WHY PARENTS MATTER: PARENTAL FACTORS MODERATING THE EFFECTS OF OFFICIAL JUSTICE SYSTEM INVOLVEMENT ON YOUTH’S EDUCATIONAL ATTAINMENT

A Thesis submitted to the Faculty of the Graduate School of Arts and Sciences of Georgetown University in partial fulfillment of the requirements for the degree of Master of Public Policy

By

Dominique Renee Amis, B.A.

Washington, DC
April 08, 2008
WHY PARENTS MATTER: PARENTAL FACTORS MODERATING THE EFFECTS OF OFFICIAL JUSTICE SYSTEM INVOLVEMENT ON YOUTH’S EDUCATIONAL ATTAINMENT

Dominique Renee Amis, B.A.

Thesis Advisor: Priscilla Carver, PhD

ABSTRACT

Although researchers have identified a number of risk factors that contribute to future outcomes for delinquent youth, we know very little about processes within the juvenile justice system that produce the best results. Programs outside the juvenile justice system, that use effective prevention and intervention strategies, invaluable tools for at-risk youth; though, the effects of official system involvement are equally as important to monitor for youth’s future outcomes. Data from the National Longitudinal Survey of Youth’s 1997 cohort were used to investigate whether parental educational attainment and perceived parental involvement mitigate the effects of official juvenile justice system intervention on high school educational attainment found in previous studies. The findings add to previous research by accounting for parental factors in examining education outcomes of youth involved in the juvenile justice system. Results reveal that parental factors have a statistically significant effect on high school educational attainment outcomes; however, they do not moderate the effects of justice system involvement.
## Table of Contents

Chapter 1. Introduction ........................................................................................1

Chapter 2. Review of the Literature ..................................................................5

  Effects of Labeling .......................................................................................5

  Future Outcomes for Delinquent Youth .........................................................6

  Educational attainment ..............................................................................6

  Employment opportunity ...........................................................................7

  Parental factors ..........................................................................................8

  Mother’s educational attainment ...............................................................9

  Parental involvement .................................................................................10

Chapter 3. Conceptual Framework and Hypotheses ........................................13

  Figure 1. Theoretical Constructs and Measured Variables .......................14

Chapter 4. Method ..........................................................................................15

  Data Source ................................................................................................15

  Data Limitations .........................................................................................16

  Sample .........................................................................................................17

  Table 2. Percentage distribution of youth, by youth characteristic.\(^a\) 19

  Table 3. Distributions of continuous variables.\(^a\) ................................20

  Table 4. Correlations between youth characteristics and high school educational attainment.\(^a\) ..............................................20

  Measures ......................................................................................................21

  Dependent Variable ..................................................................................21

  Delinquency ...............................................................................................21

  Justice System Involvement .....................................................................22

  Parental Factors ........................................................................................23

  Control Variables ......................................................................................24

Chapter 5. Results ..........................................................................................27

  Control Variables .......................................................................................27

  Key Independent Variables .......................................................................28
Chapter 1. Introduction

With the passage of the Juvenile Justice and Delinquency Prevention Act (JJDPA) in 1974, the United States Federal Government explicitly outlined standards and criteria that would help to effectively prevent and control juvenile delinquency. Since the enactment of JJDPA, states and local authorities have implemented a variety of policies and interventions that focus on preventing additional youth crime in the United States. They range from deterrence focused strategies used for gang violence prevention to early intervention strategies focused on families and communities. Despite the concerted efforts of politicians and police agencies to reduce youth crime, little attention has been paid to program effectiveness. Most prevention and intervention strategies that are supported by federal, state, and local jurisdictions have not been scientifically proven to be effective tools to reduce and prevent juvenile crime (Greenwood, 2005; Krisberg, 2005).

In 2001, the University of Colorado’s Center for the Study and Prevention of Violence published Blueprints after conducting the first rigorous study of effective delinquency prevention programs. Of the 500 programs reviewed, Blueprints outlined 11 model programs proven to be effective at reducing juvenile crime. A key element for achieving success in the 11 model programs was the implementation of multifaceted approaches to crime reduction through a variety of prevention and
intervention techniques. In addition, successful programs focused on entire communities and families as well as “at risk” youth.

Decades prior to the publication of *Blueprints*, scholars began to examine the relationship between juveniles’ individual characteristics and their participation in delinquent activities. A youth’s socioeconomic status (SES), family position, school commitment, parental attention, and self image are a few of the many characteristics that affect the propensity to engage in delinquent behavior (Chen & Kaplan, 2003; Hannon, 2003; Jenkins, 1995; Myers, Milne, Baker & Ginsburg, 1987). To date, researchers have focused much of their attention on individual characteristics or “risk factors” that increase a youth’s likelihood of participating in delinquent activity. However, little is known about how involvement in the juvenile justice system itself impacts youth’s future outcomes (Sweeten, 2006).

