Interactionist Labeling: Formal and Informal Labeling’s Effects on Juvenile Delinquency

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Abstract
This article critically reviews prior labeling theory research concerning juvenile delinquency and crime, and proposes a new study using a recent data set. The labeling perspective is outlined as it was originally presented, and the theoretical elaborations that have taken place since are highlighted. Distinctions are made between formally applied criminal justice labels and the informal labels that are applied by educational institutions, significant others, and parental figures. An interactionist labeling model is presented to explain levels of juvenile delinquency among a nationally representative sample of American adolescents: the first three waves of the National Longitudinal Study of Adolescent Health (Add Health). Finally, negative binomial regression models are estimated to better explain the dynamic relationship between labels and delinquency. Consistent with labeling theory, formal labeling significantly increased future delinquency.

Keywords
labeling, delinquency, symbolic interactionism

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Introduction

Matsueda (1992) provided empirical evidence that suggested informal labels could possibly explain both primary and secondary deviance. However, he conceded that incorporating formal labels, such as those derived from the juvenile justice system, would allow for stronger tests of a deviance amplification proposition. Attentive to the critiques of prior scholars (Barrick, 2014; Bernburg, 2002; Paternoster & Iovanni, 1989; Tittle, 1980), the current study provides a test of an interactionist labeling model using multiple types of formal and informal labels. Furthermore, our measures of youth perceptions of care allow for an investigation of the relationship between stakes in conformity and labeling outcomes.

This article critically reviews prior labeling theory research concerning juvenile delinquency and crime, and proposes a new study using a recent data set. This article outlines the labeling perspective as it was originally presented, and highlights the theoretical elaborations that have taken place since. Distinctions are made between formally applied criminal justice labels and the informal labels that are applied by educational institutions, significant others, and parental figures. Contemporary research is examined to provide a deeper understanding of the current state of labeling theory literature. Finally, an interactionist labeling model is presented to explain levels of juvenile delinquency among a nationally representative sample of American adolescents.

Review of Literature

Labeling theory’s roots can be traced back to Mead’s (1934) work on self-concept and the development of symbolic interactionism (see Matsueda, 2014). The contemporary equivalent of this line of labeling research is Matsueda’s (1992) study of juvenile reflected appraisals. According to Mead (1934), the actual construction and formation of the self begins during childhood. Unlike other theories that examine the self as static across an individual’s life-course development, Mead (1934) asserts that the development of one’s self continues long after childhood.

Mead was not the only pioneering contributor to the development of labeling theory. Cooley (1902) and Tannenbaum (1938) could also claim credit for assisting in the development of the approach. Tannenbaum’s (1938) “dramatization of evil” describes the process by which offenders acquire deviant labels from members of society. If an act has been characterized as evil by society, then the offender associated with the act will be simultaneously associated with the act and labeled as deviant. Cooley (1902) presented his idea
of the “looking-glass self” before Mead (1934) had fully conceptualized the idea of an individual’s self-concept. Essentially, Mead (1934) made Cooley’s (1902) model of self richer and more specific. Cooley (1902) believed that an individual’s view of self was formed depending on how that individual thought others in society viewed him or her, and how that individual reacted to his or her perceptions of their views.

Kinch (1963) formally defined the self-concept as an “organization of qualities that the individual attributes to himself” (p. 481). If self-conceptions are associated with occupied social positions, then those self-concepts are referred to as “role-identities” (Stryker, 1980). The “organization of qualities” results, in part, from the perceptions of other individuals belonging to important reference groups (Kinch, 1963; see also Markowitz, 2014). Kinch (1963) referred to this as the reflected appraisals process. This same conceptually dynamic complexity can be seen throughout Matsueda’s (1992) contemporary discussion of juvenile reflected appraisals. Matsueda (1992) specifically defined reflected appraisals, quite simply, as “how one perceives the way others see one” (p.1584).

Throughout the 1950s and 1960s it was the labeling works of Becker (1963), Lemert (1951), and Schur (1965) that dominated criminological literature. The works of these three authors were widely popular because they offered an alternative to deterrence theory. Becker (1963) and Lemert (1951) used labeling theory to explain an individual’s development of a criminal identity and the continuation of criminal careers. Each asserted that for various reasons, individuals begin to engage in deviant or delinquent behavior. Some, but not all, individuals will be labeled as deviants or delinquents by authority figures. Once formally or informally labeled, the individual’s self-concept changes to include the label, which then drives future deviant acts.

