Disparities in Sentencing: Creating a "Benchcard" on Brain Development to Incorporate Neuroscience Research

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INTRODUCTION

In the Fall of 2022, the LSU Law Journal for Social Justice and Policy hosted their Symposium on the Industrial Prison Complex (IPC or PIC), which is a broad label that refers to "the overlapping interests of

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government and industry that use surveillance, policing, and imprisonment as solutions to economic, social and political problems."[1] The Symposium incorporated many themes, addressing in part the myriad entities that have a vested interest in continuing mass incarceration, including but not limited to private construction companies, prison service providers, and more.[2] The Symposium focused on the privatization of prisons—the practice of contracting the operation of prisons and correctional facilities to private companies, as opposed to government agencies.[3] This Article addresses the disparate impact of incarceration within the IPC and one avenue the legal system could employ to make the process more in line with the most up-to-date scientific research as it pertains to brain development of offenders.

The process by which juveniles (generally, a label referring to offenders up to age 18) enter incarceration varies drastically by jurisdiction, including the severity of the punishment handed down. For an offender sentenced to life without the possibility of parole at 16 or 17, this realistically translates into incarceration that spans decades, dwarfing the amount of time the offender lived prior to committing the crime. In 2021, the Supreme Court issued its decision in *Jones v. Mississippi*, a case centering on the decades-long imprisonment of an offender who committed murder at the age of 15.[4] The changing composition of the Supreme Court heavily influenced the outcome of *Jones*, and cemented the role of the United States as an outlier when it comes to punishing those under 18 with a lifetime sentence of incarceration with no possibility of

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1. *What is the Prison Industrial Complex?*, TUFTS UNIV. PRISON DIVESTMENT, https://sites.tufts.edu/prisondivestment/the-pic-and-mass-incarceration/ [https://perma.cc/L572-STCE] (last visited Dec. 31, 2023). The term Prison Industrial Complex was popularized in the 1990s. Rachel Kushner, *Is Prison Necessary? Ruth Wilson Gilmore Might Change Your Mind*, N.Y. TIMES (Apr. 17, 2019), https://www.nytimes.com/2019/04/17/magazine/prison-abolition-ruth-wilson-gilmore.html [https://perma.cc/AK48-VPRH].

2. Mira Potter, *What is the Prison Industrial Complex?*, JUST. EDUC. PROJECT, https://www.justiceeducationproject.org/post/what-is-the-prison-industrial-complex [https://perma.cc/ZQH7-USXU] (last visited Feb. 27, 2024).

3. This has become increasingly common in the United States starting in the 1980s. Angela Davis, *Masked Racism: Reflections on the Prison Industrial Complex*, COLORLINES (Sept. 10, 1998), https://colorlines.com/article/masked-racism-reflections-prison-industrial-complex/ [https://perma.cc/4TN8-BYHJ].

4. *See* Jones v. Mississippi, 593 U.S. 98 (2021) (holding that JLWOP sentences do not require a specific finding of permanent incorrigibility).

parole (JLWOP, or juvenile life without parole).[5] Prior to *Jones*, the Supreme Court continually emphasized that youth requires special constitutional consideration in sentencing, and this is especially important when making determinations of life behind bars. Despite this mandate, individual states show significant disparity in the way that youth is considered in sentencing decisions. Underscoring the concept of "justice by geography," a 17-year-old in one state could receive JLWOP with little written reasoning while in another state that same sentence is prohibited.[6] The *Jones* decision will widen these disparities.

Part I of this Article will describe the SCOTUS history behind JLWOP sentencing and the departure from the trajectory of increased protections with the 2021 *Jones* decision. It will also provide jurisdiction-specific illustrations of how the disparities in sentencing are playing out nationally. Part II will describe the evolving understanding of neuroscience and the need for separate treatment of not just juveniles but also "emerging young adults" through age 25. Part III will describe how the use of a sentencing benchcard in line with the most recent scientific developments can make outcomes within the IPC more equitable (and not necessarily just for those under age 18). The neuroscience that this Article will reference is based on the work of the Center for Law, Brain & Behavior (CLBB), an organization that strives to put "the most accurate and actionable neuroscience in the hands of judges, lawyers, policymakers and journalists—people who shape the standards and practices of our legal system and affect its impact on people's lives."[7] Over the course of a two-year collaboration with CLBB, students at Northeastern University School researched issues surrounding JLWOP and produced a "Benchcard"[8] that

5. *See* Josh Rovner, *Juvenile Life Without Parole: An Overview*, THE SENT'G PROJECT (Apr. 6, 2023), https://www.sentencingproject.org/policy-brief/juvenile-life-without-parole-an-overview/ [https://perma.cc/JUJ9-WP46].

6. *See, e.g.*, Jay D. Blitzman, *Let's Follow the Science on Late Adolescence*, A.B.A. CRIM. JUST. MAG. (Nov. 1, 2022), https://www.americanbar.org/groups/criminal_justice/publications/criminal-justice-magazine/2022/fall/lets-follow-science-late-adolescence/ [https://perma.cc/EB9Y-UFS6].

7. *Mission*, CTR. FOR LAW, BRAIN & BEHAVIOR, https://clbb.mgh.harvard.edu [https://perma.cc/7WRN-C53K] (last visited Feb. 27, 2024); *see also White Paper on the Science of Late Adolescence: A Guide for Judges, Attorneys, and Policy Makers*, CTR. FOR LAW, BRAIN & BEHAVIOR (2022), https://clbb.mgh.harvard.edu/white-paper-on-the-science-of-late-adolescence/ [https://perma.cc/9USF-NALQ].

8. *See, e.g.*, Brandon L. Garrett et. al., *Forensic Science in Legal Education*, 51 J.L. & EDUC. 1, 12 (2022) ("U.S. Supreme Court Justice Stephen Breyer has written that: 'In this age of science, we must build legal foundations that are sound

is aligned with CLBB's published work. The goal of this Benchcard is to guide legal system players in making science-informed decisions that are in line with current understanding of brain development.[9]

I. JUVENILE LIFE WITHOUT PAROLE AND JURISDICTION SPECIFIC ILLUSTRATIONS OF DISPARITIES

The United States is the "undisputed leader" when it comes to incarceration, investing significant resources and money into our imprisoning systems.[10] These systems are not solving problems or rehabilitating offenders: "[P]risons do not disappear problems. They disappear human beings."[11] The judicial system in many jurisdictions

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in science as well as in law. Scientists have offered their help. We in the legal community should accept that offer.'").

9. *See* Appendix I, "Follow the Science" Benchcard [hereinafter *LO16 Benchcard*]. In my role in the Legal Skills in Social Context program, I partnered with CLBB and Judge Jay Blitzman in two research projects in the aftermath of the *Jones* decision. For the students in my LSSC section (called Law Offices, or LOs), they were introduced to the concepts of social justice lawyering through the lens of this partnership and work to support the creation of the LO16 Benchcard. *See generally Legal Skills in Social Context*, NE. UNIV. SCH. OF LAW, https://law.northeastern.edu/experience/lssc/ [https://perma.cc/2DPR-UD57] (last visited Feb. 27, 2024). I would like to thank my Lawyering Fellows Kimberleigh Powell (Northeastern University School of Law J.D. '23), Sree Kotipalli (Northeastern University School of Law J.D. '23), Genevievre Miller (Northeastern University School of Law J.D. '24), and Hayley Reifeiss (Northeastern University School of Law J.D. '24) for their unwavering support and enthusiasm for this project, as well as the dedication and talents from students in Law Offices 7 and 16.

10. *United States Profile*, PRISON POL'Y INITIATIVE, https://www.prisonpolicy.org/profiles/US.html#:~:text=With%20nearly%20two%20million%20people,1%25%20of%20our%20adult%20population [https://perma.cc/98YL-RPV6] (last visited Feb. 27, 2024) ("With nearly two million people behind bars at any given time, the United States has the highest incarceration rate of any country in the world."). The number that might best capture "the true reach of the criminal legal system" would also include "the 5.5 million people under all of the nation's mass punishment systems, which include not only incarceration but also probation and parole." Leah Wang, *Punishment Beyond Prisons 2023: Incarceration and Supervision by State*, PRISON POL'Y INITIATIVE (May 2023) https://www.prisonpolicy.org/reports/correctionalcontrol2023.html [https://perma.cc/N644-VT25].

11. Davis, *supra* note 3. "As prisons take up more and more space on the social landscape, other government programs that have previously sought to respond to social needs — such as Temporary Assistance to Needy Families — are being squeezed out of existence. The deterioration of public education,

operates to perpetuate the IPC, inhumanely propping up incarceration as an "industry" in a way that disproportionately impacts individuals from communities that have been historically under invested and under resourced.[12] This Section provides examples from three states to illustrate how differently a 17-year-old offender could be sentenced post-*Jones*, evidence of the operation of justice by geography.

A. Overview of the Evolution of Protections for Juveniles from Supreme Court Decisions

Following the creation of separate courts for juveniles and adults,[13] in 1967 the Warren Court rendered its decision in *In re Gault*, a significant decision impacting juvenile incarceration. *Gault* extended certain 14th Amendment due process protections explicitly to juveniles facing a deprivation of liberty.[14] Following *Gault*, the legal battle specifically within juvenile sentencing has centered on the federal 8th Amendment prohibition on cruel and unusual punishment and how states have interpreted this provision in conjunction with their own constitutions.[15] This requires courts to grapple with the "evolving standards of decency

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including prioritizing discipline and security over learning in public schools located in poor communities, is directly related to the prison 'solution.'" *Id.*

12. *See, e.g.*, State v. Jackson, 11-923, 92 So. 3d 1243, 1249–50 (La. App. 3d Cir. 06/06/12), *writ denied*, 12-1540, 107 So. 3d 626 (La. 01/18/13) (Thibodeaux, J., dissenting) ("Our judiciary has in many ways fostered and perpetuated this economically unwise and, in some instances, inhumane practice. This madness must stop. Unfortunately, this case accentuates the madness.").

