanced a number of hypotheses including decreased parental monitoring and adolescents' increased household responsibilities. Adolescents who assume adult responsibilities in the home may feel that they have license to engage in adult behaviors, particularly when they live in high-risk setting such as poor families (Brooks, Hair, & Zaslow, 2001). Equally important as the relationship between child poverty and youth violence trends is the understanding of how poverty impacted youth's risk for violent victimization before and after welfare reform.

Welfare caseloads declined dramatically in the early post-reform era. In the three years following the implementation of TANF, the number of recipients declined by almost half and in 2000 nearly one-fifth of the closed cases were closed due to employment (U.S. Department of Health and Human Services, 2002). However, these figures may lead to specious conclusions about the success of welfare reform. Many states adopted a work-first approach to PRWORA's mandates and emphasized quick entry into the labor force over human capital development. As a consequence, many recipients transitioned into low-skilled, low-paying jobs that offered minimal benefits and job security, and often remained poor despite meeting the mandatory work requirements (e.g. Corcoran, 2000). Many of these low-income working families continued to face significant financial struggles and remained vulnerable to repeated welfare use.

These trends have obvious implications for youth. Evidence from the National Survey of American Families (NSAF) suggests that in the wake of welfare reform, parental aggravation more than tripled among transitioning recipients with young children (Loprest & Zedlewski, 2006). Parental stress can invoke family conflict, strained parent-child relationships, and harsh or inconsistent discipline, which in turn may lead to a host of problem behaviors among youth. Parents with adolescent children did not experience increased aggravation on the other hand, which may be due to the fact that older children were able to ease the welfare-to-work transition by assuming more of the household and family responsibilities. Although this line of reasoning is speculative, it would explain why many adolescents reacted adversely to their parent's participation in welfare-to-work programs (Gennetian et al., 2002).

If this supposition is correct, the trends in the proportion of youth in working poor families may offer some insights into their experiences with family poverty. Though child poverty rates declined throughout most of the 1990s and accelerated in the post-TANF era, there were significant increases in the proportion of children in working poor families. By 2000, more than three-fourths of all poor children and roughly 80 percent of poor Hispanic and non-Hispanic white children lived in low-income working families (Child Trends, no date). These proportions declined considerably over the early half of the 2000s, possibly as low-income working parents accumulated the necessary skills and work experience to secure better paying jobs.

Poverty has major consequences for parents and children in low-income working families (Stanzyck, 2009). These consequences may even be exacerbated for adolescents who might be expected to shoulder additional family and household responsibilities in the absence of their parents. Through its contribution to the growing proportion of youth in working poor families, the work requirements enacted by welfare reform may have exacerbated the consequences of poverty for various aspects of child well-being. This research will explore the possibility that welfare reform exacerbated the consequences of poverty for youth's violence risks and that these heightened consequences diminished over time. This exploration will also achieve the larger objective of determining the independent effects of poverty on youth's risk for violence over time and the extent to which this relationship has changed.

Again, there is a complex relationship between crime and the economy, and there is still a lot that criminologists do not understand about the effects of changing economic conditions on youth violence rates. One way to make sense of this relationship is to

examine the association between child poverty and youth violence rates. Given the significant relationship between the two, it stands to reason that the same economic forces that influence child poverty rates also influence youth violence. In the same sense, social policy changes such as the 1996 welfare reforms should also influence youth violence through its influence on child poverty. Based on knowledge of the social policy and economic climate of the 1990s and early 2000s and the response of child poverty rates to these developments, this research seeks to make important deductions about the effects of these economic changes and policy reforms on youth violence trends in recent decades.

This line of research is important for several reasons. First, the social and economic policies that impact child poverty rates most likely impact youth violence but yet there is a general disconnect in the literature on the effects of economic and social welfare policies such as the Earned Income Tax Credit and AFDC/TANF on youth violence rates. Previous research has established both direct and indirect links between welfare assistance levels and adult homicide rates in U.S. cities (e.g. DeFronzo, 1997) and cross-national relationships between levels of welfare spending and child homicide rates (e.g. Briggs & Cutright, 1994; Fiala & LaFree, 1988). However, researchers have failed to consider how social policy might affect youth violence rates through its impact on factors such as the child poverty rate.

Understanding this relationship will help policymakers and researchers to better anticipate the effects of economic and social policy changes on child poverty and youth violence, and hence allocate the appropriate resources toward prevention. Welfare reform proponents believed that mandatory work requirements would serve to establish working

parents as positive role models for adolescents preparing to enter the workforce, but they did not anticipate the potential consequences for youth in working families; this oversight was due largely to the fact that the body of knowledge on the effects of welfare reform on youth was based predominately on young children (e.g. Gennetian et al., 2002). Since the passage of welfare reform, significant strides have been made in this area of research but there are still important limitations. As welfare policies continue to evolve and change, it is particularly important to understand how future revisions might affect violence among youth.

Second, this research may inform new ways to target anti-poverty initiatives toward the prevention of youth violence. Violence prevention programs have encompassed a number of peer, family, school, community, and faith based initiatives over the years but if changes in the child poverty rate are indeed correlated with youth violence trends, it is plausible that policies designed to alleviate poverty will also impact youth violence. Often times, initiatives that target family poverty have parents with young children as a priority and are commonly designed to promote health and nutrition, school readiness, effective parenting, and healthy child development. However, including protective measures for older children may go a long way toward preventing youth violence and other problem behaviors. Although the explicit goals of PRWORA did not include youth violence prevention, for example, including measures such as funding for after-school programs, flexible work requirements for parents with older children, and parent education programs geared toward the specific needs of adolescents could have minimized some of the harmful consequences experienced by youth (Brooks et al., 2001)--many of which were correlated with youth violence.

Last, this research is important because it can potentially aid in predicting the effects of future economic changes on youth violence trends. Though forecasting crime and economic trends is a difficult task to say the least, understanding the effects of the economic state on child poverty will in turn help researchers to anticipate the response of youth violence rates to concurring economic conditions. For instance, a downturn in the economy will most likely lead to an increase in unemployment and child poverty rates (see Figure 2.1, p. 37), the latter of which is particularly pronounced for racial and ethnic minorities. Given the positive association between child poverty and youth violence rates, one would expect the increase in child poverty to be accompanied by a contemporaneous increase in youth violence that is magnified for racial and ethnic minorities. Based on this line of reasoning, then, one could plausibly expect youth violence to increase during periods of economic downturn, but particularly so for minority youth.

Organization of Study

Pursuant to the research goals of this proposal, the remaining discussion will proceed as follows: *Chapter 2: Literature Review* is a review of the relevant literature pertaining to the relationship between economic deprivation and crime, beginning with a general discussion of the relationship and proceeding with a more detailed review of the literature as it relates to youth violence. This review will encompass common indicators of economic deprivation, but special emphasis is placed on the child poverty rate for its relevance to youth economic well-being.

After laying this foundation, the discussion will focus on the trends in child poverty over recent decades, the economic and policy developments that contributed to these trends as well as the significance of these developments for minorities and families,

and the potential implications of these developments for youth violence trends. Finally, the discussion will turn to the consequences of welfare reform for adolescents and families, and the implications of the consequences for youths' violence risks over time.

Chapter 3: Goals, Data, and Measures will outline the research goals for this study and present an overview of NCVS methodology that includes a discussion of the specific strengths and weaknesses for the purposes of this research. This chapter will also detail the creation of key measures and present the characteristics of the sample along these measures. *Chapter 4: Macro-Level Analytic Strategy and Findings* will discuss the analytic strategy for the macro-level analysis and present the relevant findings while the micro-level strategy and findings will be presented in *Chapter 5: Micro-Level Analytic Strategy and Findings*. Finally, the results of all analyses will be summarized in *Chapter 6: Summary and Conclusion*, which will also address the research and policy implications of the key findings and limitations of the study.

CHAPTER 2

LITERATURE REVIEW

Economic deprivation has been theoretically linked to youth violence and delinquency across a number of different paradigms including Social Disorganization (Shaw and McKay, 1942), Institutional Anomie (Messner & Rosenfeld, 2000), Strain (Cloward & Ohlin, 1960; Cohen, 1955), Subcultural (Wolfgang & Ferracutti, 1967; Miller, 1958) Control (Hirschi, 1969), and Life-Course (Sampson & Laub, 1993) theories. A general theme across these otherwise opposing models is that economic deprivation indirectly influences youth crime by undermining the legitimacy of the law and other conventional values, weakening social bonds, or impeding socialization and other family processes such as discipline and supervision that serves to buffer youths from criminal involvement. Moreover, economic deprivation is associated with financial strains that may motivate youths to commit property and violent crimes as well as youth crime rates in disadvantaged areas where social institutions are weaker sources of social control.

As such, the empirical study of the deprivation-crime relationship has had a longstanding tradition in criminology and has generated vigorous debate; much of the contention has grown out of attempts to identify the key mechanisms through which economic deprivation influences crime and criminality. However, the sum of the empirical evidence suggests that there is an important relationship between these two variables. Cross-sectional studies have consistently found significant associations between various indicators of economic deprivation and violent crime rates in census tracts (e.g. Hipp, 2007; Krivo & Peterson, 1996), neighborhoods (e.g. Hannon, 2005;

Kubrin, 2003), cities (e.g. White, 1999; Kovandzic et al., 1998), counties (e.g. Lee et al., 2003; Gould et al., 2002; Kelly, 2000), and states (e.g. Stolzenberg, 2006; Land et al., 1990), and the preponderance of the empirical evidence suggests that the effects differ for blacks and whites (e.g. Parker & McCall, 1999; LaFree & Drass, 1996; Harer & Steffensmeier, 1992).

Less consistent is the empirical support for an individual-level relationship between economic status and criminality. Past research has contested the validity of this relationship (see Tittle et al., 1978 and Braithwaite, 1981 for opposing viewpoints), but has evolved in its understanding of how structural conditions and characteristics affect social processes in communities, schools, families, and other institutions that regulate and influence individual behaviors (Currie, 1998).

Although there is an extensive body of literature on the economic deprivation-crime relationship, the majority of this research pertains to adult violence. Comparatively less is known about the effects of economic deprivation on youth violence. Researchers often define youth as older adolescents (i.e. 16 to 19 year olds) or young adults (i.e. 18 to 24 year olds), though there are many exceptions. The following section is a brief review of selected findings on the relationship between youth violent crime and four common indicators of economic deprivation: poverty, unemployment, economic inequality, and concentrated disadvantage.

Economic Deprivation and Youth Crime

Poverty

Absolute deprivation refers to a lack of income to meet basic needs according to some fixed standard and is commonly demarcated by the official poverty line, which

defines the standard for minimum family income according to family size and composition (Nichols, 2006). Poverty, and in particular chronic poverty, has detrimental consequences for families and children that are often cumulative. Not only does poverty cause economic strains such as the inability to pay bills and purchase basic necessities such as food and clothing, it also deprives families of the resources and capacity to cope with other stressful life events (Wadsworth et al., 2005). This compounded stress can lead to problems such as parental depression and strained parent-child relationships, which in turn has important ramifications for adolescent development and well-being. Poverty has also been linked to adolescent outcomes through its association with other characteristics of families and parents such as family structure, age, race and ethnicity, and educational attainment (Brooks-Gunn, Duncan, & Maritato, 1997). Therefore, the adversities faced by poor families could be a function of economic stress or the fact that parents are most likely to be single, young, minority, less educated and thus predisposed to a host of other economic and social ills that also have negative impacts on youth.

Nonetheless, family poverty exposes youth to various individual, family, and community level risk factors, including emotional and behavioral problems (McLoyd, 1998; Felner, 1995); poor academic performance (Sirin, 2005); exposure to marital and family violence (Santiago & Wadsworth, 2009; Wadsworth & Compas, 2002); harsh, lax, or inconsistent discipline (Grant et al., 2003; Bradley et al., 2001); poor parental monitoring (Evans, 2004; Bradley et al., 2001), residence in areas of concentrated poverty (Drake and Rank, 2009; Jargowsky, 2003) and exposure to lead and other environmental toxins (Evans, 2004; Bernard and McGeehin, 2003) that have been identified as risk factors for youth violence across multiple disciplines (Leiber et al.,

2009; Barnes et al., 2006; Resnick et al., 2004; Hay, 2001; Mitchell & Finkelhor, 2001; Herrenkohl et al., 2000; Lipsey & Derzon, 1998; Needleman et al., 1996; Sampson & Laub, 1994; Loeber & Stouthamer-Loeber, 1986).

In one of the only studies to examine the effects of child poverty on youth violence, Messner, Raffalovich, and McMillan (2001) also found that changes in the child poverty rate are significantly associated with trends in juvenile homicide arrests of black and white youth, but more importantly so for blacks. Similarly, Levitt and Lochner (2001) found a significant association between child poverty and juvenile homicide trends in Chicago census tracts, but concluded that the changes in child poverty accounted for less than ten percent of the increase in juvenile homicides from 1980 to 1990.

Unemployment

Because it impedes the ability to maintain certain income standards and supply basic needs, unemployment is also a common indicator of absolute deprivation that is theoretically connected to crime via two distinct mechanisms: criminal opportunity and criminal motivation (see Cantor & Land, 1985). The former posits that unemployment immediately reduces criminal opportunity by concentrating activities within primary group locations such as the neighborhood and home, which is indicative of a negative, contemporaneous effect. In addition to a guardianship effect, Messner et al. (2001) propose that the concentration of activities around the neighborhood may also result in intensive supervision of youths who tend to spend a lot of time around primary group locations, which they coin the supervisory effect. According to the latter, the financial distress caused by unemployment may serve as a motivation to commit crime, but this

effect is not always immediate as newly unemployed persons often benefit from unemployment compensation and family support, or may even find a new job. As support dwindles and time without work increases, the motivation to engage in criminal activity may increase.

It is also possible that the effects of unemployment may differ for adolescents who have a limited ability to work and earn income. Whereas unemployment poses significant problems for adults, it may be an advantage for adolescents who are expected to devote the majority of their time to academics (Wright, Cullen, & Williams, 1997). Not to mention, the majority of school-aged adolescents are not legally permitted to work. There is some evidence that the effects of unemployment for youth are different from the hypothesized effects for adults. For instance, Messner et al. (2001) found negative, lagged effects of unemployment on youth homicide arrest trends, which is contradictory to both criminal opportunity and criminal motivation effects.

Though joblessness is qualitatively different from unemployment, Krivo and Peterson reached similar conclusions in their analysis of labor market conditions and neighborhood violent crime arrests among three age groups: teenagers (15 to 19), young adults (20 to 24), and older adults (25 and older). In addition to joblessness, the percentage of the population employed in the lowest paying occupations was significantly related to violent crime arrests among young adults while the former influenced arrests among older adults. For adolescents, however, neither the quantity nor quality of available jobs affected violent crime arrests, which is consistent with life course perspectives that assign limited importance to employment as a conventional bond for youth vis-à-vis family and school (e.g. Sampson & Laub, 1993; Thornberry, 1987).

Moreover, there is empirical evidence that employment may even have negative consequences for youth.

Some researchers have found that adolescents employed during the school year, and in particular those who work more than 20 hours a week, are at greater risk for delinquency and problem behaviors than their counterparts (e.g. Heimer, 1995; Agnew, 1986), and that this relationship is most salient for males at high risk for delinquency involvement (Wright et al., 1997). There is also evidence of a positive association between the amount of economic resources available to youth from work or other sources and delinquent behavior (Heimer, 1995; Agnew, 1986; Cullen et al., 1985), particularly when youth are already predisposed to delinquency (Agnew, 1990). Intense work efforts and access to economic resources may serve to detach youth from school and parental support, both of which play a key role in youth social control.

But while research has reported significant associations between work intensity and delinquency, the findings are equivocal. At issue is whether the relationship reflects the harmful nature of youth employment or pre-existing differences between intensive and non-intensive workers. Attempting to address this concern, Paternoster et al. (2003) estimated random and fixed effects models to evaluate the youth employment-delinquency relationship net of the effects of unobserved heterogeneity. Previous research generally controlled for selection effects with lagged delinquency and other delinquency-related factors, which only captured the observed differences between workers.

Consonant with this research, they found a significant association between intense work during the academic year and delinquency that was appreciably reduced, but not

eliminated by the introduction of various individual, peer, family, and school related covariates. However, the relationship disappeared when random and fixed effects models were estimated to control for the unobserved heterogeneity, suggesting that the reported relationship between work intensity and delinquency is biased by selection effects. Similar conclusions have also been reached about the effects of youth employment on academic performance (see Warren et al. 2000).

Economic Inequality

While absolute deprivation is determined on the basis of fixed income standards, relative deprivation is based on the distribution of income and is commonly operationalized as economic inequality, or the gap in income between the rich and poor. Generally speaking, relative deprivation models presume that individuals assess their social and economic standing in comparison to others and it is their frustration with perceived inequalities or injustices that can potentially breed criminal behavior.

Structural inequalities can also influence macro-level crime rates, particularly in extremely disadvantaged areas marked by routine violence and weak social controls. Some researchers have attributed racial and ethnic differences in violent crime rates to longstanding patterns of economic and racial residential inequality that have disproportionately concentrated blacks in socially and economically isolated communities (e.g. Massey, 1995).

Empirical support for an inequality-crime relationship is mixed. The seminal study conducted by Blau and Blau (1982) found that total and racial inequality had important effects on violent crime rates in 125 of the largest metropolitan areas in the United States which tended to nullify the poverty effect. These findings were affirmed by

few studies (e.g. Blau & Golden, 1986), but others have found only partial (e.g. Balkwell, 1990; Williams, 1984) or no support (e.g. Patterson, 1991; Messner & South, 1986). One source of these discrepant findings is the differential effects of inequality on black and white violent crime rates (Stolzenberg et al., 2006; Parker & McCall, 1999; Harer & Steffensmeier, 1992; LaFree et al., 1992; Messner & Golden, 1992), though some researchers have argued that selection of the appropriate reference group is an important contingency of the inequality-crime relationship (e.g. LaFree & Drass, 1996; Harer & Steffensmeier, 1992). It is suggested that individuals gauge their economic standing by comparing themselves to those of similar race, educational background, etc. Hence, intra-racial inequality should have particular utility for predicting crime rates disaggregated by race and ethnicity.

There are also reasons to suspect that intraracial inequality is an important predictor of youth violent crime rates. First, the conception of social structure and economic inequality is a developmental process. In comparison to younger children, adolescents have an “increased capacity to consider the perspectives of different groups (or roles) within society, with the recognition that these perspectives are systematically coordinated through convention or social structure” (Leahy, 1983, p. 112), but they also tend to be egocentric, or more concerned with self than society. So despite increased social awareness, adolescents tend to be most concerned with themselves and others in their immediate social environment (i.e. peers, neighbors, schoolmates, etc.). As such, measures of intraracial inequality should prove a more relevant indicator of perceived deprivation among youth and hence a better predictor of violent crime rates.

Messner et al. (2001) provide some support for these expectations in their assessment of the relationship between economic deprivation and youth homicide arrest trends. Their indicator of interracial inequality, the ratio of white to black median family income, was found to be unrelated to arrest trends, but changes in various indicators of intraracial inequality significantly predicted homicide arrest trends for both black and white youth. The income share of the top 5% of households had a lagged effect on white homicide arrests and a contemporaneous effect on blacks. However, changes in the child poverty rate, which is based on direct measurements of family income, emerged as the most significant and robust predictor of black and white youth homicide arrest trends. This finding lends credence to the assumption that youth violent crime rates are better predicted by more proximate indicators of deprivation.

Past research conducted by Shihadeh and Steffensmeier (1994) also found that income inequality had only trivial direct effects on black youth violence while racial inequality failed to exert any significant effect either directly or indirectly. However, intraracial inequality had significant and substantial effects on black youth violence that were mediated by family disruption.

Concentrated Disadvantage

Neighborhood crime rates have long been associated with endemic structural characteristics such as concentrated disadvantage, particularly in urban areas. Commonly measured as a summary index of the unemployment and poverty rate and the proportion of blacks, welfare recipients, and female-headed households in the population, concentrated disadvantage has been theoretically linked to crime via collective efficacy (Sampson, Raudenbush, & Earls, 1997), systems of social relationships (Bursik &

Grasmick, 1993), and cultural adaptations that subvert community social organization and legitimate the use of violence (e.g. Anderson, 1999).

Research has also established an important empirical connection between concentrated disadvantage and youth violence. For instance, MacDonald and Gover (2005) found a significant association between concentrated disadvantage, a summed index of the proportion of poor, unemployed, black, and female householders in U.S. cities, and youth-on-youth homicides. The growth in urban concentrated disadvantage, along with rising divorce rates within cities, was also significantly associated with the increase in youth homicides in the early 1990s.

In her analysis of the simultaneous effects of individual, family, and community risk factors on youth's risks for violent victimization, Lauritsen (2003) found substantially higher risks for violence among youth in extremely disadvantaged neighborhoods though community disadvantage appeared to be unrelated to violence risks for most youth. One element of the disadvantage index, the percentage of female-headed households with children, consistently exerted a significant effect on total, stranger, and non-stranger violent victimization risks net of other individual, family, and community risk factors. To put these findings into perspective, however, the individual and family risk factors that placed youth at the greatest risk for violent victimization was time spent at home and length of current residency, both of which had negative effects.

Contextual studies have also identified various mechanisms through which community disadvantage influence the risk for and perpetration of violence by individual youth, which include the presence of traditional male role models (Parker and Reckdenwald, 2008), exposure to criminogenic street contexts in the form of deviant peer

association and exposure to serious violence (De Coster, Heimer, & Wittrock, 2006), and street codes that condone violence (Stewart & Simons, 2006), though the latter was only a partial mediator.

Racial differences in serious youth violence have also been attributed to the fact that black youth are more likely to reside in disadvantaged communities than youth in other racial groups (DeCoster et al., 2006), but while community disadvantage is key in explaining the black-white disparity, other factors such as exposure to gang violence and school attachment may better explain the disparity for Hispanic and Native American youth (McNulty & Bellair, 2003).

To summarize, there is considerable evidence of an important association between economic deprivation and youth crime. However, it is also apparent from the preceding discussion that some special considerations must be observed when assessing this relationship, particularly in a sample of school-aged adolescents. One such consideration is the measurement of youth economic deprivation. Given their limited access to work and income, many of the indicators commonly used to measure absolute deprivation among adults have limited relevance for youths.

Measuring Youth Economic Deprivation

Because adolescents tend to be developmentally and physically oriented toward self and the immediate social environment, it is likely that the most relevant indicator of youth economic deprivation is one based on youth's own economic well-being or that of close social networks such as their family or household unit, the latter of which may include cohabiters and other unrelated household members that contribute economic

resources to the family, and same-race peer groups within the neighborhood or school (Lopez Turley, 2003).

Again, researchers often use unemployment as an indicator of economic deprivation because it limits access to income and basic material resources for daily living. As an indicator of youth economic deprivation, however, its utility is hampered by the fact that the majority of school-aged adolescents are restricted from participating in the full-time civilian labor force. Moreover, the youngest segment of the civilian labor force, 16 to 17 year olds, has seen decreases in school-year employment in recent years and concurrent increases in the percentage unemployed--a trend that transcends the demographic lines of gender, race and ethnicity (Morisi, 2008).

Contributing to these recent trends are declines in the real wage for teenage workers and slow recovery of the teenage employment rate after the 2001 recession, but the past twenty years have also witnessed an increase in the proportion of students enrolled in and subject to advanced coursework and placement exams (Morisi, 2008). In addition, an increasing number of states are requiring students to pass high school exit exams as a condition of graduation. Currently, 26 of the 50 states have either implemented or plan to implement mandatory exit exams by 2012, and the overwhelming majority of these states initialize exams in tenth grade when students are at the cusp of entering the labor force (Center for Educational Policy, 2009).

Other trends suggest a growing acknowledgement of the value of education for future earnings. Over the past three decades or so, there has been a positive association between educational attainment and earnings as well as an increase in the percentage of young adults enrolling in degree-granting institutions (National Center for Educational

Statistics, no date), although it is likely that other factors contributed to the latter trend such as declining employment opportunities for low-skilled workers and greater availability of student financial aid. These trends collectively suggest that working may be a less attractive or viable option for school-aged adolescents who face more advanced coursework and stricter educational requirements.

Income based measures of youth economic deprivation are also problematic for a couple of reasons. First, working adolescents are generally employed in part-time, low-skill jobs that pay a low-wage, so the nature of youth employment and earnings is one that inherently situates them at the bottom of the income distribution. Second, the income that adolescents acquire from work or other sources is not typically allocated towards family living expenses, and thus is not reflective of their access to income for important material resources. The following excerpt from Steinberg (1996) illustrates this point:

Contrary to popular stereotype, working students are not mainly poor youngsters who are working because their families need their earnings, but middle class youth who are working for additional pocket money to spend on themselves. National surveys show that almost none of the typical student worker's earnings goes toward family expenses or into a college savings accounts. Most of it goes toward clothing, cars, stereo equipment and socializing (p. 167).

Referring to the findings from his own collaborative research, he goes on to state:

In our study, for example, close to 60 percent of the workers we surveyed said they spent most or all of their earnings...on immediate personal expenses. Only about 10 percent said they saved most or all of their earnings for college, and only 3 percent said they gave most or all of their earnings to the family (p. 168).

Hence, adolescents tend to use their own economic resources to fund social activities and fulfill material desires while most likely depending on family income to cover the costs of housing, utilities, food, medical care, and educational resources, which makes family income a better gauge of the material and economic well-being of youth.

Given the significance of family income for youth economic well being, the child poverty rate seems a particularly relevant indicator of youth economic deprivation. The official poverty measure defines the family as the economic unit for determining poverty status, and children are considered to be poor if the total pre-tax cash income for their family unit is less than the poverty threshold designated for their family size and composition (Hoynes et al., 2006).

Its utility notwithstanding, the official poverty measure has been extensively criticized over the years for its failure to account for the Earned Income Tax credit, in-kind benefits from government assistance programs, state and federal tax deductions, and other family or work related expenses that affect the amount of expendable income available to families, and there is particular concern that these omissions may lead to inflated child poverty rates as families with children are most likely to receive benefits from means-tested government programs. While past research has confirmed that the official measure does tend to overstate child poverty, there is also evidence that there are no substantial differences in time-series patterns of official and experimental poverty rates (Iceland et al., 2001; Short et al., 1999). Therefore, the official measure appears capable of producing long-term trends in the poverty rate with some accuracy.

The proceeding discussion will focus on the distinct trends in child poverty that occurred throughout the 1990s and the early half of the millennium, the economic and

social climate in which these trends occurred, and the significance of these trends for minorities and families. Following is an overview of the crime drop that also occurred in the 1990s and suppositions about the relationship between child poverty and violent crime trends. Finally, the impact of economic and social policy changes on this relationship will be explored.

Trends in Child Poverty, 1993-2004

The Economic Expansion of the 1990s

According to Nichols (2006), two distinct trends in child poverty occurred between 1993 and 2004: a stable and significant decline from 1993 to 2000 and a modest but stable increase from 2001 to 2004. However, the significance of these trends cannot be fully understood apart from the economic and social context in which they occurred. Save a brief recession in the early part of the decade, the 1990s were marked by a period of unprecedented economic growth that peaked in 2000 when the U. S. labor market reached full employment (Freeman, 2001). More importantly, this economic expansion spread to the lower end of the job market and contributed to the first sustained increase in real wages for low-skilled workers in over thirty years (Jargowsky, 1999). This feature set the economic expansion of the 1990s apart from the expansions of the previous decade.

In addition to the economic expansion, the 1990s also witnessed a number of social policy changes designed to encourage work among poor and female-headed families--the populations at greatest risk for welfare dependency. One of these changes was federal and state expansions to the Earned Income Tax Credit (EITC) in 1993 and 2000 that were the most substantial expansions to the credit since its 1975 enactment

(Gunderson & Ziliak, 2004). The EITC provides refundable tax credits and wage supplements to low income working families and has been identified as a major contributor to the growth in maternal employment between the mid-1980s and 1996 (Meyer & Rosenbaum, 2001).

The other change was the passage of the 1996 Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA), which introduced major reforms to the federal welfare system, the most significant being the replacement of the Aid to Families with Dependent Children (AFDC) program with block grants to states entitled Temporary Assistance to Needy Families (TANF) to be effective July 1, 1997. Under TANF guidelines, states were given broad discretion to design their own welfare program and determine eligibility, but were prohibited from using federal funds to assist families for more than five cumulative years and teenage parents not attending school or under adult supervision. In addition, recipients were subject to mandatory work requirements and possible sanctions for noncompliance and rule violations, including the reduction or termination of all cash and food stamp benefits (Greenberg et al., 2002).

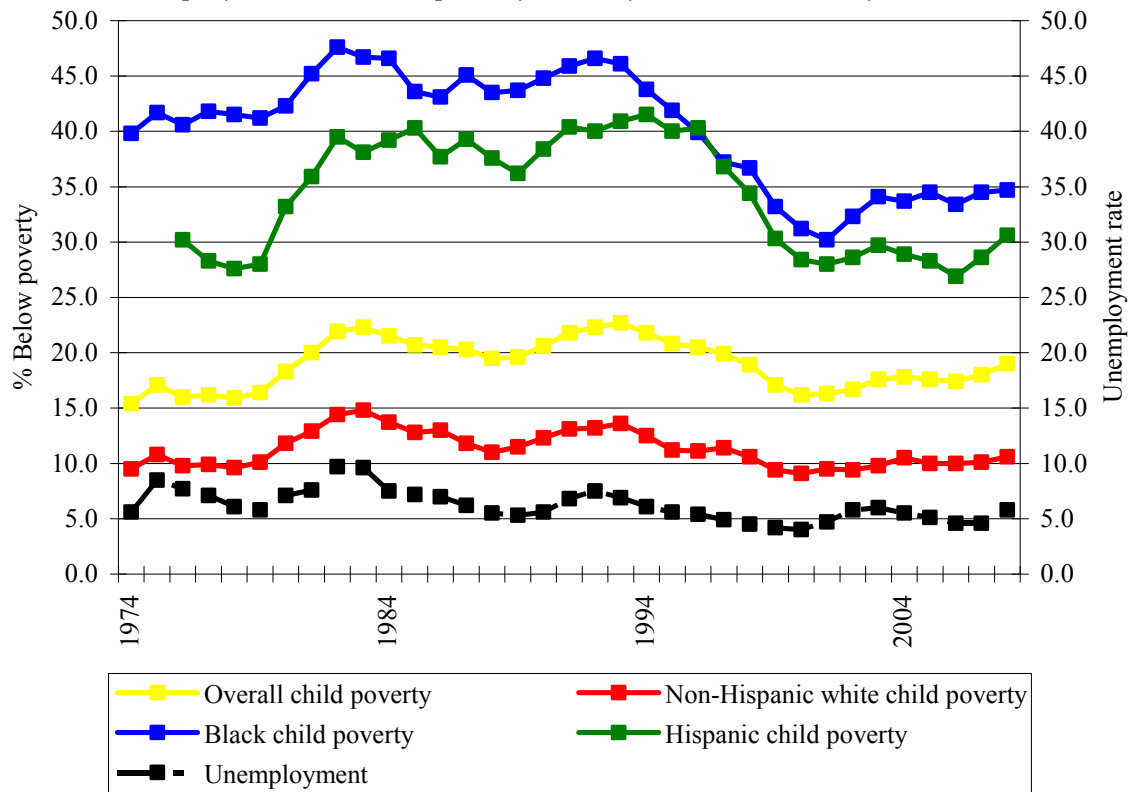
Collectively, these developments contributed to substantial improvements in the job market, particularly among low-skilled, low-income workers. In turn, these job market improvements played a major role in reducing child poverty, but most prominently for black children whose parents are more likely to be situated at the bottom of the job market (Nichols, 2006). While low-skilled workers benefit importantly during periods of economic growth, they tend to experience more substantial growth in unemployment during periods of economic recession, which in turn is associated with the growth in child poverty rates.

Historically, there has been a close association between indicators of macroeconomic growth (e.g. GDP, unemployment rate) and poverty rates, but the strength of the relationship has varied over time. National poverty rates declined substantially during the robust economy of the 1960s, but fell at a much slower rate relative to GDP growth during the 1970s and particularly in the 1980s (e.g. Blank et al., 1993; Cutler et al., 1991), which caused researchers to question the poverty-reducing effect of the 'rising tide'. However, more recent research suggests that the weak association between economic growth and poverty rates during the '70s and '80s was a departure from historical trends and that the 'typical' association re-emerged during the 1990s (Freeman, 2001; Haveman & Schwabish, 1999).

Given the economic growth-poverty association and the acute sensitivity of minorities to changing macroeconomic conditions, it is expected that periods of economic expansion and declining child poverty is characterized by faster declines for minority children, and in particular blacks. Figure 2.1 illustrates the long-term trends in economic growth as measured by the unemployment rate and child poverty, revealing that minorities consistently display greater sensitivity to upturns in the economy. During periods of declining child poverty, the reduction for minority children is much more pronounced than the reduction for all children. This trend is particularly apparent during the economic expansion of the 1990s.

Between 1993 and 2000, the poverty rate for all children declined by nearly 7 percentage points while the rate for non-Hispanic white children declined by about 5

Figure 2.1
Unemployment and child poverty rates by race and ethnicity, 1974-2008



Source: Bureau of Labor Statistics (no date). *Annual Average Unemployment Rate, Civilian Labor Force 16 Years and Over*. Retrieved from: http://www.bls.gov/cps/prev_yrs.htm.

De-Navas-Walt, Carmen, Bernadette D. Smith, and Jessica C. Smith (2008). *Income, Poverty, and Health Insurance Coverage in the United States: 2008*. Current Population Reports, P60-236. Washington, DC: U.S. Government Printing Office.

points. In comparison, the respective declines for Hispanic and black children were roughly 13 and 15 percentage points, which is consistent with Borjas' contention that minorities exhibit greater sensitivity to changing economic conditions. The poverty reductions for minority children were also noteworthy because the height of the economic boom (i.e. 2000) witnessed the lowest rate ever recorded for black children by the Census Bureau and the lowest rate for Hispanic children since the early and late 1970s (Dalaker, 2001). Despite reaching a record low, however, the black child poverty rate in 2000 was still about 15 percentage points higher than the rate for all children.

There have also been relatively few changes in the Hispanic child poverty rate relative to the non-Hispanic white child poverty over the years (Nichols, 2006). Since the early 1970s, the Hispanic child poverty rate has consistently been about three times the rate of non-Hispanic white children, the only exception being the mid-1990s when the gap in poverty was nearly fourfold. So despite the fact that the changes in child poverty have been more pronounced for Hispanic children over the years, the rate has grown in similar proportion to non-Hispanic white children.

In addition to the reductions in child poverty, the economic boom also contributed to significant declines in family poverty. The poverty rate fell by about twenty-nine percent for both female-headed and all families from 1993 to 2000, but the rate for female-headed families fell by about 10 percentage points in comparison to a 4-point reduction for all families and 2-point reduction for married couple families. Similar to the black child poverty rate, the proportion of female-headed families in poverty also dipped to a record low in 2000 while the rate for married couple families remained unchanged from its historic low in 1999 (Dalaker, 2001).

The nature of the reduction in family poverty was different from that of child poverty in that it was not a steady decline. Between 1995 and 1996, there was a slight increase in the proportion of female-headed and all families in poverty while remaining stable for married couple families. However, all family groups experienced an accelerated decline in poverty after 1997, which coincided roughly with the rise in real wages for low-skilled workers and the implementation of the TANF program. In fact, about 68 percent of the decline female-headed family poverty occurred during this time period as well as nearly half of the decline for black children, three-fifths of the decline for non-Hispanic white children, and three-fourths of the decline for Hispanic children.

The Recession and Economic Slowdown of the Early 2000s

The longest economic expansion of the post-war United States eventually gave way to a brief recession in March 2001. Occurring on the heels of an unusually high economic peak, however, this recession was not particularly severe in terms of the employment decline. Excluding this past recession, Hall (2007:14) ranked the decline in employment associated with the 2001 downturn as the sixth largest of all the post-war recessions. Nonetheless, the labor market softened considerably for workers across all racial and ethnic, family and earnings groups as well as for both teenagers and adults. The economic downturn also affected both high- and low-skilled workers in a wide range of occupations though sharp declines in computer and data processing services, personnel services, and various manufacturing-related services stem from the steep downturn in the manufacturing industry (Langdon, McMenamin, & Krolik, 2002). The unemployment rate continued to increase throughout 2003 before decreasing negligibly in 2004.

After an eight year decline, the child poverty rate also increased steadily from 2001 to 2004, although the increase was modest compared to the significant reductions of the previous decade. During this time period, poverty increased by nearly 2 percentage points for all children compared to an overall increase of roughly 4 percentage points for black children and 1 percentage point for Hispanic and non-Hispanic white children, although the latter trends differed somewhat from the trends for all children. So, while all groups of children experienced only slight increases in poverty, black children appeared to be most affected by the economic downturn. On the other hand, Hispanic children did not appear to be particularly affected at all.

In addition to increases in child poverty, the economic downturn was also marked by stable but modest growth in the poverty rate for all family groups. The poverty rate for all families increased from 9.2 percent in 2001 to 10.2 percent in 2004, an increase of roughly 11 percent. In comparison, the increase for married couple and female-headed families was 0.6 and 1.9 percentage points respectively, the latter being more than three times larger than the former. Table 2.1 summarizes the changes in child and family poverty from 1993 to 2004.

The Crime Drop

In addition to important economic and social developments, the 1990s were also marked by precipitous declines in youth violent crime. This crime drop was an unexpected departure from the dramatic increase in violence that occurred from the mid 1980s to the early 1990s, much of which was due to the emergence of crack cocaine

Table 2.1

Changes in Child and Family Poverty in the Current Population Survey, 1993-2004

Children by Race/Ethnicity	1993	1997	2000	1993- 2000	1997- 2000	2001	2004	2001- 2004
Non-Hispanic white	13.6	11.4	9.1	-4.5	-2.3	9.5	10.5	+1.0
Black alone	46.1	37.2	31.2	-14.9	-6.0	30.2	33.7	+3.5
Hispanic	40.9	36.8	28.4	-12.5	-8.4	28.0	28.9	+0.9
<u>All children</u>	<u>22.7</u>	<u>19.9</u>	<u>16.2</u>	<u>-6.5</u>	<u>-3.7</u>	<u>16.3</u>	<u>17.8</u>	<u>+1.5</u>
Family Group	1993	1997	2000	1993- 2000	1997- 2000	2001	2004	2001- 2004
Married couple	6.5	5.2	4.7	-1.8	-0.5	4.9	5.5	+0.6
Female-headed	35.6	31.6	25.4	-10.2	-6.2	26.4	28.3	+1.9
<u>All families</u>	<u>12.3</u>	<u>10.3</u>	<u>8.7</u>	<u>-3.6</u>	<u>-1.6</u>	<u>9.2</u>	<u>10.2</u>	<u>+1.0</u>

Note: Differences reported in percentage points.

markets in inner cities and the associated proliferation of guns. In fact, some researchers suggest that the rise in homicides during this period was entirely in the use of handguns by youth under the age of 25 (Travis & Waul, 2002). The number of juvenile arrests for violent index offenses rose by more than 60 percent during the same time period and the arrest rate peaked at an all-time high of 512.2 per 100,000 in 1994, which occurred at roughly the same time that analysts were projecting an increase in the youth population of more than 20 percent over the next two decades (Butts & Travis, 2002).

