

## ABSTRACT

Title of Thesis: A STATE-LEVEL ANALYSIS  
OF JUVENILE JUSTICE  
POLICIES AND OUTCOMES

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2022

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The juvenile justice system was founded on principles of rehabilitation and treating youth differently from adults. Since its creation, the system has implemented a number of punitive policies and developed issues regarding a lack of human rights. The present study aims to understand what policies and practices are associated with juvenile arrests, incarceration, and detention rates. While the adult system has relatively uniform practices across states, the juvenile justice system has wide variation, particularly when it comes to policies regarding the ages at which a juvenile can be tried as a minor and as an adult as well which rights are guaranteed to juveniles in the criminal justice system. Without a proper understanding of the nuance and implications of policies such as the age of criminal responsibility and juvenile waiver laws, little can be done to help system-

involved youth in the U.S. It is therefore crucial that research keeps up with the rapidly changing condition of the juvenile justice system. This study addresses the research questions using a dataset created by pulling together state-level data on the juvenile justice system from several sources. This paper begins with a thorough investigation of the history of the juvenile justice system in order to understand factors are driving this wide variation across states. Next, state-level differences in juvenile justice policies and outcomes were assessed through descriptive and univariate analyses. Finally, bivariate and multivariate analyses were conducted in order to determine what policies and practices are associated with higher levels of juvenile incarceration and arrests. Findings suggest that a lower age of criminal responsibility is associated with lower levels of juvenile detention. The data also demonstrates that states that guarantee stronger human rights to juveniles tend to have higher levels of juvenile detention. These policies are evolving issues that vary greatly across states, and it is crucial that future policy decisions are informed by quantitative research and empirical analysis.

**Keywords:** juvenile justice, juvenile crime, policy, quantitative analysis, state-level

A STATE-LEVEL ANALYSIS OF JUVENILE JUSTICE POLICIES AND OUTCOMES

by

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Thesis submitted to the Department of Criminology and Criminal Justice at the University of Maryland, College Park, in partial fulfillment of the requirements for the degree of Bachelor of Arts 2021

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## Acknowledgements

I would first like to thank Dr. Bianca Bersani for supporting this research for the past year. Her mentorship has been an invaluable asset in my education. I would also like to thank Dr. Greg Midgette for his support of my research and academic endeavors. I am grateful for the opportunity to work with him and hope to continue collaborating with him in my career. I would also like to congratulate the undergraduate honors cohort. I would not have been able to conduct this research without their consistent feedback and encouragement, and it has been an honor seeing all of their theses come together. I am also incredibly grateful for the constant support and encouragement from my family. They have always believed in me and my career goals and are the reason I am the student and person I am today. Finally, I would like to thank the Criminology & Criminal Justice Department at the University of Maryland. I have loved being a part of this department and look forward to pursuing a graduate degree in Criminology.

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## Chapter 1: Introduction

Every year, approximately two million adolescents come in contact with the juvenile justice system (Puzzanchera 2009). In the United States today, nearly sixty-thousand youth are held in juvenile correctional facilities or adult prisons (Sawyer 2019; ACLU 2021). Juvenile crime has been a concern for many Americans over the past several decades, especially following the increase in juvenile crime during the 1980s (Cook and Laub 1998). In contrast to the relatively uniform approach to juvenile crime when juvenile courts were first created, today juvenile justice policies vary widely across states and many rights which are guaranteed for adults are not for juveniles (Levick 2016). Might this variation in policies across states explain or partially explain differences in rates of juvenile arrests and detention?

Without uniform expectations and policies in place to protect juveniles, there are a number of issues that may arise pertaining to inequality, injustice, and poor outcomes for youth. Furthermore, given the strong variation in juvenile justice practices across states, it is important to understand associations between policies and outcomes such as juvenile incarceration, detention, and arrest rates. Understanding these associations is a necessary precursor in understanding what efforts can be made to mitigate the negative impacts of juvenile delinquency. In this paper, I aim to answer three key questions about the juvenile justice system. Through archival research, I will explore how the juvenile justice system has evolved over time since its creation and events that spurred variations in policies across states. Next, by pulling together data from various sources (i.e., Juvenile

Justice Information Exchange, Department of Justice), I will use descriptive statistics to explain the degree of these differences present today. Finally, using the same dataset I will perform data analysis in order to understand what policies and practices are associated with rates of juvenile arrests and incarceration. Findings from this study provide insight into whether variation in juvenile justice policy across states is associated with variation in rates of juvenile arrests and incarceration.

## Chapter 2: Literature Review

The history of the juvenile justice system demonstrates a gradual change from a relatively uniform system across states that emphasized rehabilitation to a system that is diverse across states with varying degrees of punitive practices. In order to understand modern practices and policies it is important to analyze the conditions that gave rise to diversified systems. Developing an understanding of the history and unique characteristics of the juvenile justice system will help frame the discussion of which policies and practices are predictors of juvenile arrest and incarceration rates.

### **HISTORY**

#### EARLY HISTORY - 19TH CENTURY

The idea of juvenile delinquency was first developed during the 19th century. This conceptualization of juvenile delinquency included both children with behavioral problems as well as youth who lacked supervision (Trépanier 1999). At the time there was no legal distinction drawn between neglected and delinquent youth. In response to a growing concern for troubled youth, houses of refuge were created for troubled and neglected youth in several major cities, including Boston, Philadelphia, and New York (Trépanier 1999). Importantly, Ex Parte Crouse held that states could place youth in houses of refuge without formal hearings due to the doctrine of *parens patriae* (Ventrell 1998). *Parens patriae* is the doctrine that the state must act as a parent or disciplinary figure to adolescents when their parents have failed to do so (Levesque 2011). This theory continued to

inform juvenile justice policy decisions throughout history and is still evident in policy and practices today.

#### CREATION OF THE SYSTEM - EARLY 20TH CENTURY

The first juvenile court was created in 1899 in Cook County, IL, and by the 1920s every state in the United States had implemented a juvenile court (Shepherd 1999). The juvenile justice system was created with the intention of treating children differently than adults and focusing on rehabilitation, treatment, and reform rather than punishment and incapacitation (Shepherd 1999). In the early years, juvenile courts were characterized by informal hearings and did not receive the same public attention that the adult courts did. The result was that rights that were guaranteed to adults were not guaranteed to juveniles because these courts did not maintain the same punitive practices that adult courts did (Trépanier 1999). While the juvenile justice system was created with the intention of treating juveniles differently from adults, some important policy changes in the 20th century led to a shift in how juveniles were treated in the U.S.

#### EVOLUTION OF THE SYSTEM - LATE 20TH CENTURY

During the 1950s and 1960s, delinquency began to receive increasing attention as it began to be perceived as more of a concern than it had been in previous years due to rising juvenile crime rates and strong emphasis on this problem in the media (Artello, Hayes, Muschert, and Spencer 2015). Arrests of juveniles were rising dramatically even when accounting for population growth. Polls on opinions on crime demonstrated extreme concern surrounding juvenile delinquency (Barnosky 2006). Initially, funding was allocated to the Children's

Bureau, the National Institute of Mental Health, and the Senate Judiciary Subcommittee to Investigate Juvenile Delinquency, which were groups that promoted prevention and rehabilitation (Barnosky 2006). However, when deterrence-oriented approaches became more common in the 1970s, the juvenile justice system began to adopt similar practices as the adult system.

