

## Providing Appropriate Treatments to Youth in the Criminal Justice System by Raising the Age

Rubén Martinez Richard C. Davila Jean Kayitsinga Francisco A. Villarruel

August 2018



University Outreach and Engagement Julian Samora Research Institute



JSRI is committed to the generation, transmission, and application of knowledge to serve the needs of Latino communities in the Midwest and across the nation. To this end, it has organized a number of publication initiatives to facilitate the timely dissemination of current research and information relevant to Latinos.

#### **Latinos in Michigan**

A focused approach to disseminating information on Latinos in the state of Michigan. These specialized reports include documents, charts, and graphs that utilize primary data from JSRI's researchers and initiatives.

#### **Research Reports**

JSRI's flagship publication for scholars who want to produce a quality publication with more detail than is usually allowed in mainstream journals. Research Reports are selected for their significant contribution to the knowledge base of Latinos.

#### **Working Papers**

For scholars who want to share their preliminary findings and obtain feedback from others in Chicano and Latino Studies.

#### **Statistical Briefs/CIFRAS**

For distribution of "facts and figures" on Latino issues and conditions. Also designed to address policy questions and to highlight important topics.

#### **Occasional Papers**

For the dissemination of speeches, papers, and practices of value to the Latino community which are not necessarily based on a research project. Examples include historical accounts of people or events, "oral histories," motivational talks, poetry, speeches, and legal technical reports.

#### **Demographic Reports**

JSRI demographic reports use primary data from research projects and secondary data from government sources. Examples include census data; projected population summarizations; statistical profiles of Latino household size, educational attainment, and earned income; and localized and regional population projections.

#### **NEXO Newsletter**

JSRI's official newsletter is produced in both printed and pdf formats. Comments can be sent to <a href="mailto:jsamorai@msu.edu">jsamorai@msu.edu</a>.

Julian Samora Research Institute ● Dr. Rubén O. Martinez, Director Michigan State University
219 S. Harrison Rd., Room 93 ● East Lansing, MI 48824-4586
Phone: (517) 432-1317 ● Fax: (517) 432-2221

E-mail: jsamorai@msu.edu • Web: jsri.msu.edu

## Providing Appropriate Treatments to Youth in the Criminal Justice System by Raising the Age

Rubén Martinez, Richard C. Davila, Jean Kayitsinga, Francisco Villarruel

May 2018

#### **ABSTRACT**

This report provides an overview of potential benefits that will accrue to Michigan youth, families, and communities should the State legislature pass legislation to raise the age of juvenile court jurisdiction from 17 to 18. While implementation of Raise the Age legislation may initially result in increased costs to counties and the state, the examples of other states that have previously raised the age demonstrate that these will likely be short-term or one-time costs. Several factors and current trends in Michigan will contribute to savings over the long term should the ceiling for juvenile jurisdiction be raised from 17 to 18. These include a decline in the adolescent population in the state and in crime and arrest rates among juveniles, implementation of a new statewide school-discipline policy, and the positive effects of juvenile justice treatment programs over those of adult prisons. Justice-involved youth in treatment programs in juvenile justice systems have lower recidivism rates than those in adult prisons. They benefit from rehabilitative and age-appropriate treatment programs, including opportunities to continue their education, which are not available in the punitive cultures of adult prisons. They are also spared a record of a conviction that tends to have long-term negative effects on their employment opportunities, as evident by their lower lifetime earnings. Overall, the report finds that serving 17-year-olds in the juvenile justice system increases public safety, saves taxpayer money, and provides young people in trouble with the law the opportunity of rehabilitation through age-appropriate treatment and services.

#### **ABOUT THE AUTHORS**

Rubén Martinez is professor of Sociology and director of the Julian Samora Research Institute at Michigan State University.

Richard C. Davila is a research specialist at the Julian Samora Research Institute at Michigan State University.

Jean Kayitsinga is a social demographer at the Julian Samora Research Institute at Michigan State University.

Francisco Villarruel is associate chair and professor in the Department of Human Development and Family Studies at Michigan State University.

#### SUGGESTED CITATION

Martinez, R., Davila, R.C., Kayitsinga, & J., Villarruel, F. (2018). Providing appropriate treatments to youth in the criminal justice system by Raising the Age. East Lansing, MI: The Julian Samora Research Institute, Michigan State University.

© 2018 Michigan State University. All rights reserved.

## **Contents**

Executive Summary	Vili
Introduction	1
The Limitations of Data and Cost Estimates	2
Declining Juvenile Crime and Arrests	4
Racial Equity	7
The Relative Effects of the Two Systems	7
Treatment Options in the Juvenile vs. the Adult System	8
Recidivism Rates in the Juvenile vs. Adult System/Avoided Victimization Costs through	
Reduced Recidivism	10
Increased Earning Potential as a Result of Avoiding Adult Convictions/Reduced Reliance	
on Public Assistance	11
Increased Access to Educational Opportunities	12
Improvements in Overall Health	12
Conclusion	12



## The direct costs of locking up youth as adults are just the tip of the iceberg. When you consider the rest of the estimated \$105 million we pay each year to confine young people in Michigan, it's clear we all lose. Direct costs of Family locking up youth **Impact** Less School Fewer High **Funding** School Graduates Earn Less \$ Limited Scholarship Opportunities More Reliance on Public Assistance Pay Less \$ in Taxes Criminalization Stigma More Likely to Commit Future More Costs to Crimes **Future Crime Victims** Prison Victimization and Trauma

Adapted from Justice Policy Institute Sticker Shock: Calculating the Full Price Tag for Youth Incarceration

## **Executive Summary**

Additional costs that may arise from legislation that raises the age of juvenile jurisdiction in Michigan are difficult to estimate with precision due to the lack of available good quality data. States that have "raised the age" have found that additional costs were overestimated and that actual savings resulted over time.

Several factors and current trends in Michigan will contribute to savings over the long term should the ceiling for juvenile jurisdiction be raised from 17 to 18. These include a decline in crime and arrests rates among juveniles, implementation of a new statewide school-discipline policy, and the positive effects of juvenile justice treatment programs over those of adult prisons.

Crime and arrest rates among Michigan's juveniles have declined during the last decade, and are not expected to increase, especially given that the number of youth ages 14 to 17 in Michigan has been declining in recent years.

Implementation of Public Act 360, which adds a section to the Revised School Code, requires school officials to take into account several factors before expelling or suspending a student. It adds discretion and restorative justice to school disciplinary practices and moves the state away from its "zero tolerance" policies. The new law will contribute to the reduction of student suspensions and expulsions and thereby reduce the number of disconnected youth who are neither in school nor working, and at higher risk of contact with the justice system.