Formal Labels

Formal labels are applied to individuals who have come into contact with educational or correctional systems with the authority to officially label the individual (or juvenile) as deviant (Chiricos, Barrick, Bales, & Bontrager, 2007; Ray & Downs, 1986). Stimulated by high recidivism rates, there has been a recent revival in the research into the criminogenic effects of formal labels (Chiricos et al., 2007). High recidivism rates suggest that secondary deviance is likely behavior for convicted felons. Johnson, Simons, and Conger (2004) make it very clear that there is new support of labeling theory when they wrote, “Although labeling theory has a history of being very problematic, current theory and research has reconsidered its merit as an explanation of deviance” (Johnson et al., 2004, p. 5).
Following labeling theory, Chiricos and his colleagues (2007) claimed that the transformation of an individual’s identity could lead to increased criminal behavior or secondary deviance, yet, they add the concept of “structural impediments” that occur in an individual’s life after going through a labeling experience. They reiterated the commonly known effects of being formally labeled by the criminal justice system: “The label of convicted felon strips an individual of the right to vote, serve on juries, own firearms, or hold public office” (Chiricos et al., 2007, p. 548). Although these impediments may not significantly impact recidivism directly, it is quite possible that they are indirectly affecting secondary deviance by blocking access to legitimate opportunities (see Barrick, 2014; also Bernburg & Krohn, 2003; Chiricos et al., 2007). It is also possible that other formal labels, such as an official arrest or prosecution, could have dramatic implications similar to the “structural impediments” outlined by Chiricos and his colleagues (2007). After all, even though some individuals did not receive a formally applied label, the process of being arrested and prosecuted is likely to lead to the development of informal labels or negative self-labeling (Chiricos et al., 2007). Addressing this point, Brownfield and Thompson (2008) supported a labeling hypothesis when they found that self-reported police contact, or official delinquency, has a significant positive relationship with delinquent self-concepts.

Huizinga and Henry (2008) presented a thorough literature review of the effects of arrest and sanctions. They concluded that their findings suggest that arrest either increases future delinquency or has very little consequence on future involvement in delinquency. Even more recently, Lopes and her colleagues (Lopes et al., 2012) noted that there is a revived interest in examining the effects of labeling on non-criminal outcomes that may intensify delinquency. They found that formal labeling, such as police intervention during adolescence, has a significant indirect effect on criminal and non-criminal outcomes later in life. Formal labeling, or police intervention, significantly affected non-criminal outcomes such as education, employment, and financial stability (Lopes et al., 2012). These findings are consistent with labeling theory.

**Informal Labels**

*Informal labels* are labels applied to individuals by someone without the official or professional authority to distinguish between deviant and non-deviant behavior (Liu, 2000; Ray & Downs, 1986). This, when viewed as a process, is known as informal labeling. Ray and Downs (1986) argued that parents are the primary source of informal labels, and that informal labels can have a direct affect on an individual’s self-concept or self-esteem. The study of self-concepts is an intricate part of labeling theory research.
Chassin, Presson, Young, and Light (1981) examined the effects of labeling on institutionalized adolescents, focusing on the development of self-concepts as they pertain to labeling theory. The authors stated that even though deviant individuals had more deviant self-concepts, the individuals did not conform to their socially applied labels (Chassin et al., 1981). They asserted that it is important to examine why deviant labels might not lead to secondary deviance. They argued that an individual could possibly adopt a deviant identity in response to society’s labels, but that the deviant identity may be unimportant in relation to that individual’s self-concept (Chassin et al., 1981). Another possible alternative is that other interacting positive labels are playing a role in why a deviant label might not lead to secondary delinquency.

Sampson and Laub (1997) presented a life-course theory of crime that focused on cumulative disadvantage and borrowed heavily from labeling research that examined the relationship between labels and mental illness. Link (1982, 1987; Link, Cullen, Struening, Shrout, & Dohrenwend, 1989; Link, Cullen, & Wozniak, 1987) presented a modified labeling theory which argued that official labeling and subsequent stigmatization produce negative consequences regarding social networks, jobs, and self-esteem in mental patients. His research found that labels have negative impacts on psychiatric patients’ work status, friendships, income levels, and even family relationships. Sampson and Laub (1997) suggested that modified labeling theory could be revised to examine delinquency and crime, and not just used as a theory of mental illness. They pointed specifically at the role the family plays in future delinquency and highlighted that reciprocal social interaction begins in the family. They specifically asserted that “parenting, at least in part, is a reaction to children’s temperament, especially difficult ones” (p. 14). To our knowledge, labeling theory research has yet to fully investigate how formal labels, delinquency, informal labels of child temperament, and youth perceptions of care and acceptance are all interrelated.

Smith and Paternoster (1990) reported no empirical support for the deviance amplification hypotheses commonly theorized by labeling scholars. If early critics of the labeling perspective figuratively put a stake in labeling theory’s heart, then Smith and Paternoster (1990) supplied the nails for its coffin. The popularity of labeling theory began to fade among scholars over the next decade, but that did not mean that labeling research ceased to continue. Smith and Paternoster (1990) had hoped that their results would inspire future empirical studies to address the problem of a selection artifact, but very few scholars decided to confront the problem over the next decade.

Matsueda (1992) is responsible for not only keeping the labeling perspective on life support but also as the first major researcher to explain how
informal labels could possibly explain both primary and secondary deviance. In his examination of reflected appraisals, parental labeling, and juvenile delinquency, he did not elaborate on labeling theory as it was known up to that point, but rather, he specified a symbolic interactionist theory that primarily examined the effects of parental labels and reflected appraisals. Both of these types of labels are considered informal labels by criminologists (Bartusch & Matsueda, 1996; Liu, 2000; Matsueda, 1992). Matsueda (1992) found that disadvantaged background characteristics increased negative parental labeling and possibly decrease the probability of positive labeling. Furthermore, consistent with a deviance amplification hypothesis, his work showed that parental labels had a substantial affect on delinquency. Reflected appraisals influenced future delinquency as well, but even when youth-reflected appraisals were controlled for, parental labels still had a considerable affect on delinquency.