Major shifts occurred in the juvenile system throughout the 1970s. As stated previously, historically neglected and delinquent youth were treated in the same system. It was not until 1970 that a distinction between neglected and delinquent youth was established (Trépanier 1999). The major structural change to the system during this era was the Juvenile Justice and Delinquency Prevention Act in 1974. A central part of this act was to incentivize states to find ways to treat noncriminal juveniles in their communities rather than in institutions (Trépanier 1999). Leaving this responsibility up to individual states partially explains why states have become so different with regard to juvenile justice. An important consequence of this change was that juveniles who remained in the system were met with a much more punitive approach than they previously had been (Trépanier 1999). The system no longer existed to treat neglected and troubled juveniles and started to function more similar to the adult criminal justice system.

The system's transition to a more punitive and strict approach to juvenile delinquency led to a change in the perception of system-involved youth by the general public. During the 1990s, there was an emphasis in the media and in politics on juvenile "superpredators," who were described as having no remorse

for their actions and being extremely violent and dangerous (Equal Justice Initiative 2014). This created a sense of panic surrounding crime among juveniles, which led to significantly harsher penalties under the Clinton Administration (Davidson 1996). In the 1996 presidential race, Robert Dole and Bill Clinton were both strong proponents for harsh penalties for juveniles (Davidson 1996). President Clinton has since been strongly criticized for the Violent Crime Control and Law Enforcement Act of 1994, which implemented harsh sentences such as mandatory minimums and wider use of life without parole (H.R.3355 1993-1994). These policies took a strong punitive approach to crime. There was mixed evidence on their effectiveness and strong impacts on the incarceration rate in the U.S., eventually leading to the U.S. having the highest incarceration rate in the world (Jones 1995).

## **JUVENILE JUSTICE IN THE 21ST CENTURY**

Today, juveniles continue to face unique challenges and can receive vastly different sentences in the criminal justice system depending on the state in which they are adjudicated. Some states have implemented deterrence-focused policies and practices while others emphasize rehabilitation. There are also broad issues with inequality, including a lack of rights guaranteed to juveniles, problems with racial disparities, and a lack of data on juvenile recidivism. These characteristics of the juvenile justice system in the United States make this a unique area of study. This section begins with a discussion on practices that are common across states in the juvenile justice system. The following subsections will discuss key

issues in the modern juvenile justice system, including rights of juveniles and racial disparities in the system.

## SYSTEM PRACTICES

While the juvenile justice system is diverse across states, there are some policies and practices common to many state systems. Whereas adults are processed in one system, juvenile status is more complex and can involve being processed in the juvenile justice system, the adult system, or a combination of the two. Across states, juveniles can be tried as adults for both violent and nonviolent crimes and may be incarcerated in detention centers that operate similarly to adult facilities or sent to an adult prison facility (Loughran et al. 2010). There are also alternative sentences, including community service and training centers that focus on correcting problematic behaviors and implementing strong discipline (McCluskey 2017). These alternative sentences are more in line with *parens patriae*, which can still be seen as a component of some juvenile justice practices.

## RIGHTS OF JUVENILES

Despite often receiving adult-level sentences, juveniles are not guaranteed the same protections that adults are (Levick 2016). Even rights that are meant to be guaranteed to juveniles are not always present. For instance, while federal law requires separation between juveniles and adults within these prisons, many states continue to house juveniles and adults together (Lahey 2016). Juveniles also do not always undergo the same formal processes in the arrest, detainment, and trial stages that adults do. In about one-fourth of cases where youth are incarcerated, they have not been formally charged with a crime (OJJDP Statistical Briefing



Book 2017). The persistent lack of rights for juveniles can therefore lead to unjust and unequal outcomes.

Today, there is strong variation across states with regards to juvenile justice policy. In Ohio, for example, the Juvenile Detention Alternatives Initiative has been implemented, which is a plan that uses risk assessment to keep youth in the community or minimal security facilities when possible (Annie E. Casey Foundation 2014). Meanwhile, Florida tries a higher percentage of juveniles as adults than any other state, with the majority being for nonviolent offenses (Hager 2015). The discretion each state has been afforded, as well as the lack of formalities in the juvenile justice system, has created a system that varies widely in both policies and outcomes. Without consistent accountability and standards for the juvenile justice system across states, youth will continue to lack the same rights and formal processes that ought to be guaranteed to those receiving adult-level sentences.

## RACIAL DISPARITIES IN THE SYSTEM

One major juvenile justice issue is racial inequality in the system. Similar to the adult system, there are strong differences between arrest rates of white and Black and Hispanic youth. Despite a strong decline in juvenile arrest rates between 2003 and 2013, the racial disparities in arrest rates did not improve during this period (Rovner 2016). Minority youth have disproportionately high contact with the juvenile justice system, which can lead to worse developmental outcomes (Bishop and Decker 2006; Robles-Ramamurthy and Watson 2019). Furthermore, minority youth are overrepresented in every stage of the system,

including arrest, petitioning, and custody. The custody rate is five times greater for Black youth than white youth (Bishop and Decker 2006). Research has also found that minority youth are disproportionately impacted by harms associated with juvenile delinquency. Yoon, Quinn, McCarthy, and Robertson (2021) found that exposure to the juvenile justice system had negative academic consequences, and this effect was most salient in Black males. There is an alarming disproportionate harm inflicted on minority youth within the juvenile justice system, which contributes to systemic issues of racism and inequality in the criminal justice system.

## **JUVENILE JUSTICE POLICIES**

Understanding how different policies and practices predict outcomes for juveniles is crucial in developing a broader understanding of juvenile delinquency. These impacts are complex and are often affected by underlying conditions of the system, individual differences, and other policies and practices that are in place.

## **AGE OF CRIMINAL RESPONSIBILITY**

The age of criminal responsibility is defined as the age at which a juvenile is automatically subject to an adult court (Interstate for Commission on Juveniles 2021). It is extremely difficult to determine what age is appropriate, and whether or not that age should be different based on the offense. McDiarmid (2013) points out that we should be thinking about whether or not juveniles possess the ability to understand wrongfulness, criminality, and consequences of criminal behavior,

as well as their psychological development and experiences. Existing literature supports the notion that children may not fully comprehend how the system operates. Barnett et al. (2017) examined existing evidence from a policy brief based on practices in California. The researchers determined that most children lack the capacity to understand formal processing within the criminal justice system the way adults do and would therefore benefit from being diverted away from it.

Although there is limited evidence regarding the impact of lowering or raising the age of criminal responsibility, one study in Connecticut did find that 16-year-olds processed in the juvenile court were significantly less likely to recidivate than those processed in the adult court (Fowler and Kurlychek 2018). A limitation of studies like these is that they have limited generalizability due to relying on state-level policies and outcomes. Policies such as age of criminal responsibility demonstrate very specific and seemingly small differences between states, which makes it difficult to apply research conducted within individual states. This speaks to the importance of state-level analyses of juvenile justice policies and outcomes.