Juvenile justice systems have more positive effects on youth than adult prisons, where they are subjected to greater risks of victimization. Justice-involved youth in treatment programs in juvenile justice systems have lower recidivism rates than those in adult prisons. They benefit from rehabilitative and age-appropriate treatment programs, including opportunities to continue their education, which are not available in the punitive cultures of adult prisons. Youth in the juvenile justice system are also less likely to recidivate than youth held in adult facilities.

Youth in the juvenile justice systems are spared a record of a conviction which tends to have long-term negative effects on their employment opportunities, as evident by their lower lifetime earnings.

Juvenile justice systems have fewer negative effects than adult systems, and have greater positive influences on justice involved youth by involving and working to strengthen their families.

Finally, raising the age will facilitate compliance with the Federal Prison Rape Elimination Act (PREA) at the county level, where youth in local jails are frequently subject to increased isolation and denied age-appropriate treatment programs and services, and educational privileges.

Overall, studies highlight the fact that serving 17-year-olds in the juvenile justice system increases public safety, saves taxpayer money, and provides young people in trouble with the law the opportunity of rehabilitation through age-appropriate treatment and services.

#### Introduction

The decision to raise the age of juvenile jurisdiction in Michigan would change the law under which 17-year-olds are automatically charged as adults in criminal court by increasing the age to 18. That is, juveniles under 18 years of age would be transferred from the adult criminal justice system to county-based juvenile justice systems for the administration of justice. This decision must consider and balance the financial costs that will be incurred with public safety and the benefits that accrue to youth, their families, and communities. Michigan is one of only four states that still automatically prosecute 17-year-olds in the adult criminal justice system for any offense.

Multiple federal and state laws clearly define 18 as the legal age of adulthood. At the federal level, youth are not eligible to vote in public elections until the age of 18. In Michigan, 18 is the age at which a person is deemed to be an adult, and 17-year-olds cannot "enter into a contract, make a will, purchase a home, serve on a jury, or give consent for medical care." Likewise, 17-year-olds are subject to compulsory school attendance, child-labor laws, and driving restrictions, and they are still under the jurisdiction of the child welfare system. Further, the Supreme Court has established in multiple cases that youth under 18 are distinct from adults within the justice system: a 2005 ruling abolished the death penalty for juveniles under 18, a 2010 decision ended juvenile sentences of life without parole for non-homicide offenses, and mandatory life sentences without parole for juveniles were ruled unconstitutional in 2012. As such, automatically prosecuting 17-year-olds as adults is inconsistent with other federal and state laws.

In Michigan, the practice of including 17-year-olds in the adult criminal justice system originated in 1908, the same year that the state constitution was ratified and the courts were established, and nine years after the first juvenile court in the country was founded in Chicago.<sup>5</sup> Since that time, a significant body of research has suggested that prosecuting and incarcerating youth in the adult criminal justice system is not only harmful to young people but also ineffective in terms of reducing recidivism. Michigan is also among those states in which the rate of increase in state and local corrections expenditures has exceeded those for education.<sup>6</sup>

Across the country, several states (e.g., CT, IL, MA, MO, NC, NH, and NY) have recently shifted away from policies that prosecute youth in the adult criminal justice system. Research studies published over the past several decades have consistently shown that justice-involved youth who are provided age- and developmentally-appropriate treatment options and accountability measures in juvenile justice systems are less likely to re-offend than those incarcerated with adults. State legislators that have acted to reduce the number of youth entering their adult criminal justice systems did so by raising the age for adult prosecution from 17 (16 in the case of CT, NY, and NC) to 18 years and, as a consequence, have reduced the number of youth who are automatically prosecuted as adults by nearly 50% over the past decade. Further, these states have realized economic benefits from these policy reforms.

Michigan lawmakers are now considering whether or not to raise the age of juvenile jurisdiction to 18. Although the proposed legislation would end the current practice of automatically

prosecuting 17-year-olds in adult courts, prosecutors would still have the ability to waive the cases of 17-year-olds who commit certain serious crimes to adult courts. That is, "specified juvenile violations" would remain to prosecute as adults youthful offenders committing serious crimes.

Proposed legislation to raise the age was introduced in both the 2015-16 and 2017-18 sessions of the Michigan State Legislature, and a statewide assessment of the costs/savings for the counties was requested at the conclusion of the 2016 session. Lawmakers appropriated \$500,000 for the Criminal Justice Policy Commission to conduct an analysis on the cost impact of raising the age, and Hornby Zeller Associates, Inc. (HZA) were contracted to do the study. Based on certain assumptions, the cost study conducted by HZA addresses the short-term financial impact of raising the age by offering cost estimates and projected caseload increases. The cost estimates, however, have a range from low to high of \$17.2 million for both County and State net costs annually.<sup>8</sup>

This report addresses the following key questions:

- 1. What are the long-term cost savings and economic benefits of raising the age of juvenile court jurisdiction to include automatically 17-year-olds in the state of Michigan? Can the point in time at which the state may expect to realize cost savings be accurately identified? Can the cost savings to systems and levels (MDOC, DHHS, Local courts, etc.) be accurately estimated?
- 2. How will individual youth, families, and communities benefit from raising the age?

In addition to these questions, we will examine the following issues:

- Differences in treatment options between juvenile and adult systems (i.e., diversion and community-based, evidence-based, developmentally-appropriate, rehabilitative treatment options in juvenile justice compared to adult probation/jail/prison);
- Recidivism rates in the juvenile system compared to the adult corrections system and avoided victimization costs:
- Earning potential as a result of avoiding adult justice convictions (employment/tax revenue);
- Avoided costs associated with public financial assistance, unemployment, etc.;
- Cost-savings and improved opportunities related to health and education.

#### The Limitations of Data and Cost Estimates

While every state that has raised the age to include 17-year-olds under juvenile court jurisdiction has experienced positive social and economic outcomes, it is difficult to estimate with accuracy when cost savings are attained. Data from seven states that have raised the age in the past decade have demonstrated the economic benefits, but it has generally been with financial data in the years following the change.

The most substantial reason that it is difficult to develop a comprehensive model to project a

return is the lack of specific and comparable data from the numerous jurisdictions providing juvenile justice services. Without such historic data relating juvenile treatment by category to cost and length of service, a systematic model cannot be developed to reliably project future costs. To arrive at a range of estimated costs of raising the age in Michigan, HZA developed an expansive survey for detailed responses from representative counties. Even with the accumulated data, the cost projections present a potential cost ranging from \$16.9 million to \$34.1 million for Michigan Counties.