Also consistent with labeling theory, Matsueda (1992) found that prior delinquent behavior influenced youth’s reflected appraisals of self. He found that this affect worked indirectly through parental appraisals, but that prior delinquency also affected youth’s reflected appraisals of self directly. This implied that reflected appraisals, a type of informal label, are the result of earlier behavior, the individual’s perceptions or understandings of that behavior, and the “selective perception of actual appraisals” (Matsueda, 1992, p. 1586). In general, he provided fertile soil for contemporary labeling theorists to place their roots, and introduced an innovative new method of understanding “the self” as it was originally presented by Cooley (1902) and others (Chassin et al., 1981; Mead, 1934).

Building on the 1992 article, Bartusch and Matsueda (1996) developed a micro-level model of gender and delinquency to explain the gender gap. Using much of the same methods utilized by Matsueda (1992), the authors tested 15 hypotheses. Bartusch and Matsueda (1996) found that parental labels had strong affects on youth’s reflected appraisals as a “rule violator.” Furthermore, reflected appraisals were found to significantly impact delinquency levels. The overall message was clearly that reflected appraisals, especially as a “rule violator,” can increase the likelihood of future delinquency (Bartusch & Matsueda, 1996).

Koita and Triplett (1998) examined Matsueda’s (1992) assertion that race and gender may affect the processes of reflected appraisals and actual appraisals. They found that parental appraisals (or labels) significantly affected reflected appraisals and finally, increased delinquency. Their overall findings supported the interactionist model of self with one notable exception: Their models did not result in a proper fit for juvenile Black females.

Brownfield and Thompson (2005) were primarily concerned with the effects of parental and peer reflected appraisals on delinquency. Their initial bivariate analyses indicated support for a relationship between parental
reflected appraisals and delinquency. However, this relationship was eliminated upon controlling for peer reflected appraisals and self-concept (Brownfield & Thompson, 2005). The authors attested that their findings showed that the way parents, teachers, peers, and siblings react to an individual’s behavior could potentially have implications for the probability of delinquency or a delinquent self-concept.

In the most recent test of reflected appraisals reviewed, Asencio and Burke (2011) found that criminal and drug-user identities were both a function of the reflected appraisals of “significant others.” These findings are supportive of Matsueda (1992) and his colleague’s (Bartusch & Matsueda, 1996; Heimer & Matsueda, 1994) earlier studies of reflected appraisals. Furthermore, and most importantly, Asencio and Burke (2011) indicated that the different sources of reflected appraisals had different affects on the identities of the respondents. They found that the reflected appraisals of “peers” and “significant others” were the most relevant to criminal and drug-user identities (Asencio & Burke, 2011).

Clearly, a line of research that began in 1992 has established its empirical merit. The debate, then, is no longer whether reflected appraisals impact delinquency, but how other markers of identity may interact with labeling and delinquency. Brownfield and Thompson (2005) noted that future studies should seek to include measurements of prior delinquency, and appraisals from parents. The current study does just that, as well as including measures of school stigmatization, youth perceptions of care, and other key variables commonly examined by criminologists. Our primary concerns here are whether formal labeling experiences influence future self-reported involvement in delinquency, and whether that relationship is influenced by other informal labels or potential contingencies such as race, social class, and biological sex. Our conceptualization of the impact of labeling on youth perceptions and delinquency yields the following hypotheses:

**Hypothesis 1:** Controlling for prior delinquency, informal labels, and other important controls, formal labeling will result in an increase in future delinquency.

**Hypothesis 2:** Controlling for formal labeling, prior delinquency, additional forms of labeling, and other important controls, youth perceptions of care will result in an increase in future delinquency.

**Hypothesis 3:** Controlling for prior delinquency, youth perceptions of care will mediate the effect of formal labeling on later delinquency.

**Hypothesis 4:** Controlling for prior delinquency, additional forms of labeling, and other important controls, parental labeling will result in an increase in future delinquency.
Method

Prior labeling theory analyses have tested only a limited number of labeling types, but this “interactionist labeling” model incorporates formal labels and multiple informal labels. These different types of labels, based on prior labeling literature, should then either directly or indirectly influence individual levels of delinquency. The interactionist labeling model dictates that delinquent behavior is influenced, in part, due to the application of negative labels.

The sample used is derived from the National Longitudinal Study of Adolescent Health (Add Health). Add Health is a nationally representative sample of adolescents in Grades 7 to 12 from the United States during the 1994-1995 school year. These adolescents were followed into young adulthood with continued in-home interviews. The most recent wave of data used in this analysis were collected in 2002 (Wave 3), when respondents had reached young adulthood. Several minority groups were oversampled to ensure that the respondents included in the survey were racially and ethnically diverse. For a more detailed description, see Harris et al. (2009).

The primary advantages of this data set are that it is a large nationally representative sample, and it includes a wide variety of possible variables to be used in a criminological analysis. The longitudinal design of the study further allows researchers to examine changes in variables over time, allowing the examination of causal relationships between variables or correlations. One disadvantage of the data is that they are not particularly concerned with labeling events, dynamics, or theory. This shortcoming prevents us from properly testing reflected appraisals as originally outlined by Matsueda (1992). However, the survey does provide enough valid measures for a test of labeling theory.