Although *Blueprints* and other program evaluation research provides answers to the “*What works?*” question that plagues the field of juvenile justice, there are few evidence based practices that aim to improve the juvenile justice system as a whole. Most solutions focus on rehabilitating youth after they’ve engaged with the system or preventing youth from having initial contact. Little attention has been given to procedural improvements for youth who become part of the system. Researchers have found that any contact with the juvenile justice system can have detrimental effects on
the futures high school youth (Bernburg & Krohn, 2003; Chen & Kaplan, 2003; De Li, 1999; Sweeten, 2006). Theorists suggest that exposure to the juvenile justice system applies an official delinquent label on youth that alters their self concepts and limits their opportunities (Matsueda, 1992 Sampson & Laub, 1997). Youth who participate in delinquent behaviors less frequently experience these negative effects at a higher rate (Sweeten, 2006). In addition to identifying effective prevention and intervention strategies for delinquent youth, effective processes within the juvenile justice system should be developed to protect those who enter.

The Child Welfare League of America (CWLA) proposes that improved outcomes for delinquent and at-risk populations will be realized by strengthening youth services organizations (Tuell, 2003). Their plan for improvement calls for better coordination between the child welfare and juvenile justice systems. Since many of the risk factors associated with youth’s delinquent behavior are formally addressed through the child welfare system, it makes sense for the two agencies to work in concert. Similar to the solutions offered in the Blueprints programs, CWLA’s strategy recognizes that there are multiple systems involved in creating better outcomes for youth. They assert that various aspects of a youth’s home, school and community environments will influence long-term outcomes for delinquent youth.
This study examines the role that the justice system plays in youth’s high school educational attainment outcomes. The focus is on what the authors of *Blueprints* call aspects of secondary interventions. These strategies target youth and families who are at risk for violence, abuse, and delinquency. The present study looks at the roles that parental involvement and parental educational attainment play in the high school dropout rate for court involved and arrested youth. More specifically, it investigates whether parental educational attainment and perceived parental involvement mitigate the effects of justice system intervention on high school educational attainment that were found in previous studies.
Chapter 2. Review of the Literature

Effects of Labeling

Labeling theories suggest that youth who are officially labeled as delinquent will have negative future outcomes compared to their peers without the label. Evidence from prior research suggests that official intervention from the juvenile justice system reinforces delinquent labels. Two labeling theories have emerged which speak to the possible outcomes for youth with delinquent labels. The Life Course theory proposed by Sampson and Laub (1997) asserts that youth who are officially labeled will experience limited opportunities as a result of their status. Their research suggests that negative labels assigned to delinquent youth exclude them from “normal” opportunities. As a result of this exclusion, Sampson and Laub propose that labeled youth engage in further deviance.

An alternative labeling theory suggests that negative effects of labeling are products of one’s self-concept after official justice system intervention, rather than outcomes of delinquent labels that are assigned by others (Matsueda, 1992). According to Matsueda (1992), justice system involvement can cause youth to internalize the self-concepts of being “bad” people. Once they have internalized this perception, youth will live up to the expectations society has for “bad” people by continuing to engage in delinquent activities. Unlike the assertions of the Life Course Theory, Matsueda suggests that negative future outcomes for youth in the justice
system result from continual delinquent behaviors that are by-products of youth’s negative self images.

**Future Outcomes for Delinquent Youth**

Labeling theorists assert that negative outcomes for delinquent youth are borne out of negative self-concepts or the limited opportunities for youth that accompany official labels. Some evidence suggests that negative outcomes appear in the forms of limited educational attainment and employment opportunities, as well as engaging continued delinquent activities.

**Educational attainment**

Sweeten (2006) used the NLSY97 to examine the impact of first time arrest and court involvement on educational attainment. He found that a first time arrest during high school doubled the likelihood of a youth dropping out of school. His results also revealed that a first-time court appearance during high school was the most detrimental justice system intervention for educational attainment. Youth who appeared in court were four times as likely to drop out of school compared to those who did not. His findings were consistent with Sampson & Laub’s labeling theory which asserts that official delinquent labels limit youth’s future opportunities. Sweeten’s findings suggest that the labels inflicted on youth during court appearances have more negative affects on educational attainment than labels resulting from arrests.
Additional results were found to be consistent with the self-concept labeling theory. The effect of court appearance on drop out rate was found to be even more negative for youth who had no prior justice system involvement (Sweeten, 2006). This finding is consistent with Matsueda’s theory which asserts that deviant self-concepts are more detrimental to those are less frequently involved in the juvenile justice system compared to those who had frequent interactions.

**Employment opportunity**

Researchers have found that educational attainment mediates the relationship between official justice system involvement and employment opportunities in adulthood (Bernburg & Krohn, 2003; Chen & Kaplan, 2003; De Li, 1999). Findings suggest that youth who are involved in the juvenile justice system are more likely to drop out of school when compared to their peers who are not involved in the system.

Chen and Kaplan’s (2003) longitudinal study of employment outcomes examined the effects of school experiences in early adolescence on socioeconomic status (SES) in middle adulthood. Educational attainment, mental health, and deviant behavior where examined as mediating factors for the effects of school failure on SES in adulthood. Researchers found that school failure in early childhood negatively affected educational attainment in adulthood, which had a negative impact on SES in middle adulthood. For youth with lower rates of mental health, early school failure
predicted an even lower SES in adulthood. Youth who had early school failure were also more likely to have participated in higher rates of delinquent behavior.