HZA's cost analysis relies on a number of assumptions that may contribute to an overestimation of the cost to raise the age. For instance, though they state that the Judicial Data Warehouse (JDW) from which they derive their estimates of the total number of youth petitioned provides the most complete data source for projecting the impact of raise the age legislation, they acknowledge that a number of courts have noted that not all of their data are accounted for in the JDW. Further, Berrien County is not represented in the JDW system and was therefore not included in HZA's cost analysis. In estimating the cost to counties to raise the age, HZA used 2016 actual budget amounts where possible, but in some cases relied upon the most recent year's actual budget amounts inflated to 2016 values. In other cases where actual budget amounts were not available, they used adjusted/amended values for 2016, or, if these values were also unavailable, budgeted values. These assumptions demonstrate the difficulty of obtaining comparable and complete data across all jurisdictions.

It would be nearly impossible to produce a long-term cost saving model without a more specific and comprehensive database. HZA stated that such a long-term cost reduction model could not be built. Other states have experienced the same data limitations, leading to the conclusion that short- and long-term cost savings are better computed through actual long-term budget comparisons.

While we know the cost of juvenile incarceration can be more than triple that of an adult, the length of stay in a juvenile facility is generally much shorter and usually followed by alternative program services, which may include re-entry or aftercare services. However, we do not have data to sufficiently relate it to cost.

The limitations of data have compelled researchers to use a worst case scenario in the cost projection of raising the age. Of the several states studied over the past decade, all original cost projections were vastly overestimated. The following examples demonstrate the historic difficulty of attempting to arrive at cost projections prior to implementing raise-the-age policies:

- New Hampshire projected increased costs to be \$5.3 million per year. They experienced no increased cost. 9
- Illinois projected a cost increase of 35% when raising the age of juvenile jurisdiction. Like New Hampshire, though, Illinois experienced no cost increase. <sup>10</sup>
- Connecticut projected their 5-year cost to be approximately \$100 million, which was budgeted. Yet from 2007-2012, \$61 million was spent and \$39 million reallocated to serve justice-involved juveniles in community-based settings.
- The 2013 study used by Massachusetts to raise the age to 18 was much more encompassing than Michigan's. It projected the number of new probation officers,

- clinicians, new beds in juvenile facilities, and new programs at a cost of \$24.6 million. The actual increased cost of implementation was \$15.6 million. 11
- HZA estimates that Raise the Age legislation would result in increased costs to
  Michigan's circuit courts due to increased caseloads of transferred 17-year-olds.
  Stakeholders in Mississippi made similar projections prior to passage of Raise the Age
  legislation in 2010, but in the first three full years (2012-2014) following implementation,
  the total number of juvenile cases actually dropped by 13% compared to the three years
  prior (2008-2010).<sup>12</sup>
- Texas has yet to raise the age, but employing a similar model to that used by the Vera Institute in North Carolina, scholars from the Lyndon B. Johnson School of Public Affairs and the School of Law at the University of Texas at Austin have estimated a net benefit of \$88.9 million for every cohort of 17-year-olds transferred to the juvenile justice system as a result of Raise the Age legislation. <sup>13</sup> A previous study in Texas estimated that for every 17-year-old youth prevented from becoming a career criminal the lifetime cost savings will total \$1.7 to \$2.3 million per youth. <sup>14</sup>
- By shifting its juvenile justice system toward more developmentally appropriate approaches, North Carolina has generated cost savings estimated at \$44 million that can be used to offset the cost of Raise the Age legislation. <sup>15</sup>

These studies identify patterns in which the projected costs of raising the age tend to be overestimated. Further, given the relative lack of useful data, it is not possible to identify with accuracy the point in time at which the state can expect to realize cost savings, and neither is it possible to accurately estimate the cost savings across justice systems and levels.

## **Declining Juvenile Crime and Arrests**

A key factor that will impact the actual cost of raising the age of juvenile jurisdiction is the decline in juvenile crime and arrest rates. Nationally, juvenile arrests for all offenses have fallen from a peak in 1996 of 8,476.1 per 100,000 youth to 2,553.6 per 100,000 in 2016. Arrests for violent crimes peaked in 1994 at 497.4 per 100,000, and dropped to 182.4 in 2012, the most recent year for which statistics are available. Arrests for property crimes peaked in 1991 at 2,534.4 per 100,000, and dropped to 551.1 in 2016 (Table 1).

Table 1. Juvenile Arrests per 100,000 Juvenile Population by Type of Crime in the United States, Selected Years

Offense	Y	Percent	
	1996	2016	Change
All crimes*	8476.1	2553.6	-69.9
	1994	2012	
Violent crimes**	497.4	182.4	-63.3
Property Crimes***	1991	2016	
	2534.4	551.1	-78.3

Relatedly, between 1985 and 2015, the disposition pattern for delinquency in the U.S. is curvilinear, rising through the second half of the 1980s, peaking in the mid-1990s, and declining since then (Figure 1). The most frequent type of disposition was probation, which peaked in 1997 at just over 600,000 cases and declined to less than 300,000 in 2015. This was followed by Other Types which include a range of actions such as fines, restitution, community services, and referrals for services outside the court. Residential placement and waived to criminal court dispositions followed a similar curvilinear pattern, although it is less evident for those cases waived to the criminal court, which increased from 5,800 in 1982 to 11,000 in 1996, then declined to 3,200 in 2015. The pattern is attributable to the "moral panic" that occurred in this country during the 1980s and 1990s, when youth were "characterized as superpredators who posed a grave threat to society – a threat that advocates predicted would worsen unless drastic measures were taken." Residential pattern for delining the U.S. is curvilinear pattern for delining to the U.S. is curvilinear pattern for delining

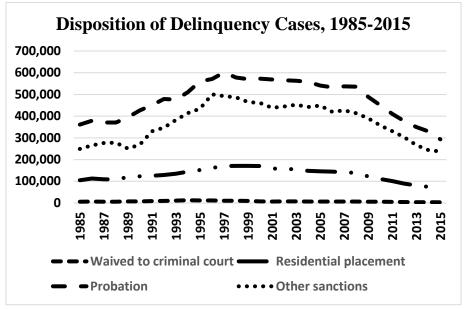


Figure 1. Types of Disposition of Delinquency Cases in the U.S., 1985-2015.

Data Source: National Juvenile Court Data Archive. National Center for Juvenile Justice. Pittsburgh, PA.; OJJDP Statistical Briefing Book.