The current study utilizes Waves 1, 2, and 3 of the Add Health data. This means that respondents will have reached adulthood at the third data collection point, but will have not exceeded the age of 27. This method of analysis allows research to trace each individual respondent’s behavior, attitudes, and criminality starting when they were children and ending when they reached adulthood. The final sample used is limited to survey respondents who had valid weights and valid data in the independent variables and delinquency measures.

Variables

Dependent Variable

Delinquency. A 13-item delinquency index, incorporating both violent and non-violent delinquent acts, was constructed to be used as the dependent variable. The items related to violence are equivalent in both Waves 1 and 3,
and include violent behaviors such as robbery, using weapons in a fight, participating in a fight “where a group of your friends was against another group,” carrying a weapon to school (and/or work in Wave 3), pulling a weapon on someone, and shooting or stabbing someone. For the first wave of the study, the index includes non-violent delinquent behaviors such as property damage, joyriding, shoplifting, stealing something worth more than $50, stealing something worth less than $50, burglary, and selling marijuana or other drugs. The non-violent items included in the delinquency index slightly change in Wave 3 reflecting more age-normative behaviors. For instance, shoplifting is removed from the index, and replaced with buying, selling, or holding stolen property. Likewise, joyriding is replaced with using someone else’s ATM, debit, or credit card without their permission. In both Wave 1 (α = .7869) and Wave 3 (α = .7229), respondents are asked about their frequencies of engaging in the aforementioned behaviors. Responses ranged from “never” (0) to “5 or more times” (3). The items were recoded into dichotomous measures (0 = no, 1 = yes) and summed to create one continuous variable (range = 0-13).

Independent Variables and Controls

Age. The age of the respondent was expressed as the respondent’s age in years at the time of the survey’s first wave.

Race/ethnicity. Race and ethnicity was measured by constructing dichotomous variables. The four categories constructed were White, Black, Hispanic, or “Other.” White serves as the contrasting category. The variables indicate whether the respondent identifies primarily as White, Black, Hispanic, or some Other race/ethnicity.

Sex. Sex was measured with a dummy variable (male = 1; female = 0).

Socioeconomic status (SES). The variables concerned with the education level of the respondent’s residential parents served as a proxy for SES in the current study.2 The survey items were concerned with the highest degree completed by each of the respondents’ residential parents. If only one residential parent was listed, then that parent’s education level was used as the respondent’s SES. If two parents were available, then their education levels were averaged. The final variable used was a continuous variable.

Public assistance. Public assistance was measured using a single survey item from the parent questionnaire. This measurement of public assistance served
as a second proxy measure of SES for the current analyses. The respondent’s parents were asked if they were recipients of public assistance. The variable used was a dichotomous variable with “yes” responses (yes = 1) denoting that the respondent’s parents answered that they were receiving public assistance or welfare. “No” (no = 0) responses indicate that an individual’s parents answered that they were not receiving public assistance or welfare.

**Family type.** Respondents’ family type was measured with a series of dummy variables indicating the family type structure in which the respondent lives. Respondents were categorized based on whether they indicated that they lived with both biological parents, one biological parent and a step-parent, one single biological parent, or some other family type. Respondents who indicated they lived with adoptive parents were coded as living in some “other” household type.

**Formal labeling.** Official formal labeling was measured by retroactively tracking self-reported arrests listed by respondents in Wave 3. The variable used was a dichotomous variable with “yes” responses (yes = 1) denoting that the respondent was officially processed by the criminal justice system. “No” (no = 0) responses indicate that an individual was not formally processed.

**School stigmatization.** Respondents’ school stigmatization experiences was measured by using a summed index of four items indicating stigmatizing school experiences. Respondents were asked whether they had ever been in trouble at school due to drinking, been suspended, been expelled, or ever repeated a grade. Higher scores indicated more experiences of school stigmatization. Missing cases were modally imputed (0 = no) prior to being added to the index. Finally, this index was reduced into a single dichotomous variable indicating any incidence of school stigmatization experiences.

**Parental labeling.** Parental labeling was measured by constructing a dichotomous variable using a single survey item from the Wave 1 parent questionnaire. The parent questionnaire survey items address a multitude of questions directly pertaining to the study participants. One survey item asked the respondents’ parents if they believed their child had a bad temper. “Yes” responses (yes = 1) denote that the respondent’s parent believes that they have a bad temper. “No” (no = 0) responses indicate that the parent does not believe that their child has a bad temper.

**Perceptions of care.** Youth perceptions of care were measured by constructing two variables derived from Wave 2 survey items. These survey items asked
respondents how much they felt teachers and family cared about them. Responses ranged from “not at all” to “very much.” Missing cases were replaced for each item by imputing the mean. The variables were reverse coded (5 = not at all; 1 = very much). Thus, a higher score represents a more negative perception of how much respondents felt teachers and family cared about them.

**Plan of Analysis**

Contemporary labeling theorists have examined how official labeling impacts future criminal and non-criminal outcomes. In other words, labeling theorists have become concerned with the possible intervening variables between labeling and future criminogenic behaviors and criminal outcomes. For example, Lopes et al. (2012) recently found that labeling indirectly affected criminal and non-criminal outcomes. However, their study did not include measures of reflected appraisals or any other measure of “label internalization.” Matsueda (1992) found that reflected appraisals significantly mediated the affects of informal labels on subsequent delinquency involvement. Yet, only informal labels and reflected appraisals were included in his symbolic interactionist model of delinquency. This study addresses this gap in research by examining the affects of formal labels, informal labels, and youth perceptions of care on delinquency.