The dramatic rise in violent victimization and offending, coupled with the projected growth in the juvenile population, launched youth violence to the forefront of public concern. Dire predictions of a youth crime wave were cast and many states moved toward the adoption of 'get tough' juvenile justice policies to punish serious young offenders (Feld, 1998). Despite these ominous predictions, however, there was an abrupt and substantial decline in violent crime in the mid-1990s that persisted throughout the turn of the century. The crime decline occurred so unexpectedly that it was initially dismissed as temporary or anomalous (Butts & Travis, 2002), but it would prove to be important for several reasons. First, significant declines occurred across all of the major crime categories, encompassing both violent and property crimes. Second, the crime decline occurred across cities, suburbs, rural areas, and all regions of the country. Third, the decline in violence spanned the categories of race, gender, and age, though juveniles experienced the most salient declines (Levitt, 2004).

Between 1994 and 2000, violent crime arrests declined by about 34 percent for juveniles, 18 percent for young adults, and 16 percent for older adults, but the reductions are even more significant for murder, robbery, and aggravated assault. Murder arrests

declined by 68 percent for juveniles, 39 percent for young adults, and 31 percent for older adults. For robbery, the corresponding declines were 51 percent, 39 percent, and 31 percent while the declines in aggravated assault were 22 percent, 12 percent, and 10 percent. Whereas juveniles contributed to nearly one-third of the increase in violent crime arrests between 1980 and 1994, their contribution to the 1994 to 2000 decline was about 58 percent (Butts & Travis, 2000).

Macroeconomic Conditions and Violent Crime

A number of explanations have been advanced for the crime drop of the 1990s including demographic changes, tougher gun control laws, innovative policing strategies, the decline of the crack cocaine market, and the economic expansion of the 1990s (Levitt, 2004). That the crime drop occurred at roughly the same time that the U.S. economy was undergoing the longest expansion of the 20th Century would seem to suggest that the two trends are associated, but the empirical evidence is equivocal. Econometric evidence generally supports a relationship between macroeconomic conditions and crime (Freeman, 2001), but this support is limited primarily to economically motivated crimes.

The basic premise of the economic model of crime is that individuals decide whether to engage in crime or legitimate work by weighing factors such as their probability of securing a job and earning potential in the legitimate job market with their opportunity to commit crime, the potential economic return, and the risk of apprehension (Freeman, 2001), obviously choosing the option that yields the greatest returns. Macroeconomic shifts can influence crime trends by affecting the relative returns associated with criminal involvement and legitimate work. Because most criminals are

situated at the bottom of the job market, economic growth is most likely to affect crime when it impacts low-skilled workers as was the case in the 1990s expansion.

The economic expansion drove unemployment below the natural rate in over 44 percent of metropolitan areas, but the wages of less-educated adult men remained largely unchanged. In contrast, there were important gains in employment and earnings among less educated young men, and in particular young black men (Freeman and Rodgers, 1999). Research conducted by Gould, Weinberg, and Mustard (2001) identified wages, and to a lesser extent unemployment, of less-educated males as important determinants of long-term economically motivated crime trends, but found that the declining unemployment rate contributed more importantly to the crime drop of the 1990s than the growth in wages. Other studies have found small but statistically significant effects of state-level unemployment on property crime (e.g. Donohue & Levitt, 2001; Raphael & Winter-Ebmer, 2001), but generally fail to find any effects for violent crime. These negative findings are consistent with evidence that predominately suggests that there is no direct association between economic growth and violent crime rates.

Though the preponderance of the evidence suggests that changes in the economy are unrelated to violent crime trends, there are a few exceptions. For instance, Grogger (2006) suggests that there is an association between the increase in wages for low-skilled workers and the decline in violence in the 1990s, positing specifically that the wage increase served to enhance the attractiveness of the legitimate job market for both active and potential dealers seeking to leave the violent drug trade. The findings from Messner, et al. (2001) also have important implications for the relationship between

macroeconomic conditions and youth violent crime, particularly in light of the historical association between economic growth and child poverty rates.

Given the close association between economic growth and child poverty rates, it is also possible that the changes in the economy that influence child poverty rates also influence rates of youth violent victimization. However, previous research has not addressed this possibility. Focusing exclusively on adolescents between the ages of 12 and 17, one of the primary goals of this analysis is to determine if there is an association between child poverty and youth victimization trends from 1993 to 2004, and whether larger economic conditions played a significant role. Given the differential effects of macroeconomic conditions on minorities, it is necessary to assess child poverty and youth violence trends disaggregated by race and ethnicity to gain meaningful insights into these possible relationships.

All children experienced sustained declines in poverty during the economic expansion but there were important racial and ethnic differences in the magnitude of the decline. Although black, non-Hispanic white and Hispanic children experienced poverty reductions of roughly one-third each, the largest overall reductions were experienced by blacks and Hispanics. During weaker economic conditions, poverty rose modestly for all children as well as for blacks, non-Hispanic whites, and Hispanics. However, black children still experienced the largest overall growth in poverty. Did violence trends for non-Hispanic black, non-Hispanic white, and Hispanic youth respond similarly to these economic conditions? Did non-Hispanic black and Hispanic youth experience the largest reductions in violent victimization during the economic expansion of the 1990s? Did non-Hispanic black youth experience the largest overall growth in victimization during the

weaker economic conditions of the early 2000s? Were youth violence trends for non-Hispanic black, non-Hispanic white and Hispanic youth more closely associated with overall poverty or group-specific poverty trends? These are some of the key questions this research will address.

The trends in family poverty may also have consequences for youth violence. Along with race and ethnicity, family structure is one of the most important predictors of child poverty that is also consequential for other aspects of child well-being, including violent victimization. All families experienced significant declines in poverty throughout the 1990s, but the reduction for female-headed families was much more substantial than the reduction for married couple and all families. The growth in family poverty during the economic downturn was trivial, but the increase for female-headed families was still about three times larger than that for married couple families. This research will also consider whether the trends in family poverty had any significance for youth violent victimization trends by addressing the following questions: Did youth in female-headed families experience the largest reductions in violent victimization during the economic expansion? Did they also experience the most substantial growth in victimization in the early 2000s?

The passage of welfare reform was one of the most important social policy developments of the 1990s, and one of the implicit goals of the reform was to enhance the social and economic well-being of disadvantaged children through the promotion of work and marriage. Moreover, the 1996 law required states to submit an annual statement of their child poverty rate to the U. S. Department of Health and Human Services and based on child poverty data from the Census Bureau, submit a corrective action plan if it

increased by more than five percent as a result of the TANF program. Upon approval the plan was to be implemented until the child poverty rate was sufficiently reduced (P.L. 104-193, Title I, Sec. 103). After the implementation of the TANF program, there was a marked acceleration in child poverty rates.

Given these efforts to regulate child poverty and the timing of the accelerated decline, welfare reform was a likely contributor. In the wake of welfare reform, nearly half of the decline in black child poverty occurred as well as the bulk of the decline for non-Hispanic white and Hispanic children. Another objective of this analysis is to determine whether the marked reduction in poverty in the late 1990s had any significance for youth violence trends by addressing the following questions: Was there also a marked acceleration in youth violence during the early post reform period (i.e. 1997-2000)? Did the bulk of the decline in violence occur for non-Hispanic white and Hispanic youth after the implementation of the TANF program? Were there any significant differences in the poverty-youth violence association in the early post-reform and entire expansion period?

However, affirmative findings should not be interpreted as evidence that welfare reform caused the marked reduction in poverty, but that it most likely played an important supportive role. Instead the objective is to generally determine if the post-reform period had any particular significance for the decline in youth violent victimization, an aspect of child well-being that has been largely ignored in the welfare reform literature.

Poverty and the Risk for Violence

Thus far the discussion has centered on the macro-level relationship between economic deprivation and youth crime, but it is equally important to consider whether the

social developments of the 1990s influenced youth's risks for violent victimization. Previous research has established a connection between one's economic status and violence risks, but has failed to consider whether the strength of this relationship has varied over time. Did the social developments of the 1990s exacerbate the consequences of poverty for youth violent victimization? There is at least some experimental evidence that the mandatory work requirements enacted by welfare reform had adverse effects on adolescents whose mother participated in welfare-to-work programs, including poor academic performance as well as school suspension and expulsion (Gennetian et al., 2002).

Though welfare caseloads declined dramatically and employment among single mother increased in the early post-reform years, evidence from the National Survey of American Families (NSAF) suggests that many welfare leavers worked low-skilled, low-wage jobs that offered little to no benefits or job security. As a result, many leavers continued to face significant financial and material hardships despite meeting the mandated work requirements, including difficulties paying for basic needs such as housing and food (Loprest & Zedlewski, 2006; see also Corcoran et al., 2000). Moreover, parental aggravation more than tripled among new welfare leavers with young children between 1997 and 2002, which may very well reflect stress associated with the welfare-to-work transition (Loprest & Zedlewski, 2006). In turn, financial stress and parental aggravation can obviously strain family and parent-child relationships with harmful consequences for youth.

As such, researchers have cited strained parent-child relationships along with inadequate supervision and adolescents' increased responsibilities in the home as possible

explanations for the negative adolescent outcomes (Brooks, Hair, & Zaslow, 2001). The experimental evidence suggests that adolescents were most likely to exhibit problem behaviors if younger siblings were present in the home, presumably because they assumed many of the household and child care responsibilities (Gennetia et al., 2002). Research on adolescents suggests that the assumption of adult roles and responsibilities may encourage defiance towards authority figures such as parents and teachers, engagement in adult behaviors such as drinking, smoking, and early sexual behavior, and interfere with schoolwork, particularly among adolescents in high-risk settings such as poor families and communities (Brooks et al., 2001).

Pinpointing the source of the negative adolescent outcomes is beyond the scope of this research, but the preceding discussion was meant to illustrate some of the harmful consequences of welfare reform for adolescents in low-income working families. Instead, the objective of the micro-level analysis is to determine whether the increased risk for violent victimization is one of the harmful consequences experienced by adolescents in the post reform era. The national trends for working poor families, which are often high risk settings for adolescents, may offer some clues.

Many poor children reside in families with at least one full or part time worker. In 1995 nearly 67 percent of all poor children lived in working poor families compared to about 73 percent of non-Hispanic whites, 57 percent of blacks, and 69 percent of Hispanics, but by 2000 this proportion had increased to almost 77 percent of all poor children, 80 percent of non-Hispanic white children, 68 percent of black children, and 82 percent of Hispanic children. So despite the fact that child poverty declined significantly in the latter half of the 1990s, there was a substantial increase in the proportion of poor

children living in working poor families (Child Trends, no date). This growth is likely due to the fact that many active and former welfare recipients entered the workforce, but yet remained poor. The same trends did not occur for all children; the proportion of all groups of children in working poor families declined during this same time period and continued to decrease throughout 2008.

Over the course of time, the proportion of poor children in working poor families declined. By 2005, the proportion of all poor children in working poor families declined by 21 percentage points while there was a 25-point reduction for Hispanic children, a 15-point reduction for black children, and a 15-point reduction for non-Hispanic white children (Child Trends, no date). What do these trends mean, if anything, for youth violence risks? Did poverty have increased consequences for youth's violent victimization risks during the early post-reform period? Did this consequence diminish in the early 2000s, possibly as low-income working parents accumulated enough work experience to secure better paying jobs? Addressing these issues will hopefully contribute to the understanding of how the consequences of poverty for youth violent victimization have changed over time and whether these consequences were more important after the passage of welfare reform.

Summary and Objectives

In sum, criminologists have extensively examined the effects of economic deprivation on crime, but there is still much to learn about the specific effects of absolute deprivation on youth violent crime. One issue to be resolved is the measurement of youth economic deprivation and I argue that the child poverty rate is particularly useful for this purpose. Indicators of absolute deprivation generally have limited relevance to youth

because of their limited access to work and income. However, indicators based on family income, as is the case with the official child poverty rate, are particularly important for adolescents who depend primarily on the family unit for support.

Changes in the child poverty rate have also been linked to youth homicide arrest trends (Messner, et al., 2001), and the distinct trends in child poverty that occurred between 1993 and 2004 offer a unique opportunity to examine their relationship with youth violent victimization trends. Moreover, the social and economic developments that also occurred during this time offer the opportunity to examine the influence that economic and social policy changes may have had on these trends.

The economic expansion of the 1990s led to significant improvements in the job market for low-skilled workers, which in turn contributed to dramatic reductions in poverty for families and children (Nichols, 2006). The most prominent reductions were experienced by the groups most likely to occupy the bottom of the job market: minorities and female-headed families. The economic expansion was followed by a brief recession and slow recovery period that hit all families. The child poverty rate also increased modestly during this period, with the most substantial increases for black children and female-headed families.

By assessing the association between various child poverty and youth violence trends, it is possible to gain important insights into the influence of larger economic conditions on this relationship. The trends in child poverty that occurred in the 1990s and early 2000s have been largely attributed to changes in economic growth and given the association between child poverty and youth violence trends, it is possible that the economic changes that contributed to poverty trends also contributed to the trends in

youth violence. Moreover, this research will contribute to the literature by assessing the differences in similarities in the violence trends of various sub-groups, including non-Hispanic white, non-Hispanic black, and Hispanic youth. Previous research has focused predominately on the differences between black and white youth. The analysis of youth violence trends disaggregated by family structure is also an important contribution to the literature as these trends have not been previously examined.

From a social policy perspective, the passage of the Personal Responsibility and Work Opportunity Reconciliation Act of 1996 was an important development. The Act was the first federal law to explicitly promote marriage (and work) as a means of improving the social and economic well-being of disadvantaged children (Shields & Behrman, 2002). Researchers have examined the effects of welfare reform on children's school engagement and academic performance, behavioral and emotional problems, physical health, and economic well-being (e.g. Loprest & Zedlewski, 2006; Gennetian, et al., 2002), but have failed to consider the possibility that it had some effect on youth violence trends.

This negligence is due partly to the lack of available data but it has also proven difficult to isolate the effects of welfare reform from other factors such as the strong economy and expansions to the EITC. While it is not possible to estimate the independent effects of welfare reform on the child poverty reductions of the late 1990s, it is likely that it interacted with other economic forces to cause an accelerated post-reform decline. Therefore the goal of this research is not to establish a causal relationship between welfare reform and youth violence trends, but to generally determine if the early post reform period was significant for youth violent victimization trends.

Though policymakers hoped that welfare reform would improve the social and economic well-being of disadvantaged families and children, many continued to face serious financial struggles despite complying with federal work requirements. Moreover, experimental evaluations of welfare reform suggest that adolescents whose parents participated in welfare-to-work programs tended to do worse in school and display more problem behaviors than adolescents in non-participating families (Gennetian et al., 2002).

Some researchers have attributed the adverse outcomes to factors such as adolescents' increased responsibility in the home. Moreover, this increase in responsibility is more likely to yield problem behaviors when youth live in high-risk settings such as poor families (Brooks et al., 2001). Given the post-reform growth in the proportion of poor children in working poor families, it is plausible that the mandatory work requirements enacted by welfare reform inadvertently exacerbated the consequences of poverty for youth's violent victimization risk. However, it is also possible that these consequences diminished as working families accumulated work experience, family resources, etc. Previous research has failed to consider whether the strength of the relationship between economic deprivation and youth violent victimization risks have varied over time. By examining a time frame that includes a pre- and post-reform period, this research will be able to offer some insight into how the consequences of poverty for youth violent victimization risks have changed before and after welfare reform.

CHAPTER 3

GOALS, DATA, AND MEASURES

This chapter is organized into three main sections: *Research Goals, Data, and Measures*. The first section outlines the various research questions to be addressed in this study; a summary table is also included for purposes of reference. The next section briefly describes the methodology of the National Crime Victimization Survey--the data source for this project--followed by a more detailed discussion of its strengths and limitations for the purposes of this research. The final section outlines the creation of key measures and presents relevant sample characteristics.

Research Goals

The objectives of this research are numerous, but may be summarized into three overarching goals: 1) to determine whether larger changes in the economy influence youth violence trends, 2) to assess whether welfare reform had any impact on rates of youth violence, and 3) to estimate the independent effects of poverty on youth's risks for violence and determine if the strength of this relationship has changed over time. Pursuant to the first two goals, the following research questions will be addressed at the macro-level:

- Did youth violent victimization rates fall most substantially for black and Hispanic youth during the economic expansion of the 1990s? Did youth in female-headed families also experience a more substantial decrease in violent victimization than youth in married couple families during this time?

- Did black youth experience the largest increase in violent victimization during the weak economic conditions of the early 2000s? Did youth in female-headed families also experience the largest increase?
- Did Hispanic youth experience the most substantial decrease in violent victimization during the early post-reform period? Did youth in female-headed families also experience the largest decrease?

The poverty trends for minority children and female-headed families displayed acute sensitivity to economic changes in the 1990s and early 2000s. These research questions will assess whether violent victimization trends disaggregated by race, ethnicity, and family structure responded similarly to the changes in the economy. In addition, trends will be disaggregated by age, gender, and metropolitan status to not only assess whether there are important sub-group differences in the poverty-youth violence relationship, but to determine if changes in group-specific youth poverty rates are more closely related to disaggregated victimization trends than changes in the overall poverty rate. Finally, these research questions will assess whether post-reform changes in youth poverty are associated with trends in youth violent victimization in the late 1990s.

The final set of research questions will assess the individual level relationship between poverty and youth's risks for violent victimization over time, specifically addressing the possibility that the consequences of family poverty for youth's victimization risks were amplified during the early post-reform period but diminished over time. Hence, the research questions that will be addressed in the micro-level analysis are as follows:

- Have the consequences of poverty for youth violent victimization changed over time? If so, are these changes associated with the mandatory work requirements enacted by the 1996 welfare reforms?

In addition to assessing the changing significance of poverty for youth's violence risks, this analysis will also determine the independent effects of poverty on youth violence risks net of race, ethnicity, family structure, and other controls (see Table 3.1 for a summary of research questions).

Data

National Crime Victimization Survey

This project utilizes data from the 1993-2004 NCVS, an ongoing national survey sponsored by the Bureau of Justice Statistics. The NCVS has collected information on nonfatal violent and property crimes against households and individuals age 12 and older since 1973. Using a multi-stage sampling technique, a nationally representative sample of 76,000 households is selected to participate in the NCVS each year, yielding interviews with approximately 135,000 individuals (BJS, no date). The national household sample is drawn from the Decennial Census, which is an advantage over sampling techniques such as random digit dialing that exclude households without telephone access. Selected households remain in the NCVS sample for three years and interviews are conducted with household members age 12 and older every six months.

Strengths of the NCVS. The NCVS employs several methodological strategies to ensure that incidents are accurately reported. First, information is gathered through a self-response method in which direct interviews are conducted with as many eligible household members as possible.

Table 3.1

Summary of Macro-and Micro-Level Research Questions

Macro-level questions

Primary

- 1) Did youth violent victimization rates fall most substantially for black and Hispanic youth during the economic expansion period (i.e. 1993 to 2000)? Did youth in female-headed families also experience a more substantial decrease in violent victimization than youth in married couple families during this time?
- 2) Did black youth experience the largest increase in violent victimization during the weak economic conditions of the early 2000s (i.e. 2001 to 2004)? Did youth in female-headed families also experience the largest increase in victimization during this time?
- 3) Did Hispanic youth experience the largest decrease in violent victimization during the early post reform period (i.e. 1997 to 2000)? Did youth in female-headed families also experience larger post-reform reductions in victimization than youth in married couple families?

Secondary

- 4) Are there significant sub-group differences in the poverty-youth violence relationship?
 - 5) Are group-specific changes in youth poverty more closely related to group-specific youth violent victimization trends than changes in the overall youth poverty rate?
 - 6) Are there significant differences between the poverty-youth violence relationships of the economic expansion, early post-reform, and economic downturn periods?
-

Micro-level questions

- 1) Have the consequences of poverty for youth's violent victimization risks changed over time? If so, are the changes associated with mandatory work requirements enacted by the 1996 welfare reforms?
-

Proxy interviews may be conducted on behalf of those who are mentally or physically incapacitated to the extent that granting an interview is not possible as well as for 12 and 13 year olds when insisted upon by a knowledgeable household member.

Second, a screening process is used to determine whether or not reported incidents constitute a crime. Respondents are first prompted to report incidents through a series of screening questions and for each incident reported during this initial screening, detailed information is collected and recorded in an incident report including the victim-offender relationship, presence of weapons, extent of injuries, and whether or not the crime was reported to the police. Based on the details in this report, incidents are then classified by type of victimization and level of completion.

Third, NCVS interviews are bounded to reduce the effects of telescoping, or the reporting of incidents that occur outside the six month reference period. Bounding is a technique that uses the information gathered in each interview as a point of reference for subsequent interviews to ensure that duplicate incidents are not counted. As such, the initial interview is only used for bounding purposes and does not count toward victimization estimates. Past studies of National Crime Survey (NCS) data have found that unbounded interviewing can inflate victimization estimates by as much as 50% (Biderman & Cantor, 1984).

Additional strengths make the NCVS a valuable tool for social science research including large sample sizes and high response rates. Between 1993 and 2004, completed interviews were obtained from roughly 980,000 individuals in over 540,000 households, with response rates ranging from 93% to 86% and 96% to 91% respectively; the present study is based on an unweighted sample of more than 300,000 persons between the ages

of 12 and 17. When weighted, however, this sample is nationally representative of nearly 2.85 million youths. The large sample size, small sampling errors, and high participation rates contribute to the reliability and generalizability of NCVS estimates.

Specific advantages of the NCVS for the purposes of this project include the availability of data over many years, a wide range of important demographic information, and measures of Latino ethnicity. With more than 35 years of data on criminal victimization, the NCVS allows for the study of long-term trends in youth violence and because the data contain detailed victim and household demographic information, these trends can be disaggregated to better understand how youth violence trends vary by family structure and racial/ethnic origin--two of the key predictors of child poverty. A particular benefit of using the NCVS to disaggregate youth violence trends by race and ethnicity is that it is the only national crime survey that taps the Latino ethnicity of victims (Lauritsen & Heimer, 2010).

The NCVS also contains information on family size and income that are largely unavailable in other youth surveys. This information will be used to approximate a measure of the official poverty thresholds that are used by the Census Bureau to determine the poverty status of individuals and families. Moreover, the wealth of demographic information available in the NCVS also makes it possible to estimate poverty rates for specific groups such as non-Hispanic white, non-Hispanic black, and Hispanic youths.

Finally, the NCVS may be used to conduct individual-level analyses despite its hierarchical file structure. Data collected by the NCVS are stored into four files: address ID, household, person, and incident. The first two files contain identifiers and

demographic information for every address and household selected into the NCVS sample while the person file contains similar information for every eligible participant in the sample household. Finally, the incident file contains information about the nature and characteristics of each household and personal victimization incident reported by NCVS respondents.

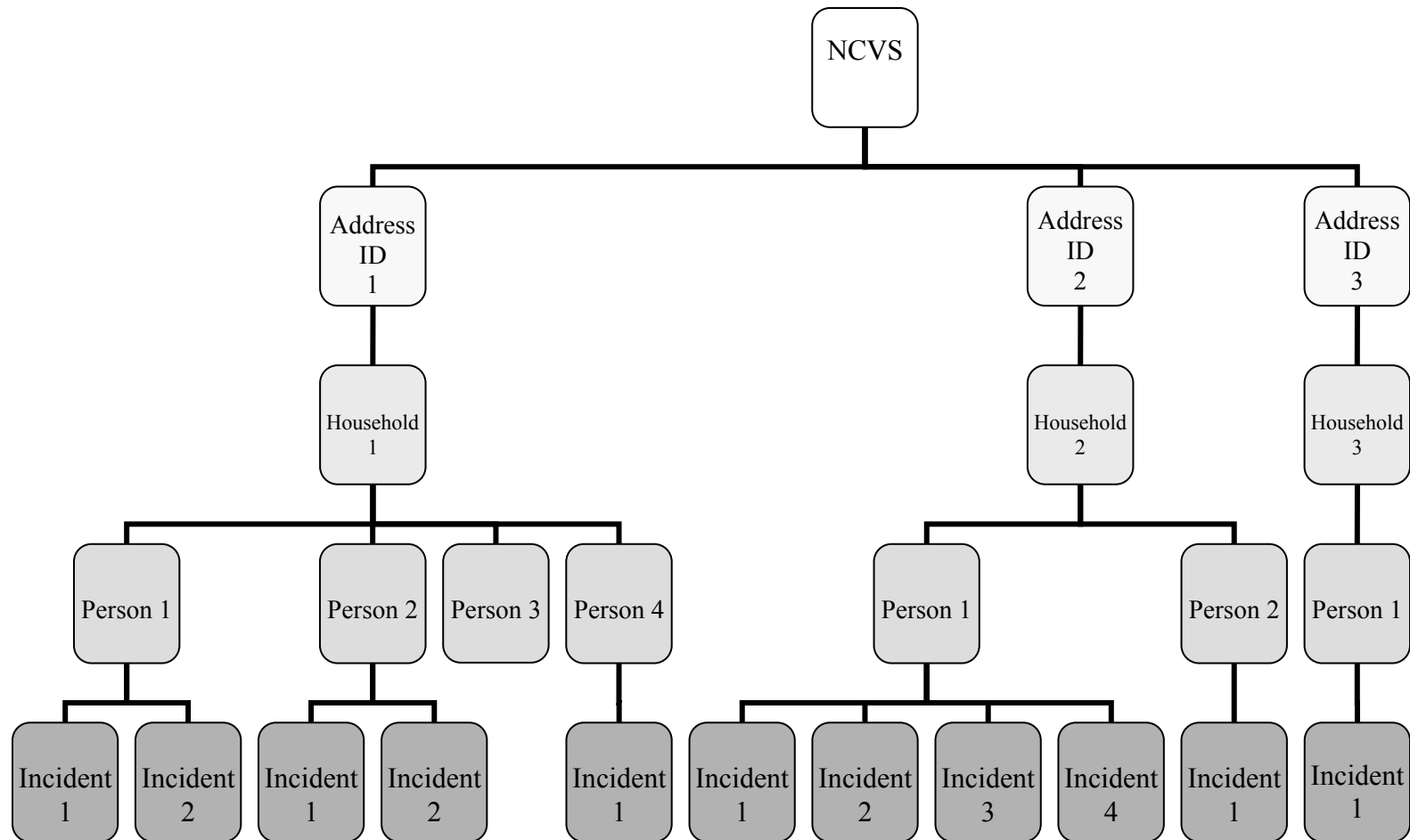
Figure 3.1 crudely illustrates the hierarchical organization of these files. The first full level consists of the address ID records, which provide important information on the addresses selected into the sample (in the NCVS, it is the address--not the individuals residing at the address--that is drawn into the sample). In turn, each address ID corresponds with a specific unit in the household file (i.e. the household residing at the address). According to the present example, our NCVS dataset consists of three address records that specifically correspond to three household records in the household-level file.

Because interviews are conducted with every member of the sample household ages 12 and older, each household unit can potentially generate several person records. In this example, a total of seven individuals can be linked to the three households in the sample with each person 'belonging' to a specific household unit in the household-level file. Finally, each person may report several victimization incidents or none at all, generating a separate record for each in the incident-level file. The seven individuals in the present example reported a total of eleven victimization incidents. However, the incidents per person range from zero to four.

Storing these data in a fixed record length format such as a rectangular, or flattened file, is impractical for a couple of reasons. Perhaps the most obvious is that it

Figure 3.1

Illustration of NCVS Hierarchical File Structure



would generate a very large dataset that would no doubt prove difficult to manage, but more importantly, a rectangular file would produce a large amount of missing data. To fit all the data in Figure 3.1 into a rectangular file, it would have to be large enough to accommodate every possible combination of persons and incidents, the maximum of which is five. Hence, the complete record for household one would require a space for the address ID, household, and five configurations of persons and incidents: person1-incident1, person1-incident2, person2-incident1, person2-incident2, person3, and person4-incident1; in addition to the address ID and household, the record for household two would contain the following five configurations: person1-incident1, person1-incident2, person1-incident3, person1-incident4, and person2-incident1. Between households one and two, there are only three person-incident combinations that overlap (i.e. person1-incident1, person1-incident2, and person2-incident1), which obviously means that each record would contain a large amount of missing data; with only one overlap in household three (i.e. person1-incident1), the missing data in record three would be even more significant.

For these reasons, it is more efficient to organize a complex dataset such as the NCVS in a hierarchical file structure. However, it does present some challenges for empirical analyses, particularly at the micro-level. It is not possible to examine the effects of household-related factors on one's risk for violent victimization, for example, if the household information is in one file and the incident information is in another file. Fortunately, however, each NCVS file includes a set of identification variables that may be used to draw a link between the address, household, person, and incident- level files, providing a way to connect each household to every household member that participated

in the survey and each survey participant to their reported victimization incidents. Thus, the identification variables provide a way to collapse the hierarchically-organized files into a flat file that contains all of the relevant address, household, person, and incident information for each respondent in the NCVS. This particular method was used to create a series of thirteen flattened files for each year in the NCVS sample, which in turn were used to conduct individual-level analyses.

Creating the flattened files is an involved process that starts with downloading and bounding the files by interview year. Obviously, linking the various NCVS files will generate a large amount of data, so it is important to take steps to make the files more manageable. This is done in the incident level file by first recoding the variables into more refined categories such as the type of victimization incident, presence of injury and weapons, and location of the incident. Next, a subset of both the recoded incident and person level files is created containing only those variables relevant to the present research. A unique person identification number is then created for each case in both the person and incident level files by stringing together the NCVS identification variables: ICPSR household identification number, year and quarter identification, sample number, scrambled control number, and household number. The cases are then sorted by the newly created person identification number and a variable is created in the incident file to tap the number of incidents reported by each person. A set of codes is used to create four vectors for each variable in the recoded incident file and place the correct incident information into these vectors. The appropriate variable names and value labels are then assigned to each vector and a set of codes that test the aggregating function designed to flatten the incident file is run. Finally, the flattened incident file is merged with the

person file by the person identification variable and a flattened file is created that contains the relevant variables from each file level for every respondent in the NCVS sample.

Limitations of the NCVS. Though the NCVS generates a large, nationally representative sample, high response rates, and detailed information about criminal victimization that cannot be found in most official data sources, there are limitations. Because the NCVS is an address-based sample, it excludes homeless youths and those living in group quarters or institutional settings such as juvenile detention centers. Also excluded from the sample are children under the age 12, so it is not possible to assess the consequences of poverty for childhood victimization.

The NCVS also has two important limitations for the empirical study of youth violence: atheoretical measures and the exclusion of community-level variables. According to social disorganization and ecological theories of crime, for example, community-level disadvantage plays a major indirect role in neighborhood rates of crime and delinquency. In addition, research has linked other indicators of community disadvantage such as the percent of female-headed households to adolescent's risk for violent victimization (Lauritsen, 2003). With the absence of theory-based measures and community-level variables in the NCVS, it is impossible to test any theoretical assumptions about the association between community-level deprivation and youth violence trends or assess the relative impact of individual and community level factors on the changing consequences of poverty over time.

Measures

The key measures to be analyzed in this project are violent victimization, poverty, family structure, and race and ethnicity. To determine the association between youth poverty and violent crime at the macro-level, violent victimization trends will be disaggregated by family structure and race and ethnicity--two of the most important demographic predictors of youth poverty. At the micro-level, I will assess whether the consequences of poverty have changed for youth's violent victimization risks over time net of their family living arrangements and racial and ethnic origin. Three additional correlates of youth violence will serve as controls: gender ('0=female' and '1=male'), urban residency ('0=non-urban' and '1=urban'), and whether adolescents are younger ('0=12 to 14') or older ('1=15 to 17'). Table 3.2 summarizes the distribution of the sample along these measures.

Dependent Variables

Violent victimization. The dependent variable for the micro-level portion of this project is violent victimization, which is coded '0=no' or '1=yes' if respondents reported at least one attempted or completed incident of the following crimes: simple assault, aggravated assault, robbery, and rape/sexual assault. Attacks not involving the use of a weapon are classified as simple assaults while aggravated assaults include attempted or completed attacks committed with a weapon or completed attacks resulting in serious injury. Robberies are classified as thefts committed with force or threat of force and rape/sexual assaults include attacks involving unwanted sexual contact or forced intercourse.

Table 3.2

Characteristics of NCVS Youth Sample, 1993-2004^a

Year	Poverty Status*		Family Structure*		Race and Ethnicity*		
	Above	At/Below	Married Couple	Female Headed	Non-Hispanic White	Black	Hispanic
1993	69.9	20.5	71.1	23.1	68.4	16.0	11.1
1994	68.1	22.2	72.1	22.4	67.6	15.8	12.1
1995	70.2	20.3	71.5	22.9	67.3	15.5	12.5
1996	69.7	19.8	71.3	22.8	67.0	15.3	12.8
1997	68.7	20.4	69.7	24.2	65.2	15.9	13.7
1998	69.0	18.6	68.8	24.8	65.3	15.7	13.7
1999	67.1	18.1	68.9	24.7	64.5	15.5	14.2
2000	67.6	16.4	68.4	24.9	64.4	15.5	14.5
2001	67.0	16.3	68.5	24.8	64.1	15.7	14.8
2002	66.0	15.1	68.4	25.0	62.8	16.3	15.8
2003	65.8	15.4	67.0	25.8	60.7	15.0	17.7
2004	65.4	15.6	66.6	26.5	60.3	15.0	18.2
Total	67.8	18.1	67.8	22.7	64.7	15.6	14.3

Table 3.2 (continued)

Year	Gender		Age		Urban		Violent Victimization Rate (per 1,000)
	Male	Female	12 to 14	15 to 17	Non-urban	Urban	
1993	51.3	48.7	51.7	48.3	73.7	26.3	125.6
1994	51.3	48.7	51.0	49.0	72.9	27.1	127.5
1995	51.2	48.8	51.0	49.0	72.9	27.1	112.9
1996	51.2	48.8	50.7	49.3	72.6	27.4	102.1
1997	51.3	48.7	50.0	50.0	71.5	28.5	93.3
1998	51.1	48.9	50.3	49.7	72.3	27.7	87.0
1999	51.2	48.8	50.4	49.6	73.1	26.9	77.4
2000	51.2	48.8	50.2	49.8	72.2	27.8	59.9
2001	51.1	48.9	50.2	49.8	72.5	27.5	58.4
2002	51.4	48.6	51.1	48.9	72.4	27.6	49.1
2003	51.2	48.8	51.8	48.2	71.2	28.8	55.8
2004	51.2	48.8	51.1	48.9	72.7	27.3	46.3
Total	51.2	48.8	50.8	49.2	72.5	27.5	81.8

^aValues represent percentages unless otherwise noted.

*Total and within category percentages may not equal 100 because the percentage of missing data and other excluded categories are omitted.

To assess the association between youth poverty and violent victimization rates at the macro-level, the youth violent victimization rate is also calculated for each year in the sample. To create this rate, the number of violent victimizations reported by youths during the interview year (numerator) is divided by the total youth population in that year (denominator) and multiplied by 1,000 as depicted below. The interview, or collection, year covers a 12 month interview period as opposed to the data year, which covers the entire 18 month NCVS interview period. The former is used by the BJS to calculate victimization estimates in their annual *Criminal Victimization* reports.

$$\text{Youth violent victimization rate} = \left(\frac{\text{Total \# violent incidents (12-17)}}{\text{Total population (12-17)}} \right) \times 1,000$$

The total number of violent incidents is generated from the 1992-2005 concatenated incident file and weighed by the NCVS person weight (v3080), which is an estimation of the population that each person in the sample represents. By applying the person weight, therefore, it is possible to estimate the total number of violent victimizations in the national youth population. The denominators are generated in the person file and similarly weighed by the person weight to estimate the total youth population each year. Because estimates are not based on the full 18 month interview period, however, the person weight had to be adjusted to produce the appropriate annual estimates. This process was used to generate both total victimization rates and group specific rates by age, gender, family structure, race and ethnicity, and metropolitan status. The only difference is that the numerators and denominators are based on the number of victimizations reported by a specific group of youths and the total at-risk population respectively. To generate the youth violent victimization rate for males in female-headed

families, for example, the numerator would consist of the number of violent incidents reported by young males in female-headed households and the denominator would consist of the total population of young males in female-headed households.

Independent Variables

Poverty. To determine the poverty status of individuals and families, the Census Bureau uses a set of poverty thresholds that were initially developed by economist Molly Orchanaky in 1963-64. The initial thresholds were based on an economy food plan developed by the Department of Agriculture and adjusted by family size, sex of the householder, the number of children under 18, and farm residency. In 1969, the thresholds were revised and the Consumer Price Index was established as the standard for annual inflation adjustments. That same year the thresholds were adopted as the federal definition of poverty. The adjustments for farm families and female-headed households were eventually eliminated in 1981 and family size was extended to 9 or more people, retaining family size and the number of children under 18 as the key factors used to adjust the federal threshold amounts (Fisher, 1992). Thus, a family and all of its members are considered to be in poverty if their total cash income falls below the designated poverty threshold for a family of their size and composition.

Using the federal thresholds as a guideline, a similar method is used to create poverty thresholds in the NCVS. A precise replication is not possible because the NCVS lacks a continuous measure of household income. Instead, threshold categories are created using the total number of members in each household and a categorical measure of household income that ranges from $< \$5,000$ to $\geq \$75,000$. Respondents are considered to be '0=above poverty' if their household income category is greater than the federal

poverty threshold for a family of their size or 'at or below poverty' if their income category falls below, or includes, the poverty threshold.

Because the federal thresholds are updated annually for inflation, the threshold amount for a given family varies from year to year. For instance, the poverty threshold for a family of three was \$13,738 in 2000 and \$14,128 in 2001. Due to the variance in annual threshold amounts, separate poverty codes are created for each year in the NCVS sample. As previously noted, the code consists of two major components: household size and household income. The total household size is created by summing two continuous measures of the 'number of household members 12 years and older' and the 'number of household members younger than 12 years' and household income consists of fourteen categories: 1) < 5,000; 2) 5,000-7,499; 3) 7,500-9,999; 4) 10,000-12,499; 5) 12,500-14,999; 6) 15,000-17,499; 7) 17,500-19,999; 8) 20,000-24,999; 9) 25,000-29,999; 10) 30,000-34,999; 11) 35,000-39,999; 12) 40,000-49,999; 13) 50,000-74,999; 14) \geq 75,000.

Table 3.3 presents the information used to create the poverty code for 2004, the most recent year in the sample. According to these figures, respondents in a family of four are considered to be 'at or below poverty' if their category of household income is less than or equal to \$17,500-\$19,999, which encompasses the federal poverty threshold for a family of four--\$19,307 (see U.S. Census Bureau, 'Poverty Thresholds 2004' for detailed threshold matrix). Thus, respondents in a family of four are considered to be poor if their income falls into categories 1 through 7.

To assess the external validity of this measure, the NCVS youth poverty estimates are compared to those generated for all children under 18 in the Current Population Survey (see Appendix A). The estimates are similar to each other in trend and magnitude,

differing by no more than about two percentage points each year. The trends began to diverge after 2001 when missing income data in the NCVS approached 20%. However, reducing this missing income data is challenging because the NCVS does not contain additional poverty and child well-being indicators such as household receipt of public assistance and food stamps, health insurance coverage, and child support receipt that can be used to impute family poverty or create alternative measures of child well-being.

Family structure. In addition to household size and income, the NCVS also uses a family structure code to tap the composition of households in the survey. The family structure code broadly classifies families into those headed by husbands and wives or single males or females, and configures each family group according to the presence of children, other relatives, and non-relatives. For example, married couple families with a male householder, or reference person, are configured in the following way: '1=Male ref wife/child/relative'; '2=Male ref wife/child/non-relative'; '3= Male ref wife/child/non-relative/relative'; '4=Male ref wife/child'; '5=Male ref wife/relative'; '6=Male ref wife/non-relative'; '7=Male ref wife/relative/non-relative'; '8= Male ref wife'. This classification scheme results in 33 configurations of family living arrangements, including other combinations not captured by the family structure code.