13. "The rationale of this dual system is diminished culpability: deviant behavior of children may be regarded as generally less culpable than similar adult behavior for the reason that a child's capacity to be culpable. . . is not as fixed or as absolute as that of an adult." Roderick L. Ireland & Paula Kilcoyne, *Philosophy of Delinquency Proceedings and Judicial Goals and Options*, 44 MASS. PRAC., JUV. L. § 1.3 (2d ed. 2006).

14. "[N]either the Fourteenth Amendment or the Bill of Rights is for adults alone." *In re* Gault, 387 U.S. 1, 13 (1967).

15. "The battle must be fought, then, on the field of the Eighth Amendment…." Stanford v. Kentucky, 492 U.S. 361, 378 (1989), *abrogated by* Roper v. Simmons, 543 U.S. 551 (2005). "*Stanford v. Kentucky* (1989) deals with two cases, both involving juveniles (Stanford, 17, and Wilkins, 16) who killed and got the death penalty. In both cases, the age of the petitioners was cited and a 'cruel and unusual' Eighth Amendment challenge to the death penalty was raised." Norman J. Finkel, *Prestidigitation, Statistical Magic, and Supreme Court Numerology in Juvenile Death Penalty Cases*, 1 PSYCH. PUB. POL'Y & L. 612, 618–19 (1995).

that mark the progress of a maturing society."[16] As noted, the United States' standard of decency that enables a 17-year-old to be incarcerated in the prison industrial complex for the remainder of their natural life is not a standard shared by any other country.

The Supreme Court had a chance to extend the impact of *Gault* in 1989 when it considered whether the 8th Amendment precludes the death penalty for individuals who commit crimes at 16 or 17 years of age.[17] The Court noted that: "[i]n accordance with the standards of this common-law tradition, at least 281 offenders under the age of 18 have been executed in this country, and at least 126 under the age of 17."[18] The opposition argued, amongst other lines of attack, that juveniles possess less developed cognitive skills than adults and are less mature and responsible, using so called "socioscientific evidence concerning the psychological and emotional development of 16- and 17- year olds."[19] However, the majority opinion, penned by Justice Scalia, ruled that "scientific evidence is not an available weapon" and that the 8th Amendment did not prohibit the death penalty for a 16 and 17-year-old.[20]

In the following two decades, states continued to develop varied legislative and judicial processes for the treatment of those committing crimes under the age of 18.[21] The reliance on social science and scientific evidence is inextricably linked to the use of a benchcard like the one

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16. Dorsey v. State, 975 N.W.2d 356, 367 (Iowa 2022).

17. *Stanford*, 492 U.S. at 368.

18. *Id.*

19. *Id.* at 377–78. The dissent takes issue with the use of this term, which is referred to as both socioscientific and ethioscientific. *See id.* at 383 (Brennan, J., Marshall, J., Blackmun, J., and Stevens, J., dissenting). The dissent urged that the inquiry "must also encompass what Justice SCALIA calls, with evident but misplaced disdain, 'ethicoscientific' evidence. Only then can we be in a position to judge, as our cases require, whether a punishment is unconstitutionally excessive, either because it is disproportionate given the culpability of the offender, or because it serves no legitimate penal goal." *Id.*

20. *Id.* at 378, 380. "On the same day that *Stanford* was decided, the Supreme Court held that the Constitution did not mandate an exemption from the death penalty for offenders with intellectual disabilities." People v. Parks, 987 N.W.2d 161, 186 (Mich. 2022); *see also* Michele Cotton, *A Foolish Consistency: Keeping Determinism Out of the Criminal Law*, 15 B.U. PUB. INT. L.J. 1, 30 (2005) ("even if the Court found [science] persuasive, the deterministic views of science regarding the capacities of adolescents would not prevail as long as the broader society still did not accept them.").

21. "In that time, twenty-two young people were executed for crimes they committed at sixteen or seventeen." Rachel E. Leslie, *Juvenile Life With(out) Parole*, 98 N.Y.U. L. REV. 373, 380 (2023).

suggested by this Article (although that type of evidence has only recently been relied on with regularity in trial courts handing down such sentences). In 2005, the Supreme Court heard the case of a 17-year-old juvenile who committed a heinous murder in Missouri and was sentenced to death.[22] Relying on science, and the ever-evolving standards of decency, *Roper* held that the death penalty for those under 18 was unconstitutional—marking the beginning of a string of cases in which the Supreme Court increased protections for juveniles when it comes to deprivation of life and liberty. "*Roper* is significant for our purposes because the highest Court in the country used scientific evidence to support a shift in the law."[23] Despite the positive impact that *Roper* had in some areas, it highlights the difficulties and flaws associated with this kind of bright-line cutoff.[24] *Roper* was followed by:

- *Graham v. Florida:* The Supreme Court ruled that juveniles cannot be sentenced to JLWOP for non-homicide offenses under the 8th Amendment.[25] The majority noted developments in psychology and brain science, which continue to show fundamental differences between juvenile and adult brains.[26] The dissent argued that the majority was misstating scientific data.[27]
- *Miller v. Alabama*: The Supreme Court banned **mandatory** life without parole for those under 18 at the time of their crimes.[28] The Court cited (1) "lack of maturity," (2) vulnerability due "to negative influences" and a "limited control over their own environment," and (3) the "less fixed" nature of a "child's character" as the main factors that separate juveniles from adult

22. *See* Roper v. Simmons, 543 U.S. 551 (2005).

23. Jean Macchiaroli Eggen & Eric J. Laury, *Toward A Neuroscience Model of Tort Law: How Functional Neuroimaging Will Transform Tort Doctrine*, 13 COLUM. SCI. & TECH. L. REV. 235, 293 (2012). "In *Roper*, it is apparent that the Supreme Court was willing to adjust legal standards to the emerging scientific evidence reflected in evolving majoritarian views of juvenile punishment." *Id.*

24. *Parks*, 987 N.W.2d at 186.

25. *See* Graham v. Florida, 560 U.S. 48 (2010). This was a 6-3 decision authored by Justice Kennedy (Majority: Kennedy, Stevens, Roberts, Ginsburg, Breyer, Sotomayor; Dissenting: Scalia, Thomas, Alito).

26. *Id.* at 68.

27. *Id.* at 117.

28. Miller v. Alabama, 567 U.S. 460, 479, 489 (2012) (emphasis added) ("By requiring that all children convicted of homicide receive lifetime incarceration without possibility of parole, regardless of their age and age-related characteristics and the nature of their crimes, the mandatory-sentencing schemes before us violate this principle of proportionality, and so the Eighth Amendment's ban on cruel and unusual punishment.").

offenders.[29] These findings resulted in what is known as the *Miller* factors, a group of five characteristics that distinguish juvenile offenders. The majority decision continued to emphasize the role of science in this line of decisions related to JLWOP.[30]

- *Montgomery v. Louisiana*: The Supreme Court ruled that the *Miller* prohibition on mandatory JLWOP applied retroactively.[31] The role of Justice Kennedy throughout *Roper* and its progeny cannot be understated.[32]
- *Jones v. Mississippi*: Finally, despite the positive trajectory of the last three cases, in 2021 the Supreme Court ruled that sentencing authorities do not need to find a juvenile is permanently incorrigible before imposing a sentence of JLWOP.[33] The only

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29. *Id*. at 471.

30. *Id*. at 471–72. "Deciding that a juvenile offender forever will be a danger to society would require making a judgment that he is incorrigible—but incorrigibility is inconsistent with youth." *Id.* at 472–73 (cleaned up).

31. Montgomery v. Louisiana, 577 U.S. 190 (2016) (6-3 decision authored by Justice Kennedy with Kagan, Kennedy, Ginsburg, Breyer, Sotomayor, Roberts in the majority and Scalia, Thomas, and Alito dissenting). "Following *Miller v. Alabama*, lower courts were divided over the question of whether *Miller* should be applied retroactively to cases that were final when the prohibition in *Miller* was announced. Some courts held that *Miller* should not be applied retroactively. Others, however, held that *Miller* should be applied retroactively." SAMUEL M. DAVIS, LIFE WITHOUT PAROLE FOR JUVENILES § 7:12 (2023 ed.). *Graham* resolved this discrepancy.

32. Reginald Dwayne Betts, *What Break Do Children Deserve? Juveniles, Crime, and Justice Kennedy's Influence on the Supreme Court's Eighth Amendment Jurisprudence*, 128 YALE L.J. FORUM 743, 750–51 (2019). "Justice Kennedy, by moving away from the conservative justices on this issue, changed the landscape of an area of law. Over a thirty-year period, he served as the fifth vote in *Stanford, Roper, Miller*, and *Montgomery*. And while *Graham* was a 6-3 decision in which Kennedy and the liberal Justices were joined by Chief Justice Roberts, Roberts specifically limited his concurring opinion to the case of Terrance Graham, rejecting what he called the Court's 'new constitutional rule of dubious provenance.' There too, Justice Kennedy's vote proved decisive. Given Justice Kennedy's retirement, one might worry that much of this progress may disappear with a single decision. But, worse still, for all their celebration, it's not clear how significant an effect these cases have had on the lives of those who ostensibly are covered by them." *Id.* Betts's prediction about the retirement of Justice Kennedy in his article was proved correct by the next decision from SCOTUS in this area. *See infra* note 33 and accompanying text.

33. Jones v. Mississippi, 593 U.S. 98 (2021) (This was a 6-3 decision authored by Justice Kavanaugh (Majority: Kavanaugh, Roberts, Thomas, Alito, Gorsuch, Barrett; Dissenting: Breyer, Sotomayor, Kagan)).