## TRANSFER LAWS

Transfer laws outline the age and legal proceedings necessary to transfer system-involved youth from the juvenile court jurisdiction to the adult court system (Redding 2010). These laws are controversial, and many advocates for juvenile rights argue that certain offenses do not warrant transferring juveniles to an adult court. Research on transfer laws have produced mixed findings. Prior

research has suggested that juveniles who have been transferred to an adult court are more likely to recidivate (Bishop, Frazier, Lanza-Kaduce, and Winner 1996). However, a more recent study found that this effect was null when controlling for prior offending histories of juveniles (Loughran et al. 2010). A meta-analysis from the Office of Juvenile Justice and Delinquency Prevention found that policies are most likely to act as a deterrent when those who engage in criminal activity believe they will be caught, believe a strong penalty is likely, and consider the risk prior to offending (Redding 2010). These pieces of evidence speak to the importance of context and considering confounding variables. Transfer laws are also complex in that juvenile courts do not guarantee the same rights that adult courts do, which means that issues may arise even when youth remain under juvenile court jurisdiction (OJJDP Statistical Briefing Book 2017).

Because transfer laws outline the age at which a juvenile can be transferred to an adult court and not when they are required to be tried as an adult, these laws afford a great deal of discretion to criminal justice system actors. Discretion can be an important tool that allows for consideration of individual circumstances but can also leave room for bias and discrimination. Research has found that non-white youth are more likely to be judicially waived to an adult court and are more likely to receive harsher sentences following transfer. Bryson and Peck (2020) analyzed data from 2004 to 2014 and found that Black males were most likely to be tried as adults than any other group. Lehmann, Chiricos, and Bales (2017) found through analysis of defendants in Florida that Black youth who have been transferred to an adult court are more likely to receive harsher

sentences than white youth. This study also found that Hispanic youth who have been transferred to an adult court are more likely to be sent to jail than white youth. Where there is room for discretion, there is room for bias and unfair outcomes. Since discretion plays a key role in juvenile adjudication decisions, racial disparities are a crucial outcome to consider in research.

#### MINIMUM AND MAXIMUM AGE OF JUVENILE COURT JURISDICTION

Minimum age of juvenile court jurisdiction policies are laws that explicitly outline the minimum age at which an adolescent can be processed in the juvenile justice system, which are present in 20 states (National Juvenile Justice Network 2021). In other states, no age is set, leaving room for discretion in the courts regarding whether or not an adolescent should be formally processed in a juvenile court. It is also possible to divert youth away from the system altogether, which some researchers argue is the most beneficial option for youth (Barnert et al. 2017). This process is called juvenile diversion, which allows for youth to be processed outside of the juvenile justice system, while still implementing a plan or system of discipline (Bynum and Thompson 1996; Annie E. Casey Foundation 2020). Abrams et al. 2015 found that in California, where there is no minimum age of juvenile court jurisdiction, there are some juveniles under the age of 12 who are processed formally in the juvenile system, often for misdemeanors and status offenses. The authors argue that setting a minimum age of juvenile court jurisdiction might prevent this premature exposure to the system from happening. The authors also argue that setting a minimum age might address some policy gaps, particularly in California. Unlike the minimum age of juvenile court

jurisdiction, all states provide a maximum age at which a juvenile can remain in the juvenile system, and the majority of states set this age at 17 (National Juvenile Justice Network 2021).

## HUMAN RIGHTS

The diversification of the system across states has led to several discrepancies in guaranteeing rights to juveniles. As outlined stated previously, juveniles are not guaranteed the same formal processes and protections that adults are. For example, only three states have a statutory provision requiring juveniles to consult with parents or legal counsel before waiving their Miranda Rights, which speaks to a lack of emphasis on due process within the juvenile system (Human Rights for Kids 2020). Problematic practices have also arisen with regards to punitive sentences. Despite being founded on principles of prioritizing rehabilitation and addressing the needs of at-risk youth, many states now practice determinate sentencing and mandatory minimums for juveniles (Bishop and Decker 2006).

The use of more punitive practices in the juvenile justice system has contributed to policies that are extremely damaging to mental health. One particularly egregious example of a lack of human rights in the system is the presence of solitary confinement. Solitary confinement involves the isolation of an incarcerated person in a separate cell where they have little to no interaction with other people (National Commission on Correctional Health Care 2022). Despite a report issued by the United Nations (UN) recommending the ban of solitary confinement in the juvenile justice system, only eight states have fully

abolished this practice (Owen and Goldhagen 2016; Human Rights for Kids 2020). The gradual shift from rehabilitative to more punitive practices and a lack of specific rights for juveniles has created a system that mirrors issues present in the adult criminal justice system.

## **THEORETICAL FRAMEWORK**

Modern criminological theory states that there are four main purposes or explanations for why we punish individuals found guilty of criminal activities (Ellis 2014). The first is rehabilitation, which would involve correcting problematic behaviors and developing an effective plan that will help an individual avoid criminal activity. The second is incapacitation, which involves keeping dangerous individuals off the streets for public safety purposes. The third is deterrence, which involves discouraging people from committing crime by demonstrating that crime will be punished in the justice system. There are two kinds of deterrence: general and specific. General deterrence involves convincing the public that crimes will be punished by using those arrested as a demonstration. Contrastingly, specific deterrence is meant to discourage the individual who has been arrested from committing more crimes in the future. Finally, retribution states that those who have committed crimes deserve to be punished, and it is the role of the state to do so.

Many people believe that the purpose of the juvenile justice system should be to rehabilitate. According to a survey of 1,001 adults, there was agreement across different races and political beliefs regarding the juvenile justice system's purpose (Holland 2017). Specifically, 80% of respondents believed that education

and preventative efforts were more beneficial than punishment, 94% agreed that “the most important job of the juvenile justice system is to make sure teens get back on track and never commit new crimes,” and only about one-fourth of participants believed that education and counseling were insufficient to deter youth from committing more crimes (Holland 2017). Clearly, the public generally believes the purpose of the justice system is to rehabilitate. Despite the strong majority opinion that the juvenile justice system should have rehabilitative goals, a number of punishment and deterrence focused policies have been put in place since the 1980s (Levick 2016; H.R.3355 1993-1994). This disconnect speaks to the difficulty in translating ideals into policy. It may also demonstrate a difference between public opinion in the 1980s and the present day, and a lack of policy changes that are in line with this shift in beliefs.

Before we can discuss rehabilitation, we must examine the data related to arrests, transfer laws, and criminal responsibility across states in order to understand the landscape of the system for juveniles and the mechanisms through which rehabilitation might occur. Conversations of rehabilitating youth have focused on different areas, such as mental health, education, and community support. There is no simple solution and no set pathway to desistance for all youth. A good place to start might be examining the policies that are currently in place in order to understand the impacts associated with these policies.

Based on the different theories of punishment, there are a few relationships between policies and outcomes for juveniles we might expect to see. If legal repercussions serve to rehabilitate juveniles, we might expect that



rehabilitative oriented policies would lower recidivism rates. For example, avoiding the transfer of juveniles to adult courts could be considered a rehabilitative approach. However, if legal repercussions serve to deter crime or incapacitate dangerous individuals, we might expect that deterrence focused policies would lower crime rates. Deterrence oriented policies are meant to be swift, certain, and severe (Ellis 2014). An example of this kind of policy would be consistently applying adult level sentences to juveniles.

