

**EMERGING ADULTS AT THE INTERSECTION OF CRIMINAL
ALGORITHMIC RISK ASSESSMENTS AND JUVENILE COGNITIVE-
RELATED LENIENCY**

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INTRODUCTION

For the past several years, algorithms are replacing or supplementing the human decision-making processes in both the adult and juvenile justice sector, creating concerns of biases and the entrenchment of injustice for the sake of efficiency. Knowledge (or lack thereof) of the tools used to predict recidivism for adults has already proved to be a concerning issue, but the same concerns, then, should also apply to tools used not only for juveniles, but also for those deemed “emerging adults”—those in the 18- to 24-year-old

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age range. In many other facets of society, we provide more protection for juveniles. The lack of monitoring and critiquing of these tools only reinforces the idea that we cannot have a bright-line delineation between juvenile and adult sentencing for an age group where cognitive processes are still developing.

Nowadays, achieving “maturity” is perceived to occur later and later, with key life milestones such as financial independence, marriage, and education being delayed until the mid or late twenties.² Jeffrey Arnett has made the case for recognizing a new societal group and theory of development based on this search for identity in the transition from adolescence to adulthood called “emerging adulthood.”³

Knowing the propensity of these tools to confirm and entrench biases, decision-makers should address emerging adults, or “transition-age youth,” as a tertiary class; consider applying more rehabilitative rather punitive correction, specifically to this age group; and institute uniformity guidelines that apply federally, similar to the now obsolete federal Youth Corrections Act.

To understand what is at stake and why this matters, it is paramount to have a grasp on the current models of risk assessments being used, particularly ones that utilize algorithms. These tools, while overall largely efficient, also exhibit and maintain pitfalls that have the ability to perpetuate injustices. Following, this Note then examines the science behind brain development and, not only why emerging adults should be considered a separate class, but why their brains are more akin to juveniles when committing offenses.

Looking at the algorithmic tools through the lens of the emerging adulthood social class exposes a host of discrepancies when adjudicating those in the eighteen to mid-twenties age range. How do the juvenile and adult tools differ? What repercussions do those decisions have on perceived “justice”? And finally, what are some solutions to address these unique pitfalls and how will they improve justiciability for the group of individuals known as emerging adults?

I. THE ALGORITHMIC-BASED RISK ASSESSMENT MODEL

Risk assessment in the context of criminal or juvenile justice focuses on the likelihood that a certain offender will become a future threat to public safety, benefit from intervention, or recidivate.⁴ The two most relevant frameworks for analyzing risk involve actuarial

² See Jeffrey Jensen Arnett, *Emerging Adulthood: A Theory of Development from the Late Teens Through the Twenties*, 55 AM. PSYCH. 469, 469 (2000).

³ *Id.*

⁴ Gina M. Vincent et al., *The Validity of Risk Assessment Instruments for Transition-Age Youth*, 87 J. CONSULTING & CLINICAL PSYCH. 171, 172 (2019).

risk assessment instruments and structured professional judgment.⁵ Most pertinent for this article is the use of actuarial risk assessment instruments where the final outcome is determined by an algorithm.⁶ The term algorithm typically means a computer runs a program, performing a series of specified steps, to provide the risk score.⁷

It is important to understand the basis of these tools because their ingrained biases (yes, the tools have them) can lead to disproportionate or unfair outcomes based on race, or even age, as this article examines.⁸ Researchers have developed over 400 tools used for risk assessment—the specific context of said use varies by state.⁹ However, in all fifty states, risk assessment tools have been adopted for youth probation.¹⁰ Algorithms, or models, such as the ones used for risk assessments rely on comparisons of one particular offender to thousands of other offenders to determine, compared to those others, what their likelihood of recidivating, appearing in court, or violating probation is. With machine learning algorithms, the model “finds patterns on its own, and then, through time, connects them with outcomes. In a sense, it learns.”¹¹ The result in some cases of individuals being denied a certain opportunity is not based on their own action, but “on the actions of others with whom they share some characteristics.”¹² Our traditional notion is to adjudicate based on fairness, but algorithms come to decisions based on efficiency.¹³ This raises questions not only about the adjudicative process itself, but also about whether we have replaced potential biases of humans when perceiving “fairness” or ingrained it in the algorithm, trained on years of societal data.¹⁴

The determination from a risk assessment algorithm can provide the difference between an offender serving time pre-trial under house arrest or in a cell, between being granted parole or continuing incarceration, and between punitive and rehabilitative justice. But potential biases ingrained in those models can serve to overtly punish those who fit within societal biases—the poor, the

⁵ *Id.*

⁶ *Id.*

⁷ Matt Henry, *Risk Assessment: Explained*, THE APPEAL (Mar. 25, 2019), <https://theappeal.org/risk-assessment-explained/>.

⁸ See CATHY O’NEIL, WEAPONS OF MATH DESTRUCTION: HOW BIG DATA INCREASES INEQUALITY AND THREATENS DEMOCRACY 3 (2016).

⁹ Jodi L. Viljoen et al., *Do Risk Assessment Tools Help Manage and Reduce Risk of Violence and Reoffending? A Systematic Review*, 42 L. HUMAN BEHAVIOR 181, 181 (2018).

¹⁰ *Id.*

¹¹ O’NEIL, *supra* note 8, at 75.

¹² Bruno Lepri et al., *The Tyranny of Data? The Bright and Dark Sides of Data-Driven Decision-Making for Social Good*, from TRANSPARENT DATA MINING FOR BIG AND SMALL DATA (Tania Cerquitelli et al., eds.) 3, 13 (2017).

¹³ O’NEIL, *supra* note 8, at 94-95.

¹⁴ *Id.* at 24-25.

undereducated, and minorities.¹⁵ For example, in 2017 African Americans made up twelve percent of the population, yet accounted for thirty-three percent of America’s incarcerated offenders¹⁶. Minority children make up the majority of juveniles tried in criminal court and approximately seventy-five percent of those incarcerated.¹⁷ The history of the criminal justice system is fraught with examples of injustice to minorities, so when we look at statistics like this one, does it serve as evidence that we have eliminated human bias because a machine made the decision, or has it become ingrained in the very calculation?¹⁸

The most prominent issues with algorithms, particularly in the risk assessment world, include lack of transparency and oversight, confirmation bias or feedback loops, and context misuse. At the epicenter of the algorithm is mathematics and technology based on human ingenuity and decisions.¹⁹ Further obscuring our ability to discern the processes is the opaque layer of mathematical functions and computer coding that only experts in those fields are able to understand.²⁰ These layers of math and coding in risk assessment algorithms will weigh different factors to determine an outcome, and it is this weighing process that remains the least transparent part.²¹ The lack of oversight of these algorithms is one that needs to be curbed. Without the ability to check variables, the weight of input data, or what associations are being made, there is no oversight to the processes.