> reference to scientific and sociological studies comes from the dissent.[34]

Prior to *Jones*, *Miller* was the seminal case for sentencing, establishing that mandatory LWOP for individuals under age 18 violated the 8th Amendment.[35] SCOTUS identified attributes that set juveniles apart from adults: immaturity, impetuosity, failure to appreciate risks and consequences, family and home environment beyond the juvenile's control, and the context of the offense including family and peer pressure (the *Miller* factors).[36] In a way that "guts" *Miller* and its progeny,[37] the *Jones* majority ruled that a sentencing authority does not need to make a finding of permanent incorrigibility before imposing JLWOP.[38] This drastically broadens juvenile sentencing discretion and leaves it up to individual states to develop sentencing systems that rely on such discretion.[39] Lower courts citing to *Jones* generally treat JLWOP in one of two ways: either that (1) the court was not required to specifically find the juvenile was permanently incorrigible before sentencing them to JLWOP, or that (2) the juvenile's resentencing hearing pursuant to *Miller* sufficiently took youth and other mitigating factors into consideration.[40]

In the first, lower courts cite to *Jones* when holding that a sentencing authority need not make a separate finding that the defendant is permanently incorrigible before sentencing a juvenile to JLWOP. In the second instance, courts discuss the many ways the sentencing authority used their discretion in resentencing, and which factors they considered to determine a constitutionally appropriate sentence for the juvenile. There

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34. *Id*. at 130–31.

35. *Miller*, 567 U.S. at 465.

36. *Id.* at 471–77.

37. *Jones*, 593 U.S. at 129 (Sotomayor, J., dissenting) ("This conclusion would come as a shock to the Courts in *Miller* and *Montgomery*. *Miller*'s essential holding is that "a lifetime in prison is a disproportionate sentence for all but the rarest children, those whose crimes reflect 'irreparable corruption.").

38. *Id.* at 104. Kavanaugh's decision has been categorized as "dishonest," "mangled," and 'barbaric," among other accolades. Mark Joseph Stern, *Brett Kavanaugh's Opinion Restoring Juvenile Life Without Parole Is Dishonest and Barbaric*, SLATE (Apr. 22, 2021, 12:35 PM), https://slate.com/news-and-politics/2021/04/brett-kavanaugh-sonia-sotomayor-juvenile-life-without-parole.html [https://perma.cc/99GQ-4F6H]; Matt Ford, *Blame Anthony Kennedy for the Supreme Court's Mangled Ruling on Juvenile Life Without Parole*, SOAPBOX (Apr. 23, 2021), https://newrepublic.com/article/162162/anthony-kennedy-mistake-juvenile-defendants [https://perma.cc/U4PY-CXXG].

39. *See id.*

40. *See Miller*, 567 U.S. at 475.

are also a growing handful of cases that discuss the emerging scientific understanding of the adolescent brain and new research that has led to calls for change surrounding juvenile sentencing (and beyond age 18 in some jurisdictions).[41] This group will continue to grow in the coming decades as law catches up to science. The examples below highlight the post-*Jones* landscape as states have tried to implement the mandates from SCOTUS in the JLWOP space.[42]

B. Louisiana: The Most Carceral State in the Nation

Following *Miller*, individual states grappled with whether to increase constitutional protections beyond the necessity of an individualized sentencing hearing. Louisiana is one of many states that continue to impose JLWOP, resulting in disproportionate incarceration of youth of color.[43] The Legislature implemented *Miller* by enacting two statutes, which ultimately applied retroactively.[44] Because of this approach to JLWOP post-*Miller*, *Jones* had virtually no impact on the landscape of juvenile incarceration within Louisiana—juveniles are still eligible for this sentence if the particular state procedure is followed. While Louisiana does use benchcards,[45] none of the identified resources addressed the *Miller* factors or the role of youth in sentencing.

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41. Blitzman, *supra* note 6, at 13.

42. "[R]elief afforded to individuals serving JLWOP is based more on jurisdiction than on whether the individual has demonstrated positive growth and maturation." *National Trends in Sentencing Children to Life Without Parole*, CAMPAIGN FOR FAIR SENT'G OF YOUTH (June 2022), https://cfsy.org/wp-content/uploads/Fact-sheet-June-2022-DRAFT.pdf [https://perma.cc/G8MA-SAX8].

43. "But Louisiana has not done away with the life without parole sentence for juveniles, and advocates at the LCCR say just as many children are being sentenced to life without parole in the years after the Supreme Court's pivotal 2012 ruling as after it — usually children of color." Rebecca Santana, *Louisiana Inmate Who Was Key to Supreme Court's Juvenile Life Debate Is Up for Parole*, NOLA (Nov. 17, 2021), https://www.nola.com/news/crime_police/louisiana-inmate-who-was-key-to-supreme-courts-juvenile-life-debate-is-up-for-parole/article_eb617ed2-4709-11ec-acbe-d3f9176deaf5.html#:~:text=But%20Louisiana%20has%20not%20done,it%20—%20usually%20children%20of%20color [https://perma.cc/Z9KE-4ARW].

44. *See* State v. Malik, 22-0391, 351 So. 3d 753, 758 (La. App. 4th Cir. 10/27/22), *writ denied*, 22-1802, 361 So. 3d 981 (La. 06/07/23). *See also* LA. CODE CRIM. PROC. ANN art. 878.1 (West 2023) and LA. STAT. ANN. § 15:574.4(E) (West 2023).

45. *See Louisiana's Language Access Judicial Bench Card*, LASC, https://www.lasc.org/court_interpreters/Language_Access_Bench_Card.pdf

While the United States is an outlier when it comes to incarceration internationally, Louisiana stands out within our borders for similar reasons.[46] In 2022, Louisiana had the highest rate of incarceration in the entire United States.[47] Louisiana has a large population of people currently serving life sentences they were handed as juveniles, and in the past years has sentenced more juveniles to life without parole than any other state.[48] And just like many other facets of the cradle to prison pipeline, and so-called birth penalties,[49] research shows that the juveniles most impacted are largely and increasingly people of color.[50] For example, Black youth are twice as likely to receive a sentence of JLWOP than their white peers.[51]

[https://perma.cc/3CBJ-9GFD] (last visited Feb. 27, 2024); *see also Bench Card: Domestic Abuse*, LA. JUD. COLL., https://lajudicialcollege.org/LJC/Benchbooks/DomesticViolence.pdf [https://perma.cc/UEM8-CQZQ] (last visited Feb. 27, 2024).

46. *Louisiana Profile*, PRISON POL'Y INITIATIVE, https://www.prisonpolicy.org/profiles/LA.html [https://perma.cc/CMQ5-8W2N] (last visited Feb. 27, 2024). Louisiana has an incarceration rate of 1,094 per 100,000 population. *Id.* The United States is 664 per 100,000. *Id*. The next country is the United Kingdom at 129 per 100,000. *Id.*

47. Kat Stromquist, *Louisiana's Prison Population Sees Troubling Growth in Latest DOJ Report*, WWNO (Dec. 6, 2023), https://www.wwno.org/law/2023-12-06/louisianas-prison-population-sees-troubling-growth-in-latest-doj-report [https://perma.cc/G5T7-4H4Z]. Louisiana also ranked in the top ten for both probation and punishment. Wang, *supra* note 10.

48. *Id*.

49. Similar to the concept of justice by geography, this term refers to the concept that the world you are born into has significant impact on likely outcomes. In many cases, the impact operates as a penalty. For example, as explained by Dorothy Roberts, "In other words, it's not just that there are statistical disparities. There are Black communities—especially segregated, impoverished Black neighborhoods—where there is intense concentration of child-welfare-agency involvement, and children are at high risk of being subjected to investigation, to being removed from their homes, to spending a long time in foster care, and for their parents' rights to be terminated." Janell Ross, *One in Ten Black Children in America Are Separated From Their Parents by the Child-Welfare System. A New Book Argues That's No Accident*, TIME (Apr. 20, 2022), https://time.com/6168354/child-welfare-system-dorothy-roberts/ [https://perma.cc/PC6H-5CV2]; *see also* Dorothy E. Roberts, *Democratizing Criminal Law As an Abolitionist Project*, 111 NW. U. L. REV. 1597 (2017).

50. Ross, *supra* note 49.

51. *Phillips Black Project, Juvenile Life Without Parole After Miller v. Alabama*, JUV. SENT'G PROJECT (July 8, 2015), https://juvenilesentencingproject.org/phillips-black-project-juvenile-lwop-after-miller/ [https://perma.cc/4DFN-7QJJ].

Adults and juveniles alike have attempted to argue unsuccessfully in Louisiana courts that this extremely disparate incarceration is "one of the primary reasons behind the escalating growth of Louisiana's prison industrial complex."[52]

There are glimmers of hope—for example, the introduction of a bill to end JLWOP sentences.[53] Yet, that bill was introduced in 2021 and as of the time of publication of this Article had stalled in committee. Without legislative change, and in the absence of a clear mandate from SCOTUS on JLWOP, sentencing disparities are going to continue to widen in places like Louisiana where sentencers have the ultimate discretion and there is no requirement to prove meaningful consideration of youth. *Jones* has not been cited in Louisiana state court or the federal Fifth Circuit, likely because that decision just affirmed the way that the judiciaries had been operating pre-2021.[54] There is also no pattern of using science in sentencing decisions, which is unsurprising given the post-*Miller/Jones* approach that Louisiana employs.

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52. *See, e.g.*, State v. Theriot, 15-0764, 2015 WL 6951585, at *4 (La. App. 1st Cir. 11/09/15). The defendant, Miguel Christian Theriot, was sentenced to life imprisonment at hard labor without the benefit of probation, parole, or suspension of sentence on both counts, to be served concurrently for crimes less than murder. He appealed, and a three-judge panel at the appellate level affirmed his sentence. *Id*. His arguments that these types of "sentences are a waste of scant economic and human resources and that he should be in a drug treatment facility as opposed to prison" were unsuccessful. *Id*.

53. Demario Davis & Stan Van Gundy, *It's Time for Louisiana to End Juvenile Life Without Parole*, LA ILLUMINATOR (Apr. 29, 2021), https://lailluminator.com/2021/04/29/its-time-for-louisiana-to-end-juvenile-life-without-parole-demario-davis-stan-van-gundy/#:~:text=The%20legislation%20gives%20every%20child,safely%20re%2Djoin%20the%20community [https://perma.cc/S88S-TF7J]; *see also* H.B. 254, 2021 Leg., Reg. Sess. (La. 2021).