These configurations may be coded into more refined categories of family structure including married couple families with or without children, single parent families headed by males or females, and single adult households. For example, the categories representative of married couples and their own biological children are 1-4 and 17-20, but to capture all of the biological, related, and/or unrelated children residing in

Table 3.3

*Example of Census Bureau Poverty Thresholds and NCVS Threshold Categories, 2004
(in dollars)*

Household size	Census Poverty Thresholds	NCVS threshold categories ^a
1	9,645	<5,000 (1) 5,000-7,499 (2) 7,500-9,999 (3)
2	12,334	10,000-12,499 (4)
3	15,067	12,500-14,999 (5) 15,000-17,499 (6)
4	19,307	17,500-19,999 (7)
5	23,831	20,000-24,999 (8)
6	25,788	25,000-29,999 (9)
7	29,236	25,000-29,999 (9)
8	32,641	30,000-34,999 (10)
≥ 9	39,048	35,000-39,999 (11)

^aCategory number in parentheses.

married couple families, the categories must be expanded to include 1-7 and 17-23.

Married couples without children include (8) 'male reference wife' and (23) 'female reference husband' (see Table 3.4).

Additionally, the specific relationship between the householder and each household member is measured and coded into general categories of spouses, children, parents, siblings, other relatives, and non-relatives. This information is useful for determining the respondent's precise relationship to the head of household and estimating the percentage of related children in the sample. The NCVS does not assess the relationship between respondents and other members of the household, however, so estimates cannot be generated for youths living with cohabiting couples or single parents who 'double up' to share resources--an arrangement that increased significantly among low-income parents who were not receiving welfare during the early post-reform period (Loprest & Zedlewski, 2006).

The two categories of family structure to be examined in this project are '0=married couple' and '1=female-headed families', the latter being the primary target of welfare reform policies enacted in the 1990s. To create these two categories, the family structure code is reconfigured and categories 1-7 and 17-23 are coded as married couple families while categories 25-31 are coded as female-headed families. The remaining categories are collapsed into the 'residue' category, which is applied to those cases in which respondents were either unwilling or unable to provide information about family living arrangements or provided a response that did not fall into any of the pre-determined categories in the family structure code.

Table 3.4

Categories in NCVS family structure code

1) Male ref wife/child/relative	18) Female ref husband/child/non-relative
2) Male ref wife/child/non-relative	19) Female ref husband/child/relative/non-relative
3) Male ref wife/child/relative/non-relative	20) Female ref husband/child
4) Male ref wife/child	21) Female ref husband/relative
5) Male ref wife/relative	22) Female ref husband/non-relative
6) Male ref wife/non-relative	23) Female ref husband/relative/non-relative
7) Male ref wife/relative/non-relative	24) Female ref husband
8) Male ref wife	25) Lone female ref child/relative
9) Lone male ref child/relative	26) Lone female ref child/non-relative
10) Lone male ref child/non-relative	27) Lone female ref child/relative/non-relative
11) Lone male ref child/relative/non-relative	28) Lone female ref child
12) Lone male ref child	29) Lone female ref relative
13) Lone male ref relative	30) Lone female ref non-relative
14) Lone male ref non-relative	31) Lone female ref relative/non-relative
15) Lone male ref relative/non-relative	32) Lone female ref
16) Lone male ref	33) Other combination
17) Female ref husband/child/relative	

About 69% of the sample consists of youths who live in married couple families and the majority of these youths are the couple's own children (95.2%). Those remaining are other relatives (4.0%) and non-relatives (0.7%). The percentage residing in female-headed families is roughly 24%, which is comprised of about 87.2% of the householder's own children, 11.0% of other relatives, and 1.7% of non-relatives. The remaining 9% of the sample consists of youths in other family living arrangements and missing data.

The external validity of these estimates is also assessed through comparisons with CPS estimates of children's living arrangements (U.S. Census Bureau, no date). The NCVS estimates of the percentage of youths in married couple families are nearly identical to those produced by the CPS, save slightly higher percentages from 1994 to 1997. Comparatively, there is less precision in the female-headed family estimates but it is clear that the two sets of trends follow very similar patterns. The apparent exception is the decrease in CPS and increase in NCVS estimates around 1997, at which point the former estimates fall slightly below the latter. Minor discrepancies aside, the trends are sufficiently similar to warrant the conclusion that the NCVS produces reliable estimates of children's living arrangements.

Race and ethnicity. The NCVS uses Census guidelines and practices to tap race and ethnicity. Prior to 2003, the federal guidelines for race classification were based on respondents self-reports of *one* of five racial categories: American Indian/Aleut/Eskimo, Asian/Pacific Islander, black, white, or other. In an effort to reflect changes in national diversity, the guidelines were effectively changed in January 2003 to allow respondents to select *one or more* racial categories revised to identify Asians as a distinct racial group: American Indian/Alaska Native, Asian, Black or African American, Native

Hawaiian/Other Pacific Islander, or White. These changes resulted in twenty categories of race alone or in combination in the 2003-2004 NCVS, though the overwhelming majority of youths reported only one race. The NCVS also uses a self-report of 'Hispanic origin' to determine whether or not respondents are of Hispanic descent, regardless of race.

Responses to the 'race' and 'Hispanic origin' questions are combined to create categories representing the three largest racial and ethnic groups in the U.S., '1= non-Hispanic whites', '2=non-Hispanic blacks', and '3=Hispanics'. Due to the 2003 revisions to the race category, a separate race and ethnicity code is created for the 2003 and 2004 NCVS files that essentially recodes the twenty categories of race alone or in combination into the five original racial groups. The largest group in the sample is non-Hispanic whites (64.7%), followed by non-Hispanic blacks (15.6%) and Hispanics (14.3%); about 5.4% of the data were missing. Between 2002 and 2004, however, the share of non-Hispanic blacks declined from 16.3% to 15.0% while the share of Hispanics increased from 15.8% to 18.2% and surpassed blacks as the largest minority group in the sample in 2003.

Summary

The overall objective of this research is two-fold: 1) to assess the impact of recent macroeconomic conditions and welfare reform policies on youth violent victimization trends and 2) to determine whether the consequences of poverty for youth's violence risks have changed over time and whether these changes are associated with welfare reform. To achieve these objectives, data from the 1993-2004 NCVS will be analyzed at both the macro- and micro-level. For the purposes of this research, the NCVS has several

advantages including a wealth of household and family demographic data such as household income and family structure, a measure of Hispanic origin, and a large sample of youth that is nationally representative of nearly 285 million persons. However, a disadvantage of using the NCVS is that it does not allow for theoretical testing or community-level analyses.

The key independent variables of poverty, race and ethnicity, and family structure are meant to capture individual and family characteristics that are associated with youth violence while gender, age, and metropolitan status serve as demographic controls. At the macro-level, race/ethnicity, family structure, and demographic controls will essentially serve as contingencies in the poverty-violence relationships of the economic expansion, early post-reform, and economic downturn periods while at the micro-level, all variables will be regressed on youth's violence risks before, immediately after, and several years after TANF implementation--the independent variable for both sets of analyses being youth violence. The following two chapters will outline the analytic strategy and present findings for the macro- and micro-level analyses, beginning with the former.

CHAPTER 4

MACRO-LEVEL ANALYTIC STRATEGY AND FINDINGS

The primary objective of this chapter is to present findings from the macro-level analysis, which centers on the association between poverty and youth violent victimization trends over three distinct time periods: economic expansion (1993-2000), early post-reform (1997-2000), and economic downturn (2001-2004). Before presenting the findings, however, the analytic strategy will be described.

Analytic Strategy

The macro-level analysis will employ the use of two strategies. The first will utilize a series of graphs to gather prima facie facts about the association between youth poverty and violent victimization trends for all youth and various youth subgroups. The information in the graphs will provide important details about poverty and violent victimization trends including the differences between the economic expansion, early post-reform, and economic downturn periods, the similarities and differences in various group trends, and the extent that violent victimization rates co-vary with overall and group-specific poverty rates.

In the first series of graphs, violent victimization trends are disaggregated by race and ethnicity and plotted in tandem with overall and group-specific poverty rates, which will be reproduced for males and females, younger and older adolescents, and urban and non-urban youth. For all groups, graphs will be presented in pairs--one comparing the violent victimization rates of non-Hispanic white, non-Hispanic black, and Hispanic youth to overall poverty rates and the other comparing violent victimization rates to group-specific poverty.

A total of fourteen graphs will be produced for non-Hispanic white, non-Hispanic black, and Hispanic youth, all of which are based on the author's own calculations and analysis of NCVS data: 1) total and 2) group-specific poverty and violent victimization rates for all non-Hispanic white, non-Hispanic black, and Hispanic youth; 3) total and 4) group-specific poverty and violent victimization rates for male sub-groups; 5) total and 6) group-specific poverty and violent victimization rates for female sub-groups; 7) total and 8) group-specific poverty and violent victimization rates for younger adolescent sub-groups; 9) total and 10) group-specific poverty and violent victimization rates for older adolescent sub-groups; 11) total and 12) group-specific poverty and violent victimization rates for urban sub-groups; 13) total and 14) group-specific poverty and violent victimization rates for non-urban sub-groups. To ease the comparison of poverty and violent victimization trends for the economic expansion, early post-reform, and economic downturn periods, each graph contains clear demarcations of the periods under review.

For the second series of graphs, violent victimization trends are disaggregated by two categories of family structure: married couple and female-headed families. Again, these trends are compared to overall and group-specific poverty trends in the following series of graphs: 1) total and 2) group-specific poverty and violent victimization rates for all youth in married couple and female-headed families; 3) total and 4) group-specific poverty and violent victimization rates for male sub-groups; 5) total and 6) group-specific poverty and violent victimization rates for female sub-groups; 7) total and group-specific poverty and violent victimization rates for younger adolescent sub-groups; 9) total and 10) group-specific poverty and violent victimization rates for older adolescent sub-groups; 11) total and 12) group-specific poverty and violent victimization rates for urban

sub-groups; 13) total and 14) group-specific poverty and violent victimization rates for non-urban sub-groups.

Because the trends are largely disaggregated, all of the poverty and violent victimization rates displayed in the graphs are smoothed using three-year moving averages. Smoothing is particularly important for this analysis because high levels of disaggregation produce groups with small numbers of cases, resulting in estimates with wide confidence intervals and low precision. In addition to high disaggregation, group sample sizes may also be affected by declining violent crime rates and NCVS sample reductions in 1995, both of which make it difficult to assess year-to-year changes in youth violent victimization in a meaningful way. Smoothing addresses these issues by essentially tripling sample sizes each year.

While the graphs may illustrate the extent of co-variation between youth poverty and violent victimization trends, they cannot tell us about the strength of the relationship. Therefore, the second strategy involved in the macro-level analysis is the estimation of first differenced poverty-violent victimization correlations to determine the strength of the association between the two. More importantly, however, first differencing is used to correct for the possibility that the factors (i.e. observed or unobserved) that influence changes in youth poverty and violent victimization one year also affect similar changes in subsequent years throughout the series, thus removing the 'common thread' from the two trends and allowing for a better assessment of how year-to-year changes in poverty affect year-to-year changes in youth violent victimization. First-differenced correlations will be estimated for total groups and all youth groups as well as for the entire period (i.e. 1993-

2004) and the economic expansion (i.e. 1993-2000), early post-reform (i.e. 1997-2000), and economic downturn (i.e. 2001-2004) periods.

Results

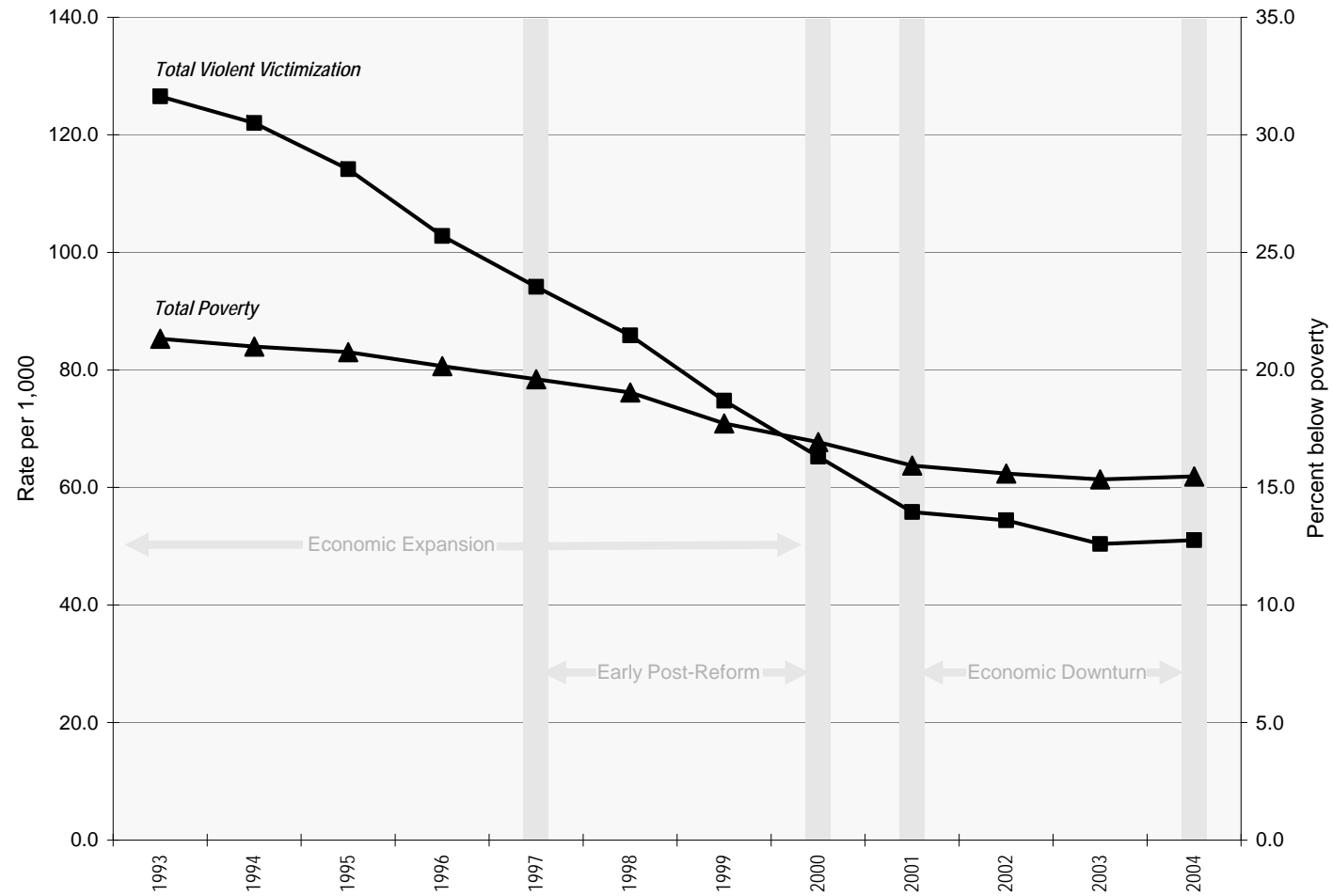
Before addressing the specific macro-level research questions, it is important to highlight the poverty and violent victimization trends for all youth in the sample. This information will provide a point of comparison for disaggregated trends. Figure 4.1 depicts annual average poverty and violent victimization rates¹ for the total sample of youth in the 1993- 2004 NCVS, the former plotted on the secondary y-axis and the latter plotted on the primary. As previously described, the highlighted segments of the graph demarcate the early post-reform and economic downturn periods. The figure reveals a fairly steady decline in both poverty and violent victimization over the economic expansion period, though victimization fell more steeply than poverty; while the former declined by more than forty-eight percent, the latter declined by roughly twenty-one percent. Nonetheless, these patterns suggest some association between expansion-era poverty and violence trends, which is confirmed by the correlation of first differences ($r=.67$, $p<.10$).

The reductions continued as expected throughout the early post-reform period but although poverty declines accelerated slightly after 1998, marked reductions in violence were not evident. Recall that the implementation of TANF coincided with the economic expansion, contributing to hastened declines in child poverty in the late 1990s. Hence, noting the presence or absence of marked post-reform violence reductions is helpful in determining the influence of welfare reform. The absence of marked reductions in total

¹ The end-points, 1993 and 2004, consists of two-year averages.

Figure 4.1

Total youth poverty and violent victimization rates, 1993-2004



violent victimization suggests that the implementation of TANF did not play an important role in the declines.

Nonetheless, steep violence declines resulted in the narrowing of the violence-poverty gap, from roughly six-fold at the start of the series to less than four-fold by the end of the early post-reform period. Coinciding with the end of the early post-reform period, the height of the economic expansion also marked a seeming convergence in poverty and violence trends, although it is not a 'true' convergence because poverty and violence are plotted on different axes. Instead, it marks the distinct point in the series where steep violence declines intersect with slowing poverty declines.

Although it is unlikely that TANF influenced the violence trends of the early post-reform period, the correlation of first differences suggests a strong association between poverty and violence trends ($r=.99$, $p<.05$). While there may be some association between the two, these findings most likely reflect the small number of data points during the early post-reform (and economic downturn) period, and thus is not a reliable indicator of post-TANF relationships. However, a review of the correlation results reveals wide variation in the strength of the poverty-violence relationships of the early post-reform and economic downturn periods, which suggest that the small number of data points do not result in strong associations in each case. More often than not, moreover, the relationships are not statistically significant, particularly in regards to the early post-reform period. Still, results from these two periods should be observed with caution.

With this caveat in mind, the declines in poverty and violent victimization persisted throughout the 2001 recession, although at a much slower pace relative to the preceding periods. Both sets of rates also continued to decline throughout 2003 but

compared to violence, poverty declined only marginally from year-to-year. It was not until the last year of the series that both sets of rates upturned negligibly. After falling twenty-eight and sixty percent between 1993 and 2003, more specifically, poverty and violence rates respectively increased by less than (0.78) and slightly more than (1.29) one percent in 2004.

Again, these trends do not appear to follow the expected pattern. If the economic downturn impacted violence in the same manner that it impacted CPS child poverty, an increase in violence would also be expected from 2001 to 2004. However, the fact that both poverty and violence decreased throughout most of the period suggests that the weakened state of the economy did not play a significant role. The decreases in downturn-era NCVS poverty are peculiar but overall, the pattern does not diverge prominently from the CPS. While total child poverty increased by 1.5 points in the CPS, there was less than a one-point increase in NCVS total youth poverty. Nonetheless, there is substantial co-variation in these short-term poverty and violence trends as evidenced by the correlation of first-differences ($r=.94$, $p<.10$).

Summary. There appears to be a fairly close association between total youth poverty and violent victimization during the economic expansion, early post-reform, and economic downturn periods as well as over the entire series ($r=.79$, $p<.05$), although the strength and statistical significance of the associations do vary; the strongest was found during the early post-reform period, followed by the economic downturn and economic expansion. These variations suggest that the poverty-violence association is more important during some time periods than others and underscore the importance of assessing how the relationship has changed over time. However, the violence trends also

follow patterns that are inconsistent with macroeconomic and social policy effects, particularly during the early post-reform and economic downturn periods.

The preceding discussion does reveal significant associations between total youth poverty and violent victimization, and provides general knowledge about the nature of the relationships each period. The following section will build upon this general knowledge by examining the relationship between poverty and violence trends disaggregated by race, ethnicity, and family structure, beginning with a brief overview of the general trends for each group and followed by a more detailed discussion of the influence of macroeconomic conditions and welfare reform policies on these trends. Racially disaggregated trends will be discussed first.

Violence trends by race and ethnicity

General patterns, 1993-2004

Figures 4.2 and 4.3 compare trends in total youth and group-specific poverty to violent victimization trends for non-Hispanic white, non-Hispanic black and Hispanic youth, providing important information that cannot be discerned from Figure 4.1. Perhaps the most apparent is that the early expansion period is marked by few distinguishable patterns in violent victimization for each group, though it is evident that white youth experienced the highest average rate in 1993. It is also apparent that violence rates declined rather uniformly for white youth while fluctuating somewhat for racial and ethnic minorities, but particularly for blacks.

Coinciding with the latter half of the expansion and implementation of TANF, discernable patterns in violence began to emerge around 1997. At this time, average rates were highest for white youth (97.51 per 1,000) followed by blacks (92.64 per 1,000) and

Figure 4.2

Total youth poverty and violent victimization rates by race and ethnicity, 1993-2004

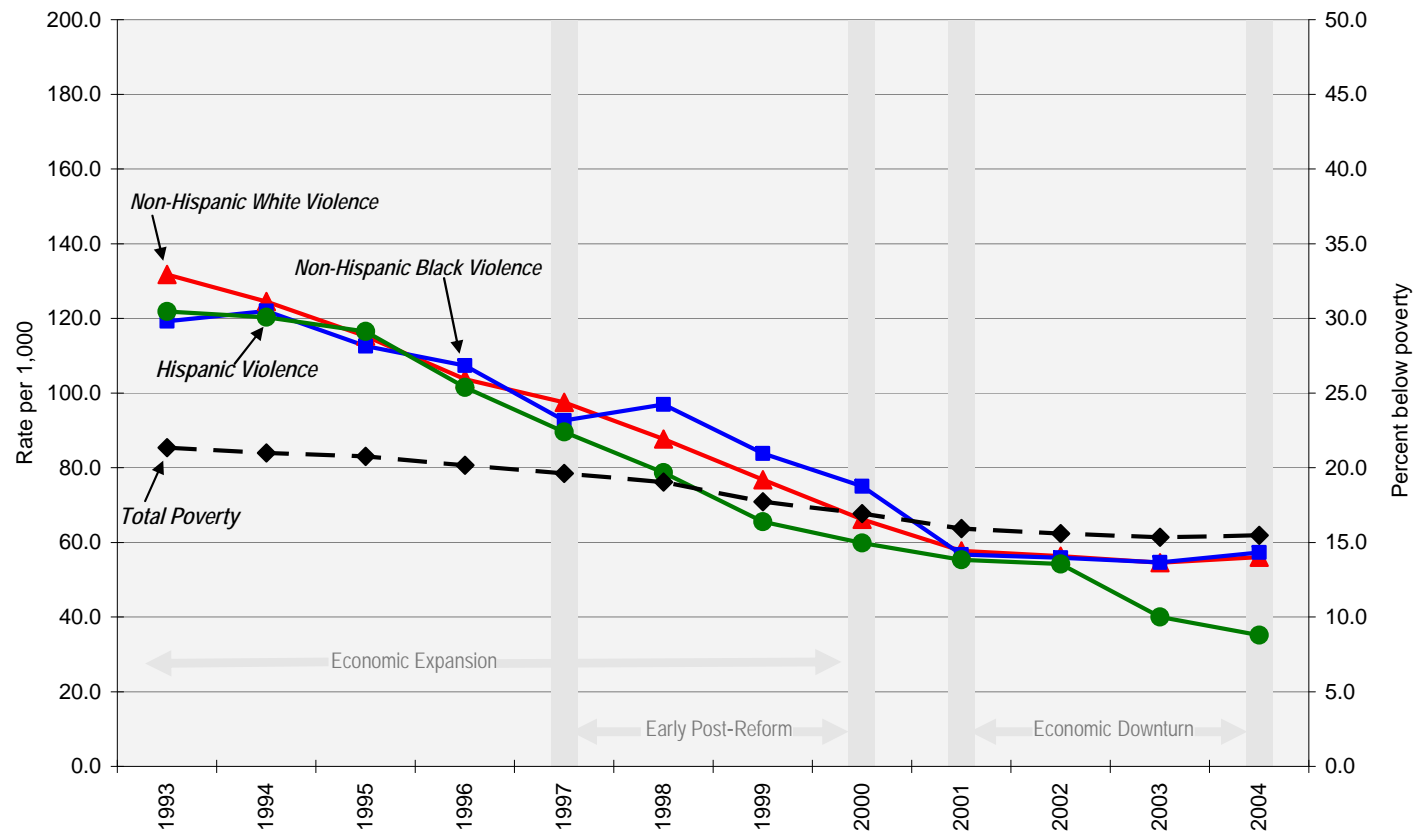
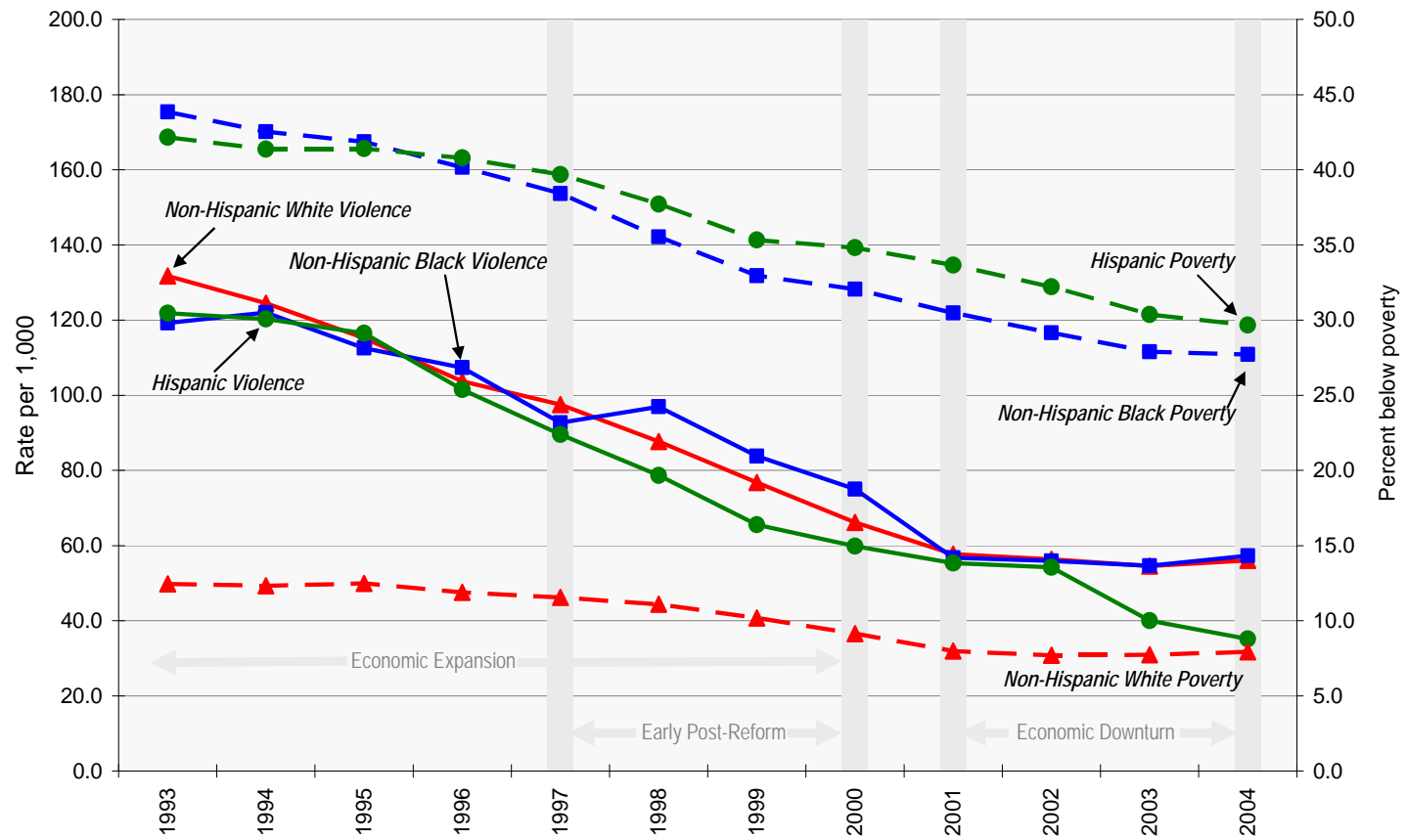


Figure 4.3

Group-specific poverty and violent victimization rates by race and ethnicity, 1993-2004



Hispanics (89.53 per 1,000). Over the course of the early post-reform period, rates fell rather steadily and substantially for white (-31.35)² and Hispanic (-29.72) youth, the latter experiencing the lowest overall victimization rates. Conversely, there was a small spike in black victimization rates in 1998 which was followed by a reduction of almost twenty-two points over the next two years.

The implementation of TANF served to hasten child poverty reductions in the late 1990s. It follows, therefore, that the decline in violence would show a similar acceleration if influenced by TANF, but the small spike in black rates not only suggests that it did not contribute but that it may have had an adverse effect on black violent victimization. Because the spike is limited to the year immediately following implementation, however, it is most likely due to a slight shock effect. This line of reasoning is obviously speculative; there is no way of determining whether this increase occurred among black youth in welfare-to-work families.

On the other hand, the sub-group trends make evident that the post-TANF spike in black violence is largely due to a substantial increase among females, although noticeable increases are also apparent among older adolescents and non-urban youth (see Appendices D, F, and H). Some research suggests that girls tend to shoulder a larger portion of the household and caretaking responsibilities in low-income and parent-absent (i.e. due to employment) families and it is this increased responsibility that may lead to adverse outcomes among youth (Dodson & Dickert, 2004; Brooks, Hair, & Zaslow, 2001).

Because TANF increased work efforts among single mothers, it stands to reason that girls' responsibilities in the home increased which in turn contributed to adverse

² Represents raw difference score (in points).

outcomes such as increased violent victimization. However, I argue that welfare reform only influences violence trends through its impact on poverty, and there is no evidence that poverty has differential effects on gender and racial groups. Nonetheless, the trends in black violence do arouse suspicion that welfare reform may have had harmful consequences for at least some groups of youth--a point I will explore in the following chapter.

As the economy entered the 2001 recession, the gap between white (57.69 per 1,000), black (56.71 per 1,000), and Hispanic (55.29 per 1,000) violence rates narrowed considerably, which is significant because the 2001 recession affected workers of all families, earnings, racial, and ethnic groups and all groups of children experienced modest increases in poverty. In other words, there was greater racial and ethnic equality in the poverty increases of the economic downturn than the reductions of the economic expansion period. But while the symmetry in white and black violence trends persisted throughout 2004, there was a sharp divergence in Hispanic rates after 2002.

When the 2001-2004 violence trends are disaggregated by gender, age, and metropolitan status, there is wide variation across black and white sub-groups. However, the post-2002 drop in Hispanic violence rates is observable across all sub-groups (see Appendices C-H). Other research has shown that Hispanic youth have lower violent victimization rates than non-Hispanic youth, although it is not clear whether the lower rates result from the marked drop in Hispanic violence in 2002; Baum (2005) reports that the 1993-2003 annual average violent victimization rates for non-Hispanic white (86.7 per 1,000) and non-Hispanic black (87.0 per 1,000) youth were virtually the same, but the Hispanic rate was 76.9 per 1,000.

To investigate the source of this divergence, violent victimization rates are further disaggregated by violent crime type for non-Hispanic whites, non-Hispanic blacks, and Hispanics. Displayed in Figures 4.4 through 4.7, the results reveal interesting trends in simple and aggravated assault that may shed some light on the racial differences in the violence patterns. In terms of simple assault, the trends were generally similar for black and Hispanic youth throughout 2002, at which point Hispanic rates began to veer from converging black and white rates. The aggravated assault series also begins with higher rates for black and Hispanic youth but after falling sharply in 2002, Hispanic rates intersect with and fall below black and white rates--the series ending with white youth having the highest overall rates and Hispanics the lowest. It is also important to note that Hispanic youth experienced a marked reduction in post-2002 robbery that leveled off in conjunction with rising black and white rates. However, white youth maintained the lowest overall robbery rates throughout the entire series. It appears, then, that the trends in simple and aggravated assault are driving the divergence of Hispanic violence rates from white and black youth.

In terms of the *overall* association between poverty and violent victimization trends, first-differenced correlations reveal fairly strong and statistically significant associations for white ($r=.71$, $p<.05$) and black ($r=.67$, $p<.05$) youth that are slightly weaker than that of all youth ($r=.79$, $p<.01$). For Hispanic youth, on the other hand, the 1993-2004 association between total poverty and violent victimization is weak and statistically nonsignificant ($r=.32$). When the correlation between group-specific poverty and violent victimization was estimated, results reveal a relatively weaker relationship for white ($r=.63$, $p<.05$) and black ($r=.11$, ns) youth and a stronger, but statistically