Furthermore, parental education had significant effects on early school failure, educational attainment, and status attainment in adulthood for participants in the sample.

Monk-Turner’s (1989) research supports the idea that educational attainment plays a more pivotal role in youth’s future occupational outcomes than the effects of justice system involvement. The theory that educational attainment is the key to future occupational success is an important factor to note for youth involved in the juvenile justice system. If justice system involvement limits opportunities to educational success, future employment outcomes will still be affected. Although justice system involvement may not have a direct effect on future occupational outcomes, delinquent youth who are involved in the justice system are more likely to get less years of schooling than those who are not involved in the justice system.

**Parental factors**

Parents influence their children in a variety of ways, some of which may not be known to researchers in the child development field. Prior research indicates that the level of education achieved by mothers is positively related to the level of education their children will receive (Myers, Milne, Baker & Ginsburg, 1987; Suh, Suh,
Houston, 2007) and negatively related to their children’s delinquent behavioral patterns (Jenkins, 1995). Parents’ involvement in their children’s lives has also been found to influence outcomes for children (Benson, Medrich & Buckley, 1980; Fehrmann, Keith & Reimers, 1987; Meyers et al, 1987).

**Mother’s educational attainment**

In a study conducted by Suh, Suh, and Houston (2007) researchers examined the predictors of high school dropout for at-risk youth. Mother’s educational attainment was found to be one of 8 factors that were consistently accurate predictors of dropout, regardless of students’ personal and social characteristics. When various personal and social characteristics were included in the analysis, the results revealed various outcomes for youth. Their research calls for an individualized approach to reducing the risk of dropout for adolescents in high school.

Meyers et al. (1987) examined the relationship between student misbehavior and academic performance as well as the effects of family structure, mother’s education and employment status on student outcomes. Researchers found that students’ grades had a strong impact on misbehavior rates. Results also revealed that mother’s educational attainment was found to be positively associated with school performance and students’ educational attainment expectations. Jenkins (1995) also examined the relationship between mothers’ educational attainment and youth’s future
outcomes. She found that higher rates of school crime, youth misconduct, and non attendance were associated with lower rates of school commitment. Mother’s education levels and measures of parental involvement were found to be accurate predictors of school commitment. In turn, youth’s school commitment levels were found to have strong negative effects on delinquency.

**Parental involvement**

Studies that examine the relationship between parental involvement and children’s future outcomes are primarily focused on the roles that mothers play in their children’s lives. Researchers have found that youth who come from families where mothers are less involved have higher rates of disciplinary problems and perform worse in school than youth who have involved mothers (Benson, Medrich & Buckley, 1980; Meyers et al, 1987). Other evidence suggests that youth’s achievement outcomes are positively associated with parental involvement. Hango (2007) found that parents’ interests in their children’s schooling at age 16 had direct impacts on their children’s educational achievements. Researchers have also found that youth who received higher grades in school, and reported spending more time on homework than their peers, also reported having parents that were more involved in their lives (Fehrmann, Keith & Reimers, 1987).
Many studies point to the necessity for parental monitoring of youth to curb their delinquent behaviors. However, Kerr and Stattin (2000) found that youth’s disclosure of information had a greater impact on parental knowledge of youth’s activities than parental monitoring. In a second study, Stattin and Kerr (2000) argue that true knowledge of youth’s activities comes from full disclosure from youth to their parents. This evidence suggests that perceived parental involvement from youth’s perspectives may be an accurate gauge of actual parental involvement. Their research supports the theory that only youth know how much they actually reveal to their parents about their own lives. In a study by Ratelle, Larose, Guay and Senecal (2005) perceived parental involvement and support was found to predict autonomy and academic achievement for their adolescent children. Additionally, parental involvement was found to be a significant predictor of achievement even at the college level.

Although researchers have discovered numerous risk factors that lead to negative outcomes for delinquent youth, we are still unaware of process within the juvenile justice system that better rehabilitate youth. Programs that utilize evidence-based prevention and intervention techniques, outside of the justice system, are essential to the rehabilitation process. However, identifying the effects of official system involvement is equally as important to youth’s future outcomes. Sweeten’s
(2006) findings on the effects of official justice system intervention on high school educational attainment are an important contribution to juvenile justice system research. This study adds to Sweeten’s findings by accounting for the role that parental factors play in youth’s educational outcomes.
Chapter 3. Conceptual Framework and Hypotheses

The present study builds on Sweeten’s (2006) research which examined the effects of justice system involvement on educational attainment. He found that the impact of youth’s delinquent behavior on educational attainment was mediated by the effect of official justice system intervention. Sweeten also found that official justice system intervention increases the likelihood of a youth dropping out of school. Although Sweeten’s research is invaluable to juvenile justice system research, his findings do not account for various parental factors that affect youth’s future outcomes. Prior research found that parental educational attainment and involvement have positive relationships with youth’s school performance and educational attainment (Chen & Kaplan, 2003; Jenkins, 1995; Myers, Milne, Baker & Ginsburg, 1987). The present study asserts that Sweeten’s findings are likely to be overestimated because the model did not account for parental factors.