54. *But see* United States v. Helmstetter, No. CR 92-469, 2023 WL 2810707, at *4 (E.D. La. Apr. 6, 2023), *recons. denied*, No. CR 92-469, 2023 WL 3724157 (E.D. La. May 30, 2023) (noting that youth can be considered in a request to reduce a sentence but denying petitioner's request).

C. Pennsylvania: An Example of How Jones Destroyed Judicial Protections for Juveniles

Philadelphia has been described as "ground zero" for JLWOP,[55] in no small part due to the complete abrogation of the *Miller* protections in Pennsylvania post-*Jones*.[56] While Pennsylvania incarcerates fewer individuals than Louisiana, it still "locks up a higher percentage of its people than almost any democracy on earth."[57] And, it does so at a rate that disproportionately impacts Black, Hispanic, and Native American populations.[58] Nationally, two-thirds of offenders serving JLWOP were in either Pennsylvania, Louisiana, or Michigan.[59] In 2017, the Pennsylvania Supreme Court in *Batts* adopted a presumption against JLWOP and required that the Commonwealth carry the burden of proving beyond a reasonable doubt that the juvenile is permanently incorrigible.[60]

Following *Jones*, the Pennsylvania Supreme Court in *Felder* reconsidered the requirements imposed by *Batts*, and held that both the presumption against life without parole sentencing for juveniles and the burden imposed on the Commonwealth were not constitutionally required.[61] Pennsylvania courts were only required to consider the relevant sentencing statutes, which will then guarantee that youth and attendant characteristics are considered as required by *Miller*.[62] Sentencing courts in

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55. *Juvenile Life Without Parole*, YOUTH SENT'G & REENTRY PROJECT, https://ysrp.org/juvenile-life-without-parole-jlwop/ [https://perma.cc/U7TL-RZED] (last visited Feb. 27, 2024).

56. Justin D. Okun & Lisle T. Weaver, *Critical Issues Regarding Juvenile Justice in Pennsylvania: Life Without the Possibility of Parole and Use of Juvenile Adjudications to Enhance Later Adult Sentencing*, 93 PA. B.A. Q. 62 (2022) ("It did not take long for *Jones* to completely shift the landscape for juvenile offenders in Pennsylvania found to have committed murder.").

57. *Pennsylvania Profile*, PRISON POL'Y INITIATIVE, https://www.prisonpolicy.org/profiles/PA.html [https://perma.cc/P2HB-MLEJ] (last visited Feb. 27, 2024).

58. *Id.*

59. Juliet Liu, *Closing the Door on Permanent Incorrigibility: Juvenile Life Without Parole After* Jones v. Mississippi, 91 FORDHAM L. REV. 1033, 1039 (2022) (citing Rovner, *supra* note 5).

60. Commonwealth v. Batts, 163 A.3d 410, 459 (Pa. 2017), *abrogated by* Commonwealth v. Felder, 269 A.3d 1232 (Pa. 2022).

61. *See Felder*, 269 A.3d at 1244. "Though we might prefer the more expansive view of *Miller* as seen through the lens of *Montgomery*, we cannot ignore that *Jones*'s interpretation is controlling as a matter of Eighth Amendment law." *Id.* at 1246.

62. *Id.*

Pennsylvania have characterized *Felder* as "dissolv[ing] the procedural requirements set forth in *Batts,*" with the vast majority of post-*Felder* appeals affirming a juvenile offender's life without parole or *de facto* life without parole sentence.[63] Additionally, under *Felder*, the sentencing court's consideration of youth goes to its sentencing discretion—not to the legality of the sentence.[64] While Pennsylvania does have benchcards, none of the identified resources addressed the *Miller* factors or the role of youth in sentencing.[65] Pennsylvania has cited to *Jones* more than 30 times in state court decisions, the second most of any other state.[66]

D. Massachusetts: Expansion of the JLWOP Prohibition up to Age 21[67]

Following *Miller*, Massachusetts substantially increased protections for incarcerated juveniles by categorically banning JLWOP for anyone under the age of 18 at the time they committed murder.[68] The Massachusetts legislature also expanded jurisdiction of its juvenile courts from age 17 to 18.[69] These protections have resulted in fewer youth imprisoned in the IPC, however it is still unclear how many juveniles within the Commonwealth are still serving JLWOP. While Massachusetts

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63. Commonwealth v. Street, No. 1038 WDA 2020, 2022 WL 2794345 (Pa. Super. July 18, 2022); *see also* Commonwealth v. Taliaferro, No. 1671 MDA 2021, 2022 WL 7263333 (Pa. Super. Oct. 13, 2022); Commonwealth v. Noll, No. 925 MDA 2022, 2023 WL 1466584 (Pa. Super. Feb. 2, 2023). A "de facto" LWOP sentence is not actually a LWOP sentence. But because of the age of the offender, or potentially other circumstances, the offender will spend the equivalent of the remainder of their life incarcerated.

64. Commonwealth v. Schroat, 272 A.3d 523, 526 (Pa. Super. 2022).

65. *See, e.g.*, *Benchcards*, PA. JUV. JUST., https://www.pachiefprobationofficers.org/bench_cards.php [https://perma.cc/5LYG-V5S9] (last visited Feb. 27, 2024).

66. Based on a search using Westlaw for "593 U.S. 98," then using post-search filters to narrow by citing references, cases, jurisdiction, state, and Pennsylvania. As of February 2024, Illinois was the state with the most *Jones* citing references, followed by Pennsylvania.

67. During the final stages of publication, the Supreme Judicial Court issued their decision extending the prohibition on JLWOP up to age twenty-one. Commonwealth v. Mattis, 224 N.E.3d 410 (Mass. 2024) (Budd, J.).

68. *See* Diatchenko v. Dist. Att'y for Suffolk Dist., 1 N.E.3d 270 (Mass. 2013) (finding discretionary imposition of JLWOP violated state constitutional prohibition against cruel or unusual punishment); *see also* Diatchenko v. Dist. Att'y for Suffolk Dist., 27 N.E.3d 349 (Mass. 2015).

69. *Philosophy of Delinquency Proceedings and Judicial Goals and Options*, *supra* note 13.

is thought of as a liberal-leaning state in comparison to Louisiana, researchers found nearly the same percentage of JLWOP even though the overall incarceration rate is much lower and the total prison population is about one quarter the size.[70]

In February 2023, the Massachusetts Supreme Judicial Court (SJC) heard arguments in two cases that ask whether it is constitutional for people between the ages of 18 and 20 to receive mandatory sentences of life in prison without the possibility of parole.[71] This case put the question of science squarely in the hands of the judiciary, with the potential to make a significant change in the way that Massachusetts hands down a life without parole sentence.[72] And while Massachusetts, like Louisiana and Pennsylvania, does use benchcards, there is no tool for players in the legal system to understand the *Miller* factors in light of the CLBB White Paper research, discussed below. Such a tool would be incredibly helpful not just for those offenders under 18, but also for those up to age 20 and even 25.

Shortly before final review for publication of this article in January 2024, the Massachusetts judiciary extended definition of juvenile beyond

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70. Lea Skene, *More Than 1 in 10 Louisiana Prisoners Are Serving Life Without Parole, Highest Rate in U.S.*, THE ADVOCATE (Feb. 19, 2021), https://www.theadvocate.com/baton_rouge/news/crime_police/more-than-1-in-10-louisiana-prisoners-are-serving-life-without-parole-highest-rate-in/article_e7058664-72d7-11eb-b165-5f6353dd6744.html [https://perma.cc/C5C7-Q4M3].

71. Deborah Becker, *Mass. High Court Considers Extending the Age Limit for Mandatory Life Sentences in Prison*, WBUR (Feb. 6, 2023), https://www.wbur.org/news/2023/02/06/sjc-mandatory-life-sentence-without-parole-young-adults [https://perma.cc/3SA6-TZMW]. "The District of Columbia and Washington State have extended *Miller's* guidance to people under age 25 and 21, respectively, with the understanding that older and younger adolescents alike should not be sentenced to die in prison. Additional legislation for people under 21 has progressed elsewhere." Rovner, *supra* note 5.

72. "At its core, the issue in this case is whether the science of brain development in 18 through 20-year-olds has progressed to the point that is provides a reliable basis to answer the [] question" of whether JLWOP for those individuals violates the Massachusetts Declaration of Rights. Findings of Fact on Brain Development and Social Behavior and Ruling of Law on Whether Mandatory Life-Without-Parole Sentences for Defendants Age 18 through 20 at the Time of Their Crimes Violates the Massachusetts Declaration of Rights at 9, Commonwealth v. Mattis, 224 N.E.3d 410 (Mass. 2024) (No. SJC-11693). The concurring and dissenting opinions in *Mattis* discuss whether it was proper for the court to be the decision maker on this issue (v. the legislature). *Mattis*, 224 N.E.3d at 444 (Lowy, J., dissenting) ("Where punishment is involved, we must look to society and the Legislature to determine where the appropriate line is and where it should be.").

age 18 to extend these protections for older offenders up to age 21.[73] In the majority opinion, Chief Justice Budd emphasized "we must recognize the 'unique characteristics' of emerging adults that render them 'constitutionally different' from adults for purposes of sentencing."[74] The decision relied heavily on "scientific consensus" and the findings as to brain development from the Superior Court decision.[75] This watershed decision continues to widen the disparities between jurisdictions when it comes to equal treatment of individuals who have committed the same crime at the same age.[76]

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73. Becker, *supra* note 71; *Mattis*, 224 N.E.3d at 415; *see also infra* Section III (discussing the CLBB White Paper and the term emerging young adult to describe individuals up to age 25 whose brains are still developing, calling into question the bright line cut of 18 in most juvenile legal systems). There are efforts within MA to ban this sentence entirely (regardless of age). *What is CELWOP?*, CAMPAIGN TO END LIFE WITHOUT PAROLE, https://www.celwop.org/ [https://perma.cc/VRF4-JPY6] (last visited Feb. 27, 2024).