Michigan, which has juvenile delinquency patterns that mirror those of the nation, has also seen a downward trend in juvenile arrest rates in recent years. For example, the overall arrest rate fell from 3,978 arrests per 100,000 youth ages 10 to 17 in 2006 to 1,917 arrests per 100,000 in 2014. Arrest rates for violent crimes fell from 218 per 100,000 in 2006 to 132 in 2012, and rates for property crimes fell from 1,040 in 2006 to 496 in 2014 (Table 2). A 2015 report on

<sup>\* &</sup>quot;All crimes" excludes suspicion. Effective in 2010, the FBI no longer reported arrests for running away. As a result, this offense group is not included in the "All crimes" category. \*\* Violent crime index includes murder & non-negligent manslaughter, rape, robbery, and aggravated assault.

<sup>\*\*\*</sup> Property crime index includes burglary, larceny-theft, motor vehicle theft, and arson. Source: National Center for Juvenile Statistics. (2017). Juvenile Arrest Rates by Offense, Sex, and Race.

juvenile arrests in Michigan by Public Policy Associates, Inc. (PPA) also shows a downward trend in juvenile arrests, which comprise less than 5% of total arrests in the state.<sup>20</sup> Though transferring 17-year-olds to the juvenile system may initially lead to increased juvenile circuit court caseloads, in the long term the downward trend in juvenile arrests will help to offset the increased initial burden.

Table 2. Juvenile Arrests per 100,000 Juvenile Population by Type of Crime in Michigan, Selected Years

	Y	Percent	
Offense	2006	2014	Change
All crimes*	3,978	1,917	-51.8
	2006	2012	
Violent crimes**	218	132	-39.4
Property Crimes***	2006	2014	
	1,040	496	-52.3

<sup>\* &</sup>quot;All crimes" excludes suspicion. Effective in 2010, the FBI no longer reported arrests for running away. As a result, this offense group is not included in the "All crimes" category.

\*\* Violent crime index includes murder & nonnegligent manslaughter, rape, robbery, and aggravated assault.

The decline in juvenile arrest rates in Michigan is linked to an overall decline in the number of youth in Michigan between the ages of 14 and 17. Between 2010 and 2016, the population of Michigan youth ages 14 to 17 declined from 589,982 to 550,506, a drop of almost 40,000 youth (Table 3).<sup>21</sup> The number of White youth ages 14 to 17 fell by around 33,000 during that time, while the number of African American youth fell by more than 15,000; these declines were partially offset by an increase in the number of Latino youth of just over 5,500. The decline in Michigan's youth population also underscores the importance of investing in Michigan youth in order to maintain a stable tax base and a vibrant economy, especially as its population pyramid becomes increasingly top heavy due to the aging Baby Boomers.

Table 3. Michigan Youth Population (ages 14-17) by Race/Ethnicity, 2010 -2016

	2010	2016	Change	
Race/Ethnicity			Number	Percent
White	418154	384783	-33,371	-8.0
African American	109,175	93,790	-15,385	-14.1
Latino	35,941	41,487	5,546	15.4
Total	589,982	550,506	-39,476	-6.7

Source: U.S. Census Bureau, Population Estimates.

Further reductions in juvenile arrest rates can be expected from Michigan's Public Acts 360-366

<sup>\*\*\*</sup> Property crime index includes burglary, larceny-theft, motor vehicle theft, and arson. Source: Puzzanchera, C. and Kang, W. (2017). Easy Access to FBI Arrest Statistics 1994-2014 Online. Available: http://www.ojjdp.gov/ojstatbb/ezaucr/

of 2016, signed into law by Governor Snyder in December 2016. These acts move the state away from harsh "zero tolerance" school disciplinary policies and will reduce the number of student suspensions and expulsions. School-based referrals to law enforcement are the first point of entry into the justice system for many youth, and are part of a punitive culture of school discipline that includes frequent use of out-of-school suspension and expulsion. Recent studies demonstrate a correlation between suspension and expulsion and involvement with the juvenile justice system. The number of school-based referrals in Michigan will decrease as a result of the new law that went into effect on August 1, 2017 that requires schools/school boards to consider seven factors before issuing a suspension or expulsion. These factors are: 1) the student's age; 2) disciplinary history; 3) disability status; 4) the seriousness of the violation; 5) whether the violation threatened the safety of other students or school staff; 6) whether restorative practices will be used to address the violation; and 7) whether a lesser intervention would properly address the violation. <sup>23</sup>

Through its investment in early childhood, Michigan will also likely see long-term reductions in juvenile crime and increased cost savings to the juvenile justice system. In June of 2011, Governor Snyder signed an executive order creating the Michigan Office of Great Start.<sup>24</sup> The order set in place a set of outcomes by which to assess public investments in early childhood, including: children are born healthy; children are healthy, thriving, and developmentally on track from birth to third grade; children are developmentally ready to succeed in school at the time of school entry; and children are prepared to succeed in fourth grade and beyond by reading proficiently by the end of third grade.<sup>25</sup> Greater investments in early childhood will likely reduce the odds of youth coming into contact with the justice system as teens.

## **Racial Equity**

Raising the age also has implications for racial equity. Whereas youth of color accounted for only 23% of Michigan's overall 17-year-old population in 2012, they accounted for 53% of 17-year-olds serving sentences in adult facilities, a significant overrepresentation. Additionally, PPA reports significant disproportionate arrest rates between White youth and African American and Latino youth. <sup>26</sup> Since Michigan's justice systems do not provide official statistics using standard categories of race and ethnicity, there is concern that the disparity may be even greater. <sup>27</sup> In addition, school discipline has implications for racial equity, as the rates at which students are referred to law enforcement are marked by significant racial and ethnic disparities. Data from the federal Office for Civil Rights show that in Michigan during the 2013-2014 school year African Americans accounted for 18.1% of students, but for 20.9% of referrals and 31.1% of arrests; Latinos accounted for 68.3% of students, but 7.1% of referrals and 11.7% of arrests; whereas Whites accounted for 68.3% of students, but 66.4% of referrals and 51.6% of arrests. <sup>28</sup> Addressing the punitive culture of school discipline will decrease "push out" of African American and Latino students and reduce the burden on the justice system resulting from school-based referrals.

## The Relative Effects of the Two Systems

Understanding raising the age of juvenile jurisdiction as a long-term investment in youth requires recognizing that the adult correctional system is not designed to meet the needs of adolescents

and, in fact, puts youth at high levels of risk. First, because length of stay is longer in adult prison than in juvenile programs, the adult system is more expensive in the long run. Second, youth in the adult prison system are at high risk of physical and sexual abuse. They also are twice as likely as youth in the juvenile system to be beaten by prison and jail staff members, and five times more likely to be sexually assaulted.<sup>29</sup> The risk of sexual assault and harassment is particularly high for young women and girls, as well as for LGBTQ youth. Further, youth in the adult system are 36 times more likely to commit suicide than youth in the juvenile system. Although Michigan houses youth convicted as adults in separate facilities (Thumb Correctional Facility for boys and Women's Huron Valley Correctional Facility for girls) in order to be in compliance with the Prison Rape Elimination Act (PREA), a class action suit by victims of such abuse that occurred prior to the use of separate facilities is winding its way through the courts.