Data from the National Longitudinal Survey of Youth’s 1997 cohort were used to examine the potential moderating effects of parental educational attainment and parental involvement on the relationship between official justice system intervention and youth’s educational attainment. This study proposes that variables within this construct will decrease the effects of official justice system involvement on youth’s educational attainment found in Sweeten’s (2006) study. Parental factors were
measured by mother’s educational attainment and perceived parental involvement reported by youth.

**Figure 1.** Theoretical Constructs and Measured Variables

<table>
<thead>
<tr>
<th>Participation in Delinquent Activities</th>
<th>1st Time Arrest</th>
<th>1st Court Appearance</th>
<th>Graduated</th>
<th>Still Enrolled</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delinquent Behavior</td>
<td>Official</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Juvenile Justice System Involvement</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Educational Attainment</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Controls**

<table>
<thead>
<tr>
<th>Gender</th>
<th>MS: High performing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Race</td>
<td>Retention</td>
</tr>
<tr>
<td>PIAT Score</td>
<td>SES</td>
</tr>
<tr>
<td>Lives with Both Parents</td>
<td>Suspension</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Official Juvenile Justice System Involvement</th>
<th>Mother’s Perceived Involvement</th>
<th>Mother’s Educational Attainment</th>
</tr>
</thead>
</table>
Chapter 4. Method

Data Source

The National Longitudinal Survey of Youth’s 1997 cohort (NLSY97) was used to examine the effects of parental factors on youth’s educational attainment for a sample of youth involved in the juvenile justice system. The NLSY97 is administered to participants annually by the Bureau of Labor Statistics in order to help researchers understand the relationships between education, various environmental factors, and future employment outcomes. The 1997 cohort includes a randomly sampled cross-section of 8,974 youth who were between the ages of 12 and 16 as of December 31, 1996. Interviewers screened a total of 75,291 households across the U.S. to find eligible participants. NLSY97 participants came from 6,819 different households that are located within 147 primary sampling units across the country.\(^1\) A supplemental sample of African American and Hispanic youth was included in the data to ensure adequate representation of these subgroups within the sample. Sampling weights were also included in order to obtain unbiased, nationally representative estimates of youth ages 12 to 16 (Center for Human Resource Research, 2002).

Although the majority of the NLSY97 survey is focused on participation in the labor force overtime, several rounds include questions about delinquent behavior, court

\(^1\) A primary sampling unit can be a metropolitan city, a non metropolitan area, a single county or group of counties.
involvement, and arrest records of participants during adolescence. Parent indicators for the present study are based on participants’ self reports of perceived parental involvement and mothers’ reports of their educational attainment.

**Data Limitations**

The majority of the data were collected through self report surveys from participants and their parents. In order to protect against some of the inconsistencies that may appear in self-reported data, surveyors used computer-assisted personal interviewing systems (CAPI). The CAPI system reduces the probability of inconsistent responses in the data for questions that are used again in later waves of the survey. Data from each wave of interviews are stored in the program, and responses are checked against the stored data during subsequent rounds. If participants provide inconsistent answers in future waves of the survey, interviewers are prompted to probe for a correct response or to note a reason for an inconsistent response. Overall, the survey has a fairly high response rate; the average for waves 1-5 was 90.25% (table 1).

<table>
<thead>
<tr>
<th>Wave</th>
<th>Collection Period</th>
<th>Participants Interviewed</th>
<th>Response Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Feb-Oct 1997 / March-May 1998</td>
<td>8,984</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Oct 1998-April 1999</td>
<td>8,386</td>
<td>93.3</td>
</tr>
<tr>
<td>3</td>
<td>Oct 1999-April 2000</td>
<td>8,209</td>
<td>91.4</td>
</tr>
<tr>
<td>4</td>
<td>Nov 2000-May 2001</td>
<td>8,081</td>
<td>89.9</td>
</tr>
<tr>
<td>5</td>
<td>Nov 2001-May 2002</td>
<td>7,883</td>
<td>87.7</td>
</tr>
</tbody>
</table>

In addition to the limitations presented by the nature of the NLSY97 questionnaire, the age of the data source also presents limitations to the present study. Although the data provided in the NLSY97 are over a decade old, they are the most recent nationally representative source of longitudinal data that tracks youth’s educational outcomes. Future studies on this topic would benefit from data that are based on a more recent new cohort of youth.

**Sample**

Because this study examines the effects of first time official justice system involvement in high school on high school educational attainment, the population of youth who were arrested prior to the first wave of interviews was excluded. The analysis was carried out on a sub-sample of participants who were high school freshmen that were not arrested prior to entering high school \( n=2906 \) to control for youth’s prior interaction with the juvenile justice system.