Negative binomial regression is the analytical strategy employed for the purpose of this study. This strategy is optimal because the dependent variable used is continuous and highly skewed (i.e., there are many zeroes in the data). Poisson regressions are often utilized by researchers dealing with dependent variables that are not normally distributed. Furthermore, Poisson regression strategies that better handle problems of overdispersion have been developed by scholars. However, past research has suggested that negative binomial regression should be the preferred analytical method employed by researchers when it is imperative to estimate the probability distribution of an individual count (see Gardner, Mulvey, & Shaw, 1995). An earlier criminological study that used the same outcome variable that is used in the current analyses also noted the appropriateness of using negative binomial regression, rather than a Poisson regression model (see Demuth & Brown, 2004).

Bernburg (2002) declared that the best tests of labeling would be longitudinal, control for prior behavior, and would have samples derived from a population containing labeled and non-labeled individuals. He also stressed the importance of controlling for other important variables such as race and SES. Barrick (2014) noted that proper renderings of labeling theory analyses will utilize multivariate techniques, control for prior delinquency or criminal
Answering the call of prior scholars (Barrick, 2014; Bernburg, 2002; Paternoster & Iovanni, 1989; Tittle, 1980), the current study uses a large nationally representative sample, and it includes a wide variety of variables thought to be important by labeling theorists. The longitudinal design of the study further allows researchers to examine changes in variables over time, allowing the examination of causal relationships. As aforementioned, the data prevent us from properly testing reflected appraisals as originally outlined by Matsueda (1992). However, our measure of youth perceptions of care, because it points to the respondent's perceptions of informal social bonds with family and teachers, allows for an investigation of the relationship between stakes in conformity and labeling outcomes (Sherman, Smith, Schmidt, & Rogan, 1992). Enough valid measures were available in the data for a test of labeling theory that is attentive to the main deficiencies of previous labeling theory research (see Barrick, 2014).

**Findings**

The first set of findings involve the sample's basic characteristics. Table 1 shows the ranges, means or weighted proportions, and standard errors for the variables. Please note that the percentages displayed are weighted proportions. A small weighted proportion (9.76%) of the sample was formally labeled ($n = 877$). This finding was expected, as was the finding that a higher weighted proportion of respondents were informally labeled (27.51% and 38.04%) than formally labeled. The mean age of the sample at Wave 1 was approximately 15 years old (15.052). More interesting, is that there is an aging out from delinquency involvement from Wave 1 to Wave 3 in the sample. The mean delinquency score at Wave 1 was 1.281. Yet, the mean delinquency score at Wave 3 was a smaller 0.530. This indicates a natural desistance from delinquency involvement from Wave 1 to delinquency involvement at Wave 3 throughout the entire sample. Table 2 shows the results of the bivariate proportions and tests of means. Delinquency scores at both waves were significantly associated with school stigmatization, parental labeling, and formal labeling. Furthermore, the bivariate relationships between school stigmatization, parental labeling, and formal labeling were also significant.

Table 3 shows the results of the five regression models, with the exponentiated coefficients provided to ease interpretation of the data. Model 1 shows the results of regressing the study's focal independent variable, formal labeling, on delinquency scores measured at Wave 3. Results at this stage indicated that formal labels, without any controls, significantly contribute to later self-reported incidences of delinquency involvement.
Model 2 included the same variables that were included in Model 1, but also controlled for respondents’ delinquency scores measured at Wave 1. Formal labeling was found to be strongly predictive of Wave 3 delinquency involvement even when controlling for respondents’ prior delinquency involvement. However, as expected, Wave 1 delinquency scores significantly contributed to Wave 3 delinquency scores. This finding suggests that formal labels significantly contribute to future levels of delinquency, net of prior delinquency involvement.

Model 3 was utilized to determine the affects of formal labels on delinquency while controlling for prior delinquency and the two measures of youth perceptions of care. In Model 3, youth perceptions of teacher care were significantly predictive of Wave 3 delinquency scores. Formal labeling was the strongest significant predictor of Wave 3 delinquency in Model 3, followed by

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**Table 1. Descriptive Statistics.**