This was a paramount issue for Eric Loomis in *State v. Loomis* when he challenged the use of a proprietary risk assessment tool—the Correctional Offender Management Profiling for Alternative Sanctions, or COMPAS—as violative of due process since he was not able to review his risk assessment score or the process used to determine it.²² The Wisconsin Supreme Court held that the use of the tool along with other independent factors was not violative of due process, as long as the assessment was used properly

¹⁵ See Lepri et al., *supra* note 12; O’NEIL, *supra* note 8, at 3.

¹⁶ John Gramlich, *The Gap Between the Number of Blacks and Whites in Prison is Shrinking*, PEW RESEARCH CENTER (Apr. 30, 2019), <https://www.pewresearch.org/fact-tank/2019/04/30/shrinking-gap-between-number-of-blacks-and-whites-in-prison/>.

¹⁷ BARRY C. FELD, *THE EVOLUTION OF THE JUVENILE COURT: RACE, POLITICS, AND THE CRIMINALIZING OF JUVENILE JUSTICE* 195 (2017).

¹⁸ See, e.g., O’NEIL, *supra* note 8, at 24-25 (2016).

¹⁹ Henry, *supra* note 7.

²⁰ O’NEIL, *supra* note 8, at 3 (“Like gods, these mathematical models were opaque, their workings invisible to all but the highest priests in their domain: mathematicians and computer scientists.”).

²¹ Henry, *supra* note 7 (“Although some creators of risk assessments share details of their models with the public, other models are developed by private companies that keep the inner workings of their algorithms secret.”).

²² *State v. Loomis*, 2016 WI 68, 881 N.W.2d 749.

and not for the purpose of determining incarceration or severity of sentencing.²³ Further, in many cases, the people building these algorithms are without the data for behaviors they wish to track or target.²⁴ As such, they utilize “stand-in data, or proxies” to draw parallels between, say, a person’s zip code and their exposure to crime.²⁵

Issues like proxies can lead to the next problem of algorithms in the form of a feedback loop or “confirmation” bias. When creating and analyzing these models and the data each input is compared to, users must be careful to distinguish correlation from causation.²⁶ A prime example of this is the quagmire of predictive policing—where officers are sent to areas with *perceived* increased crime (typically low-income, predominantly minority-occupied neighborhoods), thereby increasing the amount of *observed* crime, leading to higher crime statistics, even when the actual amount of crime is the same as the next town over. Incorporating this data perceptively goes towards both the evidence for use of the algorithm and proof of its effectiveness.²⁷ This is called a feedback loop. Consider the following example posed by Cathy O’Neil:

A person who scores as ‘high risk’ is likely to be unemployed and to come from a neighborhood where many of his friends and family have had run-ins with the law. Thanks in part to the resulting high score on the evaluation, he gets a longer sentence, locking him away for more years in a prison where he’s surrounded by fellow criminals—which raises the likelihood that he’ll return to prison. He is finally released into the same poor neighborhood, this time with a criminal record, which makes it that much harder to find a job. If he commits another crime, the recidivism model can claim another success. But in fact the model itself contributes to a toxic cycle and helps to sustain it.²⁸

Not only is the information confirming what the algorithm already set out to prove (confirmation bias), but it is then being used for future comparisons.²⁹ As far as the machine-learning model knows, it did not make an error. And it will not be corrected for an error unless a computer scientist or mathematician goes in to make the correction. This perpetuates a reality created by algorithms and

²³ *Id.*

²⁴ O’NEIL, *supra* note 8, at 17.

²⁵ *Id.* at 17-18.

²⁶ *See id.* at 162.

²⁷ Lepri et al., *supra* note 12, at 13.

²⁸ O’NEIL, *supra* note 8, at 27.

²⁹ *Id.*

prevents any sort of the typical incremental societal change, firmly implementing obsolescence before it has even occurred.³⁰

The preeminent model for assessing youth offenders is the Risk-Need-Responsivity, or the RNR model.³¹ The evaluation in the RNR model considers two different types of variables when assessing risk: static and dynamic. Like its name, a static factor is a characteristic that is not susceptible to intervention and includes age, prior offenses, and gender.³² Dynamic factors, on the other hand, are amenable to intervention and correlate with the “need” principle in the RNR model.³³ Together, the risk factors cover eight areas: criminal history, education or employment, family or marital, leisure or recreation, criminal companions, substance abuse, pro-criminal attitudes, and anti-social pattern.³⁴ Because intervention directly relates to a reduction in reoffending, proponents of the RNR model suggest, and have proven that, focusing on dynamic factors can better predict *recidivism* following intervention assessment.³⁵

However, because of the efficiency and perceived fairness of algorithms, the models can serve as ends rather than means for justice. But even so, the ends must also fit the purpose of the algorithm: “The goal chosen by policymakers also informs the initial selection and weighing of factors included in a model.”³⁶ Consider now how the goal relates to the static and dynamic risk factors. If the evaluation is based on the RNR model and the goal is rehabilitative, would it make sense to give more weight or more fully consider dynamic factors that are susceptible to change? What if the purpose or goal is different; should those same dynamic factors’ weights be changed?

Contemplate a risk assessment that might look at age for an offender who committed a first offense. Age is a static risk factor because it changes in only one direction.³⁷ A younger offender

³⁰ See *id.* at 133.

³¹ See generally D.A. Andrews et al., *The Risk-Need-Responsivity (RNR) Model: Does Adding the Good Lives Model Contribute to Effective Crime Prevention?*, 38 CRIM. JUST. & BEH. 735 (2011).

³² Maggie C. Clarke et al., *The Relationship Between Changes in Dynamic Risk Factors and the Predictive Validity of Risk Assessments Among Youth Offenders*, 44 CRIM. JUST. & BEH. 1340, 1341 (2017).

³³ *Id.*

³⁴ Jaymes Fairfax-Columbo et al., *Distinguishing “Incorrigibility” from “Transient Immaturity”: Risk Assessment in the Context of Sentencing/Resentencing Evaluations for Juvenile Homicide Offenders*, 5 TRANSLATIONAL ISSUE IN PSYCH. SCI. 132, 138 (2019) (citing Andrews & Bonta, 2017).

³⁵ See *id.*; Clarke et al., *supra* note 32.

³⁶ Glen J. II Dalakian, *Open the Jail Cell Doors, Hal: A Guarded Embrace of Pretrial Risk Assessment Instruments*, 87 FORDHAM L. REV. 325, 364 (2018).