Descriptive statistics for the sub-sample population are presented in table 2 and table 3. Table 4 is included in order to provide the reader with an accurate picture of how the independent variables are correlated with high school educational attainment; however, all results are not discussed at length. The sample population was divided almost evenly across gender. Approximately 50% of the sample was male and approximately 50% was female. After sample weights were included in the analysis,
non-Hispanic Caucasians were overrepresented (68%) compared to participants of other races (32%). The majority of youth (68%) indicated that they had engaged in at least 1 of 6 delinquency categories outlined in the NLSY97 Youth Questionnaire. A small proportion of youth (17%) were arrested during high school and an even smaller proportion (11%) appeared in court during high school. Almost 52% of participants’ mothers had 12 years of education or less, while 48% received more than 12 years of education.
<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Estimated number (thousands)</th>
<th>SE (thousands)</th>
<th>Percentage</th>
<th>SE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Youth’s Gender</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>30,475</td>
<td>3,741</td>
<td>49.67</td>
<td>1.64</td>
</tr>
<tr>
<td>Female</td>
<td>30,881</td>
<td>4,968</td>
<td>50.33</td>
<td>1.64</td>
</tr>
<tr>
<td><strong>Youth’s Race</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White, Non Hispanic</td>
<td>41,889</td>
<td>5,598</td>
<td>68.27</td>
<td>5.76</td>
</tr>
<tr>
<td>Non-White</td>
<td>19,467</td>
<td>5,191</td>
<td>31.73</td>
<td>5.76</td>
</tr>
<tr>
<td><strong>Poverty</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Youth lives in a household below the poverty line</td>
<td>8,492</td>
<td>2,215</td>
<td>83.43</td>
<td>2.81</td>
</tr>
<tr>
<td>Youth lives in a household above the poverty line</td>
<td>42,760</td>
<td>5,860</td>
<td>16.57</td>
<td>2.81</td>
</tr>
<tr>
<td><strong>Resides with Biological Mother</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Youth lives with biological mother</td>
<td>55,171</td>
<td>7,147</td>
<td>89.92</td>
<td>.89</td>
</tr>
<tr>
<td>Youth does not live with biological mother</td>
<td>6,185</td>
<td>1,408</td>
<td>10.08</td>
<td>.89</td>
</tr>
<tr>
<td><strong>Middle School Performance</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High performing student</td>
<td>32,468</td>
<td>4,298</td>
<td>55.28</td>
<td>1.03</td>
</tr>
<tr>
<td>Average student</td>
<td>11,955</td>
<td>1,456</td>
<td>20.36</td>
<td>.48</td>
</tr>
<tr>
<td>Low performing student</td>
<td>2,053</td>
<td>5,128</td>
<td>3.50</td>
<td>.60</td>
</tr>
<tr>
<td><strong>Grade Retention</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Youth was retained at least once</td>
<td>6,896</td>
<td>1,742</td>
<td>16.96</td>
<td>2.74</td>
</tr>
<tr>
<td>Youth was never retained</td>
<td>33,779</td>
<td>4,215</td>
<td>83.04</td>
<td>2.74</td>
</tr>
<tr>
<td><strong>School Suspension</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Youth was suspended at least once</td>
<td>20,100</td>
<td>3,583</td>
<td>52.28</td>
<td>2.07</td>
</tr>
<tr>
<td>Youth was never suspended</td>
<td>18,346</td>
<td>2,064</td>
<td>47.72</td>
<td>2.07</td>
</tr>
<tr>
<td><strong>Delinquent activity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Youth participated in at least 1 of 6 delinquency categories</td>
<td>38,493</td>
<td>4,662</td>
<td>67.85</td>
<td>1.57</td>
</tr>
<tr>
<td>Youth never participated in any delinquency category</td>
<td>18,240</td>
<td>3,359</td>
<td>32.15</td>
<td>1.57</td>
</tr>
<tr>
<td><strong>Official contact with juvenile justice system</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Youth arrested or appeared in court after wave 1</td>
<td>9,053</td>
<td>1,028</td>
<td>17.38</td>
<td>.68</td>
</tr>
<tr>
<td>Youth never arrested or appeared in court after wave 1</td>
<td>43,032</td>
<td>6,360</td>
<td>82.62</td>
<td>.68</td>
</tr>
<tr>
<td><strong>Graduated</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Youth graduated from high school or still in school(wave 5)</td>
<td>45,957</td>
<td>5,466</td>
<td>84.26</td>
<td>1.99</td>
</tr>
<tr>
<td>Youth didn’t graduate from high school and not in school(wave 5)</td>
<td>8,582</td>
<td>2,116</td>
<td>15.74</td>
<td>1.99</td>
</tr>
</tbody>
</table>

*aAll demographics data presented are weighted to be an unbiased representation of national figures.*
Table 3. Distributions of continuous variables.\(^a\)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Estimated number (thousands)</th>
<th>Mean</th>
<th>SE</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentile score: Peabody Individual Achievement Test</td>
<td>57,979</td>
<td>52.20</td>
<td>2.77</td>
<td>0.00</td>
<td>99.00</td>
</tr>
<tr>
<td>Mother’s years of education</td>
<td>56,524</td>
<td>13.04</td>
<td>.19</td>
<td>1.00</td>
<td>20.00</td>
</tr>
<tr>
<td>Mother’s involvement</td>
<td>45,897</td>
<td>3.82</td>
<td>.02</td>
<td>1.25</td>
<td>5.00</td>
</tr>
</tbody>
</table>

\(^a\)All demographics data presented are weighted to be an unbiased representation of national figures.