<table>
<thead>
<tr>
<th></th>
<th>Range</th>
<th>M or %</th>
<th>SE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Male</td>
<td>0-1</td>
<td>48.88%</td>
<td>0.007</td>
</tr>
<tr>
<td>2. Age</td>
<td>9-20</td>
<td>15.052</td>
<td>0.113</td>
</tr>
<tr>
<td>3. Race</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>0-1</td>
<td>67.87%</td>
<td>0.029</td>
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<td>Black</td>
<td>0-1</td>
<td>15.09%</td>
<td>0.020</td>
</tr>
<tr>
<td>Hispanic</td>
<td>0-1</td>
<td>11.95%</td>
<td>0.017</td>
</tr>
<tr>
<td>Other</td>
<td>0-1</td>
<td>5.09%</td>
<td>0.008</td>
</tr>
<tr>
<td>4. Family type</td>
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<tr>
<td>Both biological</td>
<td>0-1</td>
<td>57.42%</td>
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</tr>
<tr>
<td>One biological/one step-parent</td>
<td>0-1</td>
<td>15.56%</td>
<td>0.005</td>
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<td>Single biological</td>
<td>0-1</td>
<td>21.55%</td>
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<tr>
<td>Other</td>
<td>0-1</td>
<td>5.47%</td>
<td>0.004</td>
</tr>
<tr>
<td>5. SES</td>
<td>1-5</td>
<td>2.713</td>
<td>0.047</td>
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<tr>
<td>6. Public assistance</td>
<td>0-1</td>
<td>9.80%</td>
<td>0.008</td>
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<td>7. Perceptions of care</td>
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<tr>
<td>Teacher</td>
<td>1-5</td>
<td>2.448</td>
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<tr>
<td>Family</td>
<td>1-5</td>
<td>2.049</td>
<td>0.015</td>
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<tr>
<td>8. Parental label</td>
<td>0-1</td>
<td>27.51%</td>
<td>0.008</td>
</tr>
<tr>
<td>9. School stigmatization</td>
<td>0-1</td>
<td>38.04%</td>
<td>0.014</td>
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<td>10. Formal label</td>
<td>0-1</td>
<td>9.76%</td>
<td>0.005</td>
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<tr>
<td>11. Delinquency (Wave 1)</td>
<td>0-13</td>
<td>1.281</td>
<td>0.035</td>
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<tr>
<td>12. Delinquency (Wave 3)</td>
<td>0-13</td>
<td>0.530</td>
<td>0.023</td>
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<tr>
<td>Valid N (listwise)</td>
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*Note.* SES = socioeconomic status.
Wave 1 delinquency scores. In Model 2, formal labels contributed to a 264% increase in Wave 3 delinquency scores. However, after the introduction of youth perceptions in Model 3, formal labels still resulted in a 257% increase in Wave 3 delinquency scores. Thus, the introduction of youth perceptions of care to the model accounted for only a 7% decline in the affect formal labels had on delinquency.

In Model 4, formal labeling, once again, was the strongest significant predictor of future delinquency. Like the previous models, the second strongest significant predictor of subsequent delinquency was prior delinquency. Youth perceptions of family care, like in Model 3, had no significant impact on delinquency. Youth perceptions of teacher care had the same significant influence on delinquency that was seen in Model 3. Of the two new variables introduced in Model 4, only school stigmatization had a significant impact on Wave 3 delinquency scores.
delinquency scores. Unlike the other significant predictors, the relationship between school stigmatization and Wave 3 delinquency was negative. In other words, school stigmatization resulted in decreased Wave 3 delinquency scores. This finding suggests that there may be a specific deterrent value of school punishment. That being said, once controls were added in the final model, the affect of school stigmatization was no longer significant.

The final model included all of the variables that were included in Model 4 and the additional control measures (Age, Race, Sex, Family Type, SES, and Public Assistance). Formal labeling, as in the four previous models, was the strongest significant predictor of Wave 3 delinquency. The second strongest

<table>
<thead>
<tr>
<th>Table 3. Negative Binomial Regressions of Delinquency at Wave 3.</th>
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<tbody>
<tr>
<td>Full sample ($N = 10,346$)</td>
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<tr>
<td>Independent variables</td>
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<tr>
<td>Formal label</td>
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<tr>
<td>Wave 1 delinquency</td>
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<tr>
<td>Perceptions of care–family</td>
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<tr>
<td>Perceptions of care–teachers</td>
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<td>Parent label</td>
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<tr>
<td>School stigmatization</td>
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<tr>
<td>Control variables</td>
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<tr>
<td>Male</td>
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<tr>
<td>Age</td>
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<tr>
<td>SES</td>
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<td>Public assistance</td>
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<tr>
<td>Family type</td>
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<td>One biological/one step-parent</td>
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<td>Single biological</td>
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<td>Other</td>
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<tr>
<td>Race</td>
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<td>Hispanic</td>
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<td>Other</td>
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<td>F statistic</td>
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Note. SES = socioeconomic status.
*p ≤ .05. **p ≤ .01. ***p ≤ .001.
predictor of Wave 3 delinquency was being male, followed by being Black. Both school stigmatization and parental labeling were found to not be significant predictors of Wave 3 delinquency scores. On the other hand, both youth perceptions of family and teachers were found to be significant predictors of Wave 3 delinquency scores in this model. The control variables influenced the affect of formal labels on Wave 3 delinquency more so than was influenced by both of the youth perceptions of care measures.

The first hypothesis stated that controlling for prior delinquency, informal labels, and other important controls, formal labeling will result in an increase in future delinquency. The findings supported the first hypothesis. Formal labels significantly increased subsequent delinquency, and the influence of formal labels on future delinquency was greater than any other variables included in the analyses. This finding indicates that prior delinquency, personal characteristics, and some types of informal labeling are less important in explaining future delinquency than the application of a formal label.

The second hypothesis stated that controlling for formal labeling, prior delinquency, additional forms of labeling, and other important controls, youth perceptions of care will result in an increase in future delinquency. Findings supported the second hypothesis. Both youth perceptions of teachers and youth perceptions of family significantly impacted Wave 3 delinquency scores upon the addition of the control variables to the model. Negative perceptions of care significantly increased subsequent delinquency. The third hypothesis stated that Controlling for prior delinquency, youth perceptions of care will mediate the affect of formal labeling on later delinquency. Findings supported the third hypothesis. Negative youth perceptions of care were responsible for a moderate increase in subsequent delinquency scores. Furthermore, youth perceptions of care accounted for 7% of the influence that formal labeling had on Wave 3 delinquency scores (see Model 3).