³⁷ Jeremy W. Coid et al., *Improving Risk Management for Violence in Mental Health Services: A Multimethods Approach*, 4 PROGRAMME GRANTS FOR APPLIED RES. 235 (Nov. 2016).

indicates a propensity to change, therefore, if the algorithm is used in sentencing, the suggested prison term might be shorter.³⁸ If the same factor is taken into account for pre-trial incarceration, youthfulness tends to lead to incarceration because younger offenders are less likely to appear in court or understand the gravitas of the charge against them.³⁹ The Supreme Court, in line with this thought, held in *Miller v. Alabama* that youthfulness be considered a mitigating factor and that judges are required to make individualized assessments.⁴⁰

This would be an appropriate consideration of a goal (length of sentencing) and a related variable (age). But what if a goal is less specific? When algorithms are charged with predicting recidivism, what metric are they told to measure—arrests, convictions, or incarcerations?⁴¹ In actuality, they are told to predict “contact with the criminal justice system,” which could mean any of these.⁴² Therefore, even an improper arrest could be labeled as “recidivated” and it would be inaccurate.⁴³ Algorithms are not able to distinguish between these improper encounters and actual recidivism, leading to a host of problems.⁴⁴

Based on this definition, it is vital to establish the goal of the risk assessment tool and to adjust variables, weights of variables, and other metrics accordingly. It is ill-advised to use the same risk assessment tool for pre-trial incarceration as for granting parole, for example. Despite these laid out problems, risk assessment tools have come to be a great achievement in the justice field, providing justiciable efficiency.

One of the earliest juvenile risk assessment tools was developed in Washington State in 1997: the Washington State Juvenile Court Assessment (“WSJCA”).⁴⁵ The WSJCA was later renamed by two companies as both the Positive Achievement Change Tool (“PACT”) and the Youth Assessment and Screening Instrument (“YASI”).⁴⁶ These tools served as examples of the RNR

³⁸ Dalakian, *supra* note 36, at 364-65.

³⁹ *Id.*

⁴⁰ FELD, *supra* note 17, at 196 (citing *Miller v. Alabama*, 567 U.S. 640 (2012)).

⁴¹ See Jacob Curtis, *On Using Machine Learning to Predict Recidivism* 84-85 (May, 2018) (unpublished Ph.D. dissertation, Texas Tech University), <https://ttu-ir.tdl.org/handle/2346/73945>. See also FELD, *supra* note 17, at 209 (“Although *Eddings*, *Thompson*, and *Roper* viewed youthfulness as a mitigating factor, many trial judges treated it as an aggravating factor and sentenced young murderers more severely than adults convicted of murder.”).

⁴² Curtis, *supra* note 41.

⁴³ *Id.*

⁴⁴ *Id.*

⁴⁵ Zachary Hamilton et al., *Optimizing Youth Risk Assessment Performance: Development of the Modified Positive Achievement Change Tool in Washington State*, 46 CRIM. JUS. & BEH. 1106, 1107 (2019).

⁴⁶ *Id.*

model at work—outputting an assessment of young offenders’ risks and needs.⁴⁷ And while this non-proprietary system has contributed to the common practices of risk assessment in the juvenile justice system, advancements in juvenile risk assessment accuracy have notably lagged behind that of adult assessments.⁴⁸

While transparency and oversight must continue to develop, there are other initiatives that can assist in mitigating negative impacts of algorithmic risk assessments. Utilizing the data for rehabilitative rather than (or maybe even in addition to) punitive results, could be a solution to reducing recidivism and changing the algorithms. Acquiring data for these assessments can be as simple as asking the offender a question. In the juvenile field, this might be “did you suffer violence at home?” If the answer is “yes,” this might result in a higher risk score (punitive). This should also prompt a social services intervention or therapy (rehabilitative)—the use of such an intervention in and of itself would probably go towards a lower risk score.

Although risk assessment algorithms have helped improve efficiency in the justice system, there are still many questions about biases and fairness that need to be researched. There remain some marked differences in the way adult and juvenile risk assessments weigh certain factors like age. For the class of emerging adults, this is a unique and troubling problem due, in part, to their ongoing cognitive development and delay in meeting adult-defining milestones.

II. THE COGNITIVE DEVELOPMENT OF ADOLESCENTS AND EMERGING ADULTS

Adolescence is met by a prevalence of risk-taking, a disconnect between actions and consequences, and impulsivity; increased antisocial behavior and submission to peer pressure; impaired cognitive control, particularly under circumstances of emotional arousal, like seeking peer approval—all to say teens do not think things through.⁴⁹ But, science has proven it is not just teens.⁵⁰ The brain does not fully mature until the early to mid-twenties.⁵¹ The impact of these emotional stimuli on decision-making shows that adolescents—and young adults—are more susceptible to rewards and threats weakening their impulse control.⁵² And this is crucial when considering the needs and

⁴⁷ *Id.*

⁴⁸ *Id.*

⁴⁹ Elizabeth Scott et al., *Brain Development, Social Context, and Justice Policy*, 57 WASH. U. J. L. & POL’Y 13-74 (2018).

⁵⁰ *Id.*

⁵¹ *Id.*

⁵² *Id.*

responsivity determined by risk assessments for emerging adults—those within the ages of eighteen and twenty-four whose brains are still faced with construction, myelination, and a transitory period from adolescence to adulthood.⁵³

Brain development starts from the back of the brain and moves to the front.⁵⁴ The parts of the brain that deal with impulse control and decision-making are the frontal lobe and pre-frontal cortex, and they are undergoing development well into a person’s twenties.⁵⁵ These parts also are the source of a person’s ability to assess risk and danger.⁵⁶ Myelination, in short, is when white matter (myelin) is wrapped around the axons of brain cells allowing connections between synapses, and thus the brain’s processing speed, to occur exponentially faster.⁵⁷ Myelin production continues into a person’s thirties.⁵⁸ When communications occur without myelination having taken place, a signal from one area of the brain has trouble communicating with another—a key reason why adolescent decision-making in stressful situations can be so poor.⁵⁹

Adolescents are prone to making decisions based on emotions and validation from peers, without thinking through the long-term consequences of their actions.⁶⁰ Part of this has to do with the development lag of the frontal lobes, but the release of hormones in greater quantities than childhood starting in adolescence also contributes to the emotional rewards sought. Adolescent brains begin dealing with up to thirty times more sex hormones (testosterone, estrogen, and progesterone) than prior to puberty.⁶¹ These hormones connect to different parts of the brain depending on sex, but in all regards, sex hormones flourish in the limbic system—the “emotional center of the brain.”⁶² This is a key reason why adolescents and emerging adults relate to, portray, and seek out emotional experiences.⁶³ The adolescent brain also adversely reacts to the hormone tetrahydropregnanolone (“THP”)—instead of modulating anxiety, as it does in adults, the hormone raises it in

⁵³ See FRANCES E. JENSON, *THE TEENAGE BRAIN* (2015).