Figure 4.4

Rape and Sexual Assault Rates by Race and Ethnicity, 1993-2004

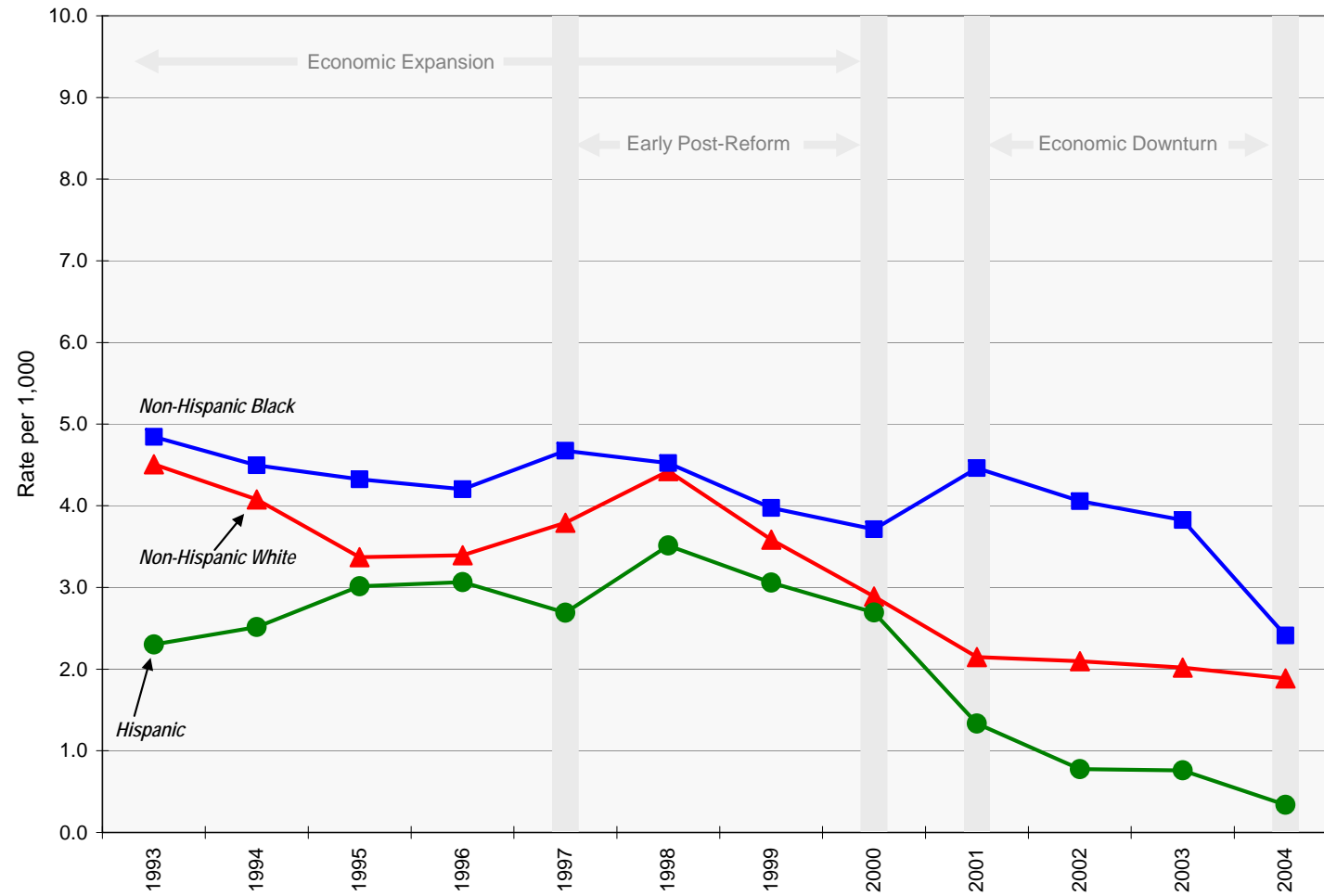


Figure 4.5

Robbery Rates by Race and Ethnicity, 1993-2004

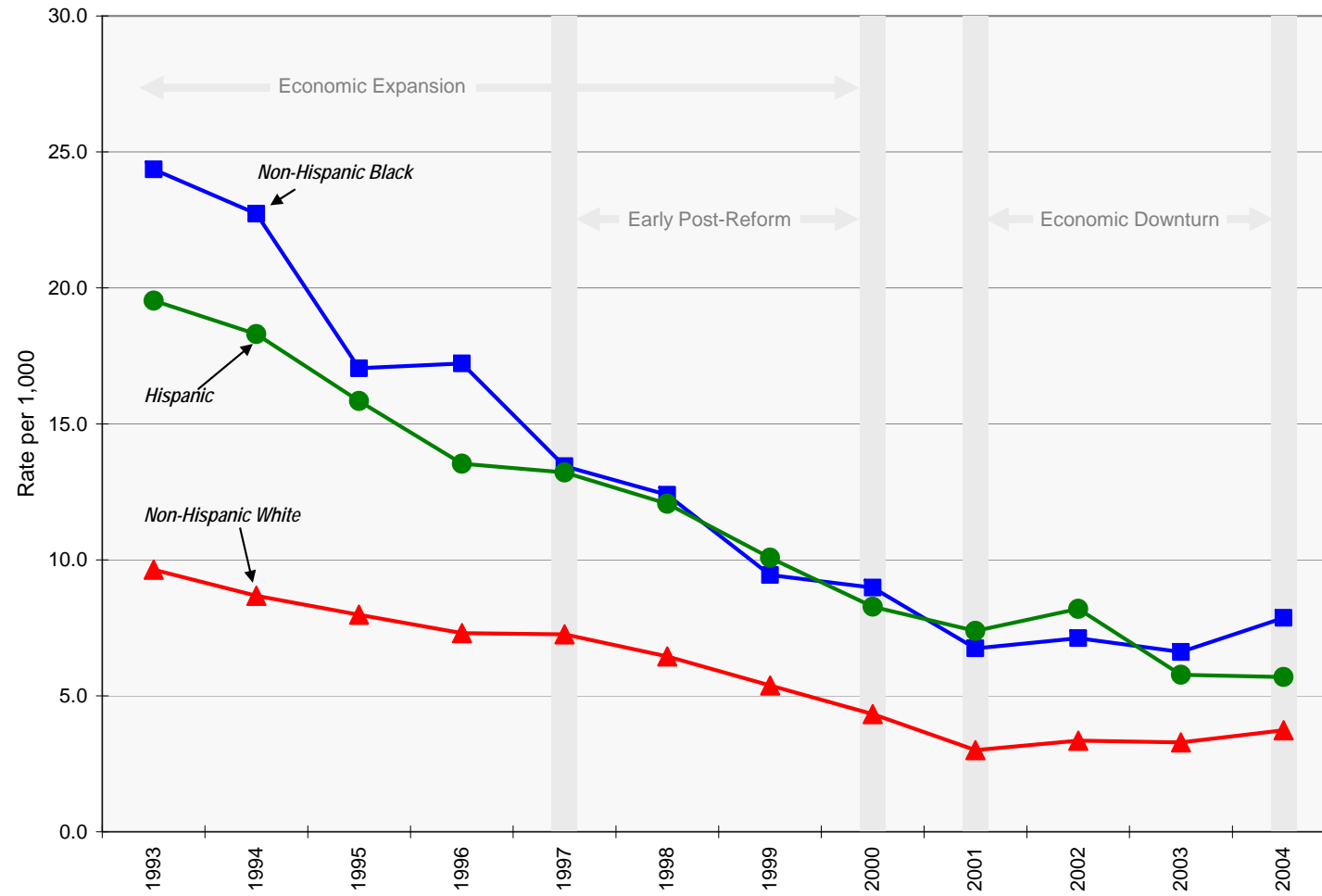


Figure 4.6

Aggravated Assault Rates by Race and Ethnicity, 1993-2004

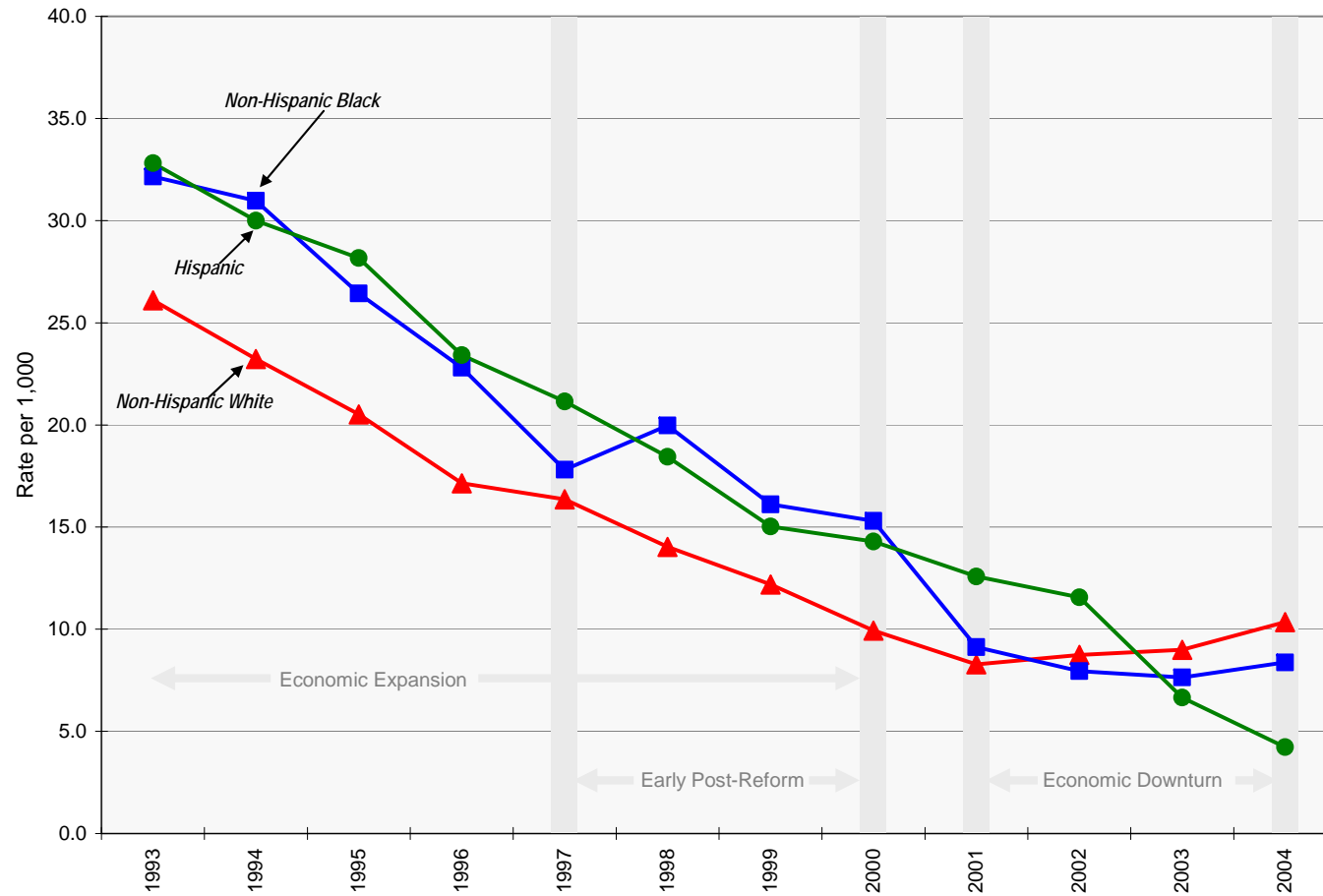
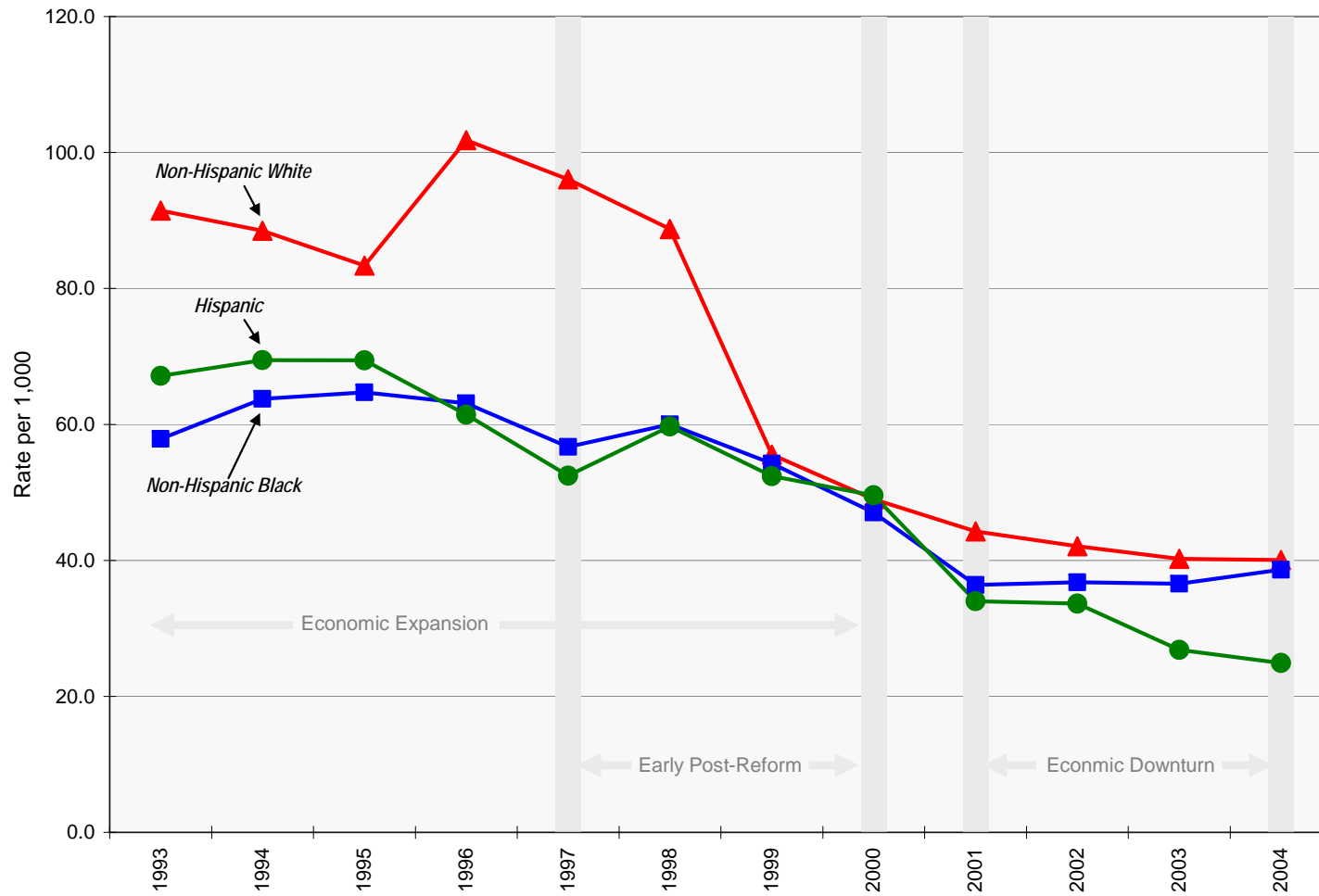


Figure 4.7

Simple Assault Rated by Race and Ethnicity, 1993-2004



nonsignificant association for Hispanic ($r=.46$, ns) youth; all first-differenced correlation results are displayed in Tables 4.1 and 4.2.

For the overwhelming majority of white and black youth sub-groups, however, the total poverty-violent victimization association was stronger than that of group-specific poverty and violence; there was no clear pattern for Hispanic sub-groups as the former was stronger for males, younger adolescents, and urban youth and the latter was stronger for females, older adolescents, and non-urban youth. These general patterns reveal important overall relationships between youth poverty and violent victimization for non-Hispanic youth. More specifically, these important relationships consist of statistically significant associations between total poverty and violence for *all* non-Hispanic whites and non-Hispanic blacks as well as group-specific poverty and violence for non-Hispanic whites. Poverty was not significantly associated with Hispanic violence, whether measured in terms of overall or Hispanic youth poverty.

The following section aims to determine the impact of recent macroeconomic conditions and welfare reform policies on the poverty-violence relationship according to two criteria. The first requires that violence trends follow the same pattern as CPS child poverty trends, which form the bases of all macro-level research questions. Guiding this research is the general hypothesis that given the association between poverty and violence, larger economic conditions and social policy changes should influence violence through its impacts on poverty trends. If indeed influenced by the same economic and social forces that contributed to recent changes in child poverty, then, violence trends should display similar patterns.

Table 4.1

First Differenced Correlations of Total Youth Poverty and Violent Victimization by Race, Ethnicity, and Family Structure

	Economic Expansion (1993-2000)	Early Post-Reform (1997-2000)	Economic Downturn (2001-2004)	Total (1993-2004)
TOTAL SAMPLE				
Race and ethnicity				
Non-Hispanic white	.50 (.2575)	.63 (.3727)	.99** (.0106)	.71** (.0143)
Non-Hispanic black	.42 (.3443)	.43 (.5685)	.96** (.0352)	.67** (.0248)
Hispanic	.55 (.1961)	.29 (.7127)	-.16 (.8379)	.32 (.3392)
Family Structure				
Married couple	.17 (.7080)	-.99*** (.0091)	.98** (.0219)	.54* (.0884)
Female head	.73* (.0607)	.99** (.0131)	.86 (.1366)	.81*** (.0023)
All youth	.67* (.0962)	.99** (.0129)	.94* (.0581)	.79*** (.0036)
MALES				
Race and ethnicity				
Non-Hispanic white	.12 (.8022)	.05 (.9529)	.99*** (.0065)	.61** (.0470)
Non-Hispanic black	.46 (.3002)	.43 (.5684)	.93* (.0730)	.69** (.0181)
Hispanic	.42 (.3505)	-.07 (.9272)	.12 (.8820)	.30 (.3638)
Family Structure				
Married couple	.17 (.7179)	-.56 (.4409)	.88 (.1242)	.54* (.0843)
Female head	.66 (.1066)	.94* (.0602)	.89 (.1054)	.77*** (.0053)
FEMALES				
Race and ethnicity				
Non-Hispanic white	.48 (.2775)	.71 (.2903)	.84 (.1595)	.53* (.0930)
Non-Hispanic black	.14 (.7572)	.31 (.6896)	.84 (.1575)	.27 (.4172)
Hispanic	.68* (.0945)	.59 (.4070)	-.39 (.6067)	.27 (.4153)
Family Structure				
Married couple	.07 (.8793)	.02 (.9780)	.46 (.5376)	.23 (.4897)
Female head	.69* (.0858)	.96** (.0423)	.72 (.2768)	.71** (.0147)

***p<.01, **p<.05, *p<.10

Table 4.1 (cont'd)

	Economic Expansion (1993-2000)	Early Post- Reform (1997-2000)	Economic Downturn (2001-2004)	Total (1993-2004)
12 TO 14 YEAR OLDS				
Race and ethnicity				
Non-Hispanic white	.83** (.0222)	.66 (.3449)	.98** (.0163)	.77*** (.0051)
Non-Hispanic black	.09 (.8493)	.08 (.9166)	.99** (.0141)	.60* (.0515)
Hispanic	.08 (.8570)	-.44 (.5609)	-.16 (.8356)	.16 (.6297)
Family Structure				
Married couple	.34 (.4579)	-.66 (.3420)	.92* (.0769)	.54* (.0849)
Female head	.47 (.2850)	.86 (.1388)	.83 (.1663)	.68** (.0214)
15 to 17 YEAR OLDS				
Race and ethnicity				
Non-Hispanic white	-.53 (.2243)	.49 (.5129)	.99** (.0123)	.46 (.1553)
Non-Hispanic black	.59 (.1621)	.68 (.3170)	.82 (.1782)	.50 (.1177)
Hispanic	.89*** (.0078)	.92* (.0827)	-.19 (.8083)	.36 (.2772)
Family Structure				
Married couple	-.18 (.6970)	-.23 (.7698)	.99*** (.0054)	.38 (.2494)
Female head	.66 (.1061)	.84 (.1639)	.85 (.1481)	.77*** (.0054)
URBAN				
Race and ethnicity				
Non-Hispanic white	.41 (.3614)	.00 (.9968)	.53 (.4663)	.50 (.1210)
Non-Hispanic black	.56 (.1886)	.79 (.2091)	.95* (.0531)	.76*** (.0062)
Hispanic	.47 (.2877)	1.00*** (.0006)	.35 (.6451)	.49 (.1234)
Family Structure				
Married couple	.14 (.7602)	-.66 (.3422)	.74 (.2551)	.40 (.2236)
Female head	.76** (.0483)	.93* (.0721)	.76 (.2449)	.78*** (.0046)

***p<.01, **p<.05, *p<.10

Table 4.1 (cont'd)

	Economic Expansion (1993-2000)	Early Post- Reform (1997-2000)	Economic Downturn (2001-2004)	Total (1993- 2004)
NON-URBAN				
Race and ethnicity				
Non-Hispanic white	.40 (.3728)	.88 (.1228)	.99** (.0131)	.73** (.0110)
Non-Hispanic black	.22 (.6347)	.07 (.9349)	.95** (.0498)	.44 (.1697)
Hispanic	.18 (.7051)	-.76 (.2360)	-.67 (.3263)	-.08 (.8258)
Married couple				
Married couple	.15 (.7446)	-.97** (.0332)	.95* (.0551)	.55* (.0814)
Female head				
Female head	.41 (.3595)	.86 (.1433)	.93* (.0666)	.72** (.0128)

***p<.01, **p<.05, *p<.10 (Note: p-values in parentheses).

Table 4.2

First Differenced Correlations of Group-Specific Youth Poverty and Violent Victimization by Race, Ethnicity, and Family Structure

	Economic Expansion (1993-2000)	Early Post-Reform (1997-2000)	Economic Downturn (2001-2004)	Total (1993-2004)
TOTAL SAMPLE				
Race and ethnicity				
Non-Hispanic white	.57 (.1790)	.79 (.2139)	.97** (.0331)	.63** (.0358)
Non-Hispanic black	-.23 (.6186)	-.46 (.5389)	.68 (.3220)	.11 (.7516)
Hispanic	.54 (.2137)	.81 (.1925)	.59 (.4145)	.46 (.1568)
Family Structure				
Married couple	.58 (.1723)	-.07 (.9332)	.78 (.2187)	.71** (.0131)
Female head	.45 (.3045)	.64 (.3570)	.76 (.2399)	.49 (.1226)
MALES				
Race and ethnicity				
Non-Hispanic white	.10 (.8260)	-.22 (.7808)	.98** (.0189)	.67** (.0249)
Non-Hispanic black	.03 (.9562)	.11 (.8939)	.96** (.0354)	.45 (.1639)
Hispanic	.03 (.9513)	-.26 (.7435)	.75 (.2540)	.13 (.7062)
Family Structure				
Married couple	.47 (.2848)	.13 (.8647)	.90 (.1013)	.68** (.0219)
Female head	.65 (.1134)	.91* (.0864)	.94* (.0558)	.71** (.0154)
FEMALES				
Race and ethnicity				
Non-Hispanic white	-.13 (.7736)	-.21 (.7858)	.74 (.2555)	-.05 (.8927)
Non-Hispanic black	-.50 (.2555)	-.80 (.1989)	-.06 (.9386)	-.45 (.1624)
Hispanic	.59 (.1671)	.52 (.4827)	.73 (.2732)	.56* (.0730)
Family Structure				
Married couple	.47 (.2923)	.42 (.5767)	-.09 (.9042)	.48 (.1358)
Female head	.18 (.6936)	.18 (.8177)	.29 (.7139)	.18 (.5905)

***p<.01, **p<.05, *p<.10

Table 4.2 (cont'd)

	Economic Expansion (1993-2000)	Early Post- Reform (1997-2000)	Economic Downturn (2001-2004)	Total (1993- 2004)
12 to 14 YEAR OLDS				
Race and ethnicity				
Non-Hispanic white	.84** (.0172)	.73 (.2722)	.98** (.0213)	.76*** (.0062)
Non-Hispanic black	-.26 (.5713)	-.28 (.7200)	.81 (.1905)	.13 (.7075)
Hispanic	-.06 (.8927)	.06 (.9364)	.38 (.6235)	.08 (.8230)
Family Structure				
Married couple	.68* (.0905)	.25 (.7531)	.80 (.1953)	.77*** (.0060)
Female head	.21 (.6473)	.77 (.2346)	.64 (.3578)	.18 (.5920)
15 to 17 YEAR OLDS				
Race and ethnicity				
Non-Hispanic white	-.41 (.3644)	.87 (.1322)	.97** (.0315)	.31 (.3533)
Non-Hispanic black	-.51 (.2406)	-.63 (.3652)	-.22 (.7839)	-.43 (.1893)
Hispanic	.68* (.0955)	.25 (.7495)	.17 (.8235)	.50 (.1195)
Family Structure				
Married couple	.11 (.8132)	-.81 (.1820)	.01 (.9918)	.25 (.4531)
Female head	.23 (.6230)	.11 (.8897)	.71 (.2891)	.55 (.0808)
URBAN				
Race and ethnicity				
Non-Hispanic white	.50 (.2530)	.43 (.5669)	.30 (.7015)	.16 (.6314)
Non-Hispanic black	-.11 (.8178)	-.34 (.6559)	.15 (.8531)	.15 (.6493)
Hispanic	-.04 (.9391)	.69 (.3140)	.89 (.1104)	-.06 (.8608)
Family Structure				
Married couple	-.15 (.7478)	-.10 (.9016)	-.48 (.5162)	.30 (.3667)
Female head	.66 (.1037)	.69 (.3087)	.59 (.4087)	.62** (.0418)

***p<.01, **p<.05, *p<.10

Table 4.2 (cont'd)

	Economic Expansion (1993-2000)	Early Post- Reform (1997-2000)	Economic Downturn (2001-2004)	Total (1993- 2004)
NON-URBAN				
Race and ethnicity				
Non-Hispanic white	.25 (.5868)	.63 (.3725)	.91* (.0899)	.65** (.0311)
Non-Hispanic black	-.01 (.9794)	-.40 (.5998)	.91* (.0914)	.32 (.3316)
Hispanic	.33 (.4692)	.57 (.4333)	.58 (.4175)	.37 (.2575)
Family Structure				
Married couple	.81** (.0240)	.37 (.6259)	.94* (.0641)	.86*** (.0007)
Female head	.01 (.9849)	.30 (.6997)	.82 (.1823)	.35 (.2872)

***p<.01, **p<.05, *p<.10 (Note: p-values in parentheses).

The second criterion requires that there is a statistically significant association between youth poverty and violent victimization as determined by first-differenced correlation results. Because it is presumed that poverty is one of the key mechanisms through which macroeconomic conditions and social policy changes influence youth violence, a statistically nonsignificant relationship between poverty and violence trends would constitute a 'break' in the chain of influence. For the purposes of this research, then, a significant poverty-violence relationship is an essential component for the larger association between macroeconomic conditions, welfare reform policies, and youth violence trends. With these criteria in mind, the proposed poverty-violence relationship will be assessed for racially disaggregated violence trends first followed by those disaggregated by family structure.

The Influence of Macroeconomic Conditions and Welfare Reform Policies

Economic Expansion Period. The economic expansion contributed to substantial reductions in child poverty from 1993 to 2000, but particularly for racial and ethnic minorities. If the expansion contributed similarly to violent victimization trends, black and Hispanic youth should also experience the most substantial reductions in violence from 1993 to 2000, which is addressed by the following research question:

Research Question 1(a): Did youth violent victimization rates fall most substantially for black and Hispanic youth during the economic expansion period (i.e. 1993 to 2000)?

The first step towards answering this question is the calculation and comparison of the 1993-2000 violence reductions for non-Hispanic white, non-Hispanic black, and Hispanic youth. In terms of percentage change, results show that rates of youth violent

victimization fell by forty-seven percent for blacks and fifty percent for whites and Hispanics. However, the differences in percentage points reveal that black youth experienced the most substantial reductions (-78.57) followed by whites (-65.56) and Hispanics (-61.99), which is inconsistent with the expected pattern. Hence, the discrepant findings for Hispanic youth suggest that the economic expansion did not influence violence reductions in the same manner that it influenced poverty.

Given the results for the entire study period, it is quite possible that the poverty-violence dynamic differs for Hispanic and non-Hispanic youth. Hence, the inconsistent findings for Hispanic youth aside, it appears that violence fell more substantially for black youth than white during the economic expansion period, which is consistent with the reductions in child poverty. However, results from the correlation of first differences reveal that poverty trends are not significantly associated with violence trends for non-Hispanic white, non-Hispanic black, or Hispanic youth, which obviously disrupts the presumed path from macroeconomic conditions to youth violence trends. Similar results were also obtained for all youth sub-groups except younger white adolescents ($r=.83$, $p<.05$) and older Hispanic adolescents ($r=.89$, $p<.01$), but violence reduction patterns eliminate the possibility that the trends of older Hispanic adolescents were influenced by the economic expansion.

It is important to note that the relationship between group-specific poverty and violence was slightly stronger than that of total poverty and violence for whites ($r=.57$ vs. $r=.50$), weaker for blacks ($r=-.23$ vs. $r=.42$), and about the same for Hispanics ($r=.54$ vs. $r=.55$), although none were statistically significant. However, the general pattern across

sub groups is that the total poverty-violence relationship is stronger than group-specific poverty and violence, particularly for Hispanic youth.

Early Post-Reform Period. The early post-reform period was marked by a distinct drop in poverty for all groups of children, but the largest overall reduction was experienced by Hispanic youth. To determine the extent that violence trends replicated post-reform patterns in poverty, the following research question is addressed:

Research Question 2(a): Did Hispanic youth experience the largest decrease in violent victimization during the early post-reform period?

Estimates reveal that violent victimization fell by roughly one-third for non-black youth and twenty-seven percent for black youth, which translates into reductions of thirty, thirty-one, and thirty-three points for Hispanic, non-Hispanic white, and non-Hispanic black youth respectively. Therefore, the straightforward answer to this question is ‘no’-- not only did Hispanic youth fail to experience the largest overall reduction in violent victimization during the early post-reform period, but they experienced the smallest overall decrease. It is worth noting, however, that the magnitude of the violence reductions differed very little between groups.

In addition to the inconsistencies between poverty and violence patterns, results from first-differenced correlations reveal that total youth poverty is unrelated to violence for all white ($r=.63$), black ($r=.43$), and Hispanic ($r=.29$) youth while marginally statistically significant for older Hispanic youth ($r=.92$, $p<.10$) and urban residents ($r=1.00$, $p<.01$). However, it is not likely that welfare reform influenced violence among these two sub-groups as they did not experience the most substantial early post-reform reductions in violence. In terms of the relationship between group-specific poverty and

violence, results reveal a relatively stronger but statistically nonsignificant relationship for white ($r=.79$), black ($r= -.46$), and Hispanic ($r=.81$) youth as well as nonsignificant relationships across all sub-groups. Taken together, these findings suggest that welfare reform did not influence violence trends via changes in total or group-specific poverty.

Economic Downturn Period. Over the course of the economic downturn period, violence rates fell slowly for white and black youth from 2001 to 2003 and increased slightly in 2004, which paralleled the trend in total youth poverty. So, it is not surprising that first-differenced correlations reveal strong, statistically significant poverty-violence associations for both white ($r=.99$, $p<.05$) and black ($r=.96$, $p<.05$) youth from 2001 to 2004, though it is important to keep in mind that the small number of data points weaken the reliability of these estimates. Conversely, there was a weak, negative association for non-Hispanic youth ($r= -.16$, ns), which is expected given the sharp drop in Hispanic violence after 2002.

The association between group poverty and violent victimization was statistically significant for the total sample of white youth only ($r=.97$, $p<.05$), although strong, significant relationships were found for white and black males and non-urban residents as well as white youth in both age groups. Again, the relationships between group-specific poverty and violence were substantially weaker and statistically nonsignificant for all sub-groups of Hispanic youth.

Because poverty is the presumed mechanism through which macroeconomic conditions influence violence, it is safe to assume that the economic downturn did not impact Hispanic youth violence. However, comparing the violence reductions of white and black youth will shed some light on its influence on non-Hispanic youth violence.

Because black children experienced the largest overall increase in poverty from 2001 to 2004, the following research question asks:

Research Question 3(a): Did black youth also experience the largest increase in violent victimization during the weak economic conditions of the early 2000s?

For blacks, average rates of youth violent victimization rose from 56.71 per 1,000 in 2001 to 57.28 per 1,000 in 2004, a nominal increase of less than one percentage point (+0.57). In comparison, white rates fell from 57.69 per 1,000 in 2001 to 56.03 per 1,000 in 2004--a decrease of almost two percentage points. By virtue of this decrease, then, black youth experienced the largest overall increase in violence from 2001 to 2004, which is consistent with the expected pattern. Coupled with the statistically significant association between total poverty and violence, these findings suggest that the economic downturn influenced black violence trends.

For one sub-group--males--there was not only a strong, statistically significant association between total poverty and violent victimization, but white and black youth both experienced increases in violence from 2001 to 2004. In fact, the increase in percentage points for black males (+18.94) was more than 2.5 times larger than the increase for white males (+6.94), which suggests that the economic downturn influenced the violence trends of these two sub-groups via total youth poverty. For the same reasons, moreover, the economic downturn also appears to have influenced white and black male violence trends via group-specific poverty.

Summary. A large body of findings for racial and ethnic youth has been discussed, revealing several noteworthy patterns in the poverty-violence relationship. One is that the relationship between poverty and violence is not statistically significant

across the majority of categories. Of the 28 total poverty-violence relationships assessed for each group, 11 or 39% reached statistical significance for non-Hispanic whites, 9 or 32% for non-Hispanic blacks, and 4 or 14% for Hispanics. Even fewer relationships were statistically significant for group-specific poverty: 10 out of 28 (36%) for non-Hispanic whites, 2 out of 28 (7%) for non-Hispanic blacks, and 2 out of 28 (7%) for Hispanics, which coupled with the fact that the group poverty relationships were relatively weaker suggests that the more significant relationship was that of total poverty and violent victimization. When a large number of relationships are assessed, however, it is important for readers to observe the possibility that some are statistically significant by chance. Hence, the number of significant correlations is noted primarily for descriptive purposes and is less consequential to the findings than larger patterns in the poverty-violence relationship.

Important differences in the poverty-violence relationships of Hispanic and non-Hispanic youth were also consistently found. In addition to fewer statistically significant relationships, first-differenced correlations were substantially weaker than that of non-Hispanic youth more often than not. Moreover, trends disaggregated by race and ethnicity reveal a marked reduction in Hispanic youth violence in the early 2000s that contrasts with converging trends among non-Hispanic youth; this marked reduction was observed not only for the total sample of Hispanic youth but across every Hispanic sub-group. Additional analyses identified trends in simple and aggravated assault as likely contributors, but the reasons behind the declines are unknown.

It is not surprising, then, that macroeconomic conditions and welfare reform policies did not influence Hispanic violence trends. Based on the established criteria,

however, the economic expansion does emerge as a plausible contributor to the violence trends of non-Hispanic white younger adolescents via total poverty and the economic downturn to black youth violence trends via total youth poverty as well as white and black male violence trends via total and group-specific poverty; no significant effects emerged during the early post-reform period.

Violence trends by family structure

General patterns, 1993-2004

Figures 4.8 and 4.9 display the trends in total and group-specific poverty and violent victimization disaggregated by family structure and clearly shows that youth in female-headed families experience higher average victimization rates than youth in married couple families. In 1993, the average victimization rate for youth in female-headed families (165.61 per 1,000) was nearly 150% of the rate for youth in married couple families (110.64 per 1,000), the former increasing to nearly 195% of the latter by the end of the series. In contrast to the racial and ethnic gaps in violent victimization, the current trends do not narrow or widen noticeably at any point during the series. Instead it is poised at a roughly one and one-half to two-fold gap each year.

During the economic expansion period, youth in both female-headed and married couple families experienced sharp declines in violent victimization that outpaced that of total and group-specific poverty. While average poverty rates fell by twenty-one and twenty percent for all youth and youth in female-headed families respectively, violent victimization rates fell by more than forty-seven percent for the latter group. In comparison, youth in married couple families experienced poverty and violent victimization declines of roughly twenty-four and fifty-one percent respectively.

Figure 4.8

Total youth poverty and violent victimization rates by family structure, 1993-2004

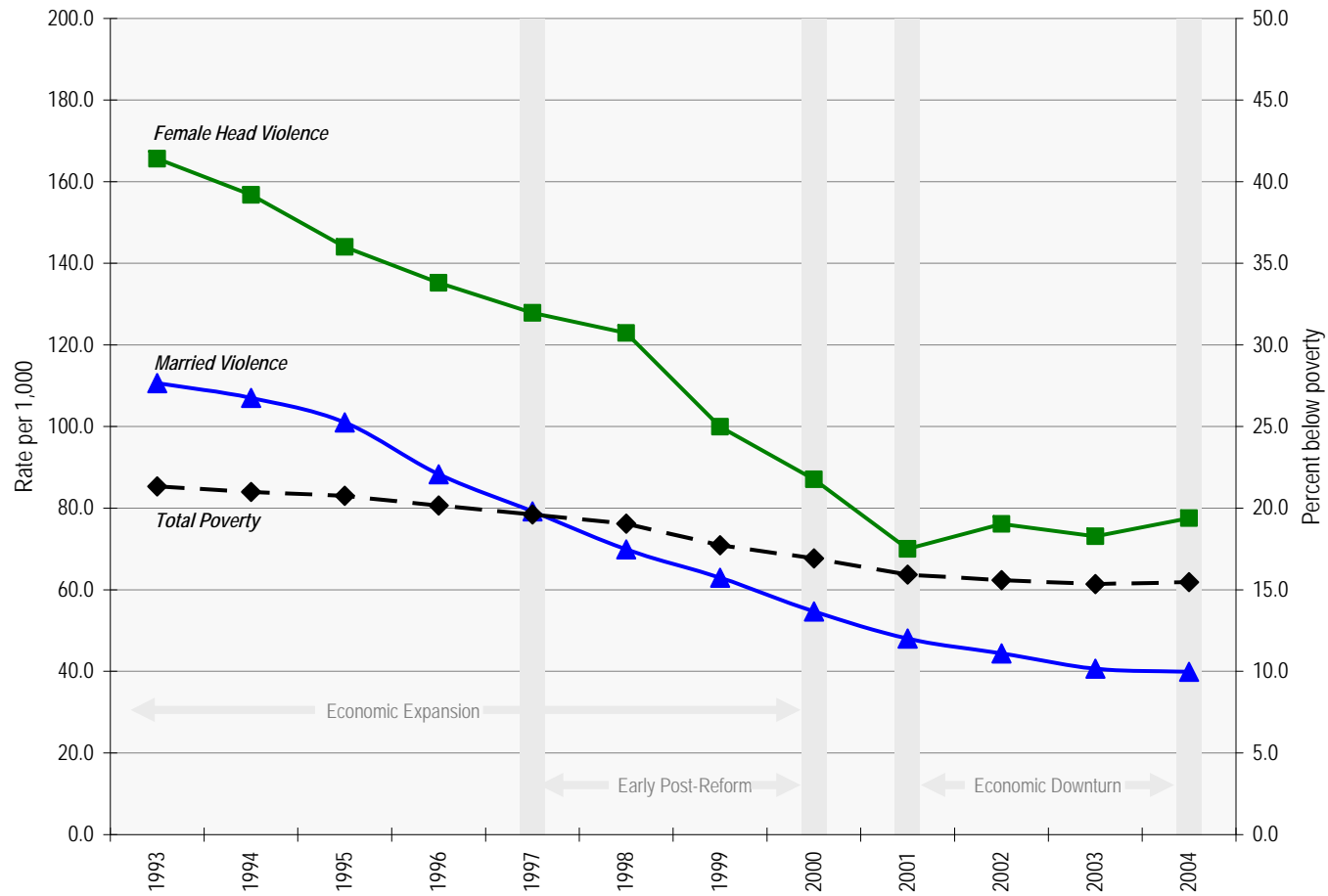
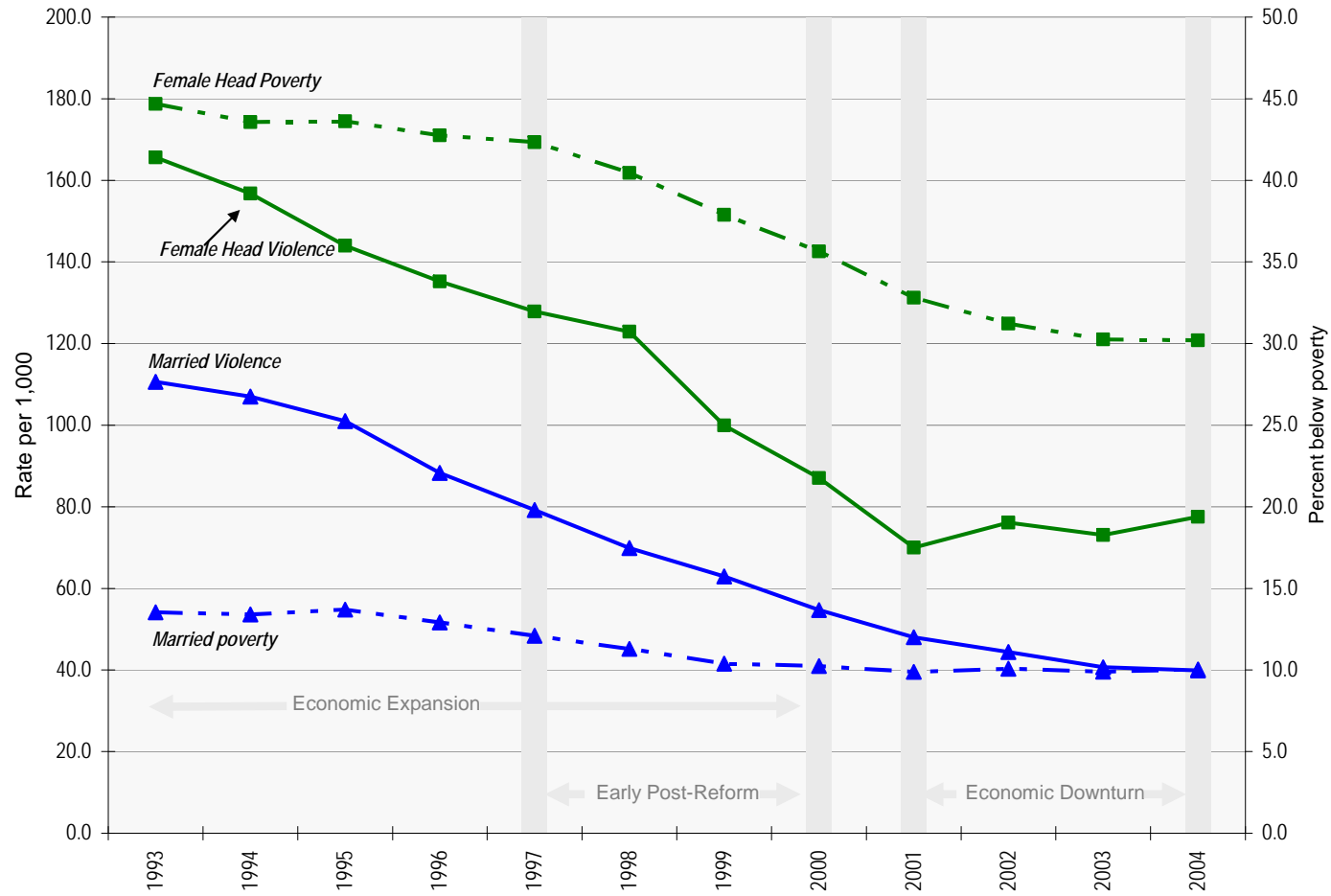


Figure 4.9

Group-specific poverty and violent victimization rates by family structure, 1993-2004



Throughout the early post-reform period, violent victimization rates fell steadily for youth in married couple families but after slowing somewhat in 1997, rates fell markedly for youth in female-headed families--the latter coinciding with a slight acceleration in the total poverty decline. Similar violence patterns were also observed for sub-groups of youth in married couple and female-headed families, with particularly striking post-TANF declines for males, younger adolescents, and urban youth in female-headed families (see Appendices I-N).

The 2001 recession marked an increase in violent victimization for youth in female-headed families, though rates fluctuated from year to year thereafter. The same general pattern was also observed for all subgroups of youth in female-headed families with the exception of females, whose rates declined throughout the economic downturn period. Violence also declined steadily for youth in married couple families, but stabilized in 2004. However, there was greater variation in sub-group trends relative to youth in female-headed families. While younger adolescent and non-urban trends mirrored those for all youth in married couple families, the violence decline continued noticeably throughout 2004 for females and older adolescents. Coupled with the findings for race and ethnicity, then, it is apparent that downturn-era violence declined rather substantially for females. For males and urban youth in married couple families, violence stabilized in 2001 and increased in 2004, respectively.

Over the entire study period, there was a moderate association between total poverty and violent victimization for youth in married couple families ($r=.54$, $p<.10$) which was weaker than the association between group-specific poverty and violence ($r=.71$, $p<.05$). For youth in female-headed families, the reverse was true: the association

between total poverty and violent victimization ($r=.81$, $p<.01$) was stronger than that between group-specific poverty and violence ($r=.49$, ns). These patterns reflect a larger trend of stronger group poverty-violence relationships for sub-groups of youth in married couple families and stronger total poverty-violence relationships among groups of youth in female-headed families.

Economic Expansion Period. The economic expansion contributed to substantial reductions in poverty for all family groups, but particularly for female-headed families. If it also contributed to violence trends, youth in female-headed families would also experience more substantial reductions in violence than youth in married couple families, which is reflected in the following research question:

Research Question 1(b): Did youth in female-headed families experience a more substantial decrease in violent victimization than youth in married couple families during the economic expansion?

Estimates reveal that the straightforward answer to this question is 'yes'. Between 1993 and 2000, violence fell by roughly fifty-one and forty-seven percent for youth in married couple and female-headed families, which translates to percentage point reductions of fifty-six and seventy-nine points, respectively. Consistent with expected patterns, then, violence fell more substantially for youth in female-headed families than youth in married couple families over the economic expansion period.

Despite the symmetry between poverty and violence patterns, however, results from first-differenced correlations suggest that the expansion's influence on violence trends is limited to youth in female-headed families via total poverty ($r=.73$, $p<.10$), although the relationship was only marginally statistically significant. For girls in female-

headed families, the significant total poverty-violence relationship and violence reduction pattern also suggests that the economic expansion contributed to female violence trends but again, the relationship was significant at $\alpha=.10$. There was also a significant total poverty-violence association for urban youth in female-headed families ($r=.76, p<.05$), but the violence reduction patterns are inconsistent with an 'expansion effect'. Urban youth in married couple families experienced a 1993-2000 violence reduction of nearly 82 points while those in female-headed families experienced a 77-point reduction.