The theory behind these policies helps to explain how both the adult and juvenile justice system might be able to achieve the goal of lowering levels of juvenile delinquency. One could argue that the juvenile justice system is more focused on rehabilitation because this is the purpose it was created to fulfill and would thus be more successful at rehabilitating youth. On the other hand, one could also argue that the adult system would foster more accountability and motivate juveniles to avoid criminal activity. Developing a theoretical lens in research can be useful in understanding the function and impacts of criminal justice policies, contextualizing the importance of the questions being tested, and informing future policies and research.

In this paper, one of two main hypotheses might hold true. On the one hand, rehabilitative-oriented policies might bring about lower levels of juvenile incarceration. An example of evidence that would support this hypothesis would be an association between a higher maximum age of juvenile court jurisdiction and lower levels of juvenile incarceration. Alternatively, deterrence-oriented policies might bring about this impact. An example of a relationship that would

support this hypothesis is a lower minimum age of juvenile court jurisdiction leading to lower levels of juvenile arrest rates. The following section will discuss the empirical methods I will use to assess these hypotheses. I hypothesize that rehabilitative-oriented policies will lead to lower levels of arrests and incarceration of juveniles. The following section will discuss the empirical methods that will be used to test this hypothesis.

## Chapter 3: Data, Measures, and Analytic Strategy

The present study is focused on researching the state-level policies and practices that have been associated with rates of juvenile arrests and incarceration. There are two key questions this study seeks to answer. First, to what extent do states differ from one another with regard to juvenile justice policies? Second, what policies and practices are associated with juvenile arrest and incarceration rates? These questions were assessed by collecting data on state-level variables, such as age of criminal responsibility, transfer laws, minimum age of juvenile court jurisdiction, juvenile incarceration rate, and disparities in arrests between different races. The data collected is based on 2018 because there is ample available data on a variety of statistics regarding juvenile justice. Furthermore, this allows for exploration of the implications of recent policy changes, which may bolster change in juvenile justice trends within the next few years. Finally, multivariate analyses were run in order to account for several control variables.

### **DATA, MEASURES, AND ANALYTIC STRATEGY**

The state-level dataset was created by drawing from several sources that provide data on juvenile justice policies and outcomes in 2018 for all fifty states and the District of Columbia (N = 51). The main outcome variables are the juvenile incarceration rate, the juvenile detention rate, and the juvenile arrest rate (ACLU 2021; OJJDP Statistical Briefing Book 2018). The ACLU provides an estimate of the juvenile incarceration rate each year and the Department of Justice provides estimates for juvenile detention and arrest rates. Data on racial disparities in arrest rates, which come from The Sentencing Project, was used for

the secondary dependent variables (Rovner, 2016). These variables were considered secondary because the main outcome variables encompass a wider scope of the juvenile justice system. The data on racial disparities is an important outcome variable that focuses on a unique aspect of the juvenile justice system: inequality. While this was an important consideration in this research, the primary focus of the study is interactions between juvenile justice policies and incarceration and arrest rates.

The four main predictor variables are the age of criminal responsibility, the age at which juveniles can be transferred to an adult court, the minimum and maximum age of juvenile court jurisdiction (Interstate for Commission for Juveniles 2022; Teigen 2021; National Juvenile Justice Network 2022). The data on age of criminal responsibility and age juveniles can be transferred to an adult court come from the Interstate Commission for Juveniles, a resource that regularly updates policy data based on communication with state governments. The data on the minimum age of juvenile court jurisdiction comes from the National Juvenile Justice Network, and the data on the maximum age of juvenile court jurisdiction come from the National Conference for State Legislatures. Data on human rights for juveniles, which come from the organization Human Rights for Kids, was used as a secondary independent variable (Human Rights for Kids 2020). This variable was considered secondary because it is a rating assigned based on several variables. The main independent variables are all ages set by specific state-level policies, and the focus of the study was on the impacts of variation in these kinds of policies. Finally, the two control variables were political affiliation and the

violent crime rate of each state. Political affiliation was based on the 2018 general election voting records and the violent crime rate is provided in the Uniform Crime Report every year by the FBI (BBC News 2018; FBI 2018).

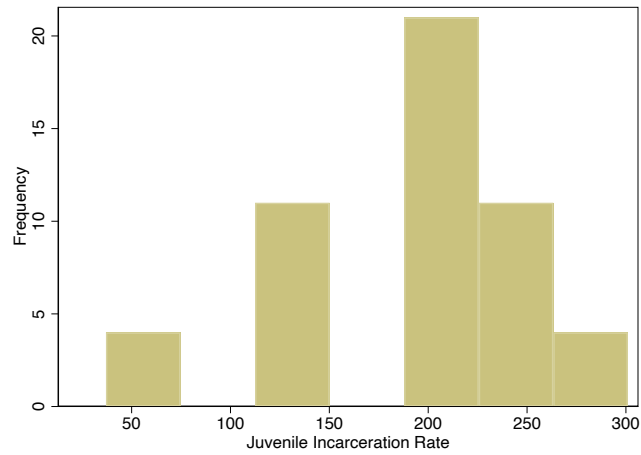
## **MEASURES**

### **DEPENDENT VARIABLES**

This study uses three primary dependent variables as well as two secondary dependent variables. The primary dependent variables were juvenile incarceration rates, juvenile detention rates, and juvenile arrest rates. The secondary dependent variables were the racial disparities in arrest rates between Black and Hispanic youth compared to white youth.

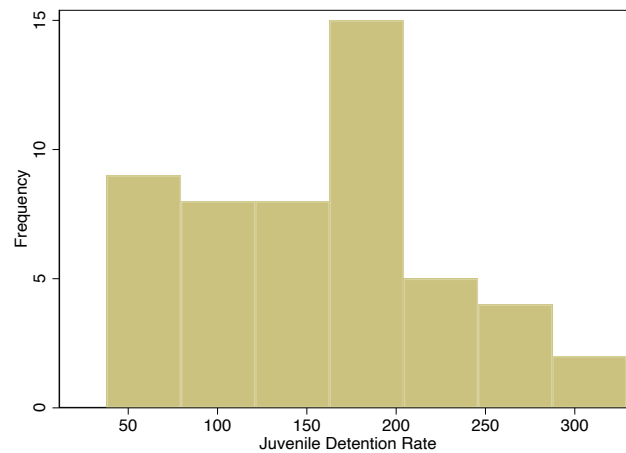
*Juvenile incarceration rate.* The juvenile incarceration rate is measured by the number of juveniles incarcerated, detained, or held in custody each year in each state per 100,000 youth in that state. The ACLU provides an estimated range for each state, and this variable was coded using the average of the range assigned to each state. This data provides important information on the extent to which juveniles are prosecuted in each state. In 2018, an average of 190.216 youth per 100,000 youth were incarcerated in each state (see Figure 1).