⁵⁴ *Id.* at 37.

⁵⁵ Vincent et al., *supra* note 4, at 171-72.

⁵⁶ JENSON, *supra* note 53, at 36.

⁵⁷ *Id.* at 50-56.

⁵⁸ *Id.* at 60.

⁵⁹ *Id.* (“Without [the] insulated connections [due to myelination], a signal from one area of the brain, say fear and stress coming from the amygdala, has trouble linking up with another part of the brain, for instance the frontal cortex’s sense of judgment. For adolescents whose brains are still being wired, this means they sometimes find themselves in dangerous situations, not knowing what they should do next.”).

⁶⁰ JENSON, *supra* note 53.

⁶¹ *Id.* at 20-21.

⁶² *Id.* at 21.

⁶³ *Id.*

response to stressful situations during adolescence.⁶⁴ Further studies have shown that these heightened emotions play very much into the validation-seeking nature of adolescents in their peer relationships regardless of the risks.⁶⁵ And this appears when youth seek pleasure, gratification, and validation through delinquent and risky behavior either for peer approval or an increase in perceived social status.⁶⁶

The Supreme Court considered the delayed cognitive abilities of adolescents when it struck down mandatory sentencing of juveniles to life without parole and ruled on other, now, juvenile justice precedents, discussing, among other things, the propensity for rehabilitation during this period of life.⁶⁷ In *Roper*, the Court likened immaturity to diminished culpability, contributing to the decision curbing the death penalty for juveniles.⁶⁸ In *Graham*, the Court held that juveniles should be given a chance to achieve maturity, fulfillment, and reconciliation with society.⁶⁹

Research has determined that there exists an age-crime curve, showing that natural desistance from crime by adolescents generally occurs with their maturation.⁷⁰ The age-crime curve indicates that criminality peaks around age sixteen and declines into early adulthood, with cessation occurring between the ages of twenty and thirty.⁷¹ However, because of the binary categories in the criminal justice system (juvenile or adult), this transition to adulthood and gradual aging out of immaturity is cut out of the

⁶⁴ *Id.* at 22.

⁶⁵ *Id.* at 105-14 (explaining that a study was done where subjects aged six to twenty-nine were shown pictures of happy and calm faces and instructed to press a button (reward) when the calm face appeared: “Studies have consistently shown that the adolescent nucleus accumbens releases more dopamine than the adult’s, so it was especially difficult for the teenage subjects to resist the ‘reward’ of [a] happy face. . . . The risk-reward system in the adolescent’s limbic region works closely with nearby brain structures involved in processing not only emotions but also social information.”).

⁶⁶ Whitney L. Hunt, *Recidivism and Juvenile Justice Youth: A Study on Recidivism Rates for Youth Awaiting Adjudication* 15 (Dec. 2017) (unpublished Masters dissertation, The University of Texas at Arlington).

⁶⁷ See *Montgomery v. Louisiana*, 136 S.Ct. 718 (2016); *Miller v. Alabama*, 567 U.S. 640 (2012); *Graham v. Florida*, 560 U.S. 48 (2010); *Roper v. Simmons*, 543 U.S. 551 (2005).

⁶⁸ FELD, *supra* note 17, at 198 (citing *Roper v. Simmons*, 543 U.S. 551 (2005) (“Retribution is not proportional if the law’s most severe penalty is imposed on one whose culpability or blameworthiness is diminished, to a substantial degree, by reason of youth and immaturity.”)).

⁶⁹ Fairfax-Columbo et al., *supra* note 34, at 133 (citing *Graham v. Florida*, 560 U.S. 48 (2010)).

⁷⁰ *Id.* at 133; Scott et al., *supra* note 49, at 55.

⁷¹ Fairfax-Columbo et al., *supra* note 34, at 135-36 (“[t]he base rate of desistance among offenders is roughly 85% by the late 20s, meaning the default assumption in assessing whether a juvenile offender is incorrigible or irreparably corrupt is that the juvenile does not pose a lifelong risk.”).

equation entirely and unable to be considered a factor in assessing culpability.⁷²

For emerging adults, the transition period is more than just myelination and brain development, it is also a significant period of social growth that affects their perception of “adulthood” and influences their level of maturity.⁷³ As Jeffrey Arnett postulated, commitments and responsibilities that are associated with adulthood are delayed while role experimentation continues and intensifies throughout the late teens and early twenties.⁷⁴ The transition to adulthood has objectively become delayed as young people in society stay in school longer, marry later, and start families later.⁷⁵ Establishing adult roles and obligations, itself, has been linked to desistance.⁷⁶ So the absence of that achievement may rather lead to persistence of delinquency.⁷⁷

Because natural desistance from crime occurs throughout young adulthood, emerging adults should receive similar treatment to juveniles regarding need and responsivity determinations and intervention. This desistance from offending correlates with the decline of peer sensitivity and seeking social rewards.⁷⁸ The malleability of the human brain peaks at two points in life: infancy and adolescence.⁷⁹ In adolescence, this provides pros and cons. Young offenders may be great candidates for, and receptive to, rehabilitative interventions.⁸⁰ But, while susceptible to positive reinforcements, the adolescent brain can be as easily vulnerable to toxic environments and experiences.⁸¹ This malleability of the adolescent brain—which extends even into early adulthood, although it begins to decline—places a burden on correctional settings and programs to facilitate cessation from criminal behavior and to do so efficiently and correctly.⁸²

Despite these studies, what is more astounding is that society has drawn arbitrary lines as to when an adolescent, or even an emerging adult, becomes mature enough to handle certain risks and

⁷² See FELD, *supra* note 17, at 195.

⁷³ See, e.g., Jessica M. Hill et al., *Desisting from Crime in Emerging Adulthood: Adult Roles and the Maturity Gap*, 53 J. RES. CRIME & DELINQUENCY 506, 508-12 (2016); Arnett, *supra* note 2, at 470-73.

⁷⁴ Arnett, *supra* note 2, at 470-71.

⁷⁵ Seth J. Schwartz et al., *Identity and Agency in Emerging Adulthood: Two Developmental Routes in the Individualization Process*, 37 YOUTH & SOC'Y 201, 201 (2005). See also CHRISTIAN SMITH, LOST IN TRANSITION: THE DARK SIDE OF EMERGING ADULTHOOD 13-14 (2011).

⁷⁶ Hill et al., *supra* note 73, at 507.

⁷⁷ Hill et al., *supra* note 73, at 512.

⁷⁸ Scott et al., *supra* note 49, at 53.

⁷⁹ *Id.* at 58.

⁸⁰ *Id.* at 59.