There was a statistically significant association between group-specific poverty and violent victimization for younger adolescents ($r=.68, p<.10$) and non-urban youth ($r=.81, p<.05$) in married couple families, with both experiencing substantially smaller violence reductions than their counterparts in female-headed families. Taken together, these findings also suggest that the economic expansion may have indirectly influenced these violence trends via group-specific poverty rates.

Early Post-Reform Period. Because there is an overlap between the late economic expansion and early post-reform periods, it is not possible to isolate the effects of each on violent victimization trends. Nonetheless, the general patterns hint that this period is important for total poverty and violence reductions for youth in female-headed families because they appear to accelerate as the expansion gained momentum and TANF effectively replaced AFDC. Accelerated reductions were also generally observed in the group-specific poverty and violent victimization trends of youth sub-groups in female-headed families, although similar patterns were *not* observed for those in married couple families.

According to results from the correlation of first differences, the relationship between total poverty and violent victimization was statistically significant not only for all youth in married couple ($r=-.99$, $p<.01$) and female-headed families ($r=.99$, $p<.01$) but for males ($r=.94$, $p<.10$), females ($r=.96$, $p<.05$), and urban youth ($r=.93$, $p<.10$) in female-headed families, and non-urban youth in married couple families ($r=-.97$, $p<.05$). Conversely, the relationship between group-specific poverty and violence was statistically significant for males in female-headed families only ($r=.91$, $p<.10$), which clearly suggests that the total poverty-violence relationship is more important than the group poverty-violence relationship.

The significant associations between poverty and violence cautiously established, the next step towards determining potential TANF effects is to estimate and compare the violence reductions of each group; because children in female-headed families experienced larger post-reform poverty reductions than children in married couple families, the following research question asks whether violence reductions followed the same pattern:

Research Question 2(b): Did youth in female-headed families also experience the largest decrease in violent victimization during this time?

From 1997 to 2000, violence rates fell from 79.21 per 1,000 to 54.68 per 1,000 for all youth in married couple families, a reduction of about thirty-one percent or twenty-five percentage points. Rates also fell by about thirty-two percent or forty-two percentage points for youth in female-headed families, from 127.83 per 1,000 in 1997 to 87.04 per 1,000 in 2000. The same pattern was observed across all sub-groups, which means that

for all groups that experienced significant poverty-violence relationships, there is a reduction in violence that follows the post-reform pattern in poverty reductions.

Therefore, it is plausible to assume that TANF implementation contributed to the violent victimization trends of all youth in married couple and female-headed families, non-urban youth in married couple families and males, females, and urban youth in female-headed families via total youth poverty. Also by way of group-poverty, TANF appears to have some indirect influence on violence among males in female-headed families.

Economic Downturn Period. To briefly review, the 2001-2004 violent victimization trends followed very different patterns for the two groups of youth. For those in married couple families, the decline in violent victimization persisted throughout the end of the series, stabilizing somewhat in 2004. This pattern was also observed in the violence trends of younger adolescents, older adolescents, and non-urban youth in married couple families, all of which were closely associated with trends in total poverty (see Table 4.1). For only one sub-group, non-urban youth, was there a significant association between group-specific poverty and violent victimization, however ($r=.94$, $p<.10$).

Violence rates for youth in female-headed families decreased in 2001, increased in 2002, decreased in 2003, and increased again in 2004, following no clear pattern. However, this period witnessed an aggregate violence increase of about four points, which is also reflected in the violence patterns of males, younger and older adolescents, and urban and non-urban youth in female-headed families, although the increase was

much larger for males (+25.92) and older adolescents (+17.60). Only for girls in female-headed families was there an aggregate decrease in violence during this time.

To determine whether the economic downturn influenced these trends, the following research question is addressed:

Research Question 3(b): Did youth in female-headed families experience the largest increase in violent victimization during the economic downturn period?

Unlike previous sections, answering this question does not require comparing the magnitude of group violence increases for one reason: for all youth in married couple families and every sub-group, there was an aggregate *decrease* in violent victimization from 2001 to 2004. So regardless of the statistical significance of the various poverty-violence relationships, these contradictory patterns suggest that the economic downturn did not influence the violence trends of youth in married couple families.

With the exception of girls in female-headed families, on the other hand, all youth in female-headed families and every sub-group experienced an aggregate increase in violent victimization over the economic downturn period. However, first-differenced correlations show that the total poverty-violence relationship is significant for only non-urban youth in female-headed families ($r=.93$, $p<.10$) and the group poverty-violence for males ($r=.94$, $p<.10$), pointing to the economic downturn as a plausible contributor to these trends.

Summary. When trends are disaggregated by family structure, it is evident that the total poverty-violence relationship is more important for youth in female-headed families than married couple families, both in terms of the relative strength of the relationships and the number of statistically significant findings. Of the 28 total poverty-

violence relationships assessed, 15 or 54% reached statistical significance for groups of youth in female-headed families, which is greater than any other group. In comparison, 10 or 36% were significant for groups of youth in married couple families, which falls between non-Hispanic whites (39%) and non-Hispanic blacks (32%). Overall, the total poverty-violence relationship is least likely to be significant for Hispanic youth (14%).

On the other hand, the group poverty-violence relationship for youth in married couple families was both relatively stronger and more likely to be significant than that of youth in female-headed families. However, the relationship between group poverty and violence was less likely to reach statistical significance than that of total poverty and violence for both groups. Of the 28 relationships assessed, only 4 (14%) were significant for youth in female-headed families and 7 (25%) for youth in married couple families, the latter being second only to non-Hispanic whites.

In terms of the influence of macroeconomic conditions and welfare reform policies on the poverty-violence relationship, the effects appear more salient for family rather than racial groups. Where only the economic downturn contributed to the violence trends of non-Hispanic blacks via total youth poverty and non-Hispanic whites and blacks via total and group-specific poverty, it contributed to the violence trends of non-urban youth in female-headed families via total poverty and males in female-headed families via group poverty. However, the economic expansion also contributed to violence trends for females and all youth in female-headed families and younger adolescents and non-urban youth in married couple families via total and group-specific poverty, respectively. Additionally, the early post-reform period, which encompasses TANF implementation and the latter half of the economic expansion, contributed to violence trends for all youth

in married couple and female-headed families, non-urban youth in married couple families, and males, females, and urban youth in female-headed families (total poverty), as well as males in female-headed families (group-specific poverty). Table 4.3 summarizes these findings for racial/ethnic and family groups.

These findings suggest that the impact of macroeconomic conditions and welfare reform policies on violence trends is more apparent for family rather than racial groups, particularly in regards to the early post-reform findings for youth in female-headed families. For no other time period is there more affirmative evidence that ‘female-headed family’ youth violence is influenced by larger economic or social effects than the early post-reform period. This finding is important because female-headed families comprise the overwhelming majority of welfare cases and if TANF had any immediate effects on violence trends, they would probably be most evident for youth in female-headed families.

Summary

The preceding discussion reveals that there is an important link between youth poverty and violent victimization that varies widely across demographic groups, poverty measures, and time periods--providing important answers to secondary research questions. As such, this section will serve as an overall summary of key findings and important patterns in the poverty-violence relationship as they relate to the secondary research questions, beginning with the following question:

Are there significant sub-group differences in the poverty-youth violence relationship?

Table 4.3

Summary of Significant Findings for Macroeconomic Conditions and Welfare Reform Policies on Poverty-Violence Relationships

Economic Expansion Period

Total poverty-violence

- Non-Hispanic white younger adolescents
- All youth in female-headed families
- Females in female-headed families

Group poverty-violence

- Younger adolescents in married couple families
- Non-urban youth in married couple families

Early Post-Reform Period

Total poverty-violence

- All youth in married couple families
- Non-urban youth in married couple families
- All youth in female-headed families
- Males in female-headed families
- Females in female-headed families
- Urban youth in female-headed families

Group poverty-violence

- Males in female-headed families

Economic Downturn Period

Total poverty-violence

- All non-Hispanic black youth
- Non-Hispanic white males
- Non-Hispanic black males
- Non-urban youth in female-headed families

Group poverty-violence

- Non-Hispanic white males
 - Non-Hispanic black males
 - Males in female-headed families
-

Across the categories of gender, age, and metropolitan status, the overall relationship between poverty and violent victimization was stronger for non-Hispanic whites, non-Hispanic blacks, and youth in female-headed families than Hispanics and youth in married couple families, and more likely to be statistically significant. For only two sub-groups of racial and ethnic youth was the poverty-violence relationship fairly strong and statistically significant for *both* white and black youth: males and younger adolescents. However, the strongest overall relationships were found for white younger adolescents ($r=.77$, $p<.01$), black urban youth ($r=.76$, $p<.01$), and white non-urban youth ($r=.73$, $p<.05$).

When trends were disaggregated by family structure, significant poverty-violence associations were found for males, younger adolescents, and non-urban youth in both married couple and female-headed families and for all of these groups, the relationships were stronger for youth in female-headed vis-à-vis married couple families. In fact, there was virtually no variation in the magnitude of the relationships for the married couple family sub-groups; the relationships were moderately strong and marginally significant for males ($r=.54$, $p<.10$), younger adolescents ($r=.54$, $p<.10$), non-urban youth ($r=.55$, $p<.10$), and all youth in married couple families ($r=.54$, $p<.10$). The corresponding relationships for the female-headed family groups were fairly strong for males ($r=.77$, $p<.01$), younger adolescents ($r=.68$, $p<.05$), and non-urban youth ($r=.72$, $p<.05$), although these relationships also do not vary substantially.

Clearly, the sum of the evidence suggests that the overall relationship between poverty and violent victimization is more important for some sub-groups of youth than others. More specifically, it appears to be most significant for males and younger

adolescents, for which moderate to strong and statistically significant relationships were found for every group except Hispanic youth; significant relationships were also found for non-urban youth in both married couple and female-headed families.

The next research question is concerned with whether group violence trends are more closely related to group vis-à-vis total youth poverty trends, presuming that the greater impact will come from the more proximate poverty measure:

Are group-specific changes in youth poverty more closely related to group-specific youth violent victimization trends than changes in the overall youth poverty rate?

As previously noted, there were far fewer statistically significant group poverty-violence relationships relative to total poverty-violence for all groups of youth, which also tended to be weaker in magnitude. Between 1993 and 2004, in fact, there were no significant group poverty-violence associations for neither the total sample of non-Hispanic black and Hispanic youths or any sub-groups with the exception of a moderately strong and marginally significant association for Hispanic females; there were only four groups of non-Hispanic whites for which significant overall associations were found: all youth ($r=.63, p<.05$), males ($r=.67, p<.05$), younger adolescents ($r=.76, p<.01$), and non-urban youth ($r=.65, p<.05$)--the same groups for which significant total poverty-violence relationships were found. So regardless of measurement, poverty trends appear to be significantly related to violence trends for all non-Hispanic white youth as well as males, younger adolescents, and non-urban residents.

In terms of the relative strength of the overall relationships, total poverty-violence also tended to be stronger in magnitude than group poverty-violence for both non-

Hispanic white and non-Hispanic black youth. Conversely, group poverty-violence tended to be the stronger relationship for Hispanic youth. Of the seven groups assessed (i.e. total sample of youth and six sub-groups), one category each of non-Hispanic whites and non-Hispanic blacks yielded stronger group poverty-violence relationships while stronger relationships were found for four categories of Hispanic youth.

It is important to note that there are important similarities and differences in the findings for non-Hispanic white youth and those in married couple families. As was the case with white youth, poverty was significantly associated with violence trends for all youth in married couple families and males, younger adolescents, and non-urban youth, regardless of measurement. Unlike white youth, on the other hand, group poverty was more strongly associated with violence than total poverty for each of the above groups.

Across all groups of youth in female-headed families, the group poverty-violence relationship was relatively weaker than that of total poverty and violence, but violence was significantly associated with both total and group poverty for males and urban youth only. Therefore, the sum of the evidence suggests that violence was more closely associated with total poverty for non-Hispanic whites, non-Hispanic blacks, and youths in female-headed families while the reverse tended to be true for Hispanics and youths in married couple families. Regardless of the measure used, however, poverty trends were not significantly associated with Hispanic youth violence trends over the twelve years in the sample.

In addition to sub-group differences in the poverty-violence relationship and the relative impact of global and proximate poverty measures on violence trends, an additional concern of this research is the general differences in the relationships of the

economic expansion, early post-reform, and economic downturn periods, as addressed in the following research question:

Are there significant differences between the poverty-youth violence relationships of the economic expansion, early post-reform, and economic downturn periods?

According to results for the overall relationships, the strongest association was found for the early post-reform period followed by the economic downturn and economic expansion periods. When results are compared across all sub-groups, however, a clear pattern emerges: the strongest total poverty-violence and group poverty-violence associations are found during the economic downturn period. Despite being strong in magnitude, however, the associations were not statistically significant for several groups including males in married couple families, non-Hispanic white females, and all youth in female-headed families.

This pattern does not hold up for Hispanic youth. For males, females, and all Hispanic youth, the strongest 'total poverty' relationship was found during the economic expansion period while for younger adolescents, older adolescents, urban, and non-urban youth, it was strongest during the early post-reform period. However, the 'group poverty' relationship did appear to be strongest for the majority of Hispanic sub-groups during the economic downturn period. The other notable exception is female-headed families. For the total sample and every sub-group except non-urban youth, the relationship between total poverty and violence was strongest for the early post-reform period. There is less consistency in the findings for group-specific poverty, but across the majority of categories, the strongest relationship was found during the economic downturn period.

Overall, the relationship between poverty and violence appears to be stronger during the economic downturn than any other period, although for youth in female-headed families and more than half of the Hispanic sub-groups, the strongest relationships were found during the early post reform period--the two groups that experienced the most prominent declines in family and child poverty in the immediate wake of TANF. However, it is important to remember that these relationships were not significant for Hispanic youth.

Additional analyses (not shown) were also conducted, extending the post-reform period to the end of the series. First-differenced correlations were then estimated pre-TANF (i.e. 1993-1997) and post-TANF (i.e. 1997-2004) in an attempt to gauge the general differences in the poverty-violence relationship of each group before and after welfare reform. Despite the fact that the pre-TANF period consists of only five data points and thus is prone to producing high correlations, the results show that the post-TANF relationship between total poverty and violent victimization is substantially stronger (and statistically significant) for non-Hispanic whites, non-Hispanic blacks, and youths in female-headed families compared to the pre-TANF relationship. The pre-TANF relationship was moderately and substantially stronger than the post-TANF relationship for Hispanics and youths in married couple families respectively, which obviously stands in stark contrast to patterns observed for non-Hispanics and youths in female-headed families and offers further evidence of important differences in the poverty-violence dynamic of Hispanic youth. Moreover, these findings hint at important differences in the poverty-violence relationship before and after the implementation of TANF. The

following chapter explores whether youth's risks for violence have also changed over recent decades, and whether these changes are associated with TANF.

CHAPTER 5

MICRO-LEVEL ANALYTIC STRATEGY AND FINDINGS

The macro-level analysis identified some important patterns in the poverty-violence relationship. First, it confirmed a significant association between youth poverty and violence trends from 1993 to 2004, not only for the total sample of youth but for non-Hispanic whites, non-Hispanic blacks, and youths in both married couple and female-headed families. Second, the significance of the overall poverty-violence relationship varied across demographic sub-groups, with male, younger adolescent, and non-urban groups being more likely to experience significant relationships. Third, there are substantive differences in the poverty-violence relationships of Hispanic and non-Hispanic youth--Hispanic relationships tending not only to be substantially weaker than non-Hispanic relationships but overwhelmingly statistically nonsignificant.

Finally, there are pre-post TANF differences in the poverty-violence relationship, particularly for non-Hispanic youth and those in female-headed families. For these groups, post-TANF relationships were strong in magnitude and highly statistically significant while the pre-TANF relationships were weak in magnitude and highly statistically nonsignificant, particularly for non-Hispanic whites and blacks; both pre- and post-TANF relationships were strong for youth in female-headed families, but only the post-TANF relationship was statistically significant. These findings are important because they hint that TANF did impact the consequences of poverty for violence among certain groups of youth. Also, when the relationships between poverty and violence trends were assessed for the economic expansion, early post-reform, and economic downturn periods, results suggest that TANF plausibly contributed to violence trends for

non-urban and all youth in married couple families and males, females, urban, and all youth in female-headed families. Thus, family structure appears to be an important contingency in the poverty-violence relationship, particularly in the wake of welfare reform.

With pre-post TANF differences in the poverty-violence relationship already established, the broad objective of the micro-level analysis is to assess whether the consequences of poverty for youth's violence risks have also changed in recent decades and whether these changes are associated with the mandatory work requirements enacted by TANF; based on recent trends in the percentage of poor children in working poor families, more specifically, it is presumed that the consequences of poverty for youth's violence risks will be exacerbated in the immediate wake of welfare reform and diminished over the long-run, if welfare reform indeed had any impact. In light of findings from the macro-level analysis, however, it is also important to consider how family structure has affected the relationship between poverty and youth's violence risks before and after TANF implementation.

Analytic Strategy

Pursuant to these objective, survey weighted logistic regression analyses will be conducted for the years 1993³ to 2004. The initial strategy employed yearly analyses to determine the changing nature of the poverty-violence relationship over time. For a couple of reasons, however, the data will be pooled into three distinct time periods: pre-TANF (i.e. 1993-1996), early post-TANF (i.e. 1997-2000), and late post-TANF (i.e. 2001-2004). First, pooling the data will allow for more efficient analyses. Second, more

³ The first two quarters of the 1993 NCVS were omitted from the analysis due to the exclusion of one of the essential sampling weights--v2118.

substantive meaning can be drawn from patterns observed over the three time periods than yearly changes in the poverty-violence relationship. Last, the specified time periods lend themselves well to the determination of whether TANF exacerbated the consequence of poverty for youth's violence risks in the immediate wake of implementation (i.e. 1997-2000) relative to before (i.e. 1993-1996), and whether this consequence diminished in the long-run according to expected findings.

Due to its ability to correct standard errors for clustering, Stata 9.2 is used to conduct the analyses. Also due to memory limitations, however, Stata could not handle a large dataset consisting of all 1993-2004 NCVS files. Instead, three separate datasets were created by merging 1993-1996 into 'pre-TANF', 1997-2000 into early post-TANF, and 2001-2004 into late post-TANF. In each dataset, a baseline model is first established regressing youth's violent victimization risks on the poverty status variable. Next, race/ethnicity and family structure variables are added to the model to assess the consequences of poverty for youth violence risks net of important demographic predictors. Finally, gender and metropolitan status are added to the model as additional controls. Because it is unimportant for youth's violence risks, the age variable is omitted from the analysis.

In addition to the outcome variable (i.e. whether or not youth experienced a violent victimization incident), all of the explanatory variables are dummy coded (see Chapter 3 for a review of coding schemes). The only exception is the 'race and ethnicity' measure, which was originally coded into three distinct categories: non-Hispanic white, non-Hispanic black, and Hispanic youth. The advantage of combining the race and ethnicity categories as such is that it produces more accurate estimates of group violence

risks. Because Hispanics are commonly lumped into 'white' race categories, for example, stark black-white comparisons will serve to inflate 'white' violence risks. This classification scheme overcomes this problem by separating whites and Hispanics. However, an obvious disadvantage of employing a three-category race and ethnicity variable in a logistic regression analysis is that the coefficients cannot be interpreted in terms of group differences in risks, so the race and ethnicity measure was transformed from its original form into a series of three dummy-coded variables: non-Hispanic white (0='no', 1='yes'); non-Hispanic black (0='no', 1='yes'), and Hispanic (0='no', '1=yes'). Of these three variables, 'non-Hispanic black' and 'Hispanic' are included in the analysis to assess the differences in youth's violence risks between these two groups and non-Hispanic whites.

One issue of concern with the explanatory variables is multicollinearity, which occurs when two or more are strongly inter-related. Generally speaking, multicollinearity makes it difficult to obtain an unbiased estimate of the distinct effect of each explanatory variable on the outcome of interest but more specifically, it may serve to inflate standard errors, which in turn decreases the likelihood of obtaining statistically significant coefficients (Allison, 1999).

To test for multicollinearity among the explanatory variables, a bivariate correlation matrix was estimated (not shown) and results reveal that none are strongly associated. The largest in magnitude pre-, early, and late post-TANF, the association between 'female-headed family' and 'poverty' was .34, .35, and .31 for each of the respective periods, which suggests that multicollinearity is a non-issue. However, it is important to note that the bivariate correlation is a conservative test. Considered more

superior alternatives to the bivariate correlation matrix, VIF and tolerance statistics were also estimated as additional tests for multicollinearity. Again, results revealed mean VIF's of 1.16 for the five explanatory variables and tolerances that ranged from a minimum of .79 (poverty) to a maximum of 1.00 (gender) for the pre-reform, early post-reform, and late post-reform periods, which further rules out high collinearity between the explanatory variables. Multicollinearity is generally a concern when VIF and tolerance values exceed 10 or fall below 0.1 (Chen, Ender, Mitchell, & Wells, 2003), although Allison (1999) suggests that respective values above 2.5 and below .40 may indicate a problem in logistic regression analyses. Descriptive statistics for all explanatory variables are presented in Table 5.1.

Results

Table 5.2 displays the baseline model regressing youth's risk for violence on poverty for the pre-TANF, early post-TANF, and late post-TANF periods. The results show that there is a direct, statistically significant relationship between poverty and violence for each period and the sign of the coefficients suggest that poor youth are significantly more likely than non-poor youth to experience violence. To better gauge the strength of this association, coefficients are exponentiated to obtain the odds ratios; in this case, the odds ratio simply reflects the ratio of the odds of violent victimization occurring in poor vs. non-poor youth. Results reveal that the odds of violence associated with poverty are not particularly substantial. When the coefficients are exponentiated, the odds for poor youth are 1.14, 1.36, and 1.29 times larger than those for non-poor youth during the pre-, early, and late post-TANF periods, respectively.

Table 5.1

Descriptive Statistics for Logistic Regression Explanatory Variables^{a,b}

	Pre-reform		Early post-reform		Late post-reform	
	Mean	S.E.	Mean	S.E.	Mean	S.E.
At/Below Poverty	.23	.006	.21	.008	.19	.008
Non-Hispanic Black	.16	.007	.16	.010	.15	.010
Hispanic	.13	.009	.15	.013	.18	.015
Female-headed Family	.24	.005	.26	.007	.27	.006
Male	.51	.004	.51	.004	.51	.005
Urban	.26	.012	.26	.016	.27	.016

^a Variable names reflect reference categories.

^b Descriptive statistics are survey weighted to reflect sample design characteristics.

Table 5.2

Logistic Regression Analysis of Youth's Risk for Violence on Poverty Status

	Pre-TANF	Early Post-TANF	Late Post-TANF
Poverty	.127* (.064)	.306*** (.079)	.256** (.098)
Constant	-3.032*** (.033)	-3.402*** (.044)	-3.803*** (.052)
Model F-Statistic	3.94*	15.23***	6.87**

***p<.001, **p<.01, *p<.05

It also appears that the consequences of poverty for youth's violence risks do strengthen during the early post-TANF period (i.e. relative to pre-TANF) and weaken during the late post-TANF period (i.e. relative to early post), which is consonant with expected findings that the mandatory work requirements legislated by PRWORA and implemented by TANF exacerbated the consequences of poverty for youth's violence risks during the early post-reform period and diminished over the long-run, presumably as parents cultivated the necessary skills and experience to secure better paying jobs with more benefits. However, only the increase between the pre- and early post-TANF periods is statistically significant.⁴

Another pattern from the baseline model worth noting is that the odds of violent victimization associated with poverty increased more substantially in the wake of TANF than decreased over the long-run. Between the pre-reform and early post-reform periods, more specifically, odds increased by nineteen percent and decreased by only five percent between the early and late post-reform periods, the former being more than three times larger than the latter. This pattern suggests that while TANF immediately exacerbated the consequences of poverty for youth's violence risks, it failed to affect a significant reduction in these consequences over the long-run.

However, it is important to keep in mind that the odds ratios are not sizeable, with the odds of violence for poor youth being less than two times larger than the odds for non-poor youth each period. Given that children in working poor families comprised a little more than one-third of all children in poor families in 1997 and greater than one-half in 2004 (Wertheimer, Moore, and Burkhauser, 2008), one would expect TANF to influence more substantial changes in the odds ratio. Hence, it is not likely that TANF

⁴ ($z=1.76, p<.10$)

contributed to the relationship between poverty and youth's risks for violence, despite the fact that it adhered to the hypothesized manner.

Still, it is important to consider how the covariates of race, ethnicity, and family structure affect the poverty-violence relationship, particularly in light of the macro-level findings that the relationship between poverty and violence trends did vary considerably by race, ethnicity, and family structure--the latter emerging as the most important contingency in the relationship. Will family structure also emerge as an important contingency in the poverty-violence relationship at the micro-level? Are race and ethnicity also important contingencies? To answer these questions, Model 2 adds 'non-Hispanic black', 'Hispanic', and 'female-headed family' variables to the baseline model and results are presented in Table 5.3.

In terms of the relationship between race, ethnicity, and youth's risks for violence, the magnitude and sign of the coefficients suggests that both non-Hispanic blacks and Hispanics are slightly less likely than non-Hispanic whites to experience violence each period. With the exception of the late post-reform Hispanic coefficient, however, none of the relationships were statistically significant. Net of poverty and family structure, then, there were no pre-reform and early post-reform relationships between race, ethnicity, and violence risks, but Hispanic youth were about 1.45 times less likely than non-Hispanic white youth to experience violent victimization between 2001 and 2004; race and ethnicity variables also failed to exert significant direct effects on youth's violence risks (not shown) each period, save that of the late post-reform Hispanic coefficient.

Conversely, family structure is significantly related to violence risks both directly

Table 5.3

Logistic Regression Analysis of Youth's Risk for Violence on Poverty Status, Race and Ethnicity, and Family Structure

	Pre-TANF		Early Post-TANF		Late Post-TANF	
Poverty	.018	(.072)	.160	(.093)	.127	(.107)
Non-Hispanic Black	-.147	(.097)	-.128	(.100)	-.162	(.122)
Hispanic	-.106	(.089)	-.164	(.108)	-.375***	(.112)
Female-headed Family	.485***	(.064)	.502***	(.064)	.653***	(.097)
Constant	-3.106***	(.039)	-3.480***	(.056)	-3.906***	(.060)
Model F-Statistic	16.06***		20.34***		17.42***	

***p<.001, **p<.01, *p<.05

(not shown) and net of poverty, race, and ethnicity for the pre-reform, early post-reform, and late post-reform periods. More specifically, the results suggest that youth in female-headed families are more likely than youth in married couple families to experience violence and this likelihood appears to have increased over time. The exponentiated coefficients show that the odds of violent victimization for youth in female-headed families were 1.62 and 1.65 times larger than the odds for youth in married couple families, increasing by roughly two percent over the pre-reform and early post-reform periods. Conversely, odds increased sixteen percent to 1.92 over the early and late post-reform periods, seeming to suggest increasing post-reform consequences of female-headed families for youth's violence risks. However, these post-reform changes in the family structure effect were not significant.

More important than the relationship between family structure and violence is the assessment of how race, ethnicity, and family structure affect the poverty-violence relationship. When these variables are introduced into the model, one of the most apparent differences in the poverty coefficient is the change in magnitude, which declined eighty-six, forty-eight, and fifty percent during the pre-reform, early post-reform, and late post-reform period, respectively. But despite these reductions, the changes in the poverty-violence relationship still conform to the hypothesized pattern of strengthening early post-reform and weakening thereafter.

Despite this consistency with expected patterns, however, the most important change in the poverty-violence relationship net of race, ethnicity, and family structure is that it is no longer statistically significant. For each period, the family structure variable fully mediates the relationship between poverty and violence, which essentially means

that poverty loses its ability to predict youth's violence risks once family structure is accounted for. It appears, then, that family structure is the underlying mechanism that is responsible for the relationship between poverty and violence risks, and more specifically, living in a female-headed family. These results are consistent with macro-level findings that identify family structure as an important contingency in the relationship between youth poverty and violent victimization trends.

Family structure is clearly an important predictor of violence risks net of poverty, race, and ethnicity, but it is also important to consider the impact of the demographic controls of gender and metropolitan status on both the family structure-violence and poverty-violence relationships. While research has firmly established that male and urban youth are at greater risk for violence than their female and non-urban counterparts, the following questions are of particular concern of this analysis: Will the introduction of gender and metropolitan status improve or worsen poverty's ability to predict youth violence risks? Will family structure also emerge as the most important predictor of violence risks net of the additional controls? The full model presented in Table 5.4 addresses these questions.

Although the relative impact of gender and metropolitan status on violence risks is not the focal concern of this analysis, they are worth noting. The results show that gender is significantly related to violence risks in the expected direction. That is, males are more likely than females to experience violence each period, though not substantially so; when the coefficients are exponentiated, the odds of violence for males are 1.74 times larger than females prior to TANF, 1.52 in the immediate wake of TANF, and 1.61

Table 5.4

Logistic Regression Analysis of Youth's Risk for Violence on Poverty Status, Race and Ethnicity, Family Structure, and Demographic Controls

	Pre-TANF	Early Post-TANF	Late Post-TANF
Poverty	.011 (.072)	.152 (.092)	.100 (.109)
Non-Hispanic Black	-.239* (.098)	-.199* (.098)	-.267* (.123)
Hispanic	-.106 (.090)	-.235* (.110)	-.464*** (.119)
Female-headed Family	.472*** (.065)	.492*** (.065)	.659*** (.098)
Male	.556*** (.055)	.421*** (.059)	.479*** (.083)
Urban	.277*** (.067)	.247** (.078)	.298** (.107)
Constant	-3.475*** (.051)	-3.759*** (.073)	-4.228*** (.074)
Model F-Statistic	30.97***	20.55***	20.01***

***p<.001, **p<.01, *p<.05

several years post-TANF. Still, it is evident that gender is a significant predictor of youth's violence risks and the most important overall predictor in the pre-TANF model. Metropolitan status also emerged as a significant predictor of violence risks before and after the implementation of TANF, with urban youth expectedly being slightly more likely to experience violent victimization than non-urban youth. Relative to gender, however, the coefficients for metropolitan status were weaker and hence, the odds ratios smaller; for the pre-TANF, early post-TANF, and late post-TANF periods, the odds of violence for urban youth were 1.32, 1.28, and 1.35 times larger than that of non-urban youth, respectively. For both gender and metropolitan status, the respective relationships to violence risks stand in direct opposition to the hypothesized pattern in the poverty-violence relationship; the coefficients weakened in the immediate wake of welfare reform and strengthened thereafter, expectedly suggesting that the implementation of TANF did not impact the consequences of gender and metropolitan status for youth's violence risks.

The introduction of the demographic controls also influenced the impact of race on violence risks; statistically nonsignificant in previous models, there is a significant relationship between race and violence risks in the present. The sign and magnitude of the coefficients suggests that non-Hispanic black youth are slightly less likely than minority youth to be victims of violence and again, this likelihood appears to decrease during the early post-reform period and increase thereafter. So while there is a significant association between race and violence risks each period, it does not appear to be related to the mandatory work requirements implemented by TANF. The early post-reform Hispanic coefficient is also statistically significant net of poverty, family structure, and demographic controls, with Hispanic youth being 1.26 times less likely to experience

violence than non-Hispanic white youth; the late post-reform coefficient also increased by roughly twenty-four percent and remained statistically significant.

The respective relationships between gender, metropolitan status, and violence risks aside, of greater concern is the impact of these demographic controls on the poverty-violence relationship before, immediately, and several years after the implementation of TANF. The results show that the introduction of gender and metropolitan status did not improve poverty's ability to predict violence risks but instead reduced coefficients by an additional thirty-nine (pre-TANF), five (early post-TANF), and twenty-one (late post-TANF) percent from the previous model, remaining highly statistically nonsignificant. Again, family structure emerged as a significant predictor of violence risks net of gender and metropolitan status, and the most important overall predictor for each of the post-TANF periods. The coefficients were altered by less than five percent each period relative to the previous model, but remained statistically significant at the $\alpha=.001$ level.

According to these results, then, it appears that family structure is not only the most important overall predictor of youth's violence risks but the underlying mechanism that accounts for the relationship between poverty and violence. In the full model, the odds of violent victimization was 1.60 times greater for youth in female-headed vis-à-vis married couple families, which increased by less than three percent to 1.64 during the early post-reform period. However, the odds ratio increased to 1.93 during the late post-TANF period, a six-fold increase of nearly eighteen percent. This pattern clearly reveals that despite the introduction of the demographic controls, the consequences of female-headed families for youth's violence risks still increased more substantially between the

early and late post-TANF periods than the pre- and early post-TANF periods, although they did not increase significantly across the three periods. However, this pattern also suggests that the consequences are not related to the mandatory work requirements that contributed to the post-reform growth in working poor families.

A Brief Note on Model Fit

To assess the closeness of a fitted logistic regression model to the observed data, goodness-of-fit tests should be performed. Sensitive to the introduction of sampling weights, however, traditional tests such as the Homer-Lemeshow and Pearson's chi-square are inappropriate for use with surveys that employ complex sampling designs such as the NCVS (Archer & Lemeshow, 2006). To overcome this problem, Archer and Lemeshow (2006) developed a procedure in Stata to test goodness-of-fit in survey weighted logistic regression analyses. The test produces an F -adjusted mean residual statistic that estimates lack-of-fit rather than goodness-of-fit--a statistically nonsignificant result indicating that lack-of-fit is not an issue. After fitting the full models for each period, this procedure was used to assess lack-of-fit. The results reveal that lack-of-fit is not a problem for the pre-TANF ($F=1.538$, p value=.133), early post-TANF ($F=.208$, p value=.993), or late post-TANF ($F=.958$, p value=.475) period.

Summary

The primary objective of this chapter is to determine whether the mandatory work requirements implemented by TANF impacted the consequences of poverty for youth's risk for violence over recent decades, which is presumed to be indicated by an immediate exacerbation of consequences that is eventually allayed as working parents accumulate the work experience and skills necessary to secure better paying jobs. The direct

relationship between poverty and violence risks did indeed follow this pattern, but the small changes in the odds ratio were inconsistent with a welfare reform effect.

Additionally, the poverty-violence relationship was fully mediated by family structure, which in addition to serving as a key mediator, also emerged as the most important overall predictor of youth's violence risks in the full post-TANF models.

Though in line with macro-level findings that identify family structure as an important contingency in the post-reform relationship between poverty and violence trends, however, the pattern in its consequences for violence risks is inconsistent with that of working poor family trends, which forms the basis of the micro-level hypothesis. Hence, it is not likely that the mandatory work requirements enacted by welfare reform contributed to the increasing consequences of youth's living arrangements for their violence risks. In addition to family structure, race, gender, and metropolitan status also emerged as important predictors of violence risks in the full model, but failed to impact the relationship between poverty and violence.

CHAPTER 6

SUMMARY AND CONCLUSIONS

There has been a long tradition of criminological research on the relationship between economic deprivation and crime, yet little attention has been paid to the effects of macroeconomic conditions and social welfare policies on youth violence trends. The present study aimed to fill this gap in the literature by assessing the impact of recent changes in macroeconomic conditions and welfare reform policies on youth violent victimization trends. Equally important, this study also proposed to determine whether the relationship between poverty and youth's risks for violence has changed over recent decades and if welfare reform played a significant role in these changes.

Drawing from a study conducted by Messner, Raffalovich, and McMillan (2001) that found an important association between child poverty and juvenile homicide arrest trends for both black and white youth, this research supposes that the changes in macroeconomic conditions and federal welfare policies that contributed to the child poverty trends of the 1990s and early 2000s also contributed to other youth violence trends, or in this case youth violent victimization. In addition to race, however, this study also examined trends disaggregated by Hispanic origin, family structure, and other demographics in an effort to understand how these relationships differ across various youth sub-groups.

First, findings from the macro-level analysis confirm that there is a significant overall association between poverty and violence trends not only for all youth, but for non-Hispanic whites, non-Hispanic blacks, and youth in married couple and female-headed families. The strength and significance of the relationship varied substantially

across youth groups and economic periods, with the most important relationships being found among female-headed families and the post-reform periods (i.e. early post-reform and economic downturn), respectively. Overall, however, the poverty-violence relationship tended to be strongest and most consistently significant for groups of youth in female-headed families.

The fact that family structure is important to the poverty-violence relationship is not surprising. More so than race and ethnicity, family structure is strongly related to children's poverty. While black and Hispanic children are a little more than two and one-half times as likely as white children to be poor, youth in female-headed families are more than four times as likely as youth in married couple families to experience poverty (DeNavas-Walt, Proctor, & Smith, 2010). Research has extensively documented the detriments of growing up in poor, female-headed families, many of which place youth at greater risk for a host of adverse economic and social outcomes--including greater exposure to violence in the impoverished, high crime areas in which they are more likely to reside.

Another key contingency in the poverty-violence relationship was ethnicity, or in this case, Hispanic origin. Across the total sample and every sub-group of racial and ethnic youth, a very clear pattern emerged: the overall relationship between poverty and violence was not statistically significant for Hispanic youth. In fact, the only significant finding was that of female poverty and violence trends, which was only moderately associated and marginally significant. While the absence of significant findings does not mean that poverty is not related to Hispanic violence trends, it does suggest that other factors beyond the scope of this study may be involved. One omitted variable that may

shed some light on the differences between Hispanics and non-Hispanics is immigration status.

Immigrant families face a number of unique challenges that place them at particularly high risk for poverty and other social disadvantages. Although immigrants have high employment rates, for example, they are more likely than native-born workers to be employed in low-skilled, low-wage jobs. However, they also have relatively less access to public assistance and social service programs that may otherwise provide vital supports to working poor families. In addition to economic barriers, immigrant children also have less access to head start programs, health insurance, and other social services, which places them at greater risk for a host of long-term social, academic, and physical health challenges (National Center for Children in Poverty, no date), which in turn places them at greater risk for violence. Because they comprise the vast majority of the poor in both recent and established immigrant families, these disadvantages should have particular significance for Hispanic youth (Wight, Thampi, & Chau, 2011), and more specifically, Hispanic youth violence.

On the other hand, poor children in immigrant families also have certain advantages over poor, native born children. The parents of poor children in both recent and established immigrant families exhibit stronger attachment to the labor force than those of poor, native born children and have higher marriage rates. In established immigrant families, moreover, poor children are more likely to be residentially stable than those in native born and recent immigrant families (Wight, Thampi, & Chau, 2011). There are also important contextual differences in black and Hispanic poor communities, the latter tending to have more racial and economic heterogeneity and greater proportions

of two-parent families--all of which may serve as protective factors against negative adolescent outcomes. Whether these factors counteracted the negative effects of poverty on Hispanic youth violence is unknown, but it is important for future research to pursue this line of inquiry. A great deal of our knowledge about the group differences in violent crime is based on black-white comparisons, but with significant growth in the current and projected Hispanic youth population, it is increasingly important for researchers to consider the roles of ethnicity and immigration status on poverty, violence, and other youth outcomes. This information will help practitioners to address the unique needs of immigrant youth in violence prevention and other social intervention programs.

Another key factor that emerged in the significance of the poverty-violence relationship was the poverty measure used in the analysis. While the overwhelming majority of the total poverty-violence and group poverty-violence relationships were not statistically significant, it was total youth poverty that tended to be more closely associated with victimization trends both in terms of strength and statistical significance. When disaggregated by race, ethnicity, and family structure, however, it was presumed that violence trends would be more closely associated with group poverty rather than total poverty, which represents a more global measure of youth economic deprivation.