**Figure 1. Juvenile Incarceration Rate in 2018, all U.S. states and Washington D.C. (n=51)**



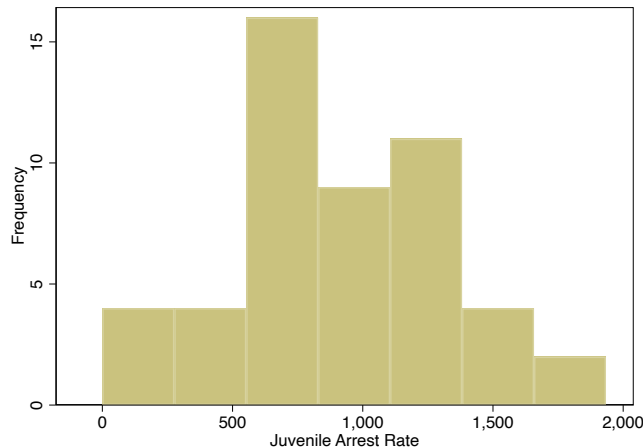
*Juvenile detention rate.* The juvenile detention rate is a measure of how many juveniles are detained in juvenile facilities, detention centers, and prisons. The mean juvenile detention rate for 2018 was 156.549 youth per 100,000 youth in each state (see Figure 2).

**Figure 2. Juvenile Detention Rate in 2018, all U.S. states and Washington D.C. (n=51)**



**Juvenile arrest rate.** The juvenile arrest rate is a measure of how many juveniles are arrested each year. The mean arrest rate in each state in 2018 was 897.660 youth per 100,000 youth in each state (see Figure 3).

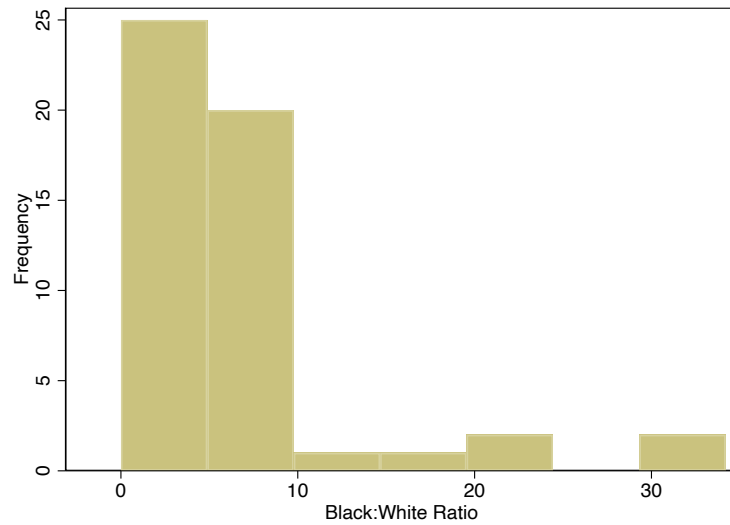
**Figure 3. Juvenile Arrest Rate in 2018, all U.S. states and Washington D.C. (n=51)**



**Disparities in arrest rates.** Racial disparities in arrest rates were analyzed as a secondary dependent variable in order to assess whether specific juvenile policies are associated with greater racial disparities in the juvenile justice system. The Sentencing Project provides data that compares juvenile arrest rates for white youth compared to Black and Hispanic youth. This variable was operationalized by comparing arrests of Black and Hispanic youth to white youth in each state and assigning each state a value based on these ratios. States with higher values have higher levels of inequality with regards to arrests of white youth compared to Black and Hispanic youth. The Sentencing Project provides data on the ratio of

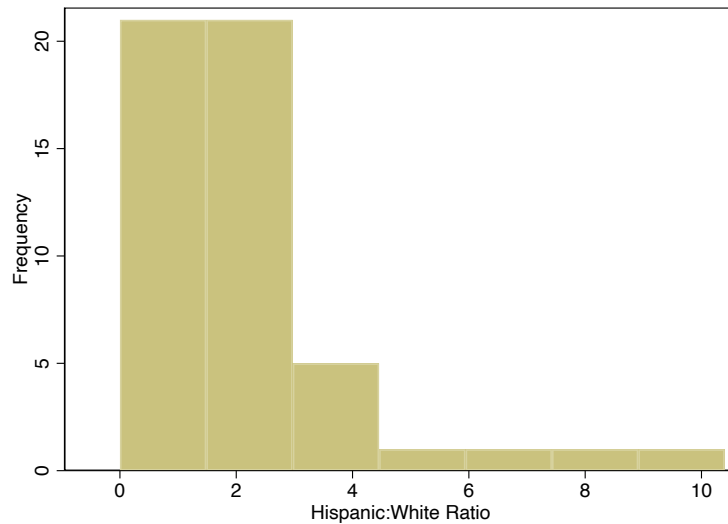
Hispanic to white youth from 2013 and has more recent data from 2018 on the ratio of Black to white youth. The mean ratio of arrests of Black youth to arrests of white youth was 6.863 in each state, which means that on average approximately seven Black youth are arrested for every white youth who is arrested (see Figure 4). The mean ratio of arrests of Hispanic youth to arrests of white youth was 2.104 in each state, which means that approximately two Hispanic youth are arrested for every white youth that is arrested (see Figure 5).

**Figure 4. Ratio of Arrests of Black Youth to White Youth in 2019, all 50 states and Washington D.C. (n=51)**





**Figure 5. Ratio of Arrests of Hispanic Youth to White Youth in 2013, all 50 states and Washington D.C. (n=51)**



## INDEPENDENT VARIABLES

The four main predictor variables are age of criminal responsibility, age at which a juvenile can be transferred to an adult court, and the minimum and maximum ages of juvenile court jurisdiction. The human rights rating assigned to each state by Human Rights for Kids was used as a secondary independent variable.

*Age of criminal responsibility.* The age at which juveniles are automatically subject to processing in an adult court is known as the age of criminal responsibility. This data was pulled from 2018. While in the majority of states this age is eighteen, there are thirteen states where this is not the case. There was missing data for five states that did not report this policy to the data source.

In West Virginia, the policy was reported as “no minimum,” which was coded as a 0.

***Minimum and maximum ages of juvenile court jurisdiction.*** Minimum and maximum ages of juvenile court jurisdiction set rules and regulations for which individuals can be processed in the juvenile system. Only twenty states have set a minimum age at which juveniles are subject to juvenile court jurisdiction. States that do not have a minimum age of juvenile court jurisdiction were coded as a 0 in order to assess the significance of not having such a policy. This age ranges from seven to twelve years old. The maximum age ranges from fifteen to seventeen years old, with forty-two states having a maximum age of seventeen.

***Juvenile transfer.*** Juvenile transfer laws refer to the policies and procedures necessary to subject a juvenile to an adult court. The age at which a juvenile can be transferred to the adult court in each state ranged from twelve to sixteen years old. In a few states, including Alabama, Georgia, and Hawaii, this policy depends on the offense. This was quantified by using the lowest value in the range in the data analysis in order to assess based on the true minimum age at which a juvenile might be subject to an adult court. There was missing data for six states that did not report a minimum age of juvenile transfer to the data source.