Table 4. Correlations between youth characteristics and high school educational attainment.\(^a\)

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Graduated/Enrolled (wave 5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Youth’s gender</td>
<td>-.05**</td>
</tr>
<tr>
<td>Youth’s race</td>
<td>.05**</td>
</tr>
<tr>
<td>Student’s socioeconomic status</td>
<td>-.17***</td>
</tr>
<tr>
<td>Living with biological mother</td>
<td>.22***</td>
</tr>
<tr>
<td>Youth high grades in MS</td>
<td>.33***</td>
</tr>
<tr>
<td>Youth average grades in MS</td>
<td>-.23***</td>
</tr>
<tr>
<td>Youth low grades in MS</td>
<td>-.22***</td>
</tr>
<tr>
<td>MS PIAT math score</td>
<td>.27***</td>
</tr>
<tr>
<td>Youth’s grade retention</td>
<td>-.37***</td>
</tr>
<tr>
<td>Youth’s school suspensions</td>
<td>-.37***</td>
</tr>
<tr>
<td>Youth’s delinquent activity</td>
<td>-.14***</td>
</tr>
<tr>
<td>Youth’s official contact with the Juvenile Justice System</td>
<td>-.25***</td>
</tr>
<tr>
<td>Mother’s involvement</td>
<td>.15***</td>
</tr>
<tr>
<td>Mother’s education</td>
<td>.23***</td>
</tr>
</tbody>
</table>

\(^a\)All demographics data presented are weighted to be an unbiased representation of national figures.

**\(p \leq .05\)

***\(p \leq .01\)
Measures

Dependent Variable

Educational attainment (1=graduated/enrolled, 0=did not graduate/not enrolled in school) was measured by participants’ school status four or five years after the initial survey year (average length of time to earn a high school diploma). Youth that graduated or where still enrolled in high school at the time of the wave 5 interview were included in the same category. After imposing the age and arrest restrictions on the total population surveyed, 2,906 of the 8,984 youth interviewed were eligible for this analysis. This sub-sample was found to represent 613,570,000 of the total population of youth between the ages of 12 and 16. The majority of the sample exclusion was due to the age restriction of the analysis. A smaller proportion of the exclusion was attributed to youth who were subject to official justice system intervention prior to high school.

Delinquency

A measure of involvement in delinquent activities was included in the model because of its negative correlation with educational attainment (table 4, r = -.14***). Variables for these measures were based on self-reported data from each participant. During each survey round, participants were asked to report delinquent behaviors in

---

\(^2\) ***p≤.01
which they had previously participated. These behaviors were complied into the following categories: intentional destruction of property, theft of items worth under $50, theft of items worth more than $50, other property crimes, attacking someone with intent to seriously hurt them, and selling illegal drugs. One dummy coded variable for delinquent behavior was included. These variables indicate whether or not youth ever participated in one of the abovementioned delinquent activities in survey waves 1 through 5.

**Juvenile Justice System Involvement**

Youth’s self-reported data were also used to measure whether or not participants were subject to official justice system intervention during high school. It was expected that official justice system intervention would mediate the relationship between delinquency and educational attainment. Sweeten (2006) found that for youth who engaged in delinquent behaviors, official justice system intervention led to an increased likelihood of high school dropout. It was expected that a less negative effect of official justice system intervention on high school dropout would be produced once the variance associated with parental factors were taken into account. Official justice system involvement was measured by two indicator variables: first time arrest and first court appearance during high school (after wave 1).
**Parental Factors**

As a result of the positive relationships between parental factors and educational attainment, as well as parental factors and youth school performance found in previous studies, it was expected that including measures of parental involvement would decrease the effects of official justice system involvement on youth’s educational attainment found in Sweeten’s (2006) study. Mother’s educational attainment was included as a continuous variable (years completed, range= 1-20). Perceived parental involvement was also incorporated because of the positive relationships found between parental involvement and youth’s educational attainment (table 4, $r=.15$, $p≤.01$).

A single measure of mother’s involvement is based on data from four variables that all addressed mothers’ involvement in their children’s lives. In wave 1 of the survey, youth were asked to report how much they believed their mothers knew about several aspects of their lives (1 = *knows nothing* to 5 = *knows everything*). A factor analysis of the four mother’s involvement items yielded a one-factor (Cronbach’s $α= .68$). The analysis confirmed the proposed factor structure of the following items: mother’s participation in youth’s important activities, mother’s knowledge of youth’s close friends, mother’s knowledge of youth’s whereabouts, and mother’s knowledge of
youth’s school activities. The four variables were averaged and are used in the analysis as a single continuous variable measuring mother’s involvement.

**Control Variables**

Several controls were included in the model in order to examine the true effects of official justice system intervention and parental factors on educational attainment that exist independently of the effects of these variables. The control variables used in the analysis were created from measures of background data collected from participants during in waves 1 and 2 of the survey. This information was verified during subsequent survey rounds as to ensure accurate background information for all participants. The literature on educational attainment outcomes indicates that race has a more positive correlation with high school graduation rates for white students when they are compared to minorities. For the purposes of this study, race and ethnicity were measured using dummy coded variables that based on self-reported data. Participants were separated into two categories: Caucasian (non-Hispanic) and non-Caucasian.