While the present findings suggest that changes in global poverty have a more significant impact on group violence trends than changes in that group's own poverty rate, it is also possible that more proximate measures are needed to reliably assess the differences in the effects of national-level deprivation and that of youth's immediate environments on violent crime trends. For example, an analysis comparing changes in neighborhood violence rates to those in national- and neighborhood-level poverty would

prove informative. However, such an assessment was not possible in the present study because the NCVS does not contain neighborhood-level variables. Future research is needed to determine how differences in the measurement of poverty affect its impacts on violence trends, not just in terms of its proximity to subjects but also in the use of other alternative measures.

The significance of the overall poverty-violence relationship also varied across demographic sub-groups. Although predominately statistically nonsignificant, there was an important overall association between the total poverty and violence trends of male and younger adolescent sub-groups in the non-Hispanic white, non-Hispanic black, married couple and female-headed family categories. On the other end of the spectrum, the only significant association found among the older adolescent sub-group was for youth in female-headed families. The variability in these findings underscores the complexity in the macro-level relationship between youth poverty and violent victimization trends, which otherwise could not be determined without the level of disaggregation employed in this study. So despite the long-standing tradition of research on the poverty-violence relationship, similar analyses are needed to understand why and how this relationship differs for various youth sub-groups.

More important than the association between poverty and violence trends is the larger impact of macroeconomic conditions and welfare reform policies on this relationship. Of particular concern in the present study was the impact of the economic expansion, TANF implementation, and economic downturn on recent trends in youth violent victimization. Prior research has offered little empirical support for a relationship between economic growth and violent crime trends. However, the established association

between child poverty and juvenile violence trends calls for another look at this relationship. It is my argument that the complexities of the economy-crime relationship may not be understood in terms of a direct association, but through some other process or intervening mechanism--a contention that is supported by Rosenfeld's (2009) findings that economic conditions (as measured by the Index of Consumer Sentiment) indirectly affect homicide rates via acquisitive crimes such as burglary, motor vehicle theft, and robbery. Research reported by Arvanites and Defina (2006) also suggests that business cycles are negatively associated with economically motivated violent crime via reductions in criminal motivation. Despite this evidence, however, the processes and mechanisms that link economic conditions to violent crime are largely unknown. Presuming that the changes in macroeconomic conditions that influenced recent child poverty trends also influenced trends in youth violent victimization, this study seeks to contribute to the understanding of this complex relationship.

Mixed support was found for this hypothesis. For the total sample of youth and the overwhelming majority of sub-groups, there was no relationship between macroeconomic conditions and youth violent crime trends. However, certain groups of youth were significantly impacted. Findings suggest that the economic expansion was associated with the violence declines of females and all youths in female-headed families via total poverty as well as younger adolescents and non-urban youths in married couple families via group poverty. On the other hand, the economic downturn attributed to the violence trends of non-Hispanic white and non-Hispanic black males via both total and group poverty, as well as the total sample of non-Hispanic blacks via total poverty trends. In addition, the downturn influenced violence trends among males and non-urban youth

in female-headed families through associations with group and total poverty, respectively.

These findings make evident the intricacies in the relationship between macroeconomic conditions and youth violent crime trends--intricacies that have not been uncovered in previous analyses because researchers have failed to consider how shifts in macroeconomic conditions impact violence among youth in various sub-groups. Take the results from the economic expansion period, for example. If the analysis had been conducted only on the total sample of youth, the significant relationships for certain groups in married couple and female-headed families would have gone undetected. Moreover, the fact that the expansion's effect on violence was limited to certain groups of youth in families while the downturn's effect was limited largely to racial groups would have also been overlooked, a fact that the macro-level findings cannot readily explain.

It is possible that the anti-poverty measures targeted towards poor families in the 1990s also served to reduce violence among youth in female-headed families and certain groups in married couple families. Although research has identified substantial improvements in the 1990s job market as a significant contributor to the child poverty reductions of that time (Nichols, 2006), mandatory work requirements and tax incentives enacted by federal welfare reforms and EITC expansions also played an important role in the increased work efforts of single mothers and low-income families. By increasing work efforts among poor families, then, it is also plausible that these measures had some indirect influence on youth violence reductions.

Prior analyses have not addressed these potential relationships, partly because data and methodological limitations have made it difficult to disentangle the effects of the economic expansion, Earned Income Tax Credit, and welfare reform on the growth in maternal employment, reductions in child poverty and welfare caseloads, and other economic developments of the 1990s, which in turn have hampered research efforts to determine the distinct impact of each factor on various aspects of family and child well-being. This limitation is particularly characteristic of welfare reform evaluations as states' administrative data do not include direct indicators of family and child well-being, changes in family living arrangements, and recipients' access to other sources of non-public support (Acs and Loprest, 2007). Nonetheless, there is at least some evidence that expansions to the Earned Income Tax Credit contributed to a significant portion of the increase in maternal employment between 1984 and 1996 while smaller contributions were made by welfare experimentation programs and other work incentive initiatives (e.g. Meyer and Rosenbaum, 2006), which included mandatory participation in welfare-to-work programs, temporary time limits, and child-care for working mothers. However, this work pre-dates the implementation of the Temporary Assistance to Needy Families program.

While the inability to resolve these issues is an obvious limitation of this research, the findings will hopefully illustrate the importance of 'thinking outside of the box' when it comes to the study of the economy-violent crime relationship. Doing so will allow researchers to shed new light on the effects of long-studied indicators such as unemployment on violent crime rates; while there is a close, historical association between adult unemployment and child poverty rates, researchers have failed to consider

whether long-term changes in adult unemployment have impacted youth violence trends through this association. A more creative approach would also lend itself to the study of the relationship between violent crime and other less common, but equally relevant, indicators of economic growth--the importance of which is illustrated by the previously noted findings of Arvanites and Defina (2006), Rosenfeld (2009), and more recent research conducted by Lauritsen and Heimer (2010) which provides evidence of an association between long-term changes in consumer pessimism and serious violent victimization among black and Latino males.

As mentioned in the preceding discussion, the economic downturn appeared to have a particularly significant impact on the violence trends of non-Hispanic white and non-Hispanic black males, which followed very similar patterns between 2001 and 2004. Past research has established that minorities tend to suffer greater economic consequences than whites during periods of recession, primarily because they are more likely to be employed in the low-skilled, low wage jobs that are disproportionately affected by downturns in the economy--a pattern that is observed not only in employment but child poverty trends as well. Given the inter-relationships between economic growth, child poverty, and youth violence, it was expected that minorities would also experience the most significant growth in violence rates during the weakened economic state of the early 2000s. While rates expectedly increased for white and black males (as well as the total sample of white and black youth), however, there was a sharp drop in Hispanic victimization after 2002. Thus, the downturn-era trends in violent victimization were more similar for white and black youth than black and Hispanic youth, which is inconsistent with expected findings.

One potential explanation for this inconsistency is that the 2001 recession affected workers of all racial, family, and earnings groups and unlike past recessions, did not impact minorities more significantly than whites. Other research has suggested that modern recessions like that observed in 2001 also differ from past recessions in that unemployment rises because of the difficulty finding new jobs rather than the loss of jobs (e.g. Hall, 2007), although the recent downturn challenges this notion. Indeed, the growth in unemployment between 2001 and 2004 was modest and although the increase in black child poverty was more than three times larger than that of white children, neither experienced substantial increases; rates increased by one percentage point for white children, three and one-half points for black children, and less than one percentage point for Hispanic children.

Thus, the nature of the 2001 recession was not one that lent itself to disproportionate consequences for minority youth, neither in terms of poverty nor violence trends, so it makes sense that downturn-era trends in violent victimization were similar for white and black youth. However, longer time series should be examined to determine whether these findings also apply to past recessions or indeed reflect the nature of the 2001 downturn. Because this study is based on one expansion and recession period, results cannot be generalized to other periods of economic growth.

An additional disadvantage of analyzing a relatively short time series is that the economic downturn and early post-reform periods both contain only four data points, which makes a strong association between trends more likely. The overall relationship between total poverty and violent victimization exhibits this tendency, with correlations approaching 1.00 for the early post-reform and economic downturn periods. Excluding

Hispanic groups, moreover, a large portion of the sub-group relationships also follow this pattern. However, there is enough variation in the strength of these relationships to conclude that inflated correlations are not inherent to the shorter time periods. The same general pattern was observed for the group poverty-violence results, but the relationships were substantially weaker than those observed for total poverty-violence. Still, these findings should be interpreted with caution as reliability issues with the shorter time periods weaken any conclusions that may be drawn about the effects of welfare reform and the economic downturn on youth violence trends.

With this caveat in mind, the association between poverty and violence trends was also assessed during the early post-reform period in an attempt to uncover the larger influence of TANF on the relationship. Prior research has examined the effects of PRWORA and other welfare reforms on maternal employment and family income, welfare caseloads, marriage and children's living arrangements, and family and child well-being, but criminologists have largely ignored the potential impacts of welfare reform for youth violence trends. While there is evidence of a cross-national relationship between welfare spending levels and child homicide rates (e.g. Briggs & Cutright, 1994), the national-level relationship between welfare reform and trends in youth violent victimization has not been assessed. While this omission is due partly to a lack of relevant data, existing data sources such as the NCVS provide an opportunity to examine this relationship via the association between poverty and victimization trends.

In the wake of welfare reform, there was a marked acceleration in child poverty declines for all children, but most substantially for Hispanics and those in female-headed families. I argue that similar patterns in victimization trends would reflect the influence

of welfare reform. For urban minorities and Hispanic females, victimization trends did display a marked acceleration during the early post-reform period. However, the pattern in the group victimization reductions was inconsistent with a welfare reform effect. For the majority of black youth sub-groups and in particular females, older adolescents, and non-urban youth, there was a spike in victimization that coincided roughly with the implementation of TANF, indicating that welfare reform may have had a shock effect on these groups. Because poverty declined for all black sub-groups during the early post-reform period, however, any adverse effects that welfare reform might have had on black victimization rates would have come through some other mechanism beyond the scope of this study. In terms of the present hypotheses, it does not appear that welfare reform contributed to victimization reductions for either non-Hispanic white, non-Hispanic black, or Hispanic youth.

Victimization trends disaggregated by family structure exhibited more prominent early post-reform reductions, but while rates fell more uniformly for groups in married couple families, they declined markedly for the majority of groups in female-headed families. Occurring in 1998 for all sub-groups in female-headed families, this marked decline was most apparent for males, younger adolescents, and urban youth, which suggests that any effects of welfare reform were most likely not immediate. These effects, according to the findings, came through an association with total poverty for non-urban and all youth in married couple families and males, females, urban, and all youth in female-headed families. Through its association with group poverty, moreover, welfare reform also contributed to male victimization in female-headed families. More than any other group examined, therefore, welfare reform appears to have impacted youth violent

victimization in female-headed families, which is consistent with the fact that welfare is almost exclusively targeted towards single mothers with children. However, additional analyses also confirmed that relative to the pre-reform period, the post-reform association between youth poverty and violence trends was also more statistically important for non-Hispanic whites and non-Hispanic blacks.

The potential criminogenic effects of welfare reform were also explored by examining the changes in the relationship between poverty and youth's risks for violence before and after TANF implementation. Drawing on trends in working poor families and the consequences of these trends for poor adolescents, I argue that if TANF had any influence on the relationship, the consequences of poverty for youth's violence risks would be exacerbated as the proportion of poor children in low-income working families increased (i.e. early post-reform period). As the proportion of poor children in low-income families decreased, however, the consequences of poverty for youth's violence risks would also diminish over time (i.e. late post-reform period). This pattern partially is in line with findings that children in working poor families, who fared just as bad children in *non-working* poor families at the time of TANF implementation, tended to fare significantly better seven years later (see Wertheimer, Moore, and Burkhauser, 2008), which suggests that the increased work efforts associated with welfare reform have longer term benefits for affected youth.

Across the pre-reform, early post-reform, and late post-reform periods, the direct relationship between poverty and youth's violence risks did follow the hypothesized pattern, seeming to suggest that the mandatory work requirements enacted by welfare reform did influence violence risks. However, the fact that poverty's consequences for

violence risks varied only slightly across the three periods suggests that welfare reform most likely failed to influence the relationship. Still, examining the influence of race, ethnicity, family structure, and other demographic controls on the poverty-violence relationship was another objective of the micro-level analysis. Findings from the full model identify race, family structure, gender, and metropolitan status as significant predictors of violence risks, with non-Hispanic white, female-headed family, male, and urban youth being slightly more likely than their counterparts to experience violent victimization. However, the relationship between poverty and violence risks was not only fully mediated by family structure, but it also emerged as the most important overall predictor of violence risks in the early and late post-reform models.

The findings for family structure were consistent with macro-level results identifying family structure, and especially female-headed families, as an important contingency in the relationship between total youth poverty and violence trends, particularly during the early post-reform period. And although the consequences of family structure for violence risks increased more substantially between the early and late post-reform periods than the pre- and early post-reform periods, the changes did not appear to be associated with the mandatory work requirements enacted by TANF--at least in a manner consistent with the presumed relationships between mandatory work requirements, working poor family trends, and the implied consequence for poor youth. Given the pattern in the relationship, however, it is possible that some other aspect of welfare reform may have exacerbated the consequences of family structure for violence risks, perhaps even aggravating already increasing consequences. However, a longer time series would have to be analyzed to confirm this speculation.

One consequence of welfare reform with potential impacts for female-headed families is the increased rules and stricter eligibility requirements that often discourage TANF participation. Evidence from the National Survey of American Families suggests that between 1997 and 2002, there was a considerable decline and concurrent increase in the proportion of 'leavers' exiting welfare for employment and other reasons such as not wanting or needing benefits or too much hassle involved with receipt (Loprest and Zedlewski, 2006). Data from states' administrative records also show that rule-related reasons for welfare desistance far outweigh employment.

During the 2003 fiscal year, for example, more than forty percent of cases were closed due to federal time limits, sanctions, state policies, or failure to cooperate with eligibility requirements while another fourteen percent were voluntary closures. In comparison, employment accounted for only eighteen percent of closures (U.S. Department of Health and Human Services, 2006). It is important to note that the estimates for employment closures in the administrative data are substantially smaller than those derived from empirical data, primarily because employment is often coded as a failure to cooperate or other reason due to non-reporting. Regardless of the data source, however, evidence suggests that the stricter rules enacted by welfare reform resulted in the closure of a substantial proportion of cases and according to the evidence from the NSAF, the proportion of these cases has increased over time. One of the obvious implications of these findings is that otherwise eligible families are being excluded from the TANF program and no doubt, these families include a significant proportion of female-headed families.

Again, this line of reasoning is only speculative. This study offers no definitive evidence that TANF program restrictions contributed to the increasing consequences of family structure for violence risks, or whether TANF contributed at all. The inability to draw a sound conclusion about the effects of welfare reform is due largely to the absence of direct measures of specific welfare policies, which along with the reliability of the early post-reform and economic downturn correlations and the inability to distinguish the effects of the economic expansion from other economic and policy developments of the 1990s, is a major limitation of the current study. In addition to inhibiting the ability to draw sound conclusions, this absence also prevents the identification of the specific provisions that may deter eligible families from participating in TANF or otherwise contribute to negative family and child outcomes (i.e. mandatory work requirements, time limits, threat/use of sanctions for noncompliance, etc.). While the observed patterns offer some clue of how the poverty-violence relationship changed before and after welfare reform, the findings are largely descriptive. More research is needed to determine whether these patterns indeed reflect the influence of welfare reform or the unique intersection of the macroeconomic and welfare policy changes of the 1990s and early 2000s.

Despite these limitations, this study offers promising directions for future research. National-level studies on the long-term effects of welfare reform are scant (Acs and Nelson, 2007), and virtually non-existent are studies examining the long-term effects of welfare reform on youth violence trends, as previously mentioned. Because welfare and other public assistance programs play an integral role in the economic and material

well-being of poor children, it is likely that large-scale changes in social welfare policy have had indirect influences on youth violence through child poverty trends.

This omission from the analyses of youth violent crime trends paints an incomplete picture of public policy's role in these changes, and more generally, the potential criminal justice impacts of social policies targeted toward the alleviation of child poverty, or by the same token, those that inadvertently contribute to increased deprivation--particularly among disadvantaged groups such as poor children and female-headed families. This area of research would yield valuable information that would help policymakers to anticipate the unintended benefits and consequences of anti-poverty or other social policies for criminal justice outcomes, and allocate funds and resources to achieve the best outcomes for youth.

Though not definitive, the sum of the evidence suggests that macroeconomic and social policy changes do indeed have the potential to influence violent victimization trends, particularly among youth in female-headed families. In addition, changes in federal welfare policy appeared to impact the direct relationship between poverty and youth's risk for violence over recent decades, but family structure fully mediated this relationship both before and after the implementation of TANF. While highlighting the significance of family structure for the poverty-violence relationship, this research has also identified some of the specific challenges associated with the study of the economy-youth violence relationship. By addressing these challenges, future research may shed significant light on the relationship between recent economic and policy developments and youth violence trends. More specifically, some of the important lessons learned for future research include:

In addition to macroeconomic conditions and welfare reform policies, tax incentives such as the EITC also have important implications for recent youth violence trends. Although the economic expansion and associated improvements in the job market contributed substantially to child poverty reductions in the 1990s, some research attributes as much as one-fifth and one-third of the early '90s increase in maternal employment to welfare reform and the EITC, respectively (e.g. Meyer and Rosenbaum, 2001). Given the obvious implications of these findings for child poverty reductions, it is important for researchers to consider the role that the EITC may have played in recent youth violence trends; with continued expansions to the EITC, including the availability of local credits in New York City, the District of Columbia, and twenty-two states including Illinois, Michigan, and New Jersey (Internal Revenue Service, 2011), it is particularly important for researchers to consider how its targeted support of vulnerable groups such as low-income, female-headed families may inadvertently influence criminal justice outcomes.

To accurately assess how year-to-year changes in one variable affect year-to-year changes in another, longer time series should be analyzed. As evidenced by the findings for the poverty-violence associations of the early post-reform and economic downturn periods, a small number of data points may artificially inflate estimates of the association between two trends. To produce more reliable estimates in trend analyses, particularly when distinct eras or conditions are of interest, series covering several decades of data are ideal. While this study

is concerned with the impact of recent macroeconomic and social policy changes on youth violence trends, extending the analysis will allow researchers to determine the extent that the present findings apply to other economic and policy contexts.

The strength and significance of the poverty-violence relationship is contingent upon several factors, including the measurement of poverty. This study used a variation of the official definition of poverty to estimate both total and group-specific poverty rates for various groups of youth, and results from the macro-level analysis clearly suggests that the total poverty-violence association is more statistically important than that of group poverty and violence. Whether this pattern represents a true difference in the nature of the relationship between poverty and violence trends or some artifact of the poverty measure is unknown, but experimentation with alternative poverty measures may provide some clue. Additionally, alternative measures may make some difference in the micro-level relationship between poverty and youth's risks for violence, which appeared to be fairly weak in the present study.

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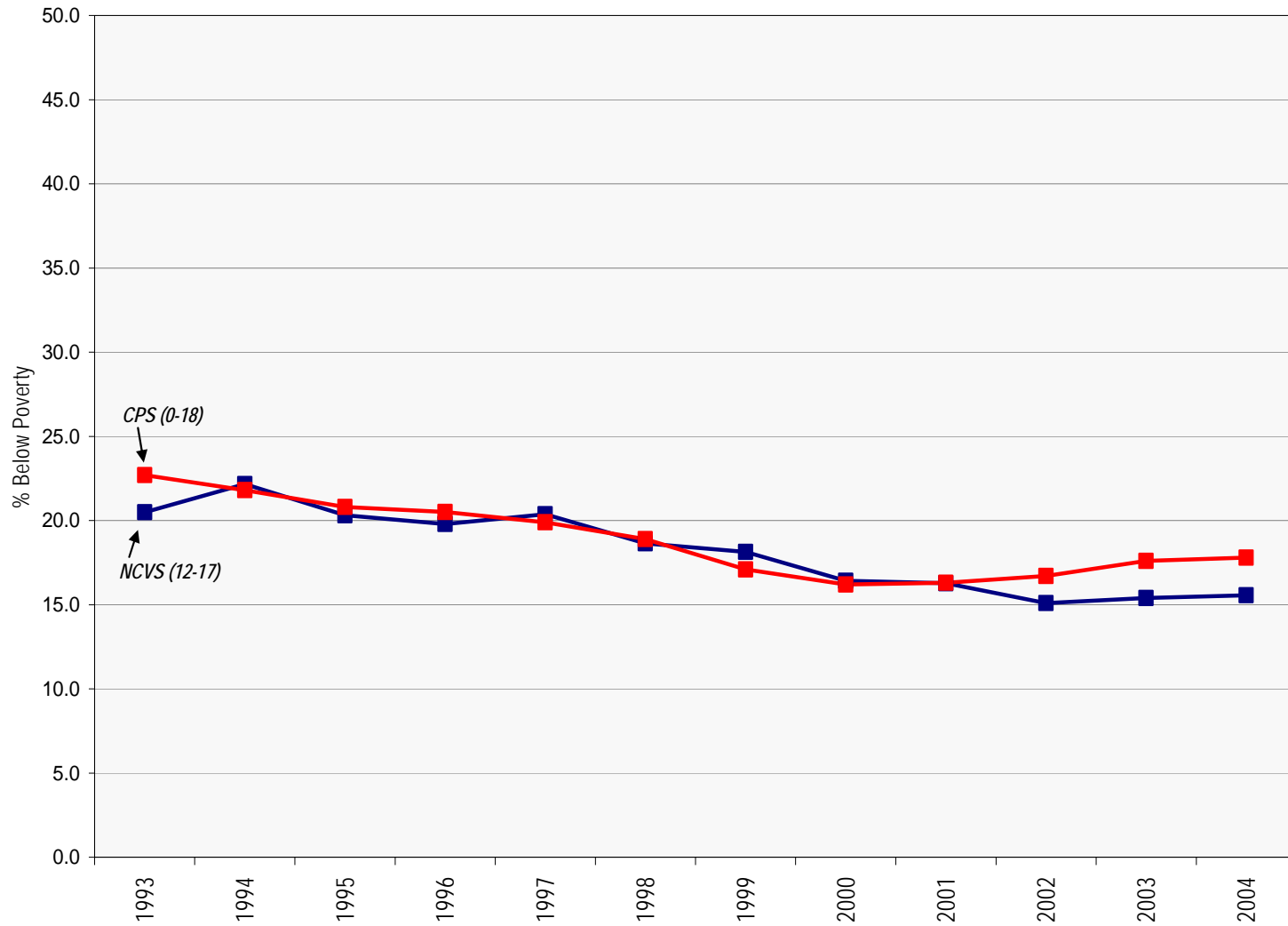
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APPENDICES

Appendix A

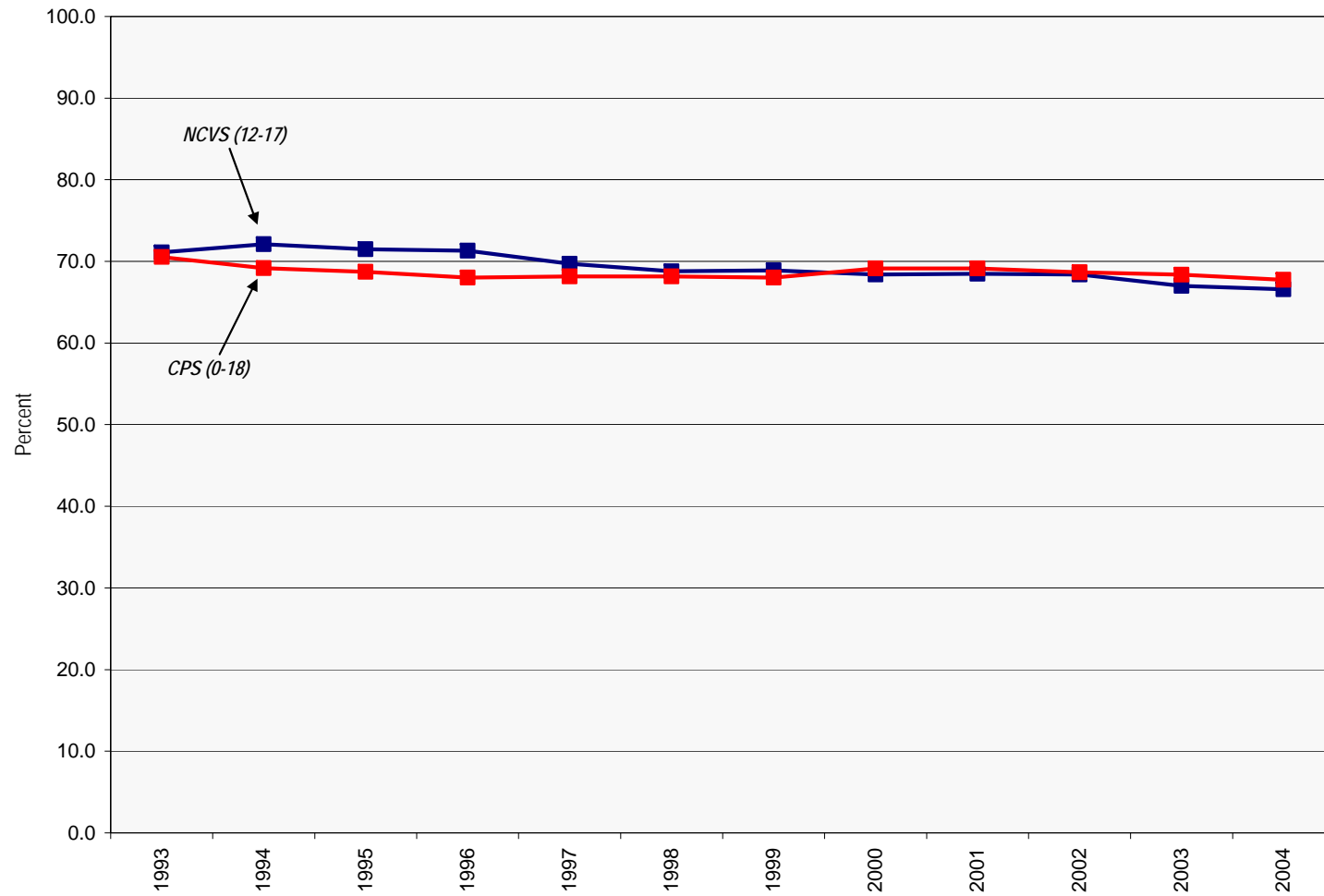
Comparison of NCVS and CPS National Youth Poverty Estimates, 1993-2004



Appendix B

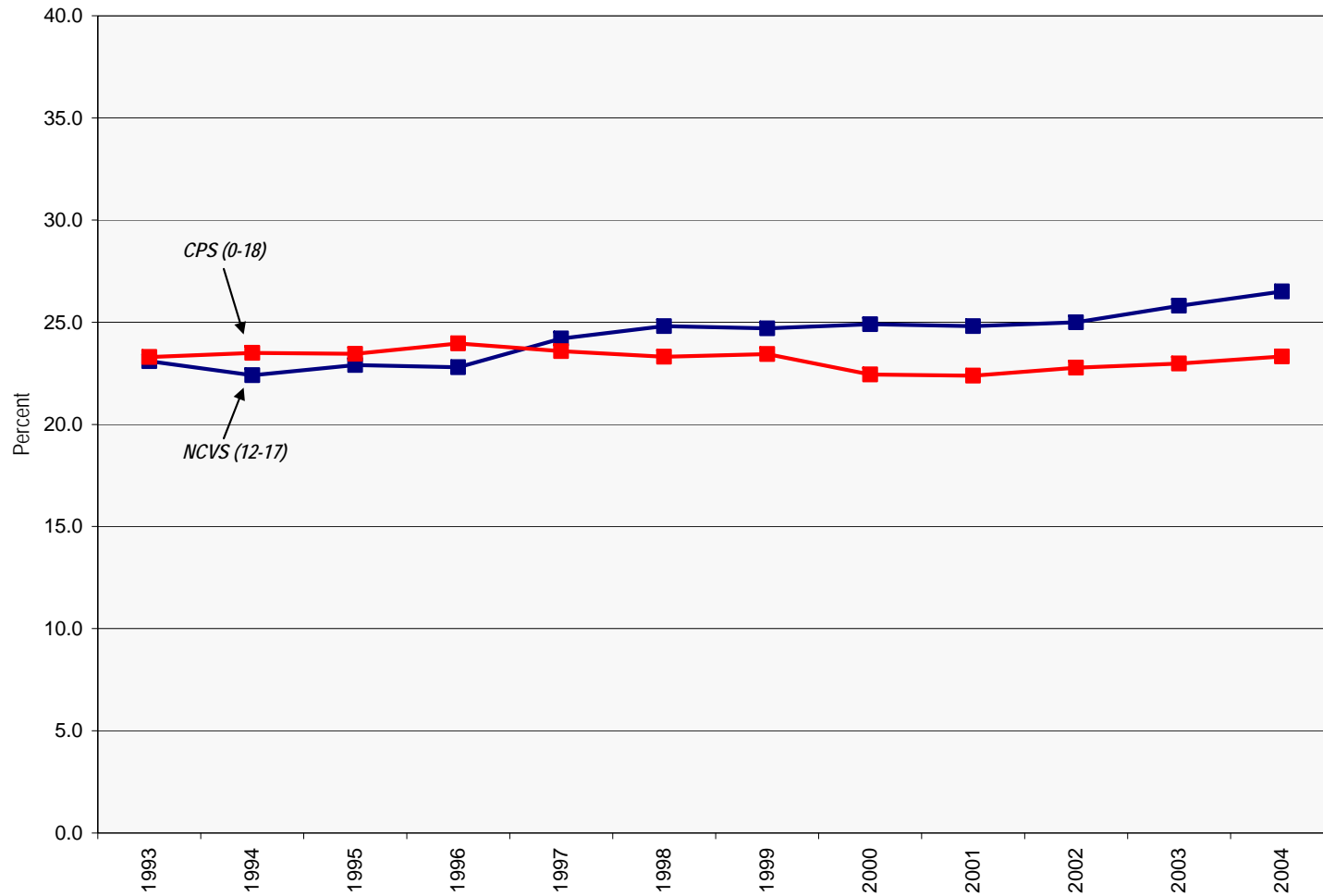
Comparison of Children's Living Arrangements in the NCVS and CPS

Married Couple Families



Appendix B (cont'd)

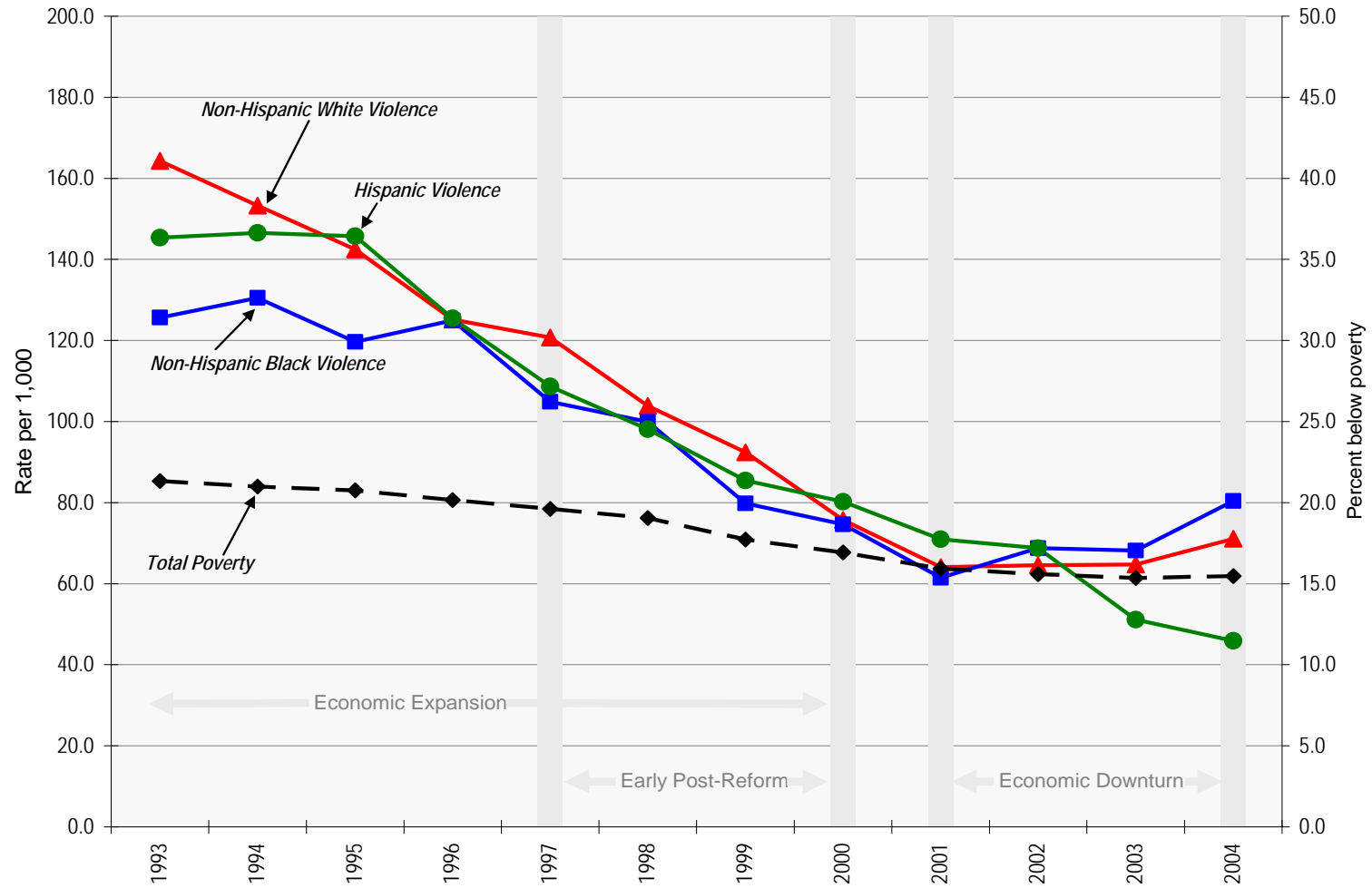
Female-headed Families



Appendix C

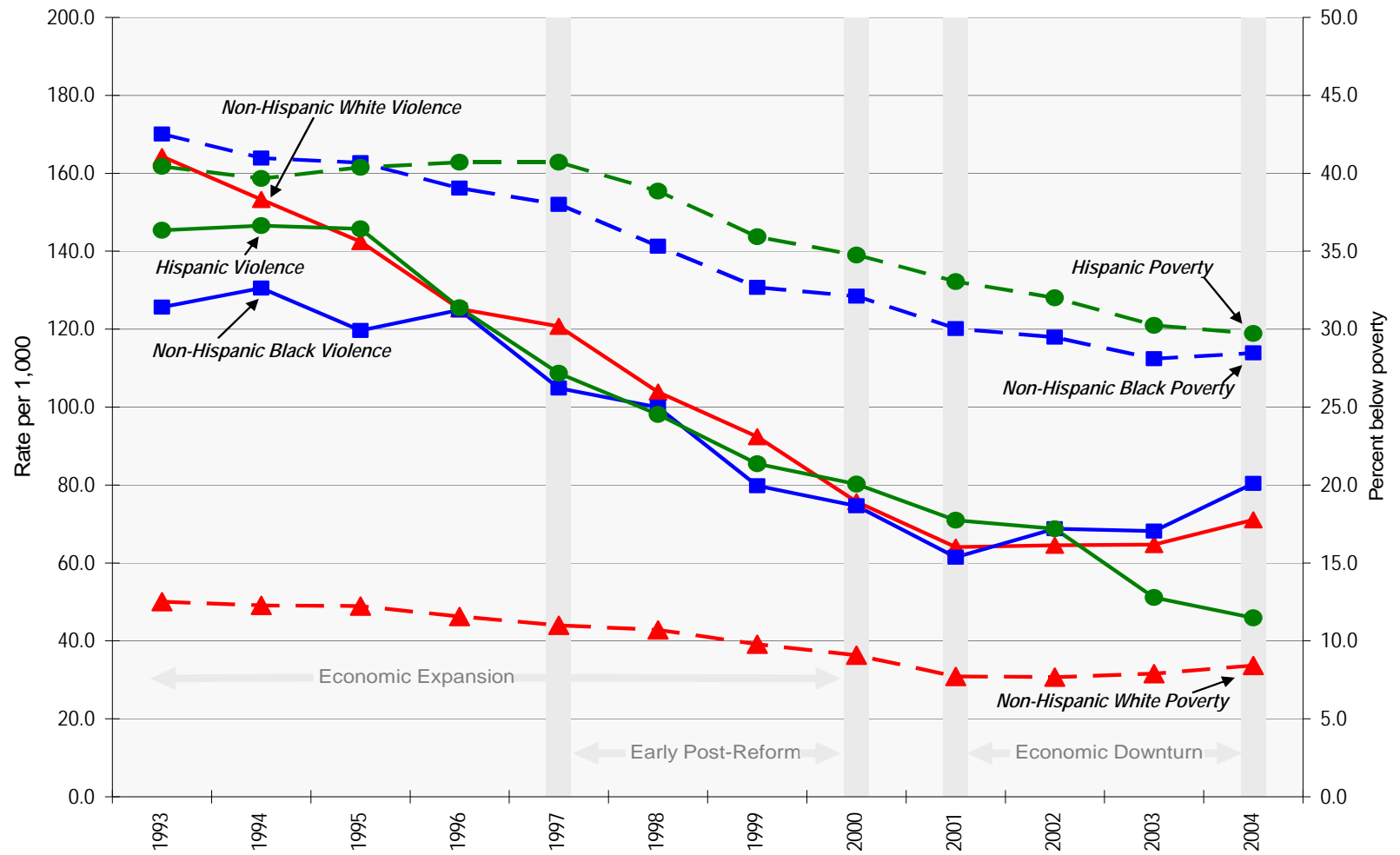
Male Youth Poverty and Violent Victimization Rates by Race and Ethnicity, 1993-2004

By Total Poverty Rates



Appendix C (cont'd)