The fourth, and final, hypothesis stated that controlling for prior delinquency, additional forms of labeling, and other important controls, parental labeling will result in an increase in future delinquency. The fourth hypothesis is rejected. Parental appraisals did not have a significant impact on Wave 3 delinquency at any stage of the analyses. In sum, the support and rejection of these four hypotheses has important implications for the future of labeling theory and criminological research. The findings, and their implications, are discussed below.

**Discussion**

The findings indicate that formal labeling, measured as a self-reported arrest, has a significant affect on delinquency involvement later in life. Furthermore,
the results indicate that this relationship is partially mediated by youth perceptions of care. Arrest is a conceptually poor measure of formal labeling, yet results reveal substantial and significant influence on subsequent delinquency. It is possible, and may be likely, that more extreme labeling experiences would result in an even stronger affect of formal labeling on later delinquency involvement. For example, it is likely that a formal conviction or “Felon” label would have a stronger relationship with subsequent delinquency than being arrested.

These findings highlight the adverse effects official formal labels can have on future behavior. The findings also establish that youth perceptions of care partially mediate the relationship between formal labeling and delinquency. These findings are particularly supportive of Paternoster and Iovanni’s (1989) interpretation of the secondary deviance hypothesis and contribute to theoretical discourse concerned with labeling and stakes in conformity. According to Paternoster and Iovanni, a proper rendering of the secondary deviance hypothesis should be probabilistic, that is, if an individual has experienced labeling, then that individual may experience a change in his identity, may discover conventional opportunities to be restricted or limited in access, and may possibly be excluded from conventional groups. Their rendering of the secondary deviance hypothesis proposes that as a result of the aforementioned processes, an individual may illustrate an increased involvement in delinquency.

The findings indicate that youth perceptions of care significantly impact subsequent delinquency, and that youth perceptions of care mediate some of the connection seen between formal labeling and delinquency. This is a significant finding because it suggests that youth perceptions of care are important in explaining the relationship between formal labeling and secondary delinquency. It lends merit to the inclusion of youth perceptions in future labeling theory research. This finding is of further importance because it suggests that labeling experiences, both formal and informal, are mediated by youth perceptions of care and other intervening variables.

The effect produced by youth perceptions of care being added to the models was minimal, especially when viewed in contrast to the effect formal labels had on subsequent delinquency. This suggests that youth perceptions of care may significantly influence future delinquency involvement directly, but also that there may be a change in identity, or at least perception, for some individuals that have been formally labeled. Matsueda (1992) found that informal labeling’s affect on delinquency was mediated by reflected appraisals as a “rule violator,” but the current findings suggest that a similar process may also be occurring with formal labels and youth perceptions as “cared about” by teachers and family.
It should be cautioned that our measures of youth perceptions were unconcerned with delinquent self-concepts. Rather, our measures of youth perceptions of care specifically measured how an adolescent perceived how much their family and teachers care about them. Therefore, perceptions of care, as operationalized within this study, measured the perceived strength of informal social bonds with family and teachers. Sherman and his colleagues (1992) suggested that informal control, in the form of weak informal social bonds to family and teachers, may condition the impact of formal labeling on future delinquency. Dejong (1997), while investigating specific deterrence, found that individuals with minimal bonds to a job, family, or education were more likely to recidivate after being formally labeled and incarcerated. Similarly, our results indicate that negative perceptions of informal social bonds to family and teachers increase future delinquency and partially mediate the relationship between formal labeling and subsequent delinquency.

The hypothesis concerned with parental labeling was rejected. Parental labeling did not have a significant impact on future delinquency at any stage of the analyses. Likewise, school stigmatization, upon the inclusion of the control variables, did not have a significant impact on future delinquency. School stigmatization may be insignificant in predicting secondary delinquency simply because it is unrelated to future delinquency involvement. Another possibility is that the methods used in this study to measure school stigmatization may not have accurately accounted for school stigmatization and labeling experiences. For example, an additional supplemental survey of the respondents’ teachers would have allowed for more specific items regarding school labeling and stigmatization experiences. For instance, being expelled from school is a very different stigmatizing experience than being labeled as a deviant or “rule breaker” by a teacher.

The control variables added in the final model (Age, Race, Sex, and SES) were shown to be significant predictors of secondary delinquency. The age variable performed as expected: having a negative impact on Wave 3 delinquency scores. Being male strongly influenced Wave 3 delinquency scores, second in strength only to being formally labeled. Race was also a significant predictor of secondary delinquency, supporting labeling theory’s contention that racial minorities are more prone than non-minorities to being negatively labeled, and as a result, engage in secondary delinquency.

Individuals with higher SES scores were significantly more likely than those with lower SES scores to engage in secondary delinquency. These quantitative findings are similar to Chambliss’ (1973) qualitative observations. To be more specific, Chambliss (1973) claimed that the “Saints” in his study were more actively involved in delinquent behavior than the “Roughnecks.” His qualitative work established that it is possible that social
status and social markers of SES influence the likelihood of encountering negative labels or experiencing negative labeling events. His work further established that individuals identified as upper class or middle class may possibly engage more frequently than lower class individuals in delinquent activities or behavior as they are less surveilled and thus have greater opportunity (Chambliss, 1973). Alternatively, others have argued that members of more privileged groups with a greater stake in conformity are more subject to the power of a formal label in self-image construction (see Sherman et al., 1992). For example, Chiricos and colleagues’ (2007) study of a deferred adjudication program in Florida found that experiencing formal adjudication over deferred adjudication was more likely to lead to recidivism for Whites over Blacks or Hispanics. The current study used two proxy measures of SES due to the problems with income reporting among the respondents in the sample, and this may affect the validity of these findings.