⁸¹ *Id.*

⁸² *Id.* at 61.

situations: at sixteen, they can drive; at eighteen, they can vote and fight in wars; at twenty-one, they can drink; at twenty-five, they can rent a car or run for the House of Representatives; at thirty, they can run for Senate. Yet, the justice system has generally chosen eighteen as an optimal age for “adulthood,” and penalizes persons as such if an offense was committed after that age.⁸³ Although many states have extended the juvenile system jurisdiction to at least age twenty, this only applies to youth whose offenses were processed in the juvenile system to begin with.⁸⁴ The period of adolescence has increased with the industrialization of the Western world and the juvenile justice system should account for that.⁸⁵

Again, the Supreme Court has acknowledged that unduly harsh sentences such as the death penalty and life imprisonment without parole are unconstitutional in juvenile cases.⁸⁶ In deciding these cases, the Court relied on scientific amici briefs explaining the cognitive impairments that are biological facets of adolescence.⁸⁷ But there appears to be a serious deficiency in assessing those same cognitive impairments with emerging adults. Similar to that of juvenile offenders, the maturation of emerging adults in desistance serves not just a personal welfare, but a social welfare “enhanced if the legal response to their offending offers the opportunity to do so.”⁸⁸

Emerging adults, like juveniles, are prone to delayed cognitive functions that affect their decision-making ability in stressful situations. Unlike juveniles, and adults, however, emerging adults are also navigating societal changes that affect both their actual and perceived maturity. It is this maturity that contributes to crime desistance. While there is no objective way to measure maturity, the fact that this development continues into the mid-twenties should be enough to reassess the culpability of emerging adults.

⁸³ Vincent et al., *supra* note 4, at 173 (“[A] few states still consider age 16 to be the line for adult jurisdiction.”).

⁸⁴ *Id.* at 172.

⁸⁵ JAMES CÔTÉ, ARRESTED ADULTHOOD: THE CHANGING NATURE OF MATURITY AND IDENTITY 1-2 (2000).

⁸⁶ See *Montgomery v. Louisiana*, 136 S.Ct. 718 (2016); *Miller v. Alabama*, 567 U.S. 460 (2012); *Graham v. Florida*, 560 U.S. 48 (2010); *Roper v. Simmons*, 543 U.S. 551 (2005). Abolishing death penalty and life imprisonment without parole for juveniles holding, *inter alia*, they violated the Eighth Amendment.

⁸⁷ See *Montgomery v. Louisiana*, 136 S.Ct. 718 (2016); *Miller v. Alabama*, 567 U.S. 460 (2012); *Graham v. Florida*, 560 U.S. 48 (2010); *Roper v. Simmons*, 543 U.S. 551 (2005).

⁸⁸ Scott et al., *supra* note 49, at 69.

III. WHY RISK ASSESSMENT TOOL PITFALLS MATTER FOR EMERGING ADULTS IN THE CRIMINAL AND JUVENILE JUSTICE SYSTEMS

Both the criminal and juvenile justice systems fail to address emerging adulthood as a relevant factor when using risk assessment tools or relying on their outcome for final decisions. The lack of rehabilitation over punitive responses fails to consider or act on the last burst of adaptability and openness to intervention the emerging adult brain has, particularly in the criminal justice system. This is an injustice; floating between two dichotomous systems exposes emerging adults to the worst of both worlds—three examples of which are examined below.

In again considering the issue of age as a factor for risk assessment discussed in Section I, the factor can also be construed as either a persistence or desistance factor depending on the adjudicatory system and whether there is a consideration of maturity level. Another distinction between the two systems is the relevance and power of judicial versus prosecutorial discretion. While overrides are seen more in the juvenile system, judges have less discretion in criminal hearings because of sentencing guidelines and the prosecutor's choice of charges. Lastly, juvenile adjudication and assessment is rooted in locality divisions—resulting in even less cohesion than in the adult criminal justice system.⁸⁹ Applying jurisdiction-specific assessment tools to other localities without adjusting their metrics can lead to more discrepancies than in nationwide statistics of the criminal system.

A. *Age: A Persisting or Desisting Factor? Juvenile vs. Adult Risk Assessment Instruments*

When examining risk and the potential for re-offending, assessments will consider factors associated with persistence and desistance from criminal activity.⁹⁰ For emerging adults and adolescents, the context of when these factors take place is important: “[S]moking prior to age 12 is a significant factor, but smoking at age 15 when experimentation is a normal part of development or in early adulthood when smoking is legal would not be risk factors for offending.”⁹¹ There is a distinction between early-onset and late-onset antisocial behavior, indicating that the presence

⁸⁹ Hamilton et al., *supra* note 45, at 1108-10.

⁹⁰ Robert D. Hoge et al., *Bulletin 4: Prediction and Risk/Needs Assessment (Study Groups on the Transitions Between Juvenile Delinquency and Adult Crime)*, NAT'L CRIM. JUST. REFERENCE SERV. 8 (July 2013), available at <https://bit.ly/2D9NvMi>.

⁹¹ Hoge et al., *supra* note 90, at 9.

of certain behaviors alone is not as accurate in determining risk unless *when* those behaviors start is also considered.⁹²

Deviant behavior is a part of adolescence due to the maturity gap—“a perceived disconnect between [an adolescent’s] biological and social maturity stages.”⁹³ As mentioned previously, deviant or delinquent behavior follows an age-crime curve with natural desistance occurring in the late-teens to early-twenties.⁹⁴ One example of age having a more direct implication on punishment was in a 2003 case involving Christopher Drew Brooks.⁹⁵ Brooks, a nineteen-year-old man had consensual sex with a fourteen-year-old girl and was convicted of statutory rape.⁹⁶ The court utilized a risk assessment instrument that elevated his risk score and suggested an incarceration period beyond the sentencing guidelines based on his young age, despite being close in age to the victim.⁹⁷ Had he been older, say thirty-six, the algorithm’s recommendation would not include incarceration at all.⁹⁸

Because of the ongoing development of the frontal lobes well into the emerging adulthood period, offenders should be reassessed in accordance with changing developmental stages and social context.⁹⁹ Several studies have shown that adult criminal persistence varies with the developmental stage at which serious antisocial behavior begins.¹⁰⁰ Further, persistence varies over time. The accuracy of assessment tool predictive analysis may be different when used at the different developmental stages (*i.e.*, ages twelve to seventeen versus ages eighteen and older), but this is a very understudied area.¹⁰¹ Reassessments should also occur throughout

⁹² Georgia Zara & David P. Farrington, *Assessment of Risk for Juvenile Compared with Adult Criminal Onset Implications for Policy, Prevention, and Intervention*, 19 PSYCH., PUB. POL’Y & L. 235, 243 (2013) (“Internalizing problems, which were negatively related to early onset offending, were the best independent predictors of late onset offending. This shows that different risk factors should be recognized when assessing and targeting different stages of criminal careers.”).