74. *Mattis*, 224 N.E.3d at 430.

75. *Id.* ("All of the other experts, including the Commonwealth's expert, agreed that the prefrontal cortex, an area of the brain associated with controlling impulses, is among the last brain regions to develop, and continues developing until the early to mid-twenties."). It is important to note that the *Mattis* court referred to offenders up to age 21 as "emerging adults," which is different than the CLBB White Paper labels. *See White Paper*, *supra* note 7, at 1, n.2.

76. The SJC points out other jurisdictions who have increased protections for this category of offender: "We are not the first State Supreme Court to appreciate the distinct ways in which our laws bear on emerging adults. Recently, the high courts in Washington and Michigan prohibited the mandatory imposition of life without the possibility of parole for those who are from eighteen to twenty years of age, and for those who are eighteen years of age, respectively. In *Matter of the Personal Restraint of Monschke*, 197 Wash. 2d 305, 482 P.3d 276 (2021), the Supreme Court of Washington considered evolving standards of decency, updated brain science, and precedent to conclude that mandatory sentences of life without parole violate the Washington Constitution when meted out to those under twenty-one when they committed the crime." *Id.*; *see also* Francis X. Shen et. al., *Justice for Emerging Adults After Jones: The Rapidly Developing Use of Neuroscience to Extend Eighth Amendment Miller Protections to Defendants Ages 18 and Older,* 97 NYU L. REV. ONLINE 101, 101–02 (2022) (providing "the first empirical analysis of how courts are receiving the argument to raise the age for constitutional protections and introduces a publicly accessible, searchable database containing 494 such cases.").

II. CREATION OF A BENCHCARD TO EDUCATE AND AID: USE OF SCIENCE AS A "WEAPON" IN DECISIONS INVOLVING INDIVIDUALS UP TO AGE 25

Judges and jurors are often tasked with making decisions in cases that require expert knowledge to guide or instruct them in their role. Students at Northeastern University School of Law, in collaboration with CLBB, created a "Benchcard" that explains the *Miller* factors through the lens of advances in understanding of brain development. The goal of the project was to inject more thoughtful consideration and treatment of systems-involved offenders.[77] A Benchcard is a guide used in legal proceedings that provides a concise summary of legal information about a particular topic. While there is no uniformity when it comes to continuing legal education requirements for judges and attorneys,[78] with widespread adoption and use, a Benchcard has the potential to make a positive impact on the prison industrial complex. It has the potential to facilitate more uniform, thoughtful, and rehabilitative sentences (as opposed to those propping up complexes for financial gain).

Throughout the years, research has demonstrated that far more must be done "to ensure scientific literacy in the legal profession, beginning in law school, but also continuing throughout the professional careers of practicing lawyers."[79] With judges acting as the gatekeepers of scientific evidence in the courtroom,[80] the importance of the work done at CLBB is

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77. *See infra* Appendix 1, Northeastern University School of Law Benchcard (2023); *White Paper*, *supra* note 7.

78. "Some jurisdictions have adopted rules requiring judges to regularly attend specified judicial education conferences." Joseph Bassano et al., *Judges Generally*, 48A C.J.S. Judges § 34 (2023); *In re* Proposed Rule Relating to Continuing Ed. for Dist. and Municipal Court Judges, 115 N.H. 547 (1975).

79. Garrett, *supra* note 8, at 12.

80. Judge Stephanie Domitrovich, *Judges as Gatekeepers of Science and the Law: The Importance of Judicial Education*, AM. BAR. ASSOC. (Nov. 1, 2017), https://www.americanbar.org/groups/judicial/publications/judges_journal/2017/fall/judges-gatekeepers-science-and-law-importance-judicial-education/ [https://perma.cc/8FY3-UX73]. "We have the awesome responsibility of preventing junk science from entering our courtrooms. Education of judges and lawyers is the key to ensuring justice for all, and our Judicial Division/ABA continues to be the prominent leader in promoting judicial and legal education to ensure gatekeepers admit only relevant and reliable scientific evidence in our courtrooms." *Id. But see* Chris Kapsal, *Leaving the Gate Open: The Ninth Circuit Erases the Pre-Trial Daubert Hearing Requirement in United States v. Alatorre*, 28 N. KY. L. REV. 190, 210–11 (2000). "[One] study found that around 90% of the judges had had a few courses involving the scientific method, but on average that experience was more than 20 years removed. More telling was that 83% reported no training in the

essential to that responsibility when it comes to consideration of the signature qualities of youth. CLBB's goal is to put the most accurate and actionable neuroscience in the hands of judges, lawyers, policymakers, and journalists—people who shape the standards and practices of our legal system and affect its impact on people's lives.[81] They work to make the legal system more effective and more just for all those affected by the law. In 2022, CLBB published a White Paper intended to facilitate science-informed decision-making and application of updated research findings in law and public policy bearing upon adolescence and criminal proceedings.[82]

The White Paper demands more careful analysis than can be given here; however, it outlines different age categories: juvenile (up to age 18), late adolescent (up to age 21), and young adult (up to age 25).[83] CLBB's research shows that maturation of brain structure, brain function, and brain connectivity continues throughout the early twenties, which impacts decision-making, self-control, and emotional processing.[84] It uses the *Miller* factors as a framework to explain their findings.[85] The purpose of the White Paper is to serve as a vehicle for courts and legislators to make decisions about juvenile incarceration that are more in line with the science. The science—in short, the bright line cut of 18 to define who is a juvenile—is not grounded in the realities of how an individual's brain develops.[86]

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application of the scientific method to legal analysis in law school. Despite these shortcomings, 70% of the judges perceived themselves capable of performing gatekeeping functions under *Daubert*. The most telling result, however, was that 40% of the judges had not even read the *Daubert* opinion." *Id.*

81. *About Us*, CTR. FOR LAW, BRAIN & BEHAVIOR, https://clbb.mgh.harvard.edu/about-us/ [https://perma.cc/A8MW-C2JZ] (last visited Feb. 27, 2024).

82. *See White Paper*, *supra* note 7, at 1.

83. *Id*. at 1, n.2.

84. *Id.* at 2, 57.

85. *Id.* at 10, 17, 27, 36.

86. "If constitutionality hinges on eligibility for parole—which requires a genuine opportunity to secure release based on "demonstrated maturity and rehabilitation"—then the parole process must afford the juvenile a real chance to win release." Justice Barbara Lenk (Ret.) & David Rassoul Rangaviz, *The Juvenile Justice Legacy of Chief Justice Ralph Gants*, 62 B.C. L. REV. 2709, 2719 (2021); *see also* Shen, *supra* note 76, at 106 ("Current neuroscientific consensus is that age 18 is not a magic number in the development of legally-relevant brain circuitry.").

A. The Use of "Benchcards" and Disparities in Judicial Education

One of the ethical responsibilities of attorneys is to keep up to date through continuing legal education courses, or CLEs.[87] This is also in line with the ABA rule related to technological competence that has been adopted by most states.[88] Similar to the regulation of attorneys, jurisdictions have CLE requirements that apply to judges as well.[89] For example, the Wyoming Judicial Branch requires all judges to complete 15 hours of accredited continuing judicial education every year.[90] Ohio requires judges to complete a minimum of 40 hours of continuing judicial education every biennium and has since 1981.[91] The rationale behind states that require this continued training is that "by continuing judicial education judges and justices can better fulfill their obligation to the public . . . and establish a minimum for such continuing judicial education."[92]

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87. Jay M. Zitter, *Constitutional Validity of Continuing Legal Education Requirements for Attorneys*, 97 A.L.R.5th 457 (originally published in 2002); *see also* Kapsal, *supra* note 80, at 210–11 ("As far as any remedial effort was involved, less than 30% of the judges reported having taken Continuing Legal Education (CLE) courses in the scientific method. Even that number may be overstating things, in that less than half of the CLE providers were confident that their programs contributed significantly to preparing judges in their roles as gatekeepers.").

88. *Lawyers' Duty of Technology Competence By State in 2022*, PERCIPIENT (Mar. 23, 2021), https://percipient.co/lawyers-duty-of-technology-competence-by-state-infographic/ [https://perma.cc/Z6XM-H4AP]; *see also* Lisa Z. Rosenof, *The Fate of Comment 8: Analyzing A Lawyer's Ethical Obligation of Technological Competence*, 90 U. CIN. L. REV. 1321 (2022) ("ABA Model Rule 1.1. . . has long required lawyers to provide competent representation to clients. Competent representation requires the legal knowledge, skill, thoroughness, and preparation reasonably necessary for the representation. In 2012, the ABA amended Comment 8 to Rule 1.1. . . to reflect that, 'a lawyer should keep abreast of changes in the law and its practice, including the *benefits and risks associated with relevant technology*.'").

89. For a history of the development of judicial education programs, *see generally* Duane Benton & Jennifer A.L. Sheldon-Sherman, *What Judges Want and Need: User-Friendly Foundations for Effective Judicial Education*, 2015 J. DISP. RESOL. 23, 24 (2015).