***Human rights.*** Data on human rights was used as a secondary independent variable. The organization Human Rights for Kids provides data on human rights for juveniles across states (2020 National State Ratings Report). This provided information on policies regarding due process, minimum court age,

maximum court age, adult courts, mandatory minimum sentences, felony-murder rule, life without parole, release safety valve, solitary confinement, incarceration, post-release supervision, voting rights, and foster care. The source also provided an overall human rights rating for each state based on their policies regarding rights for juveniles. This rating was used as a variable in this study.

## CONTROLS

***Political affiliation.*** Voting records for the 2018 general elections were used to assess whether political affiliation could help explain associations between policies and outcomes for juveniles (BBC 2018). While support for juvenile justice reform is strong across parties, generally Democrats are more in favor of these kinds of policy changes than Republicans (Pew Charitable Trusts 2014). Based on voting records, political affiliation was operationalized by coding states as 1-4, with 1 representing a strong Republican voting record, 2 representing a moderate Republican voting record, 3 representing a moderate Democrat voting record, and 4 representing a strong Democrat voting record. Maine was scored as a 2.5 because the voting record was split during 2018.

***Violent crime rate.*** The violent crime rate was used as a control variable. The violent crime rate helps contextualize crime patterns in each state, and therefore can be used to determine if relationships between juvenile justice policies and the juvenile incarceration rate hold true when accounting for responses to crime in each state. This data is provided every year and for each state by the FBI in the Uniform Crime Report. Data was used from 2018 for this analysis because policy data was pulled from this year.

## ANALYTIC STRATEGY

The dataset will first be assessed through descriptive statistics and a univariate discussion of the distribution of the variables. This will answer the question “To what extent are differences in the juvenile justice system present across states?” Next, bivariate relationships between the independent and dependent variables will be explored. The research question “What policies and practices are associated with juvenile delinquency?” will be investigated by looking for significant relationships between predictor variables and outcome variables in the bivariate analyses. Finally, multivariate analyses will be run in order to assess whether significant associations are better explained by other state-level variables. The following sections investigate the relative predictive value of each independent variable with regards to each dependent variable.

## Chapter 4: Results

### UNIVARIATE STATISTICS

**Table 1. Descriptive Statistics of Dependent Variables.**

	<b>Obs</b>	<b>Mean</b>	<b>SD</b>	<b>Min</b>	<b>Max</b>
Juvenile Incarceration	51	185.020	72.880	37	301
Juvenile Detention	51	156.549	68.953	38	329
Juvenile Arrest Rate	50	897.660	421.442	0	1934
Arrests of Black Youth	51	6.863	6.949	0	34.2
Arrests of Hispanic Youth	51	2.104	2.022	0	10.4

**Table 2. Descriptive Statistics of Independent Variables.**

	<b>Obs</b>	<b>Mean</b>	<b>SD</b>	<b>Min</b>	<b>Max</b>
Age of Criminal Responsibility	46	16.783	3.155	0	18
Minimum Age of Juvenile Court	51	3.627	4.669	0	17
Maximum Age of Juvenile Court	51	16.824	.434	15	17
Minimum Age of Juvenile Transfer	45	13.844	2.354	0	16
Human Rights Rating	51	4.314	1.789	2	9.5

Some variables demonstrate strong variability, while others are relatively similar across states and have little variation. The dependent variables generally had greater variation than the independent variables. The juvenile incarceration rate and juvenile detention rate had less variation across states compared to the juvenile arrest rate (mean = 185.020, SD = 72.880; mean = 156.549, SD = 68.953). The outcome variable with the greatest variation was the juvenile arrest rate (mean = 897.660, SD = 421.442). This speaks to the strong differences across

states with regards to responses to juvenile crime. The ratio of arrests of Black and Hispanic youth compared to white youth had relatively small variations, generally demonstrating consistency across states with regards to disparities in arrest rates.

Similar to the dependent variables, all of the independent variables were continuous. However, these variables had smaller ranges than did the dependent variables, leading to generally lower variations. The age of criminal responsibility demonstrated a moderate degree of variation (mean = 16.783, SD = 3.155). The independent variable with the highest variation was the minimum age of juvenile court jurisdiction (mean = 3.627, SD = 4.669). This variation stems from the lack of states that have implemented an official minimum age of juvenile court jurisdiction, with only 22 states maintaining such a policy. The maximum age of juvenile court jurisdiction had the smallest variation of all variables, with a highly prevalent mode of 17 years of age (mean = 16.824, SD = .434). The minimum age at which a juvenile can be transferred to an adult court had a moderate degree of variation (mean = 13.844, SD = 2.354). Finally, the human rights rating assigned to each state ranged from 2 to 9.5 and had a moderate degree of variation (mean = 4.314, SD = 1.789).

To address the research question “To what extent are differences in the juvenile justice system present across states?” it is evident that the juvenile arrest rate and the minimum age of juvenile court jurisdiction vary greatly across states. Bivariate analysis explains which independent variables are associated with

differences in arrest rates across states, as well as which outcomes may result from differences in the minimum age of juvenile court jurisdiction.

## BIVARIATE STATISTICS

**Table 3. Correlation Matrix.**

	1	2	3	4	5	6	7	8	9	10	11
1. Age of criminal responsibility	1										
	46										
2. Minimum age of juvenile transfer	-0.051	1									
	45	45									
3. Minimum age of juvenile court jurisdiction	-0.031	0.143	1								
	46	45	51								
4. Maximum age of juvenile court jurisdiction	-0.093	0.044	-0.162	1							
	46	45	51	51							
5. Black:white ratio of arrests	0.159	0.127	-0.022	0.024	1						
	46	45	51	51	51						
6. Hispanic:white ratio of arrests	0.183	0.241	0.043	0.067	0.674	1					
	46	45	51	51	51	51					
7. Juvenile incarceration rate	-0.236	0.212	-0.032	0.222	-0.373**	-0.340**	1				
	46	45	51	51	51	51	51				
8. Juvenile detention rate	-0.333**	0.252**	-0.102	0.169	-0.397**	-0.361**	0.854**	1			
	46	45	51	51	51	51	51	51			



9. Juvenile arrest rate	0.196	-0.031	0.201	-0.086	-0.005	-0.213	0.267**	0.251**	1		
	45	44	50	50	50	50	50	50	50		
10. Political affiliation	0.165	0.139	-0.051	0.179	0.205	0.384**	-0.159	-0.196	-0.166	1	
	46	45	51	51	51	51	51	51	50	51	
11. Violent crime rate	0.046	0.267**	-0.018	-0.115	-0.375**	-0.204	0.403**	0.350	0.029	-0.248**	1
	46	45	51	51	51	51	51	51	50	51	51
12. Human rights rating	-0.256**	0.177	0.140	0.227	0.106	0.269**	0.243**	0.173	-0.231	0.251**	0.047
	46	45	51	51	51	51	51	51	50	51	51