⁹³ JESSICA M. SAUNDERS, TRACKING THE DEVELOPMENT OF DELINQUENCY 2 (2009).

⁹⁴ *Supra* Part II.

⁹⁵ HANNAH FRY, HELLO WORLD: BEING HUMAN IN THE AGE OF ALGORITHMS 63 (2018) (discussing *Brooks v. Commonwealth*, 2004 WL 136090 (Va. App. 2004), Memorandum Opinion).

⁹⁶ *Id.*

⁹⁷ *Id.* at 63-64.

⁹⁸ *Id.* at 64.

⁹⁹ See Hoge et al., *supra* note 90, at 9 (noting that “[e]ven the relevance of risk factors can change across time.”).

¹⁰⁰ Hoge et al., *supra* note 90, at 10.

¹⁰¹ Jodi L. Viljoen et al., *Are Adolescent Risk Assessment Tools Sensitive to Change? A Framework and Examination of the SAVRY and the YLS/CMI*, 41 L. & HUM. BEHAV. 244, 244 (2017); Hoge et al., *supra* note 90, at 22.

maturation due to the changing nature of adolescents and emerging adults biologically.¹⁰²

The only study of its kind, conducted by The Mind Research Network, examined the distinction between chronological age (how old you actually are) with brain-age (the developmental stage of brain matter indicative of maturation) and how each correlate with recidivism prediction.¹⁰³ Because of the delay in full cognitive development, brain-age does not always correspond with chronological age—they progress at different rates.¹⁰⁴ The research group determined that there was a stronger correlation between brain-age and prediction of reoffending than with chronological age.¹⁰⁵ Ignoring this discrepancy by assigning an arbitrary chronological age to offenses, judicial procedures, or sentencing negatively impacts the ability for individuals in this social group to receive intervention, rehabilitate, and desist from crime.

Emerging adults are unique in that they are in a transitory period of life—they are in the process of finding a job and housing, maintaining an income to support themselves, navigating changing social circles, etc. These stressful factors interact with the adolescent and emerging adult developing brain causing poor decision-making for the satisfaction of peer approval among other emotional rewards.¹⁰⁶ What is more is the variety at which people in this stage of life experience “full maturity”—some are still living with their parents rather than independently; some are working full-time while others work on a GED or higher education.¹⁰⁷ Certain assessment tools like the HCR-20 and SAVRY, allow judges to weigh such factors based on the individual’s developmental stage to determine risk level or if intervention is feasible.¹⁰⁸ The more individuals

¹⁰² See *supra* Part II. See, e.g., Hamilton et al., *supra* note 45, at 1107.

¹⁰³ Kent A. Kiehl, *Age of Gray Matters: Neuroprediction of Recidivism*, 19 NEUROIMAGE: CLINICAL 813 (2018). The authors concluded that “[r]educed gray matter volume and density were identified as significant predictors of both neural age and rearrest. . . . This is the first prospective study to report brain-age measures predict re-offending.” *Id.* at 819.

¹⁰⁴ *Id.* at 821.

¹⁰⁵ *Id.* at 819.

¹⁰⁶ Emily Graham, *Emerging Adults in the Federal System: A Case for Implementing the Federal Youth Corrections Act*, 11 HARV. L. & POL’Y REV. 619, 624-25 (2017) (“Additionally, recent research shows that environmental factors can influence brain development beyond the age of eighteen. This is important because individuals of this age group are increasingly less likely to be part of healthy, stabilizing environments due to delayed marriage, decreased parental oversight, and greater access to negative peer influence. . . . If neuroscience can be an indication of diminished capacity that is relevant for criminal culpability, then the neurological status of emerging adults should be a potential mitigating factor within the federal sentencing structure.”).

¹⁰⁷ Vincent et al., *supra* note 4, at 181.

¹⁰⁸ *Id.*

engage with these factors, like living and financial independence, the more likely they are to desist from delinquency.¹⁰⁹

Aside from these persisting and desisting factors, researchers have also addressed the rampant issue of mental health problems facing emerging adults because of these significant life changes.¹¹⁰ Behavioral disorders peak in the early twenties, but youths lose access to many mental health services once they transition out of the juvenile system.¹¹¹ While the connections between mental health and offending has been studied, it goes beyond the scope of this piece; but it is worth noting that co-occurring behavioral and emotional problems elevate recidivism risk, and reentry services that engage with mental health treatment provide a sense of hope in successful rehabilitation.¹¹²

B. Judicial Discretion versus Prosecutorial Power

Proponents of risk assessments based on algorithms argue that their use would lead to fairer sentencing by doing away with judicial discretion that can be implicated by human biases.¹¹³ Several studies have looked at judicial overrides of assessments and their impact on those tools.¹¹⁴ In general cases of downward overrides, where judges downgraded the suggested risk level of the assessment tool, the validity of the tool actually increased compared to individuals who did not have their risk downgraded.¹¹⁵

However, in some cases within the criminal justice context, this discretion is diverted to prosecutors through the implementation of sentencing guidelines.¹¹⁶ When legal professionals utilize

¹⁰⁹ Hill et al., *supra* note 73, at 507.

¹¹⁰ See Kristyn Zajac et al., *Juvenile Justice, Mental Health, and the Transition to Adulthood: A Review of Service System Involvement and Unmet Needs in the U.S.*, 56 CHILD YOUTH SERV. REV. 139, 139 (2015) (“Transition age youth are a particularly vulnerable subgroup in the juvenile justice system, as this age group has the highest rates of mental health problems and also face multiple transitions in life roles during this developmental period.”).

¹¹¹ *Id.* at 140.

¹¹² *Id.* at 141-42.

¹¹³ Angèle Christin, *Predictive Algorithms and Criminal Sentencing*, in THE DECISIONIST IMAGINATION: SOVEREIGNTY, SOCIAL SCIENCE AND DEMOCRACY IN THE 20TH CENTURY 272, 284 (Nicolas Guilhot & Daniel Bessner eds., 2018).

¹¹⁴ James T. McCafferty, *Professional Discretion and the Predictive Validity of a Juvenile Risk Assessment Instrument: Exploring the Overlooked Principle of Effective Correctional Classification*, 15 YOUTH VIOLENCE & JUV. JUS. 103, 105 (2015).