90. WYO. STATE AND FED. CT. RULES, RULES FOR CONTINUING JUD. EDUC. (2000) [hereinafter RULES FOR JUD. EDUC.].

91. Milt Nuzum, *Science Education for Judges in Ohio*, 56 JUDGES' J. 4, 23 (2017).

92. RULES FOR JUD. EDUC., *supra* note 90. Massachusetts is an exception to the CLE requirement. "Massachusetts is one of the few states where continuing legal education (CLE) for attorneys is not mandatory…." *CLE Requirements*, Mass. Bar Assoc., https://www.massbar.org/education/cle-requirements [https://perma.cc/87

During the creation of the Benchcard, research showed disparities in CLE requirements for judges.[93] There is a crucial need for continued education when it comes to many scientific intersections with the law simply based on the rapid pace of technological advancements in neuroscience alone. Broadly, judicial education can include judicial training, instruction in judicial process, procedure, skills, or attitudes, as well as teaching substantive law, such as the latest trends in international law. The lack of national minimum standards and uniformity when it comes to judicial education is likely fostering outcome discrepancies in many contexts. Judges in the United States typically "[take] the oath, [step] onto the bench, and [proceed] to fill the judicial role as if born in the robe. This tradition, which is rooted in medieval English practice, assumes that anyone who has become a senior litigator is sufficiently well-prepared to act as a judge."[94] This is not the case, nor should it be the expectation.[95]

The National Judicial College is an example of one organization that creates uniformity by offering high quality judicial education programs for those on the bench.[96] This organization was created at the recommendation of a U.S. Supreme Court justice and is the only educational institution in the United States that teaches courtroom skills to judges of all types from

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DD-4YGN] (last visited Feb. 27, 2024); *see also About Us*, FLASCHNER JUD. INST., https://www.flaschner.org/about/ [https://perma.cc/S7PZ-EJM6] (last visited Feb. 27, 2024) (noting that, while not mandatory, allegedly "80-90 percent of the bench voluntarily participates each year in [ ] programs and activities.").

93. Benton, *supra* note 89, at 28–29. "Before 1956, there was no formal judicial education for judges in the United States." *Id.* at 24.

94. S.I. Strong, *Judicial Education and Regulatory Capture: Does the Current System of Educating Judges Promote A Well-Functioning Judiciary and Adequately Serve the Public Interest?,* 2015 J. DISP. RESOL. 1, 2 (2015) (cleaned up). "[S]cholarly research into judicial education has been hindered by a number of 'invisible barriers' that have little, if anything, to do with the quality and nature of judicial education in this country." *Id.* at 7; *see also* Livingston Armytage, *Educating Judges-Where to from Here?,* 2015 J. DISP. RESOL. 167, 171 (2015) ("On occasion, there are also programmatic or organizational evaluations. But, crucially, no systematic assessment of behavioral change on the part of judges as learners currently exists. Nor is there any assessment of impact or results in attaining any stated goals of judicial education.").

95. "One challenge for efforts to improve judicial use of forensic evidence is the lack of scientific background and education among lawyers generally, and judges in particular." Garrett, *supra* note 8, at 3.

96. *More about the NJC*, NAT'L JUD. COLL., https://www.judges.org/about/ [https://perma.cc/2YL2-VYRA] (last visited Feb. 27, 2024).

all over the country.[97] Benchcards are one tool utilized by the NJC as an aid to those in the judiciary, intended to be used by judges, attorneys, or others involved in the legal process to enhance consistency and fairness at various states of legal proceedings.[98]

For example, The Gault Center, whose mission is to promote justice for children by ensuring excellence in youth defense,[99] features a Benchcard on "Addressing Bias in Delinquency and Child Welfare Systems."[100] It is a 12-page document that walks the reader through foundational concepts like the disproportionate impact of bias on youth of color.[101] The Benchcard then provides a list of questions for a judge to ask at every decision point or hearing to minimize the impacts of bias.[102] These aids can guide a decision maker and provide additional knowledge that might not be within the toolset of that particular individual. Ideally, these tools would be accompanied by trainings, tracking, and continual self-reflection by those using the tools.[103]

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97. *Id.* "The categories of judges served by this nonprofit and nonpartisan institution, based in Reno, Nevada, since 1964, decide more than 95 percent of the cases in the United States." *Id.* "In 1961, the American Bar Association joined with the American Judicature Society to create the Joint Committee for the Effective Administration of Justice. Chaired by United States Supreme Court Justice Tom C. Clark, the committee determined judging was sufficiently different from lawyering to warrant specialized judicial education. This determination led to the creation of the National College of the State Judiciary, later the National Judicial College (NJC)." Benton, *supra* note 89, at 24.

98. *See, e.g.*, *Judicial Bench Card*, NAT'L ASSOC. OF DRUG CT. PROFS., https://www.ndci.org/wp-content/uploads/2019/02/Judicial-Bench-Card.pdf [https://perma.cc/HL8N-5ZEA] (last visited Feb. 27, 2024). Many states have collections of benchcards to aid judges, lawyers, and the general public, including Ohio. *Benchcards, Guides & Toolkits*, SUP. CT. OF OHIO & OHIO JUD. BRANCH.

99. *Mission, Vision, Guiding Principles*, GAULT CTR., https://www.defendyouthrights.org/about/mission-vision-guiding-principles/ [https://perma.cc/K9XJ-4KLL] (last visited Feb. 27, 2024).

100. *Addressing Bias in Delinquency and Child Welfare Systems, Eliminating Racial and Ethnic Disparities in Juvenile and Family Courts is Critical to Creating a Fair and Equitable System of Justice for All Youth*, NAT'L COUNCIL OF JUV. AND FAMILY CT. JUDGES, http://defendyouthrights.org/wp-content/uploads/2018/07/Addressing-Bias-Bench-Card.pdf [https://perma.cc/HCU9-VSBY] (last visited Feb. 24, 2024).

101. *Id.*

102. *Id.* For example, "What assumptions have I made about the cultural identity, genders, and background of this family?" *Id.*

103. Stephanie Domitrovich & W. Milton Nuzum III, *Teaching Judges to Be Gatekeepers of the Admissibility of Science the Role of the ABA Judicial Division Forensic Science Committee*, SCITECH LAWYER (Aug. 1, 2017), https://www

B. Creating the Benchcard and Limitations

Throughout the course of the 2021 to 2022 and 2022 to 2023 academic years at Northeastern University School of Law, I supervised two groups of students who examined *Jones v. Mississippi* and the CLBB White Paper within the context of JLWOP.[104] Because the White Paper is lengthy and dense, students worked to create a "Benchcard" to help easier use and understanding of the research within the White Paper. The goal of the Benchcard was to serve as a tool for those involved in making decisions for individuals within our systems. Individuals with the power of decision of systems-involved youth and emerging adults must be proficient in science and technology, now more so than ever.

Many within our systems do not have any in-depth training or education on certain crucial areas, including neuroscience and brain development.[105] One challenge for efforts to improve judicial use of forensic evidence is the lack of scientific background and education among lawyers generally, and judges in particular.[106] Many judges do not

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.americanbar.org/groups/science_technology/publications/scitech_lawyer/2017/summer/teaching-judges-be-gatekeepers-admissibility-science/ ("Judicial education must constantly evolve just as science and technology do in order to meet the many challenges judges face with the admissibility of cutting-edge issues in science and technology. Judges and lawyers fulfill their gatekeeping roles when they learn from experts and educators about the forensic science tools necessary to comprehend these cutting-edge issues in order to ensure justice.").

104. *See White Paper*, *supra* note 7.

105. "A comprehensive review of the relevant scientific literature, summarized in an accessible manner for lawyers and judges, would be highly useful for the field. One step in this direction is a recent CLBB Guide, but more applied tools--such as model briefs--are also needed." Shen, *supra* note 76, at 116.

106. Garrett, *supra* note 8, at 3. "Much of the scientific education that graduate students receive is not required for a judge to resolve conflicts over scientific evidence. Unlike scientists, judges do not necessarily need to pull together theoretical concepts from a diverse technical literature, interpret these concepts in terms of specific factors that can be measured and manipulated, develop an analytical structure that may involve complicated mathematical measurements and statistical inference, and reach a conclusion that is framed within the customs and practices of the individual areas of science. Instead, a judge must know enough about the nature of the scientific evidence to resolve the legal issue in a thoughtful and principled manner. In considering admissibility of scientific evidence, a judge must consider whether the scientific testimony is sufficiently grounded in proper scientific methodology and reasoning. In addressing a summary judgment motion, a judge must determine whether the admissible scientific evidence raises a material dispute. Even when sitting as trier of fact in a bench trial, the judge has a sometimes difficult but much more limited task than that faced by a scientist. The role of the judge in considering scientific evidence

focus on science, technology, or math as undergraduates,[107] and then go on to sit on the bench for many years as the progress in those fields rapidly develops with each passing year. A Benchcard provides a judge with knowledge on the most up-to-date science, facilitating and more uniformity in resolution of legal issues[108]

Just as the White Paper is organized by the *Miller* factors, the LO16 Benchcard is also organized around those same factors: (1) the juvenile's age and immaturity; (2) and (3) family home environment and peer influence; (4) understanding of legal proceedings; and (5) a juvenile's greater potential for rehabilitation.[109] Using a "decision tree" model, the Benchcard walks the audience through the factors that differentiate juveniles from adults and how those might be considered within a systems decision. Based on input from CLBB and experts, the students intentionally kept the Benchcard to just under 5 pages, an incredibly challenging task considering the complexity and length of the White Paper and SCOTUS precedent on JLWOP.

Throughout the year, students considered other aspects of the Benchcard, including visual appeal, durability, and jurisdiction-adaptability. First, as to visual appeal, font and text size were experimented with before landing on a combination that was appealing. Color was added to the visual aids included in the chart to avoid a boring, black and white legal document. Finally, after a suggestion from one expert at the Judicial College, blank spaces were inserted throughout the Benchcard, with an additional "Notes" section at the end. This was a critical piece because it allows a judge from any jurisdiction to add notes or cases or expand on the information that the Benchcard provides as a starting point. As observed from the analysis of Louisiana, Pennsylvania, or Massachusetts, geography matters when it comes to the controlling rules on JLWOP.[110]

A tool like this Benchcard has limitations, just as neuroscience in law has limitations.[111] Over the course of two years, we encountered numerous

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is much like the role of the editor of a scientific journal--reviewing conclusions drawn from a completed study and considering whether the work meets a suitable standard of acceptability. While this is certainly a challenging task, it allows for more focused education regarding the science issues that judges are likely to confront.*" Id.*

107. Nuzum, *supra* note 91, at 24.

108. Joe S. Cecil, *Science Education for Federal Judges*, 56 NO. 4 JUDGES' J. 8 (2017).

109. LO16 Benchcard, Appendix I; *White Paper*, *supra* note 7.

110. *Infra* Sections II B-D.