Youth are also often placed in solitary confinement, especially at local jails, to comply with the PREA requirement that incarcerated juveniles be separated from adult inmates by sight and sound. At the Thumb Correctional Facility, which has two units for youthful offenders, during a single day of data collection, there were six out of 50 youth in isolation in the facility. Currently, there is a national movement to end the practice of solitary confinement because of the mental health issues that result.<sup>30</sup> In 2016, President Obama banned the use of solitary confinement for juvenile offenders held in federal prisons on the basis that it can have lasting negative psychological consequences."<sup>31</sup> Many youth enter the justice system with mental health disorders or experiences of childhood trauma, and for youth who experience physical or sexual assault or solitary confinement in adult facilities, these experiences only compound prior trauma, possibly making it more likely that they will reoffend.

Recent developments in neuroscience suggest that 17-year-olds are developmentally more similar to younger teenagers than to someone in their early- to mid-twenties. Research shows that the dorsolateral prefrontal cortex, part of the frontal lobe, is one of the last regions of the brain to mature, usually not fully developed until a person is in their mid-twenties. The prefrontal cortex is linked to impulse control and the ability to weigh the consequences of a decision. At the same time, the malleability of brain development in adolescents implies greater amenability to rehabilitation than in adults, as well as raises questions about the developmental impacts of trauma experienced by teens in adult facilities. Most youth entering the justice system are arrested for non-violent crimes, and these are often their first offenses. For example, PPA reports that more juveniles in Michigan were arrested for larceny than other offenses in 2013. Thus, age-appropriate treatment can help many of these youth understand the consequences of their actions and avoid future criminal behavior.

## Treatment Options in the Juvenile vs. the Adult System

Additional initial costs likely to be incurred by transferring 17-year-olds from adult correctional facilities to juvenile facilities may be partially offset by reductions in the number of youth sentenced to confinement and are likely to be one-time costs. A 2017 report from Human Impact Partners (HIP) found that the majority of Michigan youth under 17 who commit crimes may be eligible for diversion from the formal adjudication process of the juvenile court, and are likely to participate in diversion programs or be placed in community-based programs. In 2015, for instance, 33% of cases were diverted pre-adjudication, and in 2010, approximately 75% of youth

who were adjudicated entered community-based programs rather than juvenile placement facilities. The report's authors note that although the yearly cost of confining a youth in a juvenile facility is much higher than the cost per year in an adult prison (\$178,911 per year for juvenile facilities compared to \$40,100 per year for adult prisons, adjusted to August 2017 dollars), the cost per year for placement in a county-level youth assistance program is only \$3,344. In addition, David Mitchell, who conducted a cost-analysis study of Raise the Age legislation in Missouri, holds that though "there might be some additional costs in the very short run to support juvenile justice workers and county governments, these additional costs are in essence one-time costs." <sup>35</sup>

According to HZA's cost-study, raising the age would result in a projected 2,517 additional youth gaining access to rehabilitative juvenile justice services. The report estimates that nearly 83% (2,085) of youth would receive in-home/community-based care due to the low-level of their offenses (included in this population are 702 youth who most likely would be formally diverted without formal court involvement). The remaining 17% (432) are estimated to need residential treatment. Of these, 64 youth are estimated to need secure residential placement, while the remaining youth could be well-served by non-secure residential placements.

Table 4. Costs of Juvenile Facilities, Adult Facilities, and Community-Based Programming

Facility/Program	Cost per Year per Youth*
Juvenile Justice Facility	\$178,911
Adult Prison	\$40,100
County-Level Youth Assistance Program	62.244
(community-based: \$1,672 per 6 months)	\$3,344

<sup>\*</sup>Adjusted for inflation to August 2017 dollars

Sources: HIP, 2017; Hodges K, Martin L, Smith C, Couper S. Recidivism, Costs, and Psychosocial Outcomes for a Post-Arrest Juvenile Diversion Program. J. Offender Rehabil. 2011; 50: 447-465.

The State of Michigan allows for youth entering the juvenile justice system to be formally tried in court, or to proceed informally on the consent calendar if it is determined that this will serve the best interests of the youth and the public. <sup>36</sup> Youth placed on the consent calendar avoid formally entering the juvenile system through adjudication, and their records are closed upon successfully completing their respective programs. Increased use of consent calendars, also known as diversion, will offset the costs of raising the age, as well as benefit youth who would avoid having a formal record. Given the high cost of out-of-home placements, many juvenile courts in Michigan are already working to expand community-based treatment and services for youth entering the juvenile justice system. <sup>37</sup> More so than those available to youth in the adult system, these programs provide evidence-based, age-appropriate services. Of note is Wayne County's Right TRAC (Taking Responsibility and Accepting Consequences) Program, which is available to low-risk youth offending for the first time and provides tutoring, mentoring, and mental health services. Right TRAC has a 90% success rate of youth completing the program and staying out of the justice system for one year following completion.

Additionally, home and community-based placements keep youth connected to family, which is important to their rehabilitation process, and reduces recidivism. Several studies have shown that sending youth to prison may increase recidivism, while community-based approaches tend to

reduce it.<sup>38</sup> Keeping youth closer to their families provides direct benefits to families, who avoid the financial burden of telephone calls, visitations, and sending packages to youth in incarceration.<sup>39</sup> Increased use of pre-adjudication diversion may also help to offset both placement and court costs: a 2006 study of the Adolescent Diversion Project (ADP), a collaboration between Michigan State University, the Ingham County Juvenile Court, and Ingham County community partners, notes that the project costs \$1,020 per youth for eighteen weeks of service, compared to \$13,466 to process each youth through the juvenile court system. Serving approximately 144 youth per year, ADP has saved an estimated \$1,799,104 per year.<sup>40</sup>

For those youth who are incarcerated in juvenile facilities, rehabilitative, rather than punitive, programs in these facilities offer specialized care and developmentally appropriate services not available to youth in adult facilities. In particular, the availability of mental health counseling and treatment for substance use disorders in juvenile justice facilities is crucial, as many youth who enter the system have histories of childhood trauma, mental health disorders, and substance abuse. Youth in juvenile facilities are also more likely to receive one-on-one care, since juvenile facilities have a staff-to-youth ratio of 1 to 8, compared to 1 to 64 in adult facilities. Further, despite the greater cost per year of housing a youth in a juvenile facility, this cost is offset by the fact that youth placed in juvenile facilities serve only an average of one year, compared to an average placement of seven years in adult facilities.