Past research also suggests that socioeconomic status and residing with one’s biological mother have positive relationships with high school educational attainment outcomes for youth (Suh, Suh & Houston, 2007; Hango, 2007). This study included socioeconomic status as a dummy coded variable which indicates whether or not a
youth lived below the poverty line. An additional dummy coded control was used hold constant the effect of a youth living with his or her biological mother.

Youth’s past school performance measures were included because of their effects on high school graduation rates that were found in previous research. Academic performance measures and well as school behavioral indicators have been found to have positive effects on high school educational outcomes (Meyers et. al., 1987). In the present study, academic performance and school behavior measures were represented by four variables: middle school GPA, Peabody Individual Achievement Test score, and dummy variables for grade retention and school suspension. Suspension and retention variables indicate whether or not participants had ever been suspended from school or repeated at least one grade level. Prior research also indicates that youth’s school performance is positively associated with mother’s educational attainment and parental involvement (Jenkins, 1995). These variables were included as controls in order to reveal the true moderating effects of parental factors and juvenile justice system involvement on high school educational attainment irrespective of youth’s school performance.

SAS version 9.1 was the statistical package was used to analyze the data. The nature of the dependent variable in this study called for the use of a binomial logistic regression model. This statistical analysis was used to estimate the effects of official
justice system involvement and parental factors on youth’s high school educational attainment. The estimated model was expressed as:

\[
\text{Pr. educational attainment} = 1 \mid X1 \ldots X21 = \beta_0 + \beta_{1\text{male}} + \beta_{2\text{white}} + \beta_{3\text{non-white}} + \beta_{4\text{belowpov}} + \beta_{5\text{biomom}} + \beta_{6\text{GPA}} + \beta_{7\text{PIAT}} + \beta_{8\text{retention}} + \beta_{9\text{suspended}} + \\
\beta_{10\text{delinquentactivity}} + \beta_{11\text{officialJJinvolve}} + \beta_{12\text{motherEd}} + \beta_{13\text{parentinvolv}} + \\
\beta_{14\text{motherEd*officialJJinvolve}} + \beta_{15\text{motherinvolve*officialJJinvolve}}
\]
Chapter 5. Results

Three logistical regression models were conducted to test the hypothesis that parental factors influence youth’s high school educational attainment outcomes, and moderate the association between education outcomes and youth involvement with the juvenile justice system. The results of the three models are presented in Table 5. In model 1, the effect of official juvenile justice system involvement on youth’s high school completion was examined. The subsequent analysis (model 2) examined the effects of parental factors on youth’s high school completion above and beyond the effects of official juvenile justice system involvement. Lastly, in model 3 the moderating effects of parental factors on the association between official juvenile justice system involvement and youth’s high school completion were examined.

Control Variables

When control variables and official juvenile justice system involvement are included in the model, the association between most of the control variables and the dependent variable are consistent with bivariate analysis, with the exception of delinquency and race. When included in the model with other control variables and official juvenile justice involvement, delinquency is no longer predicts high school drop out. With regard to the effect of race on high school completion, when included in the model with all of the control variables and official juvenile justice involvement,
non-Hispanic white students were less likely to obtain a high school degree compared to students of other racial or ethnic backgrounds. Given the results of the bivariate analysis (table 4), this relationship between race and the dependent variable is unexpected. Perhaps the unexpected finding between race and attainment of a high school degree in the logistic regression is a product of the covariation of race and other control variables (e.g., socio-economic status and race ($r=-.29, p<.01$)), however, because race is not a key variable of interest, this was not explored further.

**Key Independent Variables**

Consistent with past research (Sweeten, 2006), model 1 indicates that involvement with official justice system reduces the probability of high school graduation when gender, race, socio-economic status, living with a biological mother, academic achievement covariates, and delinquency behavior indicators are controlled ($\beta=-.74$, $SE=.26$, $p \leq .01$).

The results in model 2 reveal, as expected, that parental factors are positively associated with high school completion above and beyond the effects of involvement with the official juvenile justice system. More specifically, the more education youths’ mothers had, the greater the probability the youths had themselves of graduating from high school ($\beta=.16$, $SE=.05$, $p \leq .01$). In addition, the more involved youth’s mothers were, the more likely youths’ were to graduate from high school ($\beta=.32$, $SE=.17$, $p \leq .01$).
.05). It is important to note, however, that even with parental factors controlled, official involvement in juvenile justice system was still associated with a decrease in the likelihood of graduating from high school (β=-.67, SE=.33, p≤ .05).