The current study found both direct and indirect linkages between labeling and subsequent delinquency. Formal labels were the strongest predictors of secondary delinquency throughout the study. It is likely that more indirect linkages would be found, and the extent of formal labeling’s direct relationship with delinquency diminished, upon the inclusion of variables attempting to measure social exclusion from conventional groups and opportunities. “Structural impediments,” as Chiricos and his colleagues (2007) have suggested, explain how formal labeling could have such a significant impact on future criminal or delinquent behavior. Formal labeling was the strongest predictor of subsequent delinquency in the current study, but labeling was measured as an arrest. An arrest, arguably, is a weak measure of formal labeling because there are relatively few “structural impediments” after being arrested, especially when compared with the possible “structural impediments” an individual must overcome after being officially convicted and sanctioned.

The current study is not without its methodological limitations. The sample and data used only allow the findings to be generalized to adolescents in the United States. Furthermore, the data itself were not particularly concerned with labeling events or processes. It is strongly suggested that future surveys strive to include the items needed for a proper test of labeling theory. In fact, for the purposes of improving criminological research, social surveys of adolescents should begin including items considered to be the most pertinent among criminologists of all types. This would allow social research of all types to improve, and would simultaneously foster a new wave of theoretical elaboration and integration. Arguably, the most important limitation of the current study is that a specific grounded labeling theory has not been established by prior research (see Melossi, 1985). A more grounded and precise
labeling theory would allow for the wide-scale use of replication and comparative studies that are essentially the backbone for proper theory testing.

As aforementioned, another limitation of the current study is that only one formal label was examined. The current study operationalized a self-reported arrest as an important formal labeling experience. Existing criminological and criminal justice research shows that there are other noteworthy formal labels that could influence secondary deviance and future criminal justice outcomes. For example, Quinn (2010) examined the relationship between a formal “gang member” label and juvenile justice dispositions. Other studies have operationalized formal labeling as an official conviction or adjudication (Chiricos et al., 2007).

To compound this limitation, all labels do not impact or influence an individual’s life equally. Becker (1963) made this clear when he described the idea of a “master status.” Quinn (2010) elaborated by pointing out that not all labels are negative, and that labels might be more or less important to individuals based on their individual and family characteristics. To put it another way, specific labels can hold more or less weight for certain individuals. Future research should make a greater attempt to elaborate conceptually on Becker’s notion of a “master status” and to better explain how different types of labels specifically affect different types of people.

**Conclusion**

The findings were generally supportive of labeling theory. The strongest significant affect on subsequent delinquency was found to be caused by formal labeling. Therefore we suggest that formal labels should continue to be emphasized by theorists as extremely important. The current study found that formal labels were much more important than parental appraisals, school stigmatization, and youth perceptions of care. The current study did not find a significant connection between parental appraisals and subsequent delinquency, but this is not to say that parental appraisals should be played down in the future or ignored. Rather, it is likely that this finding is simply a function of how parental labeling was operationalized in the current study. The true emphasis of contemporary labeling theorists should be on the development of a general theory of crime that incorporates all dimensions of prior labeling theory research.

This study contributed to existing criminological research by providing a contemporary test of labeling theory using a nationally representative and longitudinal data set. The data allowed for a test of an interactionist labeling model of delinquency using multiple types of formal and informal labels. Furthermore, a new and innovative conceptual approach toward labels and
delinquency was taken. Substantial support for labeling theory was found in a nationally representative sample of American adolescents. Still, there are lingering questions in need of answers. Future research should attempt to more closely examine the significant relationships found in the current study to conceptually expand upon the dynamic social processes that may occur after being formally or informally labeled.

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**Notes**

1. This research uses data from Add Health, a program project directed by Kathleen Mullan Harris and designed by J. Richard Udry, Peter S. Bearman, and Kathleen Mullan Harris at the University of North Carolina at Chapel Hill, and funded by Grant P01-HD31921 from the Eunice Kennedy Shriver National Institute of Child Health and Human Development, with cooperative funding from 23 other federal agencies and foundations. Special acknowledgment is due Ronald R. Rindfuss and Barbara Entwisle for assistance in the original design. Information on how to obtain the Add Health data files is available on the Add Health website (http://www.cpc.unc.edu/addhealth). No direct support was received from Grant P01-HD31921 for this analysis.

2. Using the income of the respondents’ residential parents as a proxy for socioeconomic status was initially considered for the study. However, the income measures were found by the data collectors and other scholars to be highly unreliable. To be more specific, there is a substantial amount of missing data pertaining to parental income. Recent studies have concluded that these missing data may not be random, but rather, represent a distinct subset of the study’s population (see Harris et al., 2009).

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Quinn, S. T. (2010). *The gang member label and juvenile justice decision-making*. Available at Electronic Theses, Treatises, and Dissertations. (Paper No. 2245)


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