### Recidivism Rates in the Juvenile vs. Adult System/Avoided Victimization Costs through Reduced Recidivism

In the long-term, Michigan can also offset the costs of transferring 17-year-olds from the adult to the juvenile system through reduced rates of recidivism, which would lessen the financial burden of re-arrest on law enforcement, courts, and correctional facilities. While Michigan does not collect data on recidivism rates of youth who enter the adult system the authors of the HIP report highlight multiple national studies that find reduced

THE RESEARCH IS UNEQUIVOCAL: EVERY STUDY CONDUCTED ON THIS ISSUE [OF RAISE THE AGE] SHOWS THAT SENDING YOUTH TO THE ADULT CRIMINAL JUSTICE SYSTEM INCREASES THE LIKELIHOOD THAT THEY WILL REOFFEND.

L. RYAN (2014)

rates of recidivism for youth in the juvenile justice system compared to youth tried in the adult system. For instance, a study from the National Institute of Corrections, which brought together experts in juvenile justice and adult corrections, concluded that youth in the adult corrections system recidivate at a higher rate than youth in the juvenile system. Likewise, the Centers for Disease Control found that youth exiting the adult system are 34% more likely to recidivate, to do so sooner, and to escalate to more violent crimes than youth exiting the juvenile system. Multiple comparison studies reviewed by the Office of Juvenile Justice and Delinquency Prevention all showed that youth incarcerated in the adult system committed more crimes upon release than youth in the juvenile system, and were more likely to re-offend and to do so sooner.

Reduced recidivism tends to result in reduced costs associated with victimization. Costs incurred to victims of crime fall into two categories: 1) tangible costs, such as "medical expenses and mental health costs, cash losses, property loss or damages, and lost earnings resulting from injuries;" and 2), intangible costs "associated with the pain and suffering resulting from the

offense."<sup>43</sup> Using an average tangible victimization cost of \$4,000 for felony offenses and \$500 for misdemeanors, the authors of a 2011 study from the Vera Institute of Justice estimate that a 10% reduction in recidivism among North Carolina 16- and 17-year-olds transferred to the juvenile system from the adult system would result in an annual reduction of \$3.6 million in victimization costs. <sup>44</sup> Focusing on tangible and intangible victimization costs, a Justice Policy Institute report estimates that costs for specific offenses can range from between \$501 and \$4,340 for larceny/theft to between \$212,799 and \$314,650 for rape/sexual assault. <sup>45</sup> Reducing recidivism by transferring 17-year-olds to the juvenile system will likely save taxpayers money associated with victimization costs, and lead to safer and healthier communities by avoiding disruptions from youth returning from incarceration in adult facilities.

# Increased Earning Potential as a Result of Avoiding Adult Convictions/Reduced Reliance on Public Assistance

Raising the age of juvenile court jurisdiction to 18 would also increase the lifetime earning potential of youth transferred to the juvenile system. A 2017 cost-benefit analysis of Raise the Age legislation in Missouri suggests that youth incarcerated in the adult system will earn lower wages over their lifetime and are more likely to recidivate, making them a net burden to taxpayers, whereas youth in the juvenile system will earn significantly more money and contribute significantly more in taxes over their lifetime. Mitchell estimates that

What we do have is the testimony of individuals who were given a second chance in the Juvenile Justice system...These include Olympic gold medalist bob beamon, author claude brown, former u.s. senator alan simpson, d. c. superior court judge reggie walton, etc.

L. RYAN (2014)

the average high school graduate will earn approximately \$2.4 million over their career and pay \$741,622 in taxes, whereas the average 17-year-old who spends a short time in an adult prison will earn only \$1.2 million over their lifetime and pay only \$250,000 in taxes. 46 Combining lost tax revenue with the cost to house such a youth in an adult facility, Mitchell estimates the net burden to taxpayers per youth at \$512,000. Estimated net benefits are particularly high for those youth who avoid an adult criminal record. For instance, a recent study of adults who have had their criminal records wiped clean shows an increase in income of around \$6,000 per year.<sup>47</sup> Studies in states that have recently passed Raise the Age legislation also predict increased earning potential. A cost-benefit study of "Raise the Age" legislation in New York estimated additional earnings at \$9,360 per year for youth offenders who did not have an adult criminal conviction, and \$327,600 over a 35-year career, resulting in an additional tax revenue of \$593 per year per teen. 48 Likewise, the 2011 Vera Institute of Justice study estimates that 1,586 youth per year who would not have a criminal conviction if transferred to North Carolina's juvenile system would earn an additional \$61,691 each in their lifetimes, resulting in a net benefit to each cohort of youth of \$97,857,916. Continuing to process 17-year-olds through the adult system, then, potentially results in a significant loss in tax revenue over time, and puts Michigan at a competitive disadvantage compared to states with a higher age of juvenile jurisdiction.

The increased lifetime earning potential of those transferred to the juvenile system will also decrease the likelihood of these youth relying on public support, such as Temporary Assistance for Needy Families, the Supplemental Nutrition Assistance Program, and Medicaid. A 2012

study of "Opportunity Youth," or those youth who are neither enrolled in school nor participating in the workforce, found that these youth impose a significant financial burden on state budgets through reliance on public assistance. <sup>49</sup> The study's authors estimate that the average "opportunity youth" imposes an additional burden of \$2,380 annually in public health care costs compared to the average youth. Likewise, they estimate that each opportunity youth receives \$360 more per year in welfare payments than the average youth, and \$430 more in social support. This amounts to an additional annual burden of \$3,170 per youth. Harris, Taylor-Penn, and Gilhuly thus state that "by raising the age and eliminating barriers to employment, the State of Michigan would avoid the double costs of incarceration and public welfare, and gain a larger tax base." <sup>50</sup>

## **Increased Access to Educational Opportunities**

Raising the age of juvenile court prosecution will also provide youth with greater access to educational opportunities. Ng, Sarri, Shook and Stoffregen (2012) found that prisoners in Michigan's adult system (including 17-year olds) receive an average of 9 hours of education per week, compared to 20 to 30 hours for the average public high school student. This results in a net loss to incarcerated youth of 682 hours (5.5 months) per year of educational hours compared to their public high school peers. Community-based programming and pre-adjudication diversion would enable justice-involved 17-year-olds to remain in school and stay on track to graduate on time. Likewise, 17-year-olds placed in juvenile facilities benefit from more education hours and a significantly lower student-to-teacher ratio (15:1) than those in the adult system (100:1).