In the third and final model, the moderating effects of parental factors on the association between official justice system involvement and high school graduation were examined. The model indicated that parental factors did not have moderating effects on the association between official juvenile justice system and youth’s attainment of high school degrees. These findings indicate that the effect of official juvenile justice system involvement on high school educational outcomes does not vary according the levels of a mother’s educational attainment or involvement in a youth’s life.
Table 5. Logistic regression estimates of the effects of official juvenile justice system involvement and parental factors on high school educational attainment.a3

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>-0.07(.23)</td>
<td>-0.002(.27)</td>
<td>-0.02(.27)</td>
</tr>
<tr>
<td>White</td>
<td>-.80(.25)***</td>
<td>-.98(.33)***</td>
<td>-1.00(.32)***</td>
</tr>
<tr>
<td>Below poverty</td>
<td>-.70(.26)***</td>
<td>.35(.32)</td>
<td>-.36(.32)</td>
</tr>
<tr>
<td>Lives with biological mother</td>
<td>.76(.30)***</td>
<td>.89(.58)</td>
<td>.87(.60)</td>
</tr>
<tr>
<td>High performing student</td>
<td>.96(.27)***</td>
<td>.76(.32)***</td>
<td>.75(.32)***</td>
</tr>
<tr>
<td>PIAT score</td>
<td>.01(.01)***</td>
<td>.02(.01)***</td>
<td>.02(.01)***</td>
</tr>
<tr>
<td>Retention</td>
<td>-1.01(.24)***</td>
<td>-.80(.31)***</td>
<td>-.80(.31)***</td>
</tr>
<tr>
<td>Suspension</td>
<td>-1.43(.31)***</td>
<td>-1.35(.35)***</td>
<td>-1.35(.35)***</td>
</tr>
<tr>
<td>Delinquency</td>
<td>.02(.28)</td>
<td>-.19(.36)</td>
<td>-.18(.36)</td>
</tr>
<tr>
<td>Official JJ system involvement</td>
<td>-.74(.26)***</td>
<td>-.67(.33)***</td>
<td>-.41(1.60)</td>
</tr>
<tr>
<td>Mother’s education</td>
<td>-</td>
<td>.16(.05)***</td>
<td>.15(.05)***</td>
</tr>
<tr>
<td>Mother’s involvement</td>
<td>-</td>
<td>.32(.17)**</td>
<td>.38(.20)**</td>
</tr>
<tr>
<td>Official JJ system involvement * Mother’s education</td>
<td>-</td>
<td>-</td>
<td>.04(.10)</td>
</tr>
<tr>
<td>Official JJ system involvement * Mother’s Involvement</td>
<td>-</td>
<td>-</td>
<td>-.20(.35)</td>
</tr>
<tr>
<td>Constant</td>
<td>2.45(.44)</td>
<td>-1.00(1.03)</td>
<td>-1.10(1.19)</td>
</tr>
</tbody>
</table>

a Standard errors are reported in parenthesis.
***p≤.01
**p≤.05
*p≤.10

3 Results with a p-value greater than .01 should be interpreted with caution. Due to limited availability of data, the standard errors were not adjusted for the design. If the standard errors were adjusted, effects with a p-value greater than .01 may no longer be at significant levels.
Chapter 6. Discussion

The analysis reveals three major findings: (1) parental factors do not moderate the effect of official justice system intervention on high school educational attainment, (2) parental factors are important in predicting education outcomes for court-involved and arrested youth and (3) even when youth perceive that their mothers are involved in their lives, official juvenile justice system involvement has a negative impact on the probability of graduation. Although they do not have statistically significant interactions with official justice system involvement, the educational attainment of a youth’s mother and her involvement are significant predictors of high school graduation outcomes.

These findings are consistent with labeling theorists assertions that justice system engagement has negative education outcomes for school-aged youth (Sampson & Laub, 1997). The results are also consistent with Sweeten’s (2006) findings on the negative impact of court involvement and arrest for high school youth. This study adds to previous research by accounting for parental factors that help to predict educational outcomes for youth. When parental factors are excluded from the analytic model, it is likely that official justice system intervention estimates are overestimated. The results show that the effect of official juvenile justice system intervention is less negative and less significant when parental factors are included in the model. This indicates that
excluding parental factors from the analysis is likely to produce biased predictions of other independent variables that are used to predict youth’s high school educational attainment outcomes.

Policymakers and advocates in the juvenile justice field continue to beg the question of ‘What works?’ to improve future outcomes for youth. This study reveals a combination of many factors that play a role in youth outcomes, and parental factors should not be discounted. These findings provide additional support for prevention and early intervention programs that focus at-risk youth and their families with the goal of improving future educational outcomes.

The juvenile justice system in the United States was built with rehabilitation of youth as its core principal. In recent decades however, an increase in overall crime rates seems to have reshaped the underling goals of the system to promote retributive justice. This shift has forced policymakers, youth advocates, law enforcement agencies, and legislative officials to engage in a debate over whether it is the government’s duty to rehabilitate youth who engage in delinquent activities or punish them for their irresponsible actions. For those who advocate for restoring the juvenile justice system to operate under its original guiding principals, it is important to understand all the mechanisms that work for and against the rehabilitation process. This study, in accordance with previous research, finds that the current system serves
to negatively impact youth’s future outcomes but parents do influence their children’s outcomes.
References


http://www.bls.gov/nls/97guide/nls97usg.htm