¹¹⁵ *Id.*

¹¹⁶ Christin, *supra* note 114, at 284 (“Prosecutors, however, were not constrained by the [Sentencing] Guidelines. They saw instead a significant increase in their relative decision-making power: they were the ones who decided on the charges that would then constrain the decision of the judges, because the charges would in turn determine the ‘Offense Level’ column in the Sentencing Tables.”).

assessment tools, they have the power to override the outcomes. In these instances, a recent study found that judges are more likely to detain an offender when an algorithm recommends release than to release someone when it recommends incarceration.¹¹⁷

Discretion is particularly relevant when risk assessment tools utilize a low-, medium-, and high-risk classification. For example, at the Dallas County Juvenile Department (“DCJD”), offenders who score as medium-risk during intake can either be detained or diverted (something other than detention, *i.e.*, house arrest) until their trial date.¹¹⁸ But, as Hunt reports, “roughly one in every five youth receive an override to their RAI [(risk assessment instrument)] score” at DCJD.¹¹⁹ These overrides could lead to further problems with algorithmic assessments or they could move the needle in a way that conforms with society’s development. A study reviewing overrides of the Level of Service Inventory (“LSI”) test showed that the use of discretion did not negatively affect the assessment’s validity and that the adjusted risk levels performed better than what was initially determined.¹²⁰ The potential for error, however, is still unknown. So, in either case of judicial or prosecutorial discretion, the implementation of best practices would improve the accuracy of risk assessment tools themselves and provide guidance on when overrides are warranted.

C. Lack of Uniformity or Non-Customization to Jurisdictional Characteristics

Juvenile systems vary by state, meaning there is no national rates or metrics for recidivism that algorithms utilize.¹²¹ When assessing the risk of a particular delinquent, then, to whom are they being compared? How are offenders being compared to other juveniles? In her study, Hunt notes that another error based on the age of re-offenders lies in their transfer out of the juvenile system but the data still being utilized in future implications.¹²² Suddenly, that offender is no longer being processed in the juvenile system, but are their metrics and statistics still being utilized for future risk assessment comparison?¹²³ In that case, the transfer of the offender to the adult system database created more difficulties in measuring how certain factors contributed to recidivism.¹²⁴

¹¹⁷ *Id.* at 287.

¹¹⁸ Hunt, *supra* note 66, at 22-23.

¹¹⁹ *Id.* at 24.

¹²⁰ McCafferty, *supra* note 114.

¹²¹ Hunt, *supra* note 66, at 31.

¹²² *Id.* at 34.

¹²³ *See id.*

¹²⁴ *Id.*

On the other end of the spectrum, there is also a lack of customization of tools to the jurisdiction in which they are used, and adopted “off-the-shelf” as-is.¹²⁵ Instruments are constructed with samples to establish risk classifications that might not reflect a jurisdiction’s variation like local statutes and population diversity.¹²⁶ As such, “one sample may not hold when applied to another sample,” meaning that those classifications “should be locally validated and customized.”¹²⁷

IV. SOLUTIONS: FEDERAL REGULATIONS FOR JUVENILE INCLUSION OF EMERGING ADULTS, SCIENTIFIC TRAINING ON COGNITIVE AND SOCIAL DEVELOPMENT, AND RISK ASSESSMENT INSTRUMENT USAGE GUIDELINES

In examining the particular pitfalls that belie emerging adults being processed in the adult system despite their similarities to juveniles, several solutions come to mind. Because juvenile justice is largely a state matter, there are few federal policies providing regulation or input. The introduction or expansion of federal statutes can aide in rehabilitating delinquent emerging adults. Additionally, expanding rehabilitative resources and programs available to juveniles to include emerging adults would make them more productive members of society upon re-entry. These assertions are supported by the above-mentioned age-crime curve, natural desistance, and other cognitive factors.¹²⁸ However, it would hardly be a worthwhile argument to make if additional steps are not taken to educate decision-makers on the science behind those factors. Lastly, mandated uniformity and oversight would go towards ensuring accuracy across the juvenile justice system in the way risk assessment tools are used.

A. *Federal Policies & Expansion of the Juvenile System*

Research findings show that early intervention during critical times of brain development, like adolescence, is beneficial for the individual and society at-large.¹²⁹ Suggestions have been made for re-implementation of a federal scheme similar to the Federal Youth Corrections Act (“YCA”), which was repealed in 1984 and replaced with the Federal Sentencing Guidelines.¹³⁰ One of the arguments for implementation of a revised-YCA is the ability

¹²⁵ Hamilton et al., *supra* note 45, at 1108.

¹²⁶ *Id.* at 1109-10.

¹²⁷ *Id.* at 1110.

¹²⁸ *Supra* Part II.

¹²⁹ See Susan Frelich Appleton et al., *The Developing Brain: New Directions in Science, Policy, and Law*, Introduction, 57 WASH. U. J. L. & POL’Y 1-12 (2018).

¹³⁰ See Graham, *supra* note 106, at 619-20.

of judges to focus more on rehabilitation rather than strict punitive sentences.¹³¹

Raising the age limit of juvenile versus adult adjudication to twenty-one (ideally, twenty-five) could also be more beneficial to offenders with the ability to rehabilitate.¹³² In fact, this was similar to a facet of the YCA, which included a presumption making the sentencing policies applicable to eighteen- to twenty-two-year-olds with additional judicial discretion allowing extension to individuals up to the age of twenty-six.¹³³

Juvenile programs assisting with re-entry should be more inclusive of emerging adults, and federal policies should be expanded. For additional mental health reasons discussed below, juvenile re-entry programs should also encompass emerging adults to help them successfully re-enter society during this general transitory period of life. Re-entry programs that focus on mental health treatment and assisting an individual in acquiring the definitive markers of adulthood previously discussed—financial independence, housing, employment, and adult role models—have lowered re-arrest rates for young adults with criminal pasts.¹³⁴ Researchers have made the recommendation to expand federal policies like IDEA (Individuals with Disabilities Education Act) and the Chafee Act, both of which help juveniles succeed in education and in transitioning out of foster care, respectively, into the juvenile justice system.¹³⁵ Taking it one step further, these policies should also be made to encompass emerging adults to assist them in becoming productive members of society and encouraging desistance.

B. Training on Cognitive and Social Development of Emerging Adults

It is important for judges and other legal officials to be informed of the cognitive development of youth in order to make the appropriate decisions for detention, diversion, or rehabilitation.¹³⁶ Transitional age youth, or emerging adults, are in the process of navigating independence and are in need of tools the same way juveniles are. This could include diversion and intervention programs that assist in developing independence and life skills which emerging adults who have gone through the justice system tend to lack. Studies have shown that delinquent behavior decreases

¹³¹ *See id.* at 627.

¹³² *See* Zara & Farrington, *supra* note 92, at 238.

¹³³ *See* Graham, *supra* note 106, at 628.

¹³⁴ Zajac et al., *supra* note 110, at 143 (discussing the Boston Reentry Initiative).

¹³⁵ *Id.* at 145.