p = .1

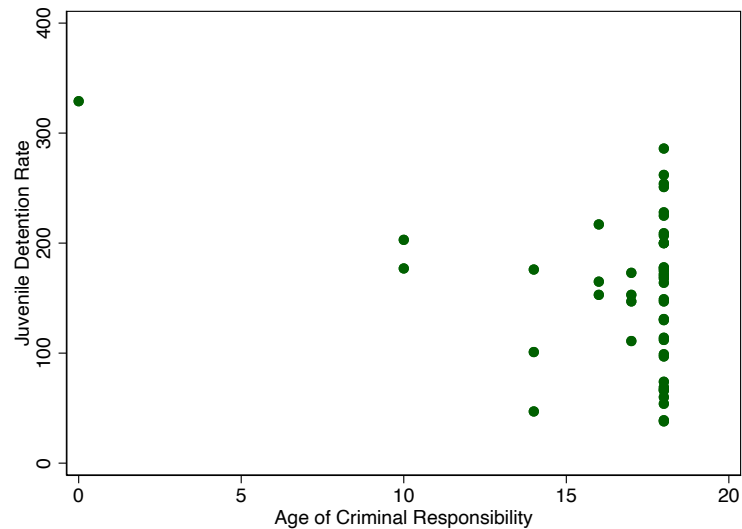
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**Juvenile incarceration rate.** Bivariate results indicated weak to moderate associations between policy variables and the juvenile incarceration rate, with no statistically significant relationships. Moderate positive associations were observed for the maximum age of juvenile court jurisdiction ( $r$ : .222, p-value: .118) and the minimum age at which a juvenile can be transferred to an adult court ( $r$ : .212, p-value: .161). With respect to the age of criminal responsibility, there was a weak negative correlation with the juvenile incarceration rate ( $r$ : -.236, p-value: .115). No association was observed between the minimum age of juvenile court jurisdiction and the juvenile incarceration rate ( $r$ : -.032, p-value: .822). The only statistically significant result for this variable was the association with the human rights rating in each state. Stronger human rights for juveniles was actually associated with *higher* levels of juvenile incarceration ( $r$ : .243, p-value: .086).

**Juvenile detention rate.** With respect to the juvenile detention rate, there were several significant relationships. There was a significant positive association with the age of criminal responsibility ( $r$ : -.333, p-value: .024) (see Figure 6). There was also a significant association between the minimum age at which a juvenile can be transferred to an adult court and the juvenile detention rate ( $r$ : .252, p-value: .095). There was a weak positive association between the maximum age of juvenile court jurisdiction ( $r$ : .169, p-value: .236) and no correlation with the minimum age of juvenile court jurisdiction ( $r$ : -.102, p-value:

.479). Finally, there was a weak positive association with the human rights rating in each state ( $r: .140$ ,  $p$ -value:  $.225$ ).

**Figure 6. Age of criminal responsibility and the juvenile detention rate.**



**Juvenile arrest rate.** There were several weak and moderate associations with the juvenile arrest rate, but no statistically significant relationships. With respect to the arrest of juveniles, there was a weak positive correlation with the age of criminal responsibility ( $r: .224$ ,  $p$ -value:  $.139$ ). There was no correlation with the minimum age at which juveniles can be transferred to an adult court ( $r: -.031$ ,  $p$ -value:  $.839$ ). There was a moderate positive association with the minimum age of juvenile jurisdiction ( $r: .201$ ,  $p$ -value:  $.157$ ) and no correlation with the maximum age ( $r: -.086$ ,  $p$ -value:  $.489$ ). Finally, there was a weak positive relationship with the human rights rating in each state ( $r: .140$ ,  $p$ -value  $.213$ ).

**Ratio of arrests of Black youth to white youth.** The majority of the results for the ratio of arrests of Black youth to white youth were not significant. There was a weak positive correlation with the age of criminal responsibility ( $r: .159$ ,  $p\text{-value: .292}$ ) as well as with the minimum age of juvenile transfer ( $r: .127$ ,  $p\text{-value: .406}$ ). The associations with the minimum and maximum ages of juvenile court jurisdiction and the human rights rating assigned to each state did not reach statistical significance.

**Ratio of arrests of Hispanic youth to white youth.** There were several weak and moderate associations with the ratio of arrests of Hispanic youth to white youth and one statistically significant relationship. There was a weak positive association with the age of criminal responsibility ( $r: .183$ ,  $p\text{-value: .223}$ ) and a moderate positive relationship with the minimum age of juvenile transfer ( $r: .241$ ,  $p\text{-value: .111}$ ). The associations with the minimum and maximum ages of juvenile court jurisdiction were not significant. There was a statistically significant positive relationship with the human rights rating assigned to each state ( $r: .269$ ,  $p\text{-value: .057}$ ).

## MULTIVARIATE STATISTICS

**Table 4. Regression Models.**

	<b>Incarceration</b>		<b>Detention</b>		<b>Arrests</b>		<b>Black:white arrest ratio</b>		<b>Hispanic:white arrest ratio</b>	
	Coeff.	Sig.	Coeff.	Sig.	Coeff.	Sig.	Coeff.	Sig.	Coeff.	Sig.
<b>Model 1</b>										
Age of criminal responsibility	<b>-5.620</b>	<b>0.075</b>	-7.187	0.015	30.761	0.121	0.353	0.278	0.085	0.363
Violent crime rate	<b>0.192</b>	<b>0.001</b>	0.157	0.003	-0.047	0.893	-0.015	0.012	-0.002	0.310
Political affiliation <sup>a</sup>	-5.622	0.435	-6.241	0.344	-71.150	0.121	0.662	0.378	0.563	0.012
<b>Model 2</b>										
Minimum age of juvenile transfer	3.682	0.394	5.440	0.187	0.133	0.996	0.695	0.130	0.224	0.087
Violent crime rate	0.195	0.002	0.147	<b>0.010</b>	-0.053	0.891	-0.018	0.005	-0.003	0.134
Political affiliation <sup>a</sup>	-10.822	0.135	-12.37	0.073	-55.313	0.247	0.624	0.408	0.537	0.015
<b>Model 3</b>										
Minimum age of juvenile court jurisdiction	-0.449	0.830	-1.509	0.453	18.193	0.175	-0.032	0.873	0.026	0.658
Violent crime rate	<b>0.160</b>	0.007	0.124	0.027	0.052	0.887	-0.014	0.016	-0.001	0.411
Political affiliation <sup>a</sup>	-3.358	0.642	-6.024	0.385	-41.265	0.370	0.588	0.398	0.519	0.012

**Model 4**

Maximum age of juvenile court jurisdiction	48.357	0.031	<b>37.430</b>	0.085	-74.682	0.614	-0.610	0.782	-0.048	0.939
Violent crime rate	0.169	0.003	0.132	0.016	0.022	0.952	-0.014	0.016	-0.001	0.402
Political affiliation <sup>a</sup>	-5.683	0.414	-7.593	0.268	-41.135	0.384	0.625	0.374	0.516	0.014

**Model 5**

Human Rights Rating	<b>10.617</b>	<b>0.056</b>	7.794	0.149	-37.420	0.306	0.385	0.479	0.226	0.148
Violent crime rate	<b>0.148</b>	<b>0.010</b>	<b>0.116</b>	<b>0.036</b>	0.080	0.828	<b>-0.014</b>	<b>0.013</b>	-0.002	0.310
Political affiliation <sup>a</sup>	-7.065	0.329	-8.512	0.231	-31.484	0.512	0.457	0.524	<b>0.433</b>	<b>0.038</b>

NOTES: <sup>a</sup> higher values represent liberal leaning states

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When accounting for the two control variables, several significant bivariate associations did not hold true. The association between the minimum age of juvenile transfer and the juvenile detention rate was weakened when accounting for controls ( $\beta$ : 5.44, p-value: .187). The association between the human rights rating assigned to each state and the ratio of arrests of Hispanic youth to white youth was also weakened ( $\beta$ : .154, p-value: .148). This indicates that there are potential extraneous variables that may better explain the associations found in the bivariate relationships.