111. Jenny E. Carroll, *Brain Science and the Theory of Juvenile Mens Rea*, 94 N.C. L. REV. 539, 588 (2016). Carroll notes the limitation of the "group to individual" problem, which was a challenge that we also encountered when attempting to develop the benchcard as a tool: "As many scholars have cautioned, there are limitations to the

challenges when it comes to the use of neuroscience within the judiciary and the creation of a tool to facilitate that use. First, it is particularly hard to create a tool or checklist that has universal applicability where jurisdictions vary in how they have applied *Miller* and *Jones* at the state level. Something that would be specifically tailored to Massachusetts, Washington, or Illinois (states where JLWOP has been banned for those at least under age 18 if not higher) would look different than a Benchcard for use in Louisiana (where a 17-year-old can still receive that sentence). Ultimately, the team modeled the LO16 Benchcard using the White Paper structure because of the applicability of that science to any offender under age 25.

Second, our group struggled to decide at what point in the individual's involvement in the criminal justice system and the IPC this type of tool would be most valuable. *Jones* and the cases we studied focused on the far end of the process: sentencing. But we found that the neuroscience of the White Paper is applicable at many points in our system. The *Miller* factors affecting a 21-year-old young adult should be considered when determining what that individual should be charged with or the court in which they are placed.[112] Is diversion more appropriate considering those factors? Because of the time constraints of the class, and the need to create a universal document, the LO16 Benchcard focuses on sentencing. However, players in the legal system should be considering this science at multiple stages and not just the very end.

The final Benchcard was an accomplishment for the students and will hopefully serve as the starting point for discussion on how to increase judicial familiarity with the critical work done by CLBB.[113] Yet, at the end of the project, there are still many moving pieces and loose ends in the wake of *Jones* and disparate geographical treatment of juveniles in the United States. Punishment for a crime should be graduated and proportioned to both the offender and the offense. The use of a benchcard in decisions for individuals up to age 25 can enhance the ability of the legal system as a whole to ensure that punishment is proportional in light of the most current neuroscience on brain development. While JLWOP will continue to be imposed on a state-by-state basis, illustrating the concept of justice by geography, intentional and thoughtful decisions—aided by a Benchcard—can hopefully foster proportionality.[114]

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usefulness of neuroscience in criminal law, and courts have been quick to recognize those limitations. First, and perhaps most critically, while generalizations and trends can be recorded, neuroscience offers little insight into individual behavior." *Id.*

112. *But see id.* at 589 ("courts have been reluctant to rely on neuroscience outside of sentencing mitigation.").

113. *See White Paper*, *supra* note 7.

114. *Id.*

APPENDIX

Follow the Science
Disposition for the Adolescent Offender

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The juvenile system must enact standard procedures that adequately and equitably serve public safety, local communities, and youth across demographics and geographies.[1] Through this benchcard, the Center for Law, Brain & Behavior seeks to explain the relevant brain science and encourage more uniform treatment of adolescents.[2]

MINIMIZING ADOLESCENT INVOLVEMENT IN THE JUSTICE SYSTEM LEADS TO BETTER OUTCOMES FOR...[3]

PUBLIC SAFETY: Rehabilitative practices create youth who are less likely to reoffend, thereby reducing crime, taking stress off public safety personnel, and allowing for better allocation of resources. Better public safety outcomes were reported in 90% of locations where the non-profit Juvenile Detention Alternatives Initiative operates.[4]

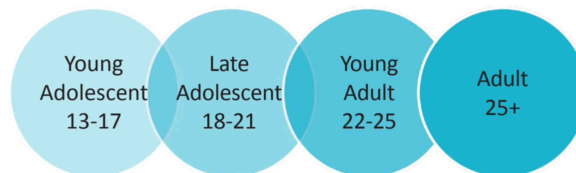
ADOLESCENTS: Traditional punishments in the criminal justice system are not designed for adolescents. Punitive tactics are less effective than community-based and rehabilitative programs for adolescent offenders.

COMMUNITY: Science-informed decision making, and community-based-rahabilitation take advantage of adolescents' increased amendability to rehabilitation, reducing recidivism and making our communities safer and intact.

THE ECONOMY: Incarceration is costly to the individual as well as the state. Increasing diversion and the use of rehabilitation creates more productive members of society and allows states to reroute corrections budgets to programs that target the root causes of crime.

DEFINING ADOLESCENCE

There is no scientific basis for setting the age of adulthood at 18. Research shows that brain development continues beyond the arbitrary age of 18 as adolescents and young adults mature in stages.[5] Both are susceptible to transient immaturity which impacts decision making and can affect the age of criminal culpability.



As of 2023, the District of Columbia and the state of Washington have increased the age of criminal responsibility beyond 18. Other states, including Massachusetts and California, are progressing toward increasing the age of criminal culpability.[6]

The age of criminal culpability in your jurisdiction: ______________________

Cases or legislation that might impact this in the near future: ______________________

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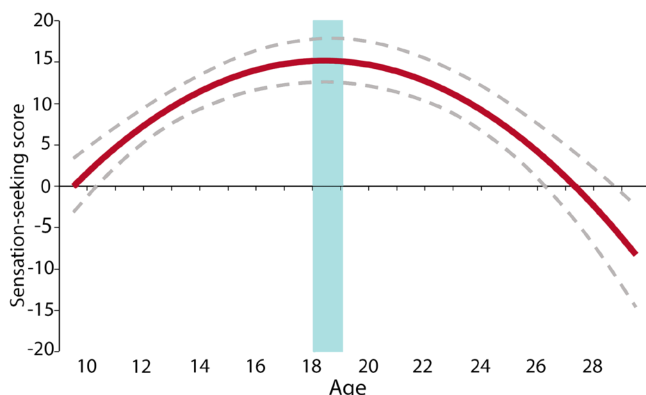
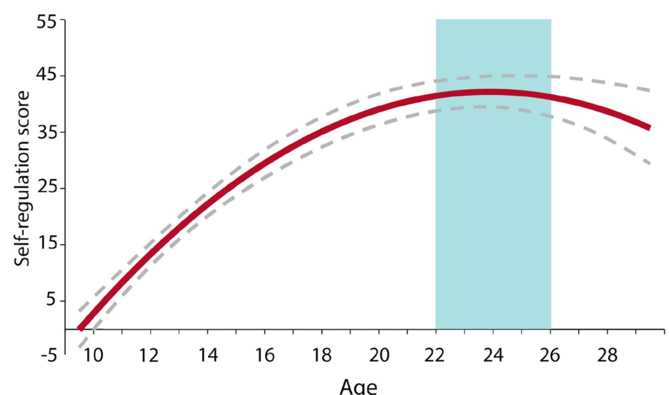
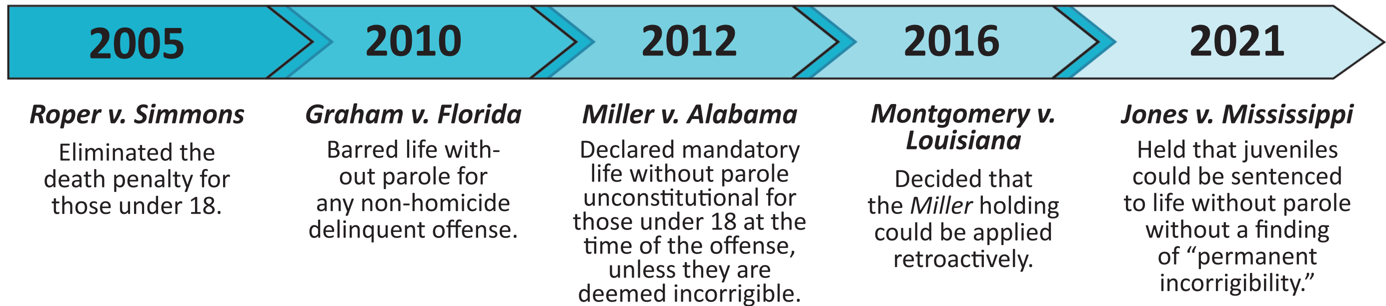




The Youth Crime Curve: Taken together, these graphs show that sensation-seeking peaks in late adolescence (left) while self-regulating behavior does not stabilize until young adulthood (right). Studies suggest that this manifests in **adolescents tending toward self-desistance** as they move into their early- and mid-twenties, effectively aging out of crime.[7] Involvement in violent crimes prior to the age of 20 is not a strong predictor of a persistent criminal trajectory. Instead, a growing body of evidence "suggests that **incarceration of youth may actually increase the likelihood of recidivism."**[8]

SUPREME COURT DECISIONS



Prior to 2021, several Supreme Court decisions increased protections for offenders under the age of 18. In *Miller,* they recognized five social and emotional factors that set adolescents apart from adult offenders and should be considered when making sentencing decisions in juvenile court.[9] After the 2021 *Jones* decision, this increasing protection was halted.[10] Individual states must now protect public safety and the adolescent population by decreasing recidivism through rational sentencing rooted in science.

Your jurisdiction's interpretation of Supreme Court precedent: ____

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THE SCIENCE: UNDERSTANDING THE *MILLER* FACTORS[11]

1) Risk Taking/Immature Behavior: Adolescents are greater risk-takers than adults. Evidence suggests that, due to underdevelopment of certain areas of the brain, adolescent and young adult offenders are neurologically less capable of appreciating risks, tempering impulsivity, and considering consequences. This neurological immaturity impacts the efficacy of deterrence and the appropriateness of retribution.

2) Family and Home: Up to 90% of justice-involved adolescents have adverse childhood experiences and 20% suffer from post-traumatic stress disorder. Childhood adversity (threat and deprivation) has a measurable impact on an adolescent's ability to learn from and regulate emotion, which has profound implications in the highly emotional context of criminal activity. Fortunately, adolescents are highly adaptable and respond well to rehabilitation. Positive social support and consistent adult involvement can increase resilience and maturation.