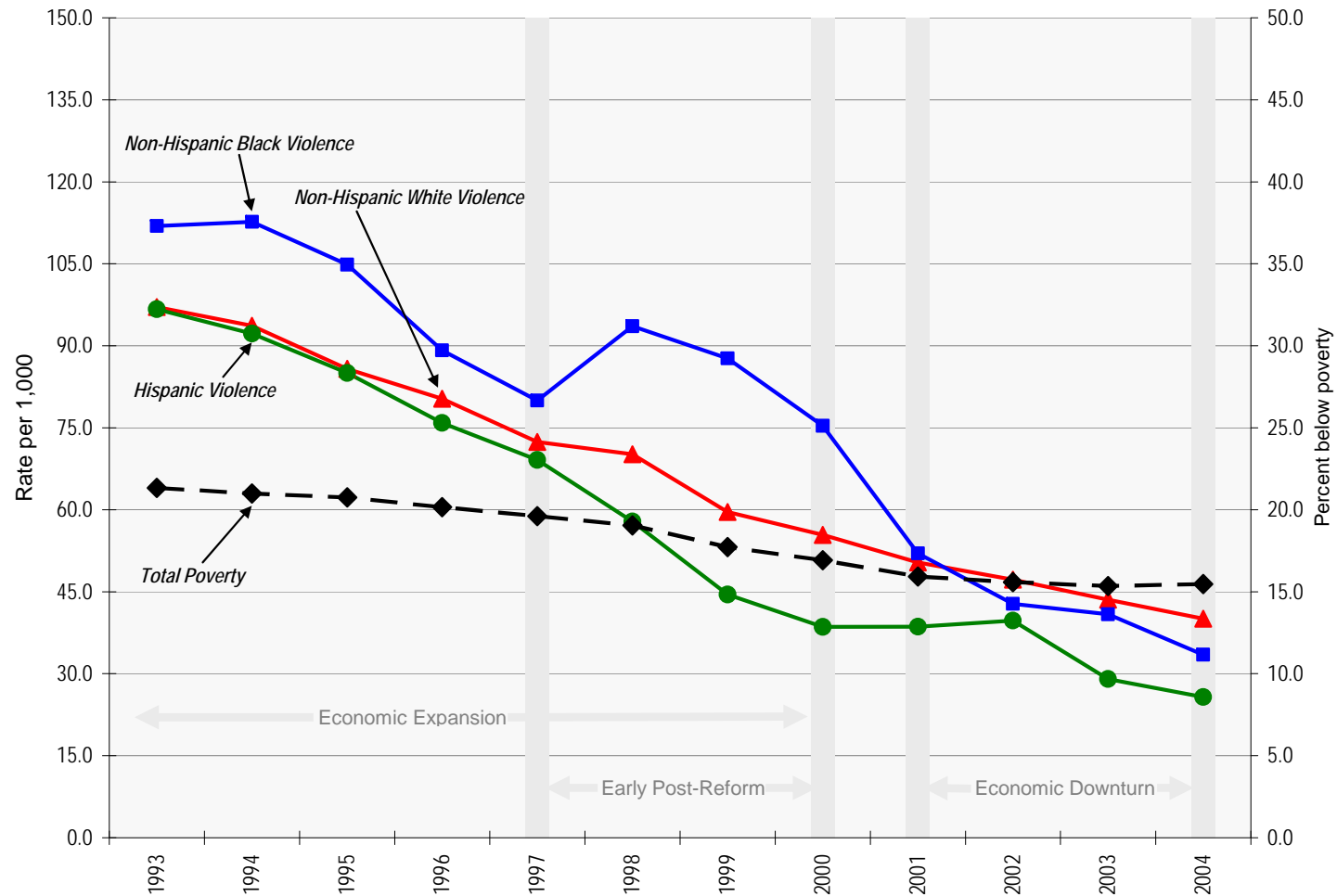
By Group Poverty Rates



Appendix D

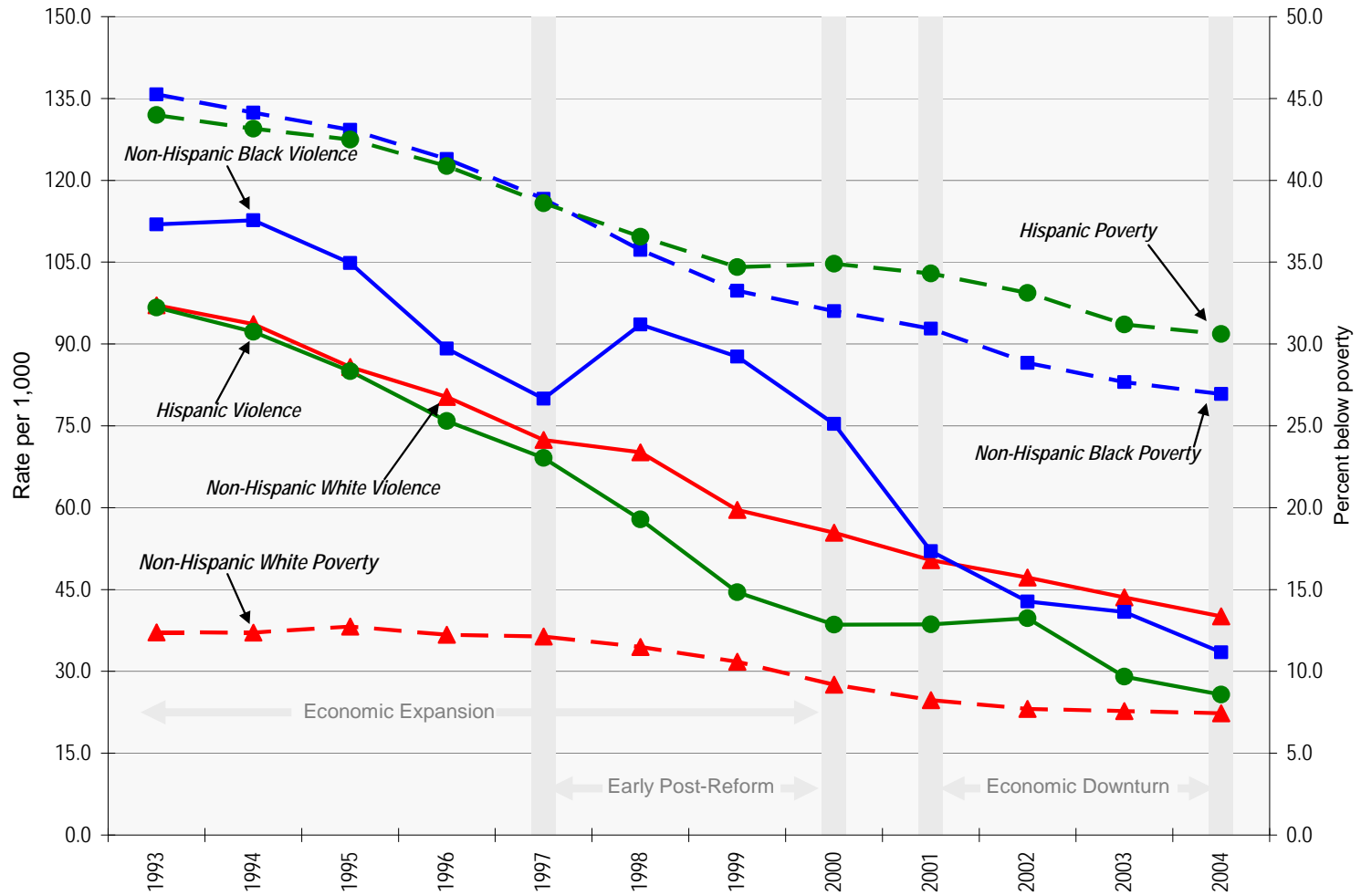
Female Youth Poverty and Violent Victimization Rates by Race and Ethnicity, 1993-2004

By Total Poverty Rates



Appendix D (cont'd)

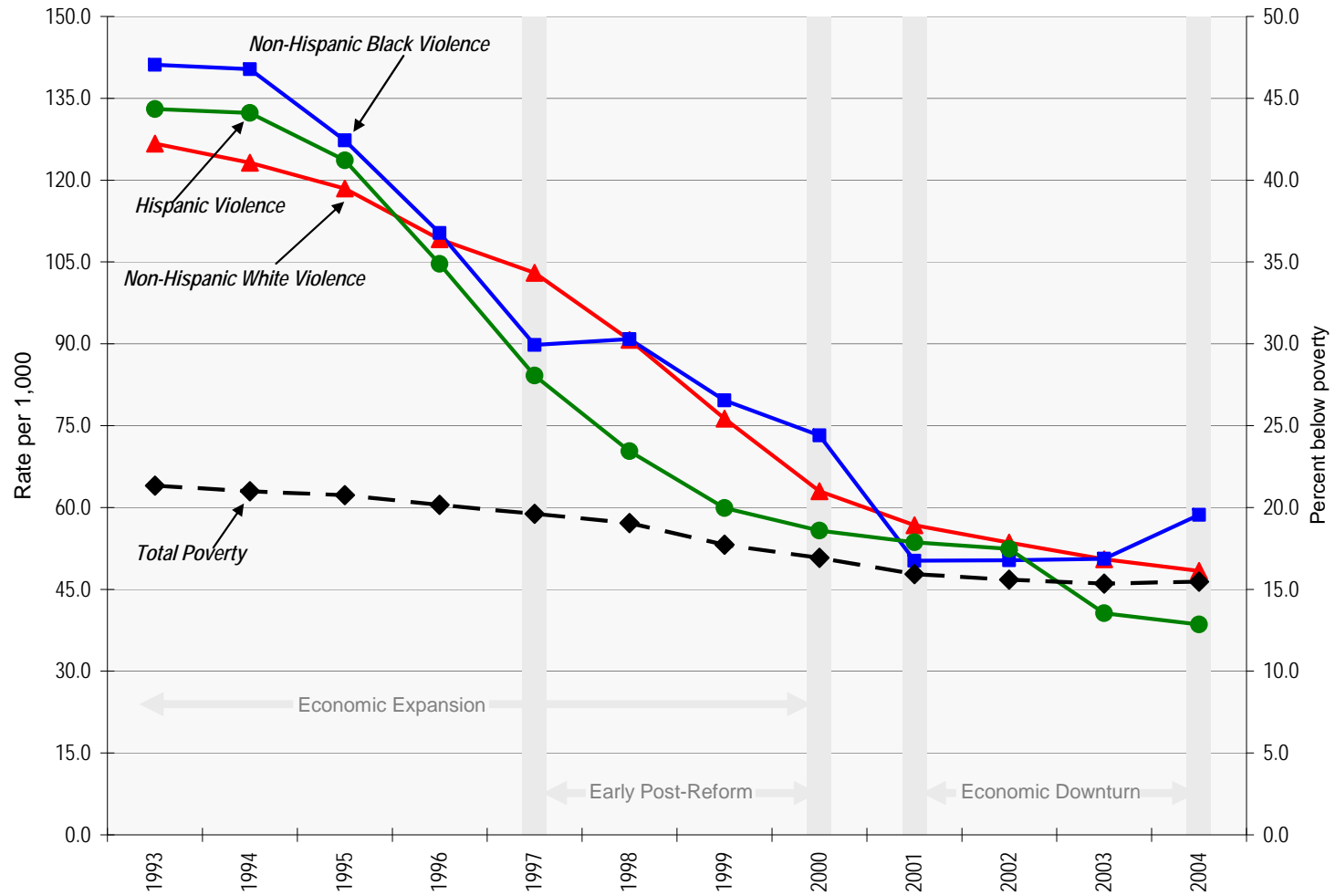
By Group Poverty Rates



Appendix E

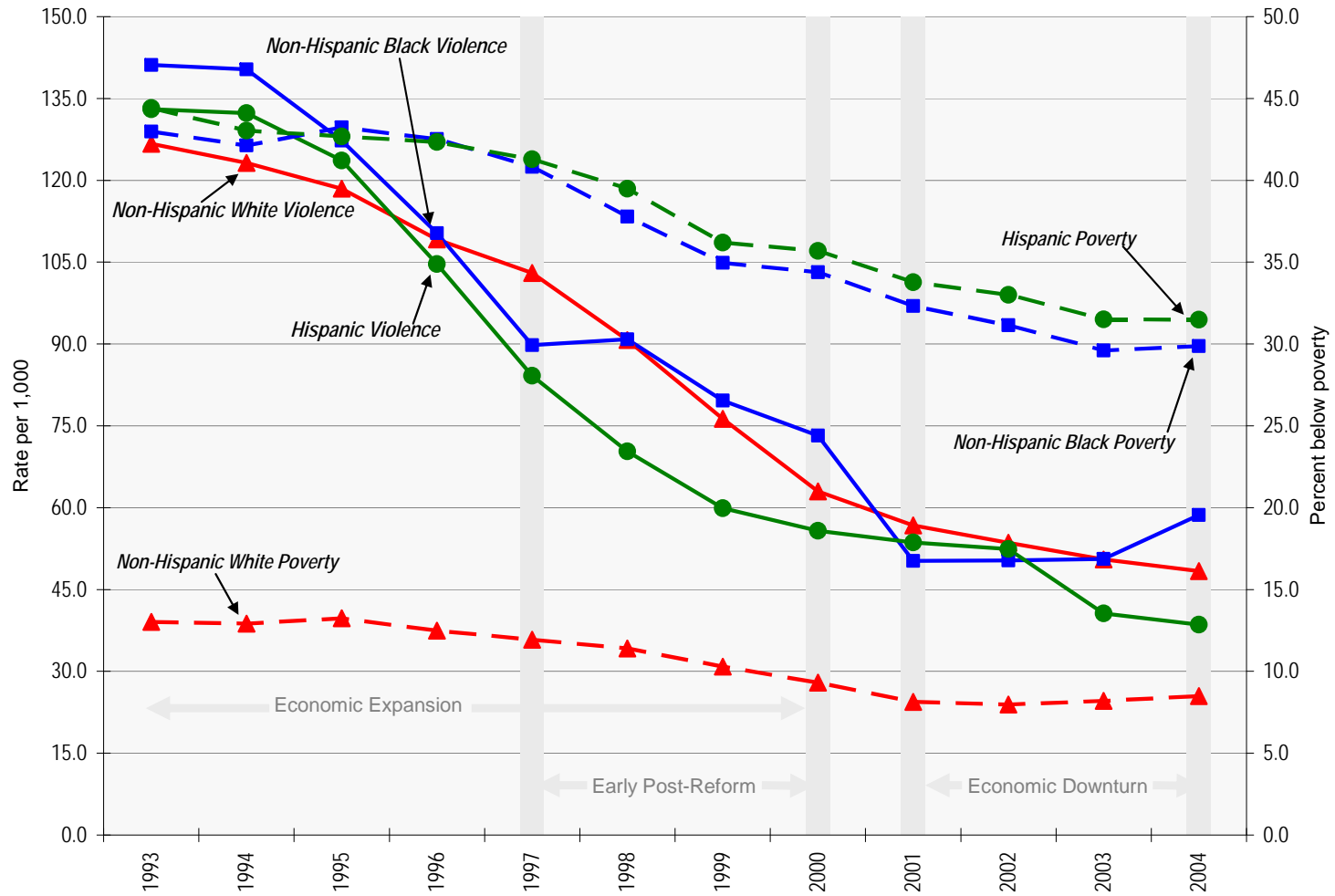
12 to 14 Youth Poverty and Violent Victimization Rates by Race and Ethnicity, 1993-2004

By Total Poverty Rates



Appendix E (cont'd)

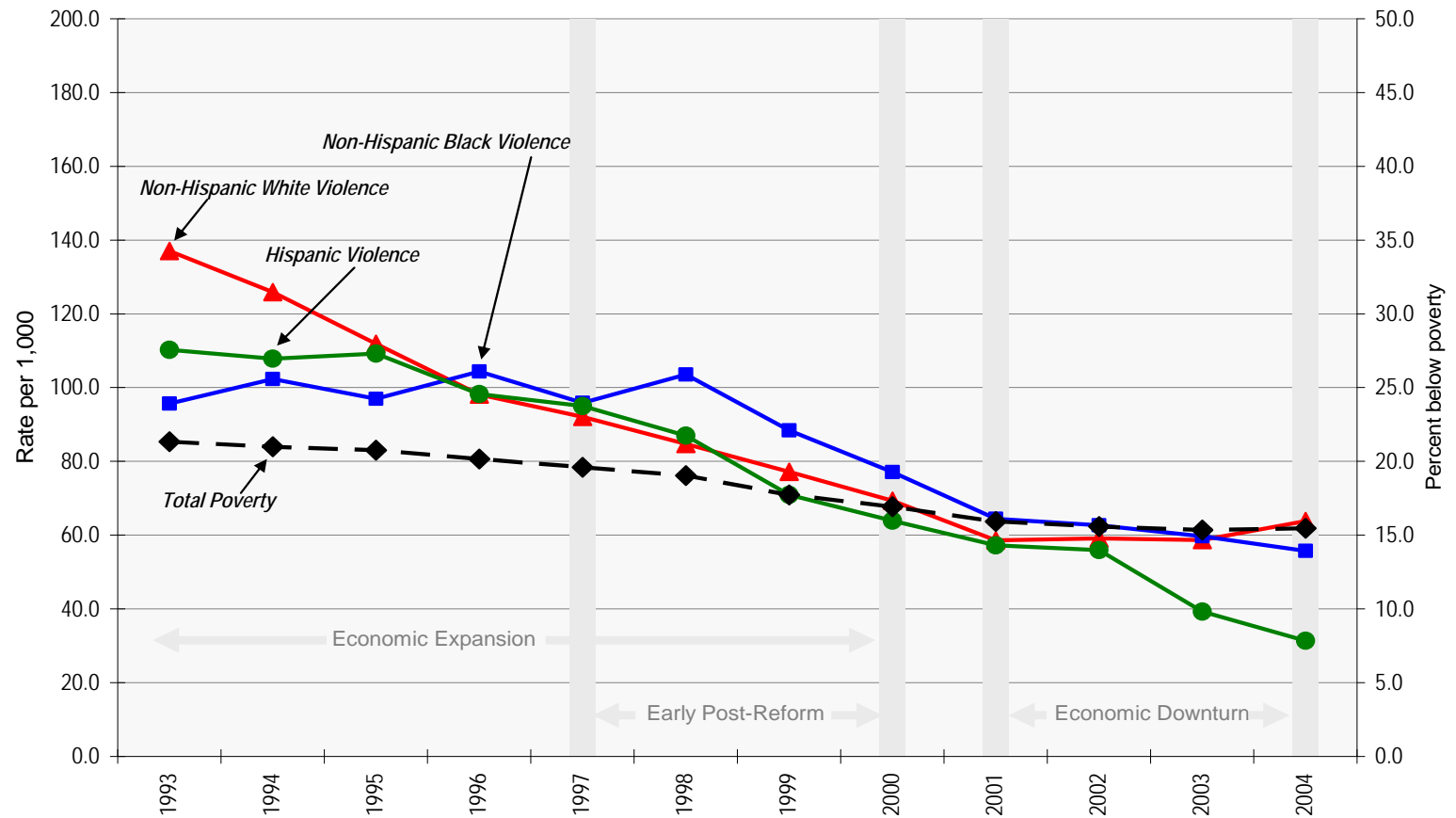
By Group Poverty Rates



Appendix F

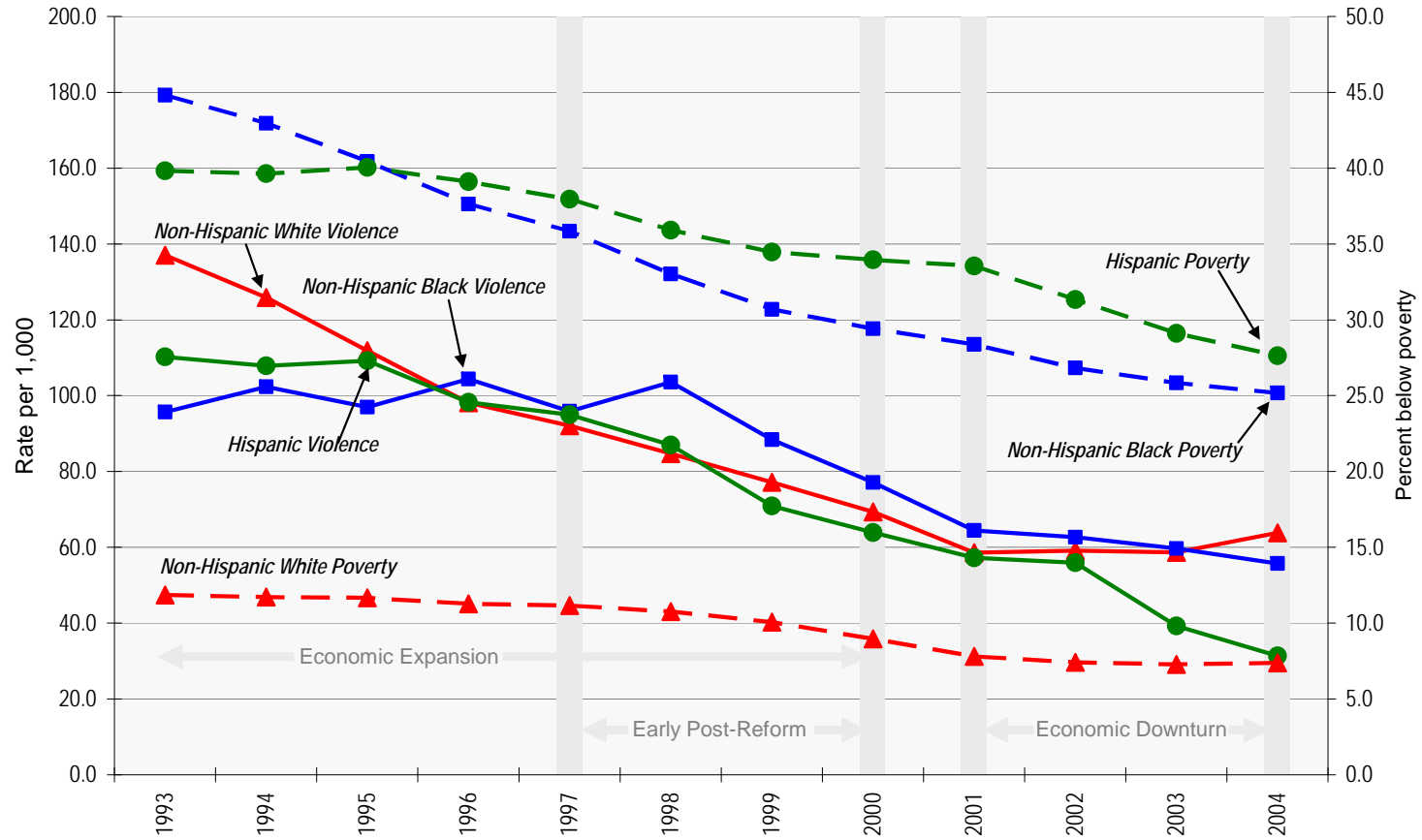
15 to 17 Youth Poverty and Violent Victimization Rates by Race and Ethnicity, 1993-2004

By Total Poverty Rates



Appendix F (cont'd)

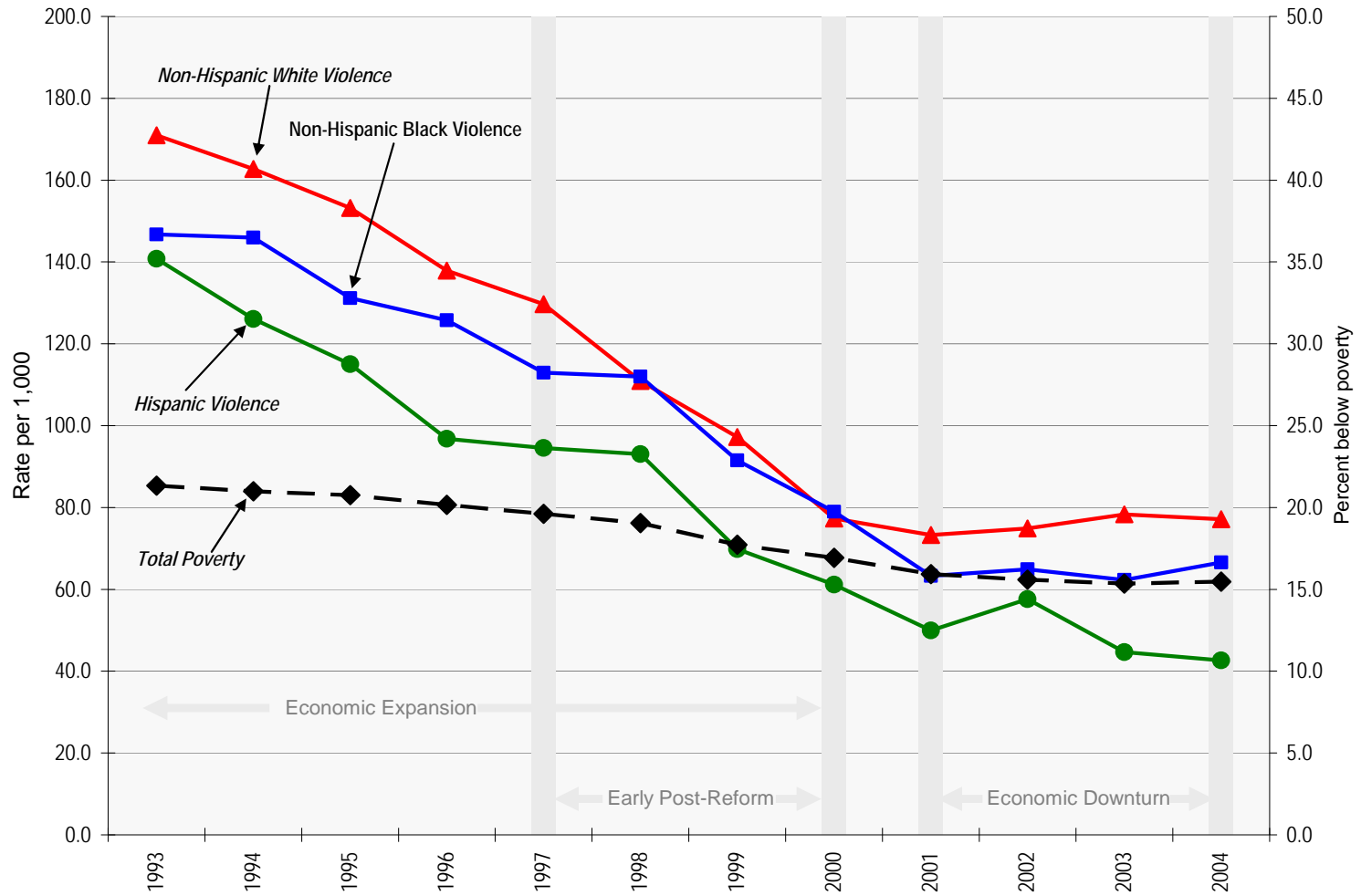
By Group Poverty Rates



Appendix G

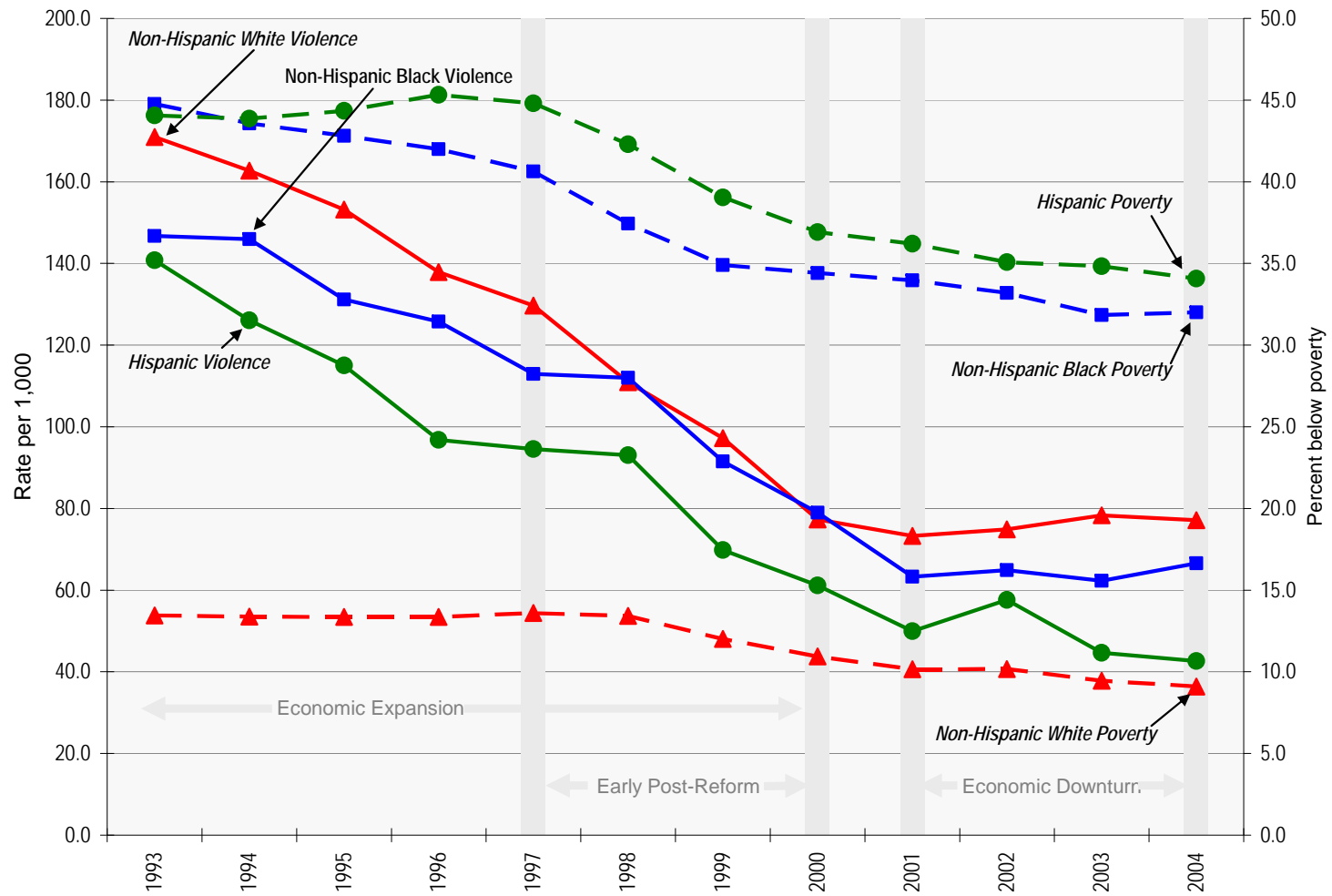
Urban Youth Poverty and Violent Victimization Rates by Race and Ethnicity, 1993-2004

By Total Poverty Rates



Appendix G (cont'd)

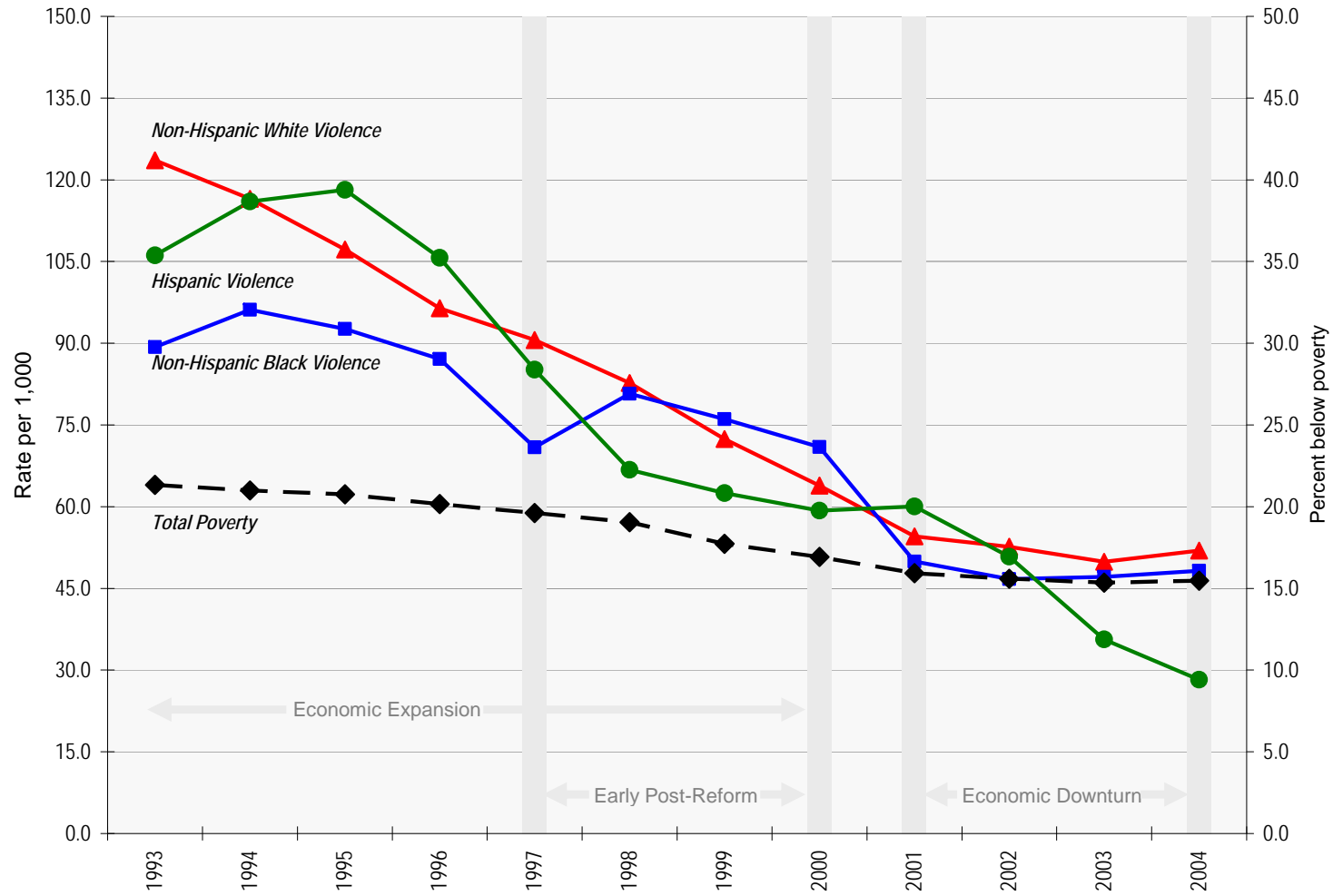
By Group Poverty Rates



Appendix H

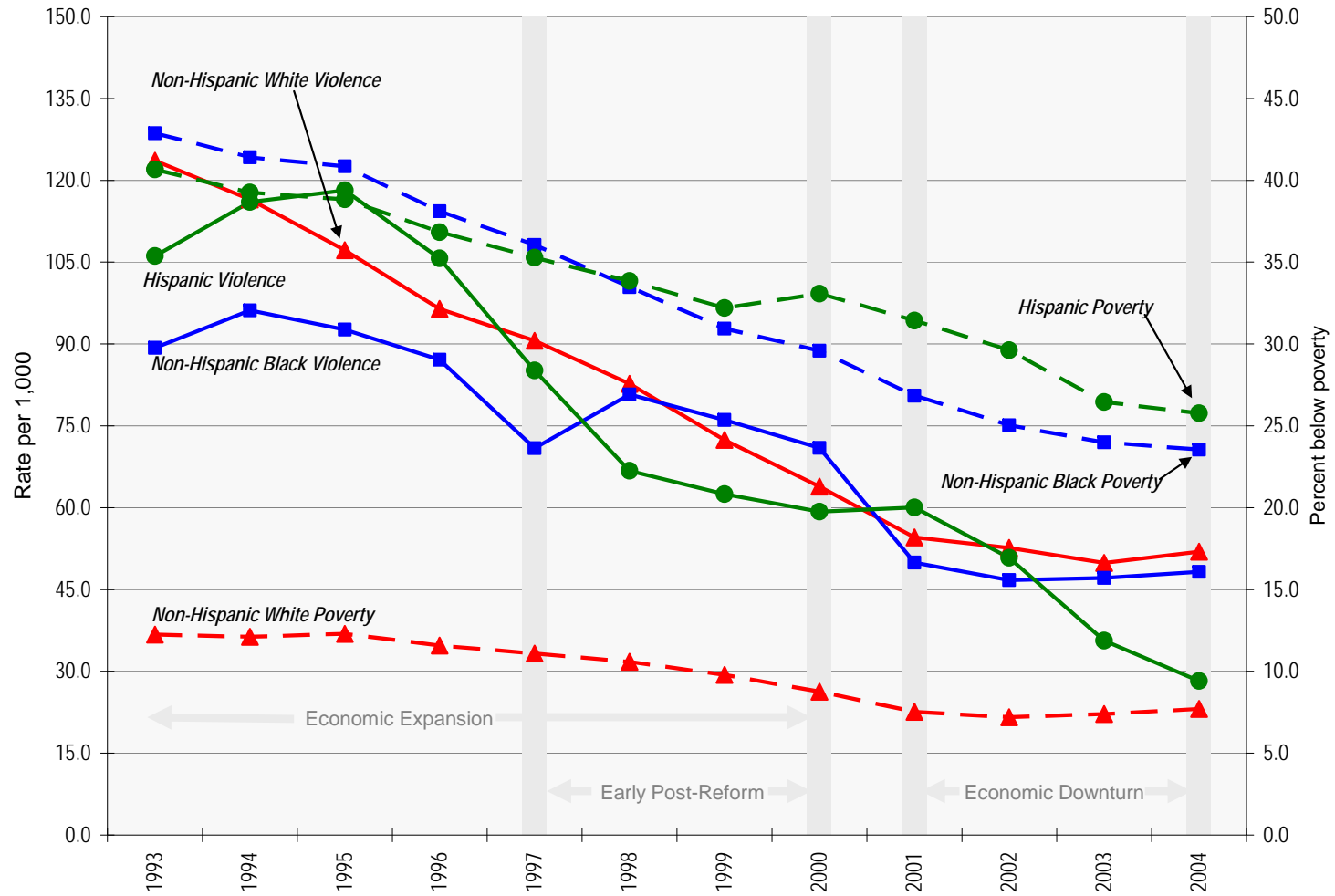
Non-Urban Youth Poverty and Violent Victimization Rates by Race and Ethnicity, 1993-2004

By total poverty rates



Appendix H (cont'd)