## **Improvements in Overall Health**

Additionally, raising the age of juvenile court jurisdiction from 17 to 18 years would result in improvements in the overall health of those transferred to the juvenile system. Compared to the adult system, youth in the juvenile justice system have greater access to mental healthcare and treatment for substance use disorders. Further, greater access to educational opportunities in the juvenile system could improve overall health of justice-involved youth because higher levels of education are correlated with longer life spans, as well as improved health knowledge and coping skills. <sup>52</sup> Likewise, 17-year-olds transferred to the juvenile system may achieve greater economic security

...[BENEFIT COST ANALYSIS]
NEITHER CAN NOR SHOULD BE THE
SOLE DETERMINANT OF
PROGRAMMATIC AND FUNDING
DECISIONS. ASIDE FROM THE
LIMITATIONS OF ANY SPECIFIC
STUDY, THIS TECHNIQUE CANNOT
TAKE INTO ACCOUNT MORAL,
ETHICAL, OR POLITICAL FACTORS
THAT ARE CRUCIAL IN DETERMINING
JUVENILE JUSTICE POLICY AND
FUNDING.

National Research Council, 2013

through increased employment opportunities, which in turn reduces stress and increases access to healthcare and healthy lifestyles.

### **Conclusion**

Estimates of the costs of "raising the age" of juvenile justice jurisdiction to 18 years tend to be based on poor data and to overestimate the financial impacts on counties. Raising the age in Michigan will provide age-appropriate treatment and services to justice-involved youth. Doing so will provide long-term benefits to youth, their families, and their communities, and in the long

run will reduce taxpayer costs associated with incarceration. It will also facilitate compliance with PREA. While there may be initial costs to the juvenile system resulting from Raise the Age legislation, these will most likely be short-term if not one-time costs, with savings to be yielded over the long term. However, it is imperative during implementation of "Raise the Age" legislation that the State provide adequate funding to avoid having a negative impact on juvenile treatment programs by diluting resources at the local level. This will ensure that justice-involved youth can continue to receive adequate and appropriate treatment and services.

<sup>&</sup>lt;sup>1</sup> The obverse of raising the age in juvenile court jurisdiction is raising adult court jurisdiction from 17 to 18 years of age.

<sup>&</sup>lt;sup>2</sup> Harris, C., Taylor-Penn, L., & Gilhuly, K. (2017). *Raise the age: Protecting kids and enhancing public safety in Michigan*. Oakland, CA: Human Impact Partners.

<sup>&</sup>lt;sup>3</sup> Leamer, N. (2016). A conservative case to 'raise the age' in Michigan. Washington, DC: R Street Institute.

<sup>&</sup>lt;sup>4</sup> Mackinac Center for Public Policy. (2018). *Raising the age: Should 17-year-olds be eligible for juvenile justice in Michigan?* Smith, J., Bala, N., & Riley, K. Lansing, MI.

<sup>&</sup>lt;sup>5</sup> Michigan Compiled Laws § 712A.2(a). Also see Michigan Public Acts 1907, Ex. Sess. No. 6 § 1; Ryan, L. (2014). Youth in the Adult Criminal Justice System, Cardozo Law Review. 35(3): 1167-1184.

<sup>&</sup>lt;sup>6</sup> U.S. Department of Education. (2016). *State and Local Expenditures on Corrections and Education, A Brief from the U.S. Department of Education, Policy and Program Studies Service*. Retrieved from <a href="https://www2.ed.gov/rschstat/eval/other/expenditures-corrections-education/brief.pdf">https://www2.ed.gov/rschstat/eval/other/expenditures-corrections-education/brief.pdf</a>.

<sup>&</sup>lt;sup>7</sup> Justice Policy Institute. (2017). *Raising the Age: Shifting to a Safer and More Effective Juvenile Justice System.* Washington, D.C.: The Justice Policy Institute.

<sup>&</sup>lt;sup>8</sup> It is important to note that this estimate is based on assumption that states and the county will apply the 50/50 funding model currently in place for juvenile services to the 17-year-old population. The counties have long contended, and many state officials agree, that to do so would be a violation of the Headlee Amendment and therefore the state would need to absorb 100% of the increased cost for serving 17-year-olds.

<sup>&</sup>lt;sup>9</sup> Justice Policy Institute. (2017).

<sup>&</sup>lt;sup>10</sup> Justice Policy Institute. (2017).

<sup>&</sup>lt;sup>11</sup> Justice Policy Institute. (2017).

<sup>&</sup>lt;sup>12</sup> Rovner, J. (2017). Impact of Raise the Age on Mississippi's juvenile courts. Retrieved from http://www.campaignforyouthjustice.org/news/blog/item/impact-of-raise-the-age-on-mississippi-s-juvenile-courts.

<sup>&</sup>lt;sup>13</sup> Deitch, M., Breeden, R., & Weingarten, R. (2012). Seventeen, going on eighteen: An operational and fiscal analysis of a proposal to raise the age of juvenile jurisdiction in Texas. *American Journal of Criminal Law 40*(1), 1-67

<sup>&</sup>lt;sup>14</sup> Deitch, M., Breeden, R., & Weingarten, R. (2012).

<sup>&</sup>lt;sup>15</sup> Justice Policy Institute. (2017).

<sup>&</sup>lt;sup>16</sup> National Center for Juvenile Justice. (2017). Juvenile arrest rates by offense, sex, and race.

<sup>&</sup>lt;sup>17</sup> OJJDP Statistical Briefing Book. Online. Released on March 27, 2018. Retrieved from <a href="https://www.ojjdp.gov/ojstatbb/probation/qa07102.asp?qaDate=2015">https://www.ojjdp.gov/ojstatbb/probation/qa07102.asp?qaDate=2015</a>.

<sup>&</sup>lt;sup>18</sup> National Research Council. (2013). *Reforming Juvenile Justice: A Developmental Approach*. Committee on Law and Justice, Division of Behavioral and Social Sciences and Education. Washington, DC: The National Academies Press, p. 38.

<sup>&</sup>lt;sup>19</sup> Juvenile Justice, Geography, Policy, Practice & Statistics. Michigan juvenile justice system. Retrieved from <a href="http://www.jigps.org/michigan">http://www.jigps.org/michigan</a>.

<sup>&</sup>lt;sup>20</sup> Public Policy Associates, Inc. (2015). *Michigan's Statewide Juvenile Arrest Analysis Report*. Vol. One: 2008-2013 Report. Lansing, MI.

<sup>&</sup>lt;sup>21</sup> U.S. Census Bureau, Population Division. (2017). *Annual estimates of the resident population by sex, race, and Hispanic origin for the United States, States, and Counties: April 1, 2010 to July 1, 2016.* Washington, DC: U.S. Census Bureau.