¹³⁶ Hunt, *supra* note 66, at 14.

as emerging adults spend more time in adult roles—stable relationships, exclusively in employment rather than education, and living and financial independence.¹³⁷ Providing programs or adopting policies that allow these opportunities may aid in maturity development and desistance.¹³⁸

Some researchers suggest implementing individualized transition plans for young adults, providing care more consistent with juvenile rather than adult reentry including mental health treatment and vocational rehabilitation, and even extending the age of the foster care system to twenty-one.¹³⁹

The emerging adult age group “has the highest rates of mental health problems,” with many behavioral disorders peaking during the early twenties.¹⁴⁰ The significant social and psychological changes that emerging adults undergo coupled with behavioral and mental health disorders expose a massive gap in the way society takes care of its emerging adults.¹⁴¹ While minors diagnosed with disruptive behavior disorders can access services in the juvenile health system, adults—specifically, emerging adults—who exhibit these same disorders are typically denied coverage in an adult system.¹⁴² When re-entering society, emerging adults are not afforded the same coverage for healthcare as juveniles due to various barriers including a lack of community-based services and financial support.¹⁴³

The arbitrary switch from rehabilitative to punitive effects of the justice system at age eighteen is not effective, particularly because of the increasing research indicating emerging adults are “developmentally more similar to adolescents than adults.”¹⁴⁴ The significant changes this social group undergoes require a well-informed system to oversee adjudication.¹⁴⁵ Consider one of the primary factors contributing to the success of diversion and rehabilitative programs: the involvement of parents or similarly situated authoritative figures. This is “an advantage many justice-involved youth do not have.”¹⁴⁶ Emerging adults, like adolescents and youth, need mature adults to be involved in caring for, engaging, mentoring, and challenging them.¹⁴⁷ For example, with youth aging out of the foster care system, a higher risk for criminal justice

¹³⁷ Hill et al., *supra* note 73, at 522.

¹³⁸ *Id.* at 525.

¹³⁹ Zajac et al., *supra* note 110, at 139.

¹⁴⁰ *Id.* at 140.

¹⁴¹ *See id.*

¹⁴² *Id.*

¹⁴³ *Id.* at 140-43.

¹⁴⁴ *Id.* at 145.

¹⁴⁵ *See* Zajac et al., *supra* note 110, at 139.

¹⁴⁶ *Id.* at 141.

¹⁴⁷ SMITH, *supra* note 75, at 7.

involvement is prevalent.¹⁴⁸ Two programs that help promote independence amidst a transitory period of criminal desistance are the John H. Chafee Foster Care Independent Living Program (“CFCIP”), and Multidimensional Treatment Foster Care (“MTFC”).¹⁴⁹ CFCIP helps current and former foster care youths make the transition to self-sufficiency through education and training vouchers, grants, and incentivizing states to extend the age limit of foster care to twenty-one.¹⁵⁰ MTFC places delinquent youth with specially trained foster parents for approximately six to nine months, providing a supervised and structured environment as an alternative to residential placement.¹⁵¹

C. Risk Assessment Instrument Usage

Similar to re-implementing federal age guidelines, an enactment of federal guidelines is desperately needed in both the juvenile and adult justice systems regarding algorithmic usage. The closest instance we have seen was in the *Loomis* case¹⁵². However, the court there did not go nearly far enough to expressly address the aforementioned concerns of algorithmic risk assessments. With the previously mentioned concerns including biases infiltrating the algorithm, it is paramount for a uniform federal establishment of “best practices.” Best practices should include clarifying the application of judicial or prosecutorial discretion—specifying when, if ever, it is appropriate; whether, when, and how often reassessments are needed¹⁵³; eliminating “off-the-shelf” adoption and mandating jurisdictional modification¹⁵⁴; and ensuring that the means being used reflect the proper end goal.

Considering the natural desistance from deviant behavior into the early-twenties and the age-crime curve, the default rule should be rehabilitation over punitive treatment for emerging

¹⁴⁸ Zajac et al., *supra* note 110, at 143.

¹⁴⁹ *Id.* at 143.

¹⁵⁰ *John H. Chafee Foster Care Program for Successful Transition to Adulthood*, CONG. RES. SERV. (Jan. 15, 2019), available at <https://fas.org/sgp/crs/misc/IF11070.pdf>; *John H. Chafee Foster Care Independence Program*, U.S. DEPT. HEALTH & HUM. SERVS. (June 28, 2012), <https://www.acf.hhs.gov/cb/resource/chafee-foster-care-program>.

¹⁵¹ *Program Profile: Multidimensional Treatment Foster Care—Adolescents*, NAT’L INST. JUST. (June 10, 2011), <https://www.crimesolutions.gov/ProgramDetails.aspx?ID=141>.

¹⁵² *State v. Loomis*, 2016 WI 68, 881 N.W.2d 749.

¹⁵³ See, e.g., Hamilton et al., *supra* note 45, at 1107 (describing how the successful WSJCA conducts reassessments every six months “to determine youth changes in risk and needs classification.”).

¹⁵⁴ See *id.* at 1108-09.

adults.¹⁵⁵ Additionally, reassessments at regular intervals can ensure the methods of encouraging desistance are effective.

The aforementioned issue of jurisdictional calibration can also be rectified in regulatory guidelines. The use of locality-centric juvenile tools for emerging adults leads to the issue of jurisdictional variance. As suggested, tools should be calibrated according to the locale—taking into account local statutes and metrics of offenders.

The implementation of an expanded juvenile system should address most of the issues regarding emerging adults at their particular stage of cognitive and social development. This includes a presumption of favoring rehabilitative over punitive responses that employ the last burst of adaptability and provide opportunity to achieve maturity. Age should be presumed to be a mitigating factor for emerging adults, which is not the case in the adult context. When an emerging adult should be tried as a juvenile versus an adult, the assessment should rely on more dynamic and desisting factors, rather than on an arbitrary age line. Use of these assessments requires establishing a clear goal of the algorithm and sticking to that purpose unless metric changes have been accounted for. Risk assessments used for pre-trial risk should not be used for recidivism risk prediction. If that is the case, the tool should undergo a calibration to properly assess and account for the more pertinent factors.

While these solutions are not exhaustive, they provide a starting point for considering the implications of these tools and the great degree of dichotomy that exists between the adult and juvenile justice system. The emerging adult social class has been studied for decades and the science behind the cognitive development, though still being analyzed, is well-founded. When considering how the justice system adjudicates young adults—what tools are used, what metrics are considered, and what type of response should be implemented—decision-makers have the ability to provide a better opportunity for emerging adults to become productive members of society when they understand the cognitive and psychological developments that directly correlate with antisocial or delinquent behavior and the desistance from it.

¹⁵⁵ See Fairfax-Columbo et al., *supra* note 34, at 133.