Some associations were strengthened when accounting for the control variables, indicating a potential suppressant effect. For example, the statistically significant negative association between the age of criminal responsibility and the juvenile detention rate increased in significance ( $\beta$ : -7.187, p-value: .015) and the relationship between the age of criminal responsibility and the juvenile incarceration rate became significant when accounting for controls ( $\beta$ : -5.62, p-value: .075). There was a slight increase in the strength of the association between the minimum age of juvenile transfer and the ratio of arrests of Hispanic youth to white youth ( $\beta$ : .224, p-value: .087). The strength of the relationship between the maximum age of juvenile court jurisdiction and the juvenile incarceration rate increased greatly ( $\beta$ : 48.357, p-value: .031), as did the relationship with this independent variable and the juvenile detention rate ( $\beta$ : 37.430, p-value: .085). Finally, the relationship between the human rights rating assigned to each state and the juvenile incarceration rate maintained significance ( $\beta$ : 10.617, p-value: .056).

## Chapter 5: Discussion, Implications, and Conclusions

### DISCUSSION

This research sought to understand the relationship between juvenile justice policies and outcomes. Based on bivariate and multivariate analyses, a few policies emerged as strong predictors of juvenile arrests and incarceration. Most notably, there is strong evidence to suggest that states with a lower age of criminal responsibility tend to have higher levels of juvenile detention and incarceration. While bivariate analyses only indicated a significant effect with the juvenile detention outcome variable, adding the control variables to the regression models increased the effect for both the juvenile detention rate and the juvenile incarceration rate, and the relationship with the juvenile incarceration rate reached significance. This evidence supports the hypothesis that less punitive policies lead to lower levels of arrests and incarceration.

There was some evidence in favor of punitive policies leading to lower levels of juvenile detention. The two strongest examples were the relationship between the maximum age of juvenile court jurisdiction and the juvenile incarceration rate, as well as the relationship between the minimum age of juvenile transfer and the juvenile detention rate. With regards to the first of these two relationships, it is important to note that the maximum age of juvenile court jurisdiction data has very little variation. This age is set at 15 in one state, with all other states having this age set at 16 or 17, and the majority using age 17. It may be more difficult to ascertain the impact of this policy than it would be for more continuous variables. With regards to the second of these two relationships, the



effect did not hold true when accounting for the two control variables, suggesting a potential for extraneous variables providing a better explanation for the relationship.

While one might expect that guaranteeing stronger human rights to juveniles would lead to better outcomes for juveniles, but this was not the case with regards to the juvenile incarceration variable. However, reverse causality is a likely possibility in this relationship. States that have higher levels of juvenile incarceration have more youth coming in contact with the juvenile justice system and may recognize issues pertaining to a lack of human rights for children. It is possible these issues are being addressed in states with high levels of juvenile delinquency through stronger human rights policies.

## **IMPLICATIONS**

The findings have important real world implications. For instance, the age of criminal responsibility has seen several changes in recent years. In Vermont for example, the age of juvenile court jurisdiction has been raised to 19 for the first time in recent history (Vermont General Assembly, 2022). If this study was replicated and once again found support for a relationship between a higher age of criminal responsibility and a lower juvenile detention rate, it would be important that these findings are taken into consideration when implementing new juvenile justice policies. Automatic adult court jurisdiction is a highly impactful policy for youth and should be carefully examined when enacting policies. This finding also supports the hypothesis that less punitive policies can lead to lower levels of juvenile delinquency.

Transfer laws are also an important area of study. Another significant finding was that raising the age at which a juvenile can be transferred to an adult court is associated with higher levels of juvenile detention. While this might appear to suggest that a more punitive approach to this policy leads to lower levels of juvenile delinquency, it is important to acknowledge the role of discretion. Policies that outline the age at which a juvenile can be transferred to an adult court can set regulations for states, but also afford discretion to states. The role of discretion in the criminal justice system has a strong impact on outcomes for those who interact with the system, particularly juveniles. When the decision to try an individual under 18 years of age is left up to the discretion of prosecutors and judges, outcomes can be inconsistent and may disproportionately harm marginalized groups.

## **LIMITATIONS**

One limitation of this study is that data was collected from different years due to limited available data. While general assessments of associations between policies can be inferred, it is difficult to infer causation from relationships between variables. Furthermore, many policy-focused data sources rely on states to communicate when they implement policy changes, making it difficult to find completely accurate and consistent data on juvenile justice policies. This demonstrates a need for stronger measures of juvenile justice policies and outcomes. Another key limitation of correlational studies is that there are often other factors that can better explain associations and relationships between variables. While the violent crime rate and political affiliation of each state was

controlled for, there are a multitude of other variables that could have been controlled for, such as relative prevalence of specific kinds of crimes, history of juvenile justice policy changes, and strength of welfare programs. Finally, even when a plethora of controls are accounted for, the findings are still correlational rather than causal.

## **FUTURE DIRECTIONS**

An important future direction for juvenile justice research is more consistent data collection on policies, practices, and outcomes such as incarceration rates and recidivism. One major modern juvenile justice issue is a lack of data on recidivism rates for juveniles. Recidivism data is an important indicator of whether or not rehabilitation efforts have been successful. This data can also be used to assess what risk factors lead to a higher likelihood of recidivating. This insight is crucial in improving conditions and outcomes for system-involved youth.

Another future direction for this kind of research is time-series analysis of juvenile justice policies and practices. Changes in policies and trends in juvenile crime over decades may speak to the long-term impacts of policy changes better than this research was able to. In order to conduct this kind of research, it is important that there is consistent and accurate data about the juvenile justice system. Furthermore, there is a need for better data on which adults who come in contact with the criminal justice system were also system-involved as youth. This would strengthen time-series analyses on outcomes for youth who come in contact with the juvenile justice system. With the example of the age of criminal

responsibility findings, exploring the mechanism through which this relationship occurs could be achieved through a time-series analysis. One potential mechanism for this relationship is that youth who remain in the juvenile justice system are less likely to recidivate than those placed in the adult system. However, before one could draw this conclusion data on adult arrest and detention rates would have to be taken into account.

## **CONCLUSION**

Addressing juvenile crime is a complex issue and has been a source of controversy for decades. The juvenile justice system has evolved from taking a primarily rehabilitative approach, to enforcing more punitive sentences that are in line with adult courts. Recently, researchers, activists, and justice partners have advocated for better treatment of system-involved youth. It is crucial that researchers continue to investigate how juvenile justice practices and policies may impact outcomes for juveniles. Significant changes and reforms have been made in the juvenile justice system over the past several decades, and states continue to develop their policies in order to better address juvenile crime. Therefore, the system will continue to evolve in the coming years. Reform must begin with facts and findings that emerge from quantitative analysis of the system, and research should play an integral role in determining better policies for a better future for youth.

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