<sup>&</sup>lt;sup>22</sup> Monahan, K.C., VanDerhei, S., Bechtold, J., & Cauffman, E. (2014). From the school yard to the squad car: School discipline, truancy, and arrest. *Journal of Youth and Adolescence 43*, 1110-1122; Wald, J. & Losen, D.J. (2003). Defining and redirecting a school-to-prison pipeline. In J. Wald & D. J. Losen (Eds.), *Deconstructing the school-to-prison pipeline, New directions for youth development* (V. 99, pp. 9–15). San Francisco: Jossey-Bass; American Psychological Association Zero Tolerance Task Force. (2008). Are zero tolerance policies effective in the schools? An evidentiary review and recommendations. *American Psychologist 63*(9), 852–862. doi:10.1037/0003-066X.63.9.852; McCrystal, P., Percy, A., & Higgins, K. (2007). Exclusion and marginalisation in adolescence: The experience of school exclusion on drug use and antisocial behaviour. *Journal of Youth Studies 10*(1), 35–54. doi:10/1080/13676260701196103.

<sup>&</sup>lt;sup>23</sup> State of Michigan, 98th Legislature. (2016). Act No. 360, Public Acts of 2016.

<sup>&</sup>lt;sup>24</sup> Zero to Three. (2016). Michigan Office of Great Start. Retrieved from <a href="https://www.zerotothree.org/resources/837-michigan-office-of-great-start">https://www.zerotothree.org/resources/837-michigan-office-of-great-start</a>.

<sup>&</sup>lt;sup>25</sup> Michigan Department of Education. *Early learners and care*. Retrieved from <a href="http://www.michigan.gov/mde/0,4615,7-140-63533---,00.html">http://www.michigan.gov/mde/0,4615,7-140-63533---,00.html</a>.

<sup>&</sup>lt;sup>26</sup> Public Policy Associates, Inc., 2015.

<sup>&</sup>lt;sup>27</sup> Weemhoff, M. & Staley, K. (2014). *Youth behind bars: Examining the impact of prosecuting and incarcerating kids in Michigan's criminal justice system*. Lansing, MI: Michigan Council on Crime and Delinquency.

<sup>&</sup>lt;sup>28</sup> Education Week. (2017). Which students are arrested the most? Retrieved from https://www.edweek.org/ew/projects/2017/policing-americas-schools/student-arrests.html#/overview.

<sup>&</sup>lt;sup>29</sup> Harris, Taylor-Penn, & Gilhuly. (2017).

<sup>&</sup>lt;sup>30</sup> ACLU and Human Rights Watch 2012. *Growing Up Locked Down: Youth in Solitary Confinement in Jails and Prisons Across the United States*. Retrieved from https://www.hrw.org/sites/default/files/reports/us1012ForUpload.pdf.

<sup>&</sup>lt;sup>31</sup> Human Rights Watch and ACLU. (2012). *Growing up locked down: Youth in solitary confinement in jails and prisons across the United States*. Retrieved from https://www.aclu.org/files/assets/us1012webwcover.pdf.

<sup>&</sup>lt;sup>32</sup> Mackinac Center for Public Policy. (2018).

<sup>&</sup>lt;sup>33</sup> ACLU and Human Rights Watch 2012.

<sup>&</sup>lt;sup>34</sup> Public Policy Associates, Inc., 2015.

<sup>&</sup>lt;sup>35</sup> Mitchell, D. M. (2018). It's time to 'Raise the Age' in Missouri: It's a matter of dollars and sense." The Kansas City Star, March 28. Retrieved from <a href="http://www.kansascity.com/opinion/readers-opinion/guest-commentary/article207188189.html">http://www.kansascity.com/opinion/readers-opinion/guest-commentary/article207188189.html</a>.

<sup>&</sup>lt;sup>36</sup> Michigan Judicial Institute. (2017). *Juvenile probation officer and caseworker self-instructional manual*. Lansing, MI.

<sup>&</sup>lt;sup>37</sup> Harris, Taylor-Penn, & Gilhuly. (2017).

<sup>&</sup>lt;sup>38</sup> National Research Council. (2013).

<sup>&</sup>lt;sup>39</sup> Harris, Taylor-Penn, & Gilhuly. (2017).

<sup>&</sup>lt;sup>40</sup> Sturza, M.L. & Davidson, W.S. (2006). Issues facing the dissemination of prevention programs: Three decades of research on the Adolescent Diversion Project. *Journal of Prevention & Intervention in the Community 32*(1-2), 5-24. <a href="https://doi.org/10.1300/J005v32n01">https://doi.org/10.1300/J005v32n01</a> 02.

<sup>&</sup>lt;sup>41</sup> Harris, Taylor-Penn, & Gilhuly. (2017).

<sup>&</sup>lt;sup>42</sup> Harris, Taylor-Penn, & Gilhuly. (2017).

<sup>&</sup>lt;sup>43</sup> Justice Policy Institute. (2014). *Sticker shock: Calculating the full price tag for youth incarceration*. Washington, DC.

<sup>&</sup>lt;sup>44</sup> Henrichson, C. & Levshin, V. (2011). *Cost-benefit analysis of raising the age of juvenile jurisdiction in North Carolina*. New York, NY: Vera Institute of Justice.

<sup>&</sup>lt;sup>45</sup> Justice Policy Institute. (2014).

<sup>&</sup>lt;sup>46</sup> Mitchell, D. M. (2017). *Economic Costs and Benefits of Raise the Age Legislation in Missouri*. Springfield, MO: Bureau of Economic Research and the Center of Economic Education, Missouri State University.

<sup>&</sup>lt;sup>47</sup> Selbin, J., McCrary, J., & Epstein, J. Unmarked? Criminal record clearing and employment outcomes. *Journal of Criminal Law and Criminology* 108(1), 1-72.

<sup>&</sup>lt;sup>48</sup> Harris, Taylor-Penn, & Gilhuly. (2017).

<sup>&</sup>lt;sup>49</sup> Harris, Taylor-Penn, & Gilhuly. (2017).

<sup>&</sup>lt;sup>50</sup> Harris, Taylor-Penn, & Gilhuly. (2017, p. 13).

<sup>&</sup>lt;sup>51</sup> Ng, I. Y. H., Sarri, R., C., Shook, J. J., & Stoffregen, E. (2012). Comparison of correctional services for youth incarcerated youth in adult and juvenile facilities in Michigan. *The Prison Journal* 92(4), 460-483.

<sup>&</sup>lt;sup>52</sup> Harris, Taylor-Penn, & Gilhuly. (2017).