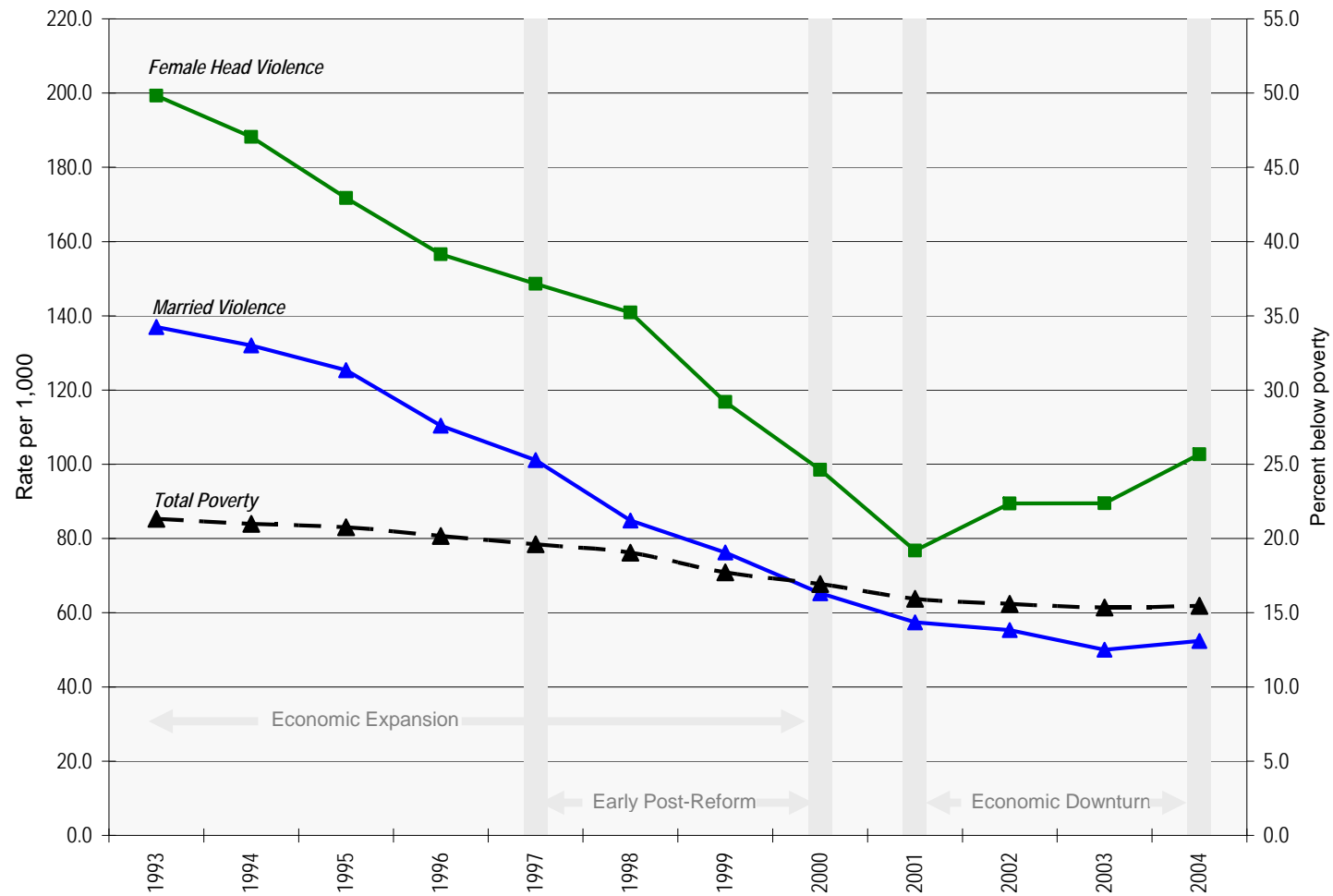
By Group Poverty Rates



Appendix I

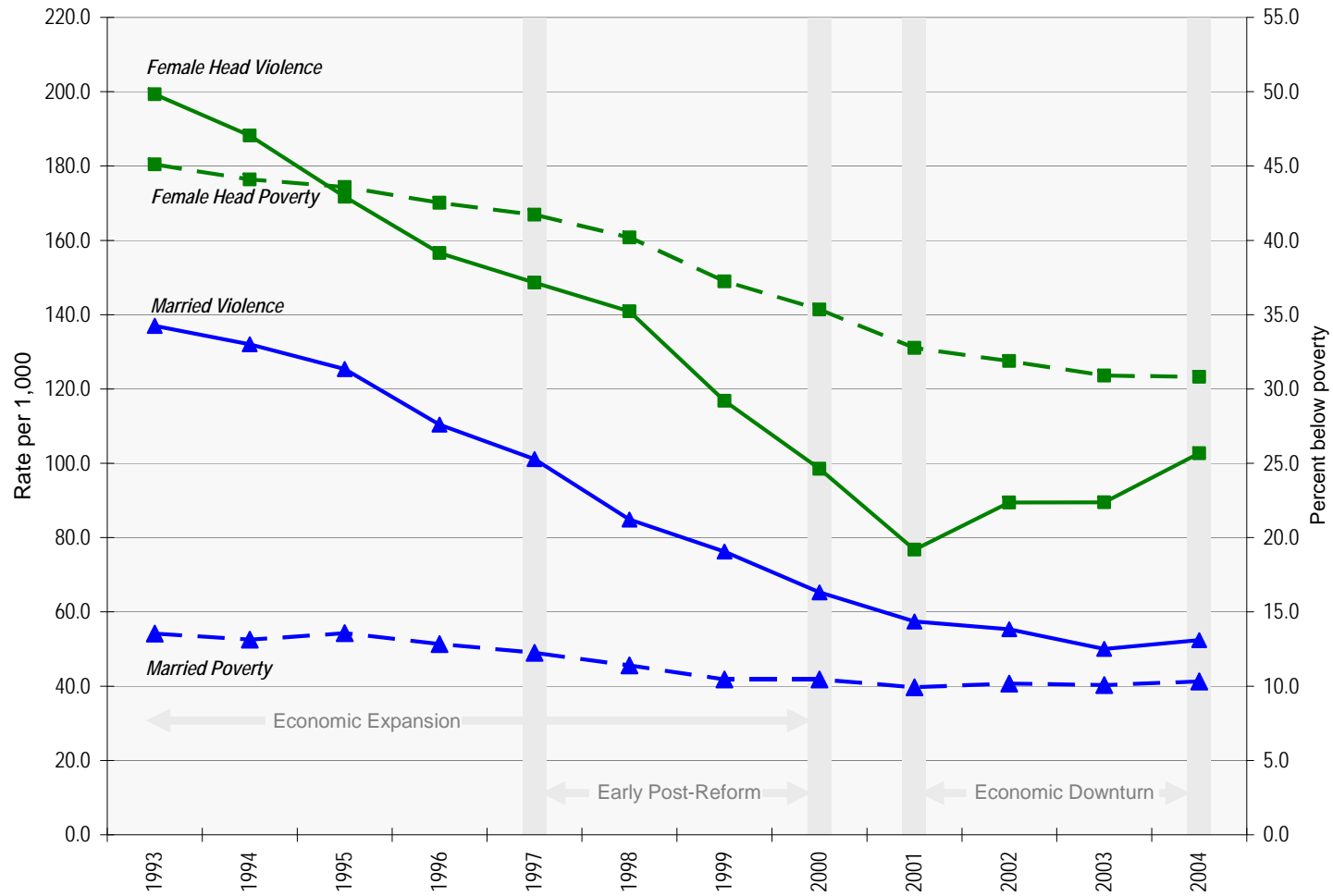
Male Youth Poverty and Violent Victimization Rates by Family Structure, 1993-2004

By Total Poverty Rates



Appendix I (cont'd)

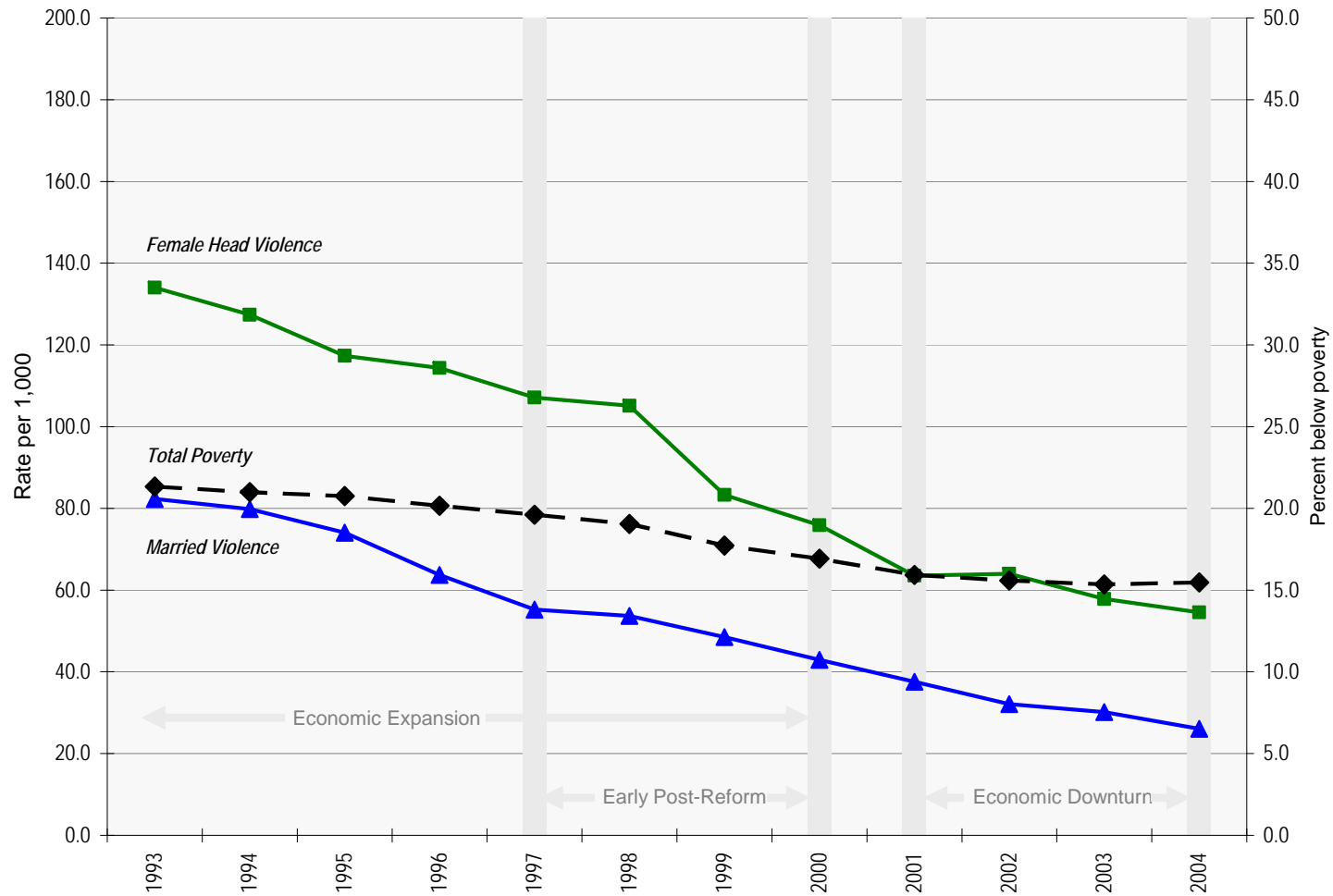
By Group Poverty Rates



Appendix J

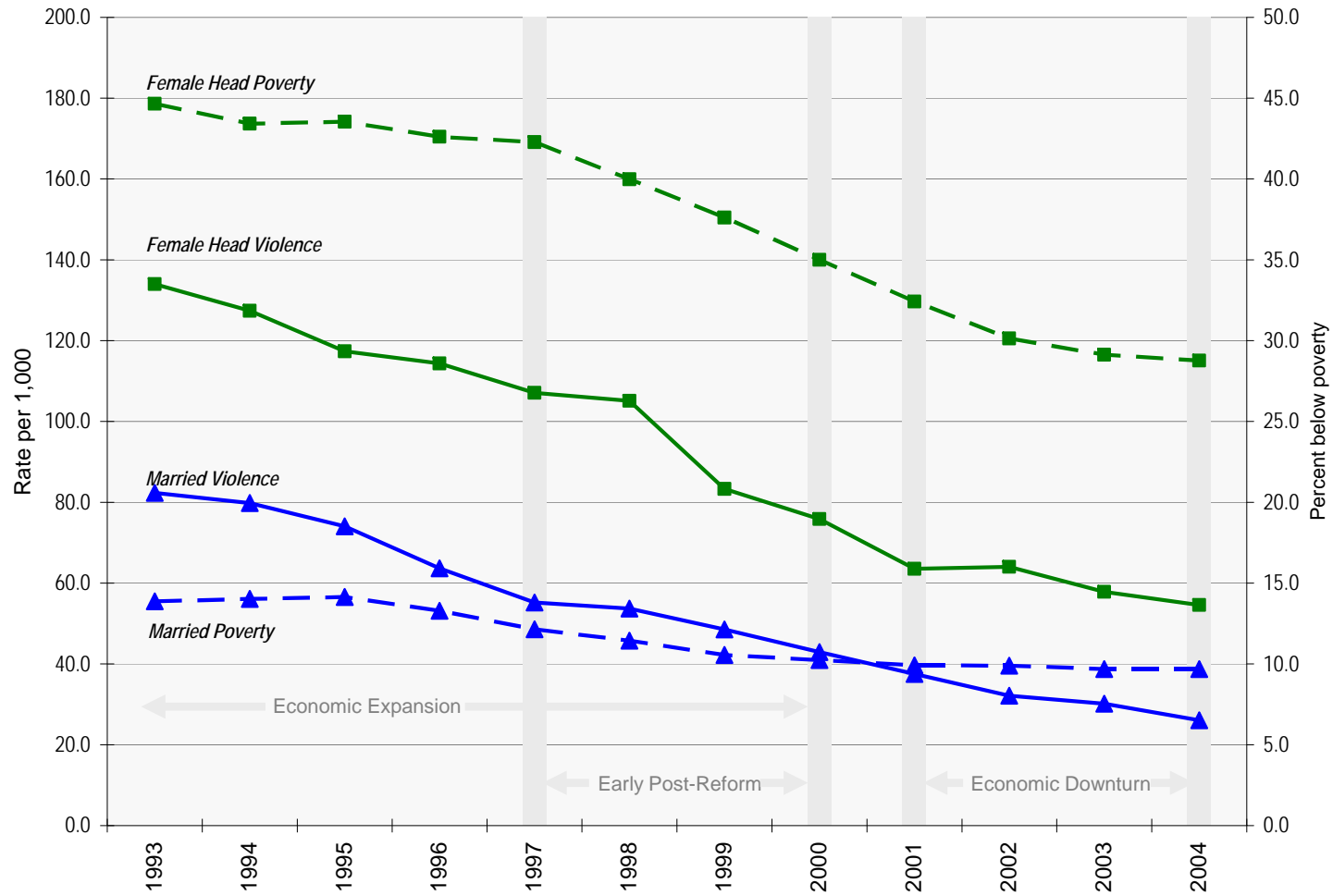
Female Youth Poverty and Violent Victimization Rates by Family Structure, 1993-2004

By Total Poverty Rates



Appendix J (cont'd)

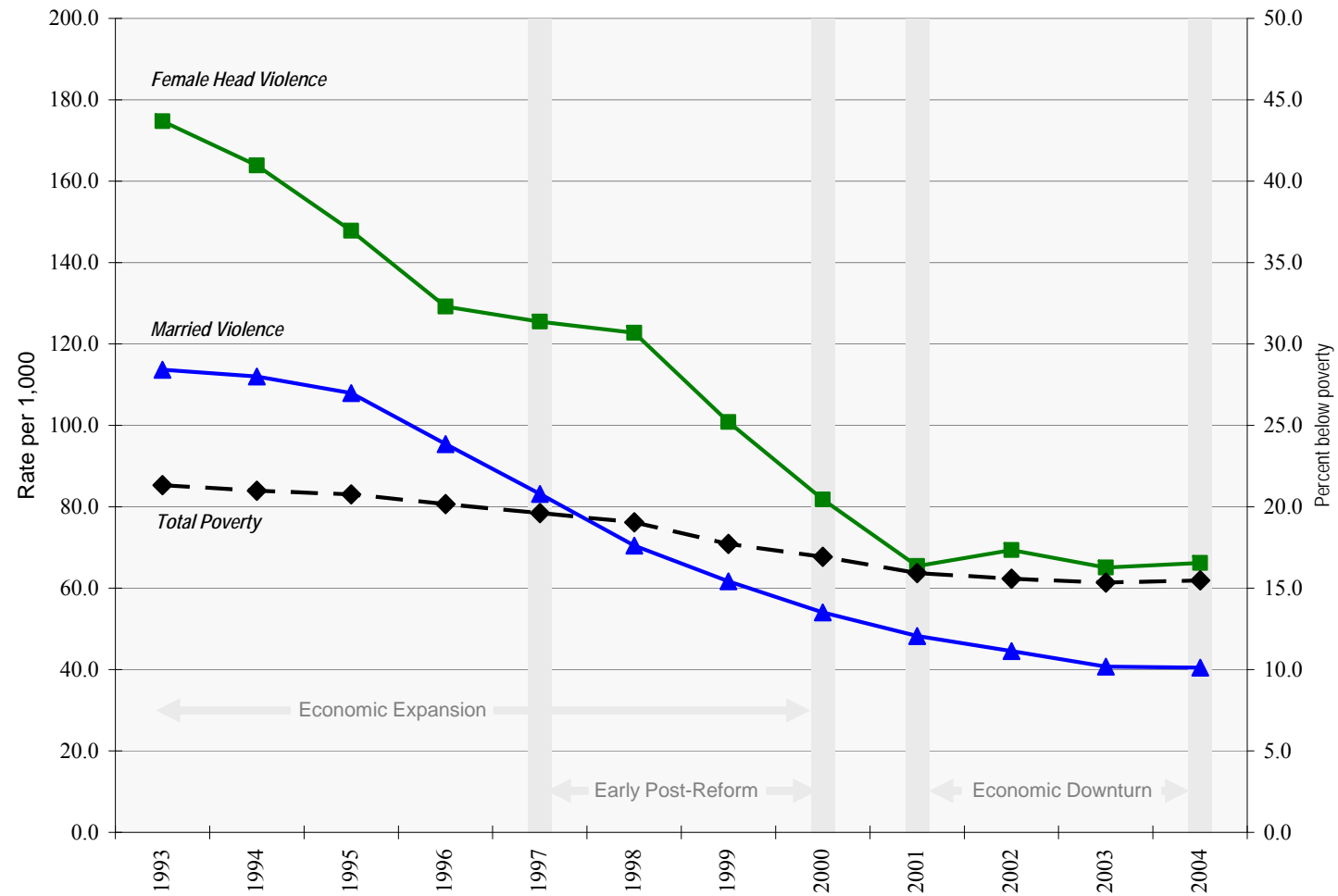
By Group Poverty Rates



Appendix K

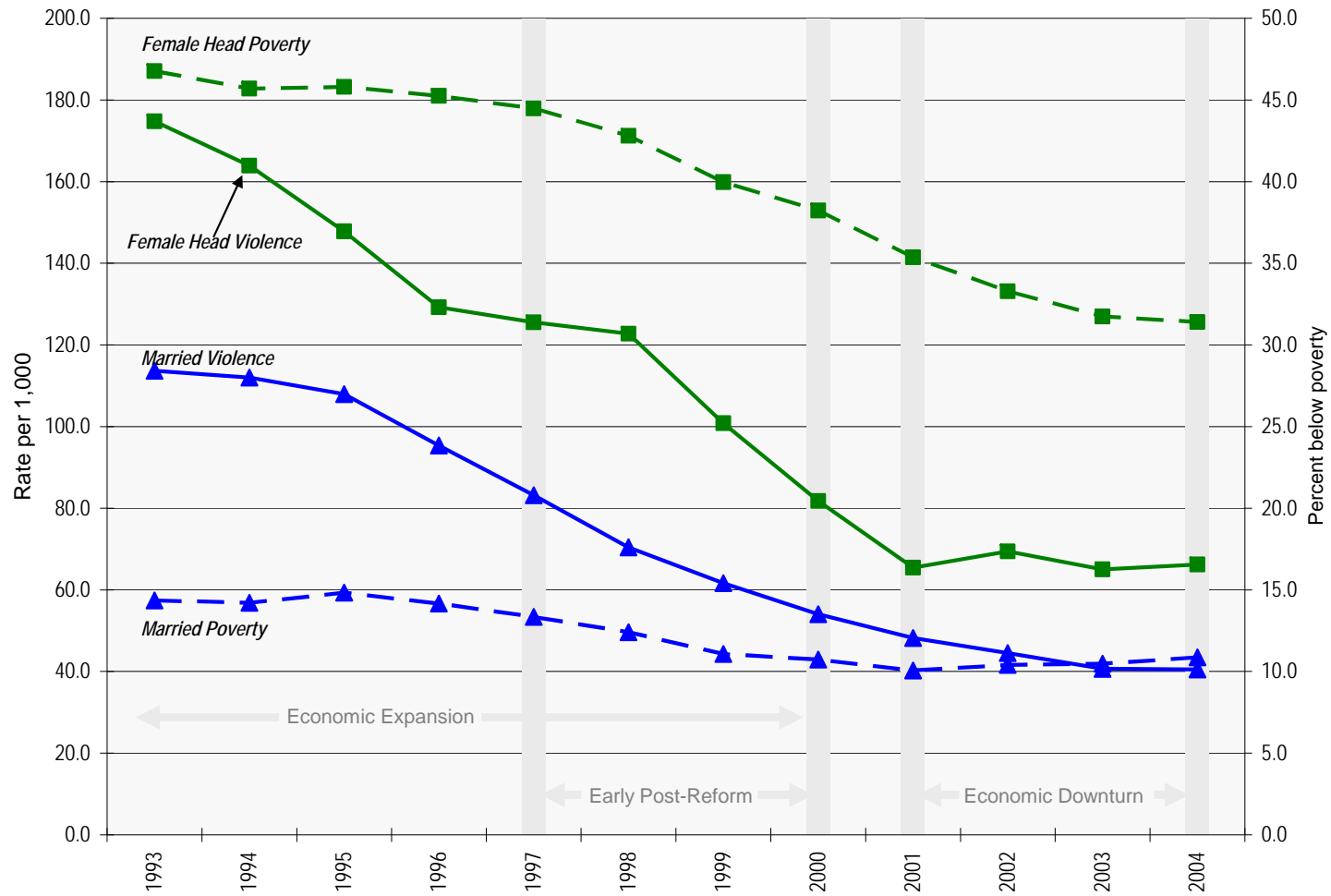
12 to 14 Youth Poverty and Violent Victimization Rates by Family Structure, 1993-2004

By Total Poverty Rates



Appendix K (cont'd)

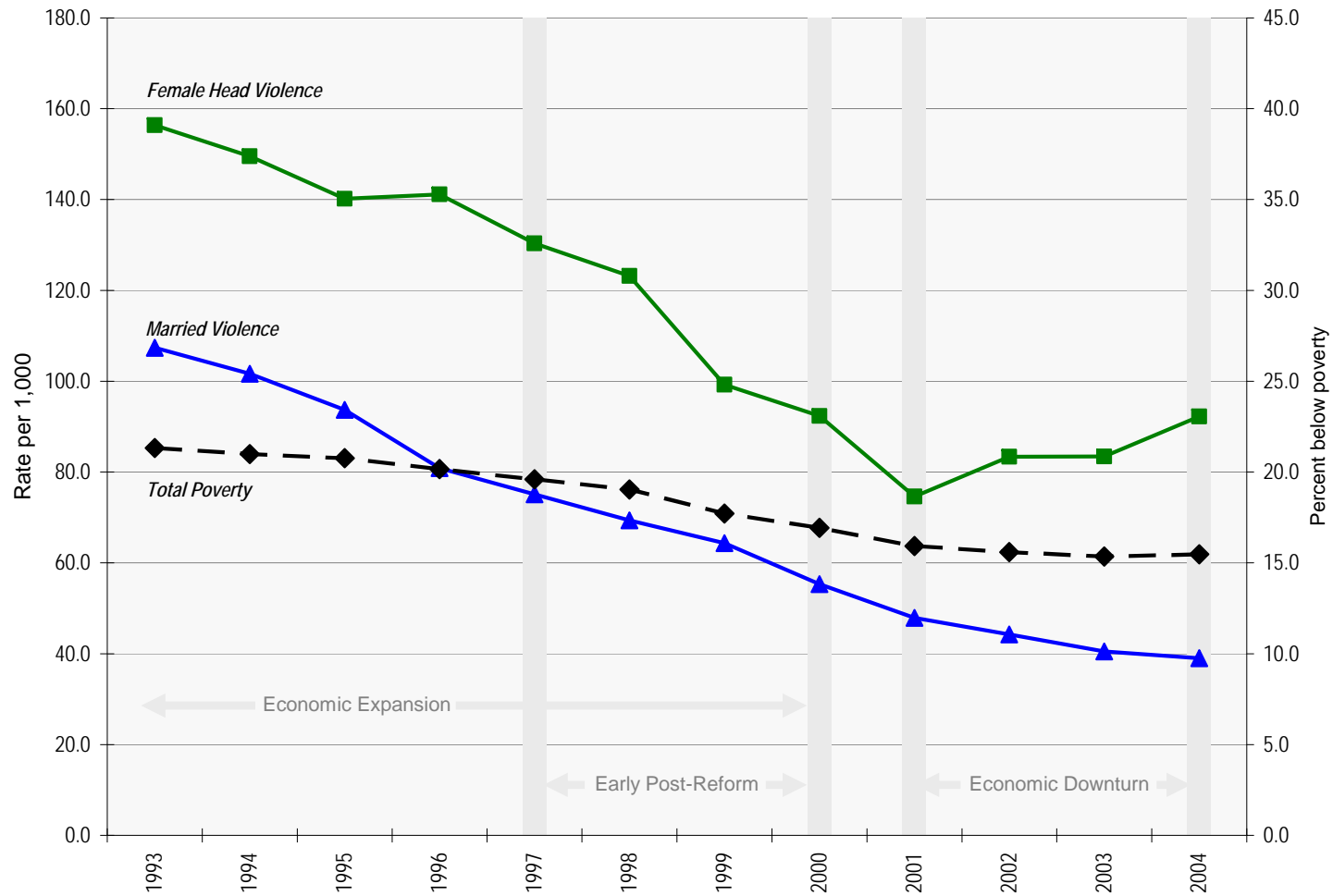
By Group Poverty Rates



Appendix L

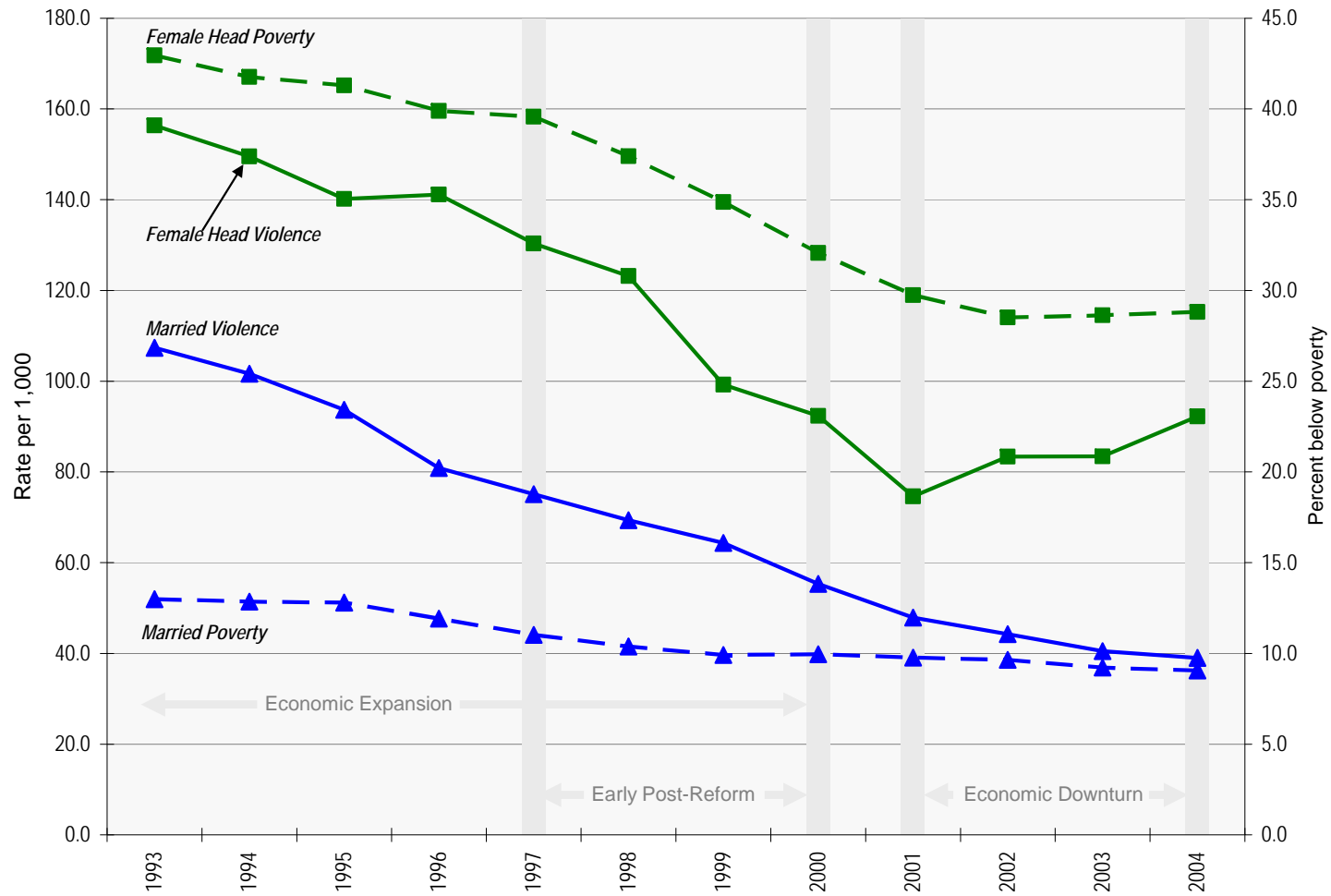
15 to 17 Youth Poverty and Violent Victimization Rates by Family Structure, 1993-2004

By Total Poverty Rates



Appendix L (cont'd)

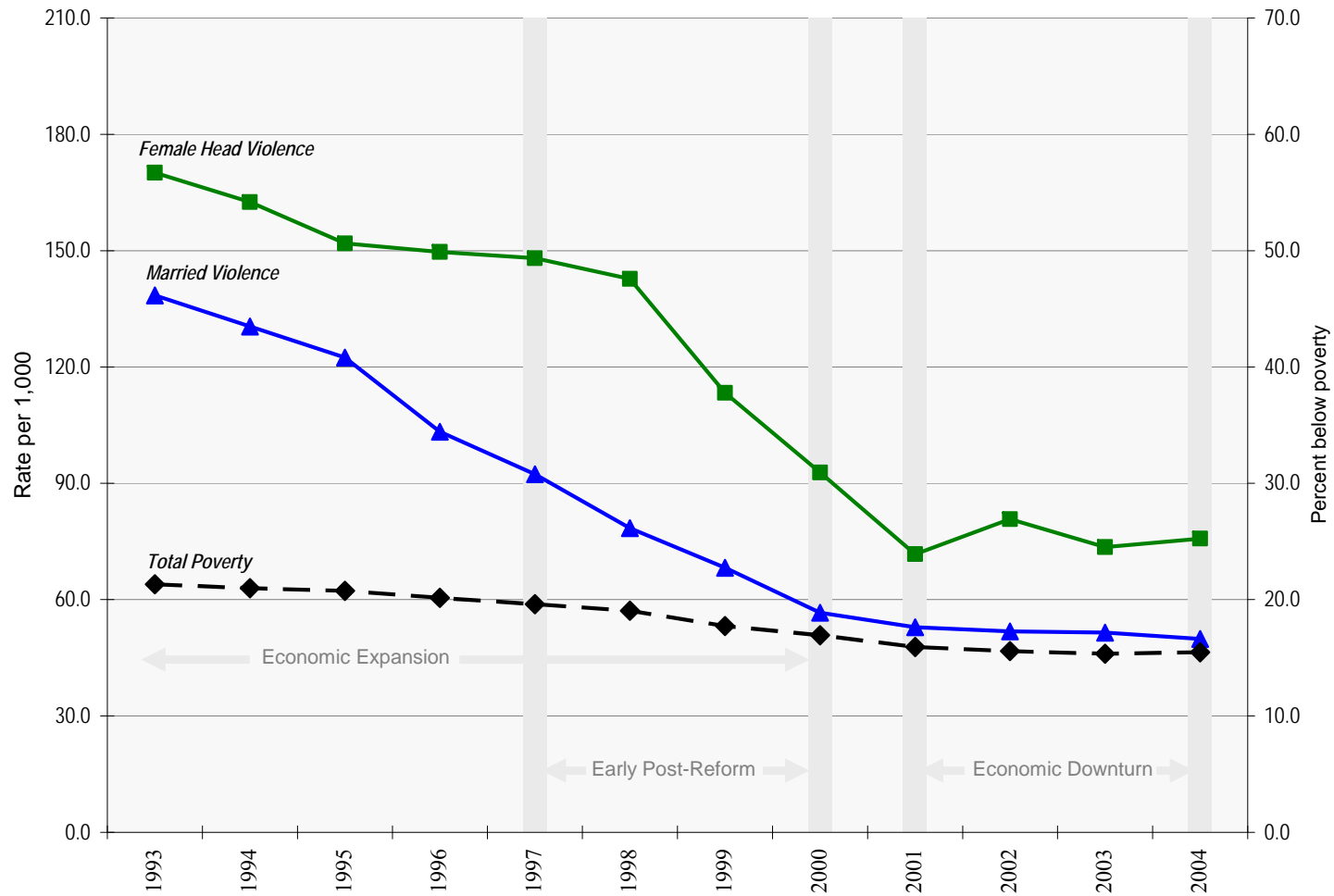
By Group Poverty Rates



Appendix M

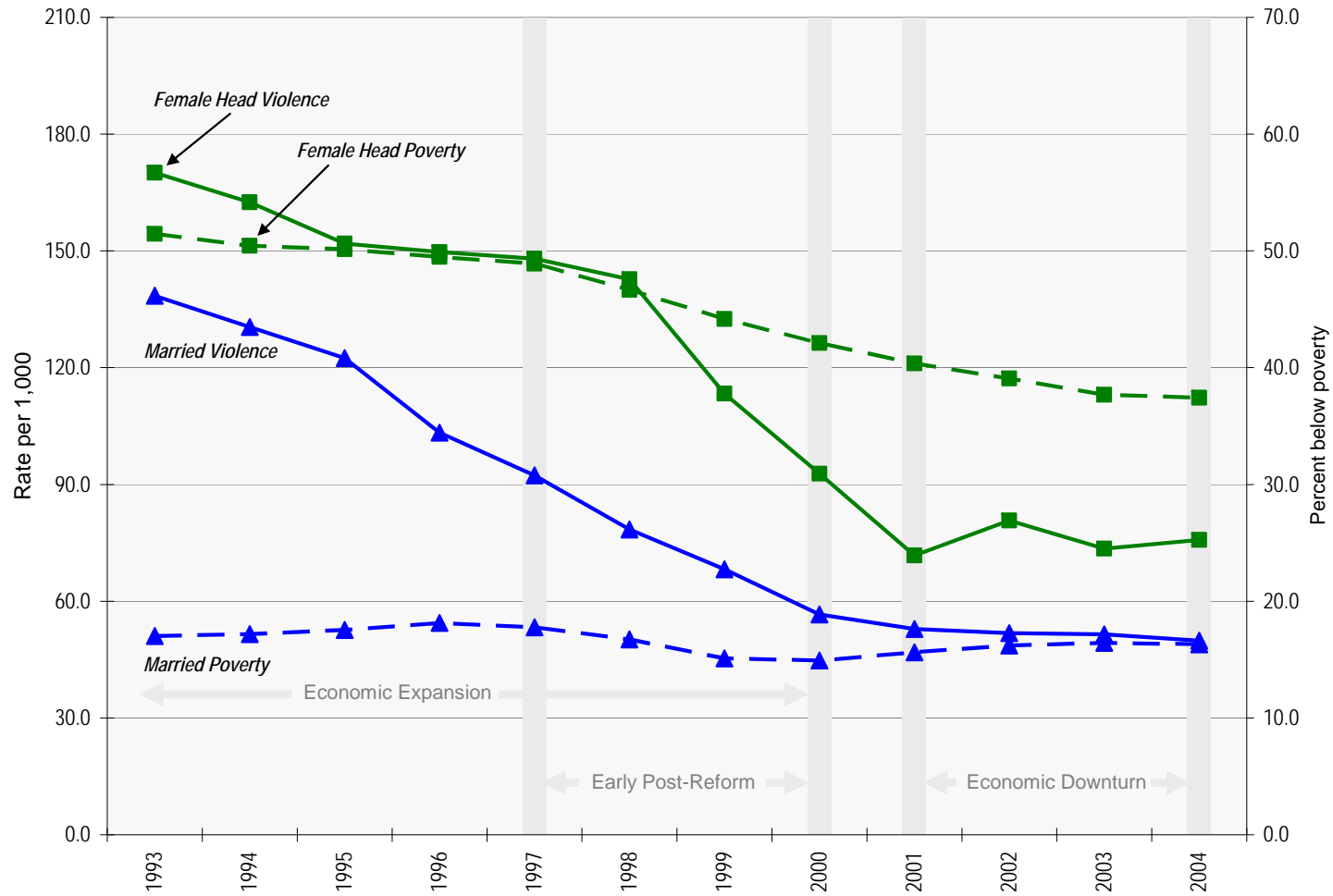
Urban Youth Poverty and Violent Victimization Rates by Family Structure, 1993-2004

By Total Poverty Rates



Appendix M (cont'd)

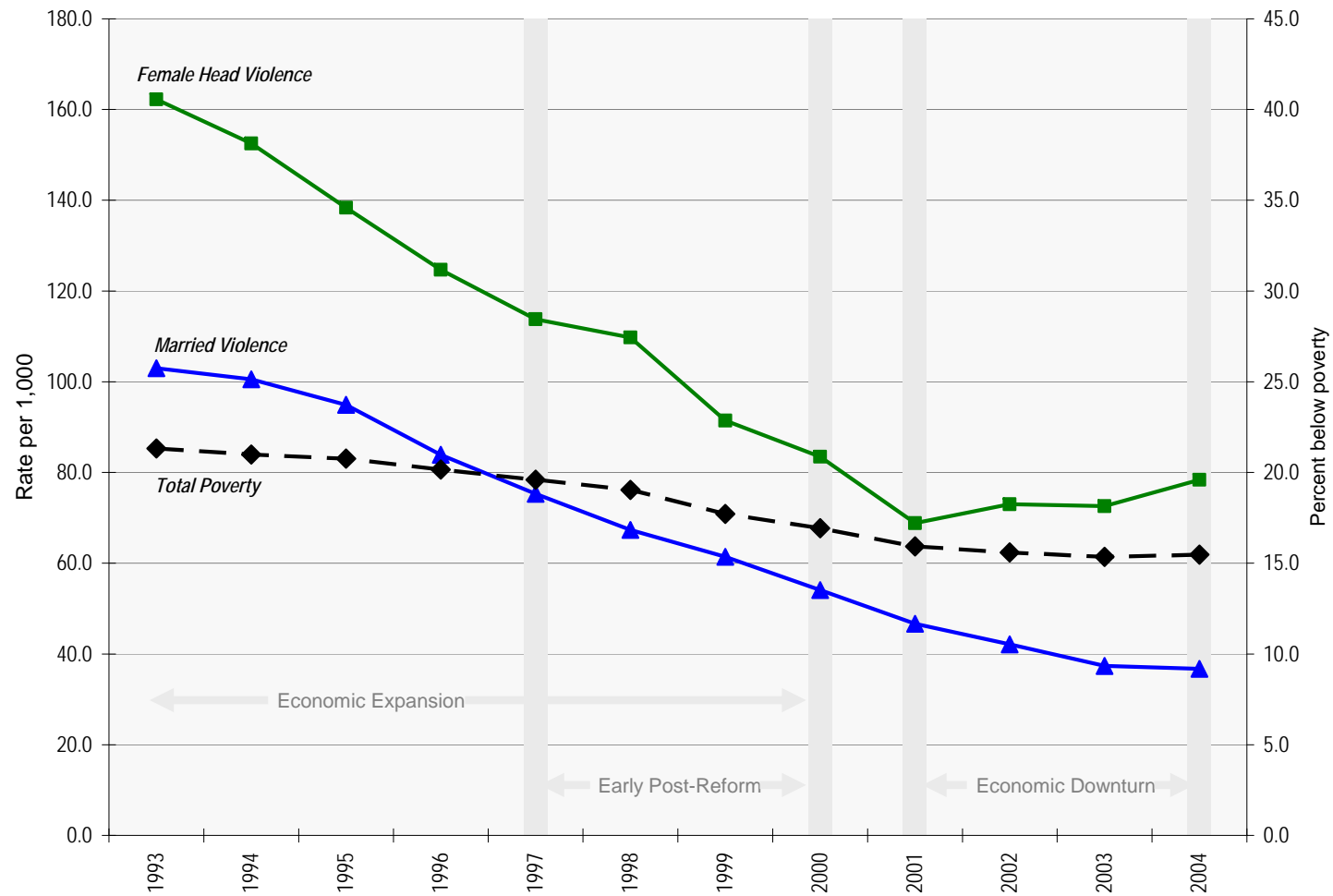
By Group Poverty Rates



Appendix N

Non-Urban Youth Poverty and Violent Victimization Rates by Family Structure, 1993-2004

By Total Poverty Rates



Appendix N (cont'd)

By Group Poverty Rates