3) Peer Influence: Social pressures are incredibly influential to adolescents. Studies show that the presence of a peer increases activity in the part of the brain related to risk-taking. This influence has real world consequences, such as escalated instances of substance misuse and a greater likelihood of criminal behavior.

4) Understanding Legal Proceedings: Adolescents are more susceptible to coercion by police and less able to understand legal proceedings, for example, the consequences of waiving their *Miranda* rights. They are more likely to comply with an authority figure in the hope of immediate relief from a difficult situation, like an interrogation, without regard for potential consequences. Adolescents also tend to prioritize peer loyalty over beneficial plee-deals. Importantly, susceptibility to coercion and false confession applies to both innocent and guilty adolescents.

5) Greater Potential for Rehabilitation: The adolescent brain is highly capable of rehabilitation, adept at learning, and receptive to rewards for positive decisions. This tendency to respond well to positive reinforcement has very real implications for rehabilitation as a pathway to behavioral change. The incorrigibility of youth is temporary. The adolescent brain desists or "ages-out" of criminal involvement as it enters adulthood irrespective of punitive measures. (*See the youth crime curve.*)

RECOMMENDATIONS: USING THE DECISION TREE

Do the* Miller *factors and additional inquiries apply to this offender, or play a role in this offense?

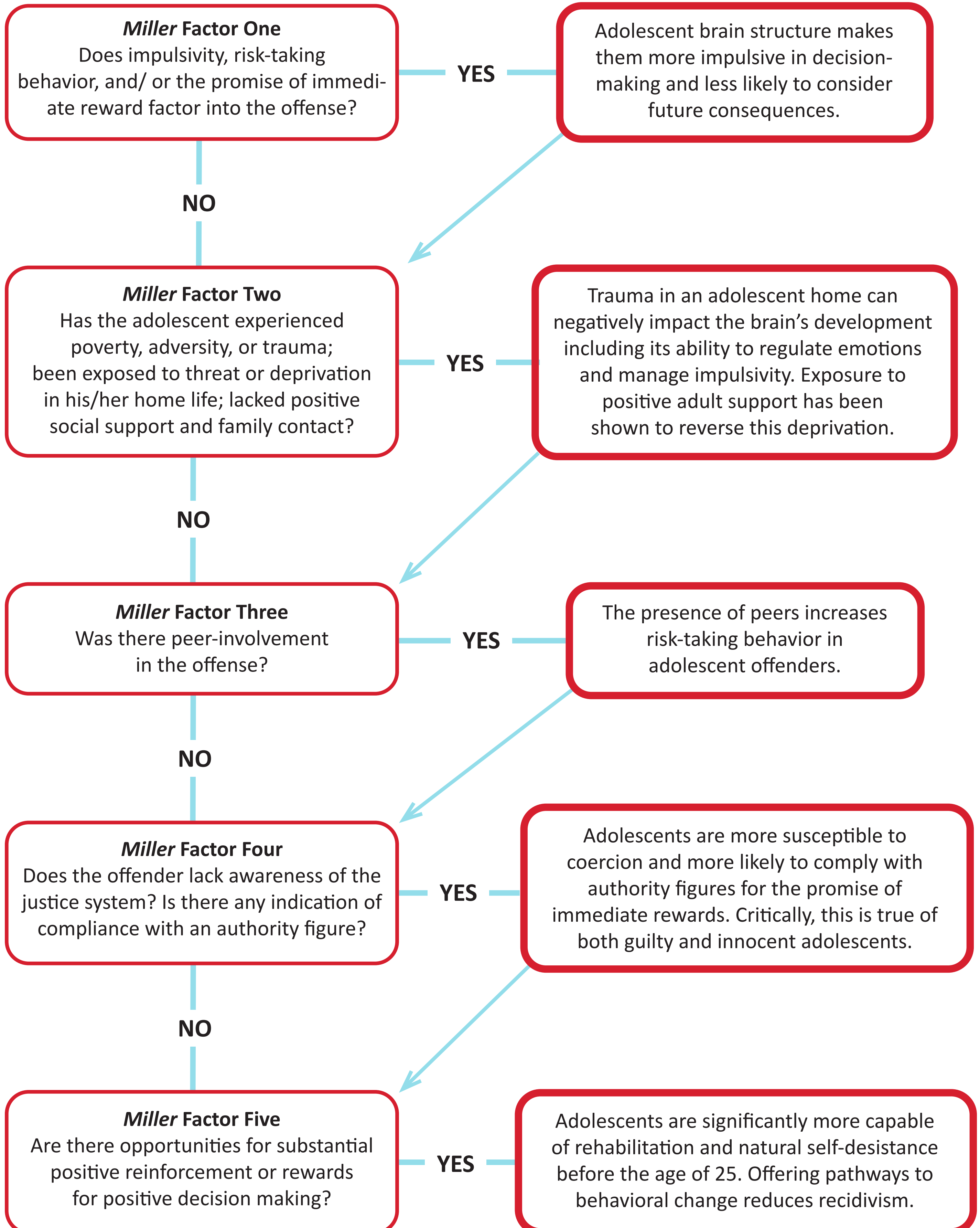
YES

- If the adolescent must be incarcerated, consider lowering the sentence and recommending community-based programming upon release.
- Consider alternatives to incarceration that promote positive youth development, such as diversion programming, home confinement, or other community-based options.
- Create a written record of your sentence and reasoning.
- Track the consistency of how you sentence adolescents.

NO

- Given adolescents' receptiveness to rehabilitation, where possible, avoid lengthy sentences and try to ensure that time is served at juvenile facilities, which are better equipped to rehabilitate adolescents and young adults.
- If none of the *Miller* factors impact the adolescent or young adult involved in this offense, we recommend creating a written record of your decision detailing your findings.

DECISION TREE



ASK YOURSELF...

1. Am I sentencing this adolescent in a way that encourages **positive youth development**?
2. Am I sentencing this adolescent in a way that is **fair and consistent across identity markers** such as gender, race, ethnicity, religion, or nationality?
3. Am I sentencing this adolescent in a manner **consistent with sentences received by the adolescent's peers**?
4. Am I considering how this adolescent **might be sentenced in a different jurisdiction**?
5. Have I **considered the least restrictive sentence** and reserved the more restrictive sentences for true and credible threats to public safety?
6. Have I considered **alternatives to secure detention** in my area? Alternatives include: ______________________

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LIFE WITHOUT THE POSSIBILITY OF PAROLE[12]

The goal is not to reduce or eliminate accountability but rather to (1) achieve developmentally aligned accountability and (2) avoid inadvertently increasing recidivism risk through sentencing practices and conditions of confinement. A robust body of research indicates that **committing a violent crime before age 20 is not a strong predictor of a persistent criminal trajectory.** There are no studies involving solely late adolescents, but research indicates that early and middle adolescents who commit homicides have similar rates of desistance from misconduct as youth who commit other kinds of less serious offenses. **Committing a homicide in adolescence is not itself a predictor of future violent or non-violent criminal behavior.** Thus, life without the possibility of parol (LWOP) is innapropriate in many of these cases.

Protecting society through **incapacitation** does not justify LWOP for late adolescents, who are more neurologically receptive to rehabilitation and tend to age out of criminal behavior.

The transient immaturity of youth renders **retribution** an illegitimate justification for LWOP sentences for adolescents.

Purported **deterrence** cannot justify the use of LWOP for adolescents, who have diminished ability to gauge long-term consequences.

Adolescents have a predisposition to **rehabilitation**, but those sentenced to LWOP are normally denied access to rehabilitative programming.

NOTES FOR YOUR JURISDICTION

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CITATIONS

1 Hon. Jay D. Blitzman (ret.) & Steven F. Kreager, Esq., *Transparency and Fairness: Open the Doors*, 102 M. L. R. 38, 39 (2021).

2 Center for Law Brain and Behavior, in conjunction with Massachusetts General Hospital and Harvard Medical School, https://clbb.mgh.harvard.edu/.

3 For more information *see generally* Richard Mendel, *Why Youth Incarceration Fails: An Updated Review of the Evidence*, The Sentencing Project (December 8, 2022) https://www.sentencingproject.org/reports/why-youth-incarceration-fails-an-updated-review-of-the-evidence/; *see also* Wendy Sawyer, *Youth Confinement: The Whole Pie 2019*, Prison Policy Initiative (December 19, 2019) https://www.prisonpolicy.org/reports/youth2019.html.

4 Patrick McCarthy et. al., *The Future of Youth Justice: A Community-Based Alternative to the Youth Prison Model* 13, New Thinking in Community Corrections Bulletin, U.S. Department of Justice, National Institute of Justice (2016) www.hks.harvard.edu/sites/default/files/centers/wiener/programs/pcj/files/ntcc_the_future_of_youth_justice.pdf *citing* Richard Mendel, *Juvenile Detention Alternatives Initiative Progress Report: 2014,* Annie E. Casey Foundation (2014).

5 Catherine Insel et al. Center for Law, Brain & Behavior at Massachusetts General Hospital, *White Paper on the Science of Late Adolescence: A Guide for Judges, Attorneys and Policy Makers* 51 (2022) https://clbb.mgh.harvard.edu/white-paper-on-the-science-of-late-adolescence/.

6 Joshua Rovner, *Juvenile Life Without Parole: An Overview, THE SENTENCING PROJECT* (May 24, 2021) https://www.sentencingproject.org/policy-brief/juvenile-life-without-parole-an-overview/.

7 *See eg.* Catherine Insel et al. at 6-7.

8 Patrick McCarthy et. al., (“State-by-state data reveal that **70 to 80 percent of incarcerated youth are rearrested within two to three years.”**)

9 *Miller v. Alabama*, 132 S. Ct. 2455 (2012).

10 *Jones v. Mississippi*, 141 S. Ct. 1307 (2021).

11 Catherine Insel et al. at 2 (2022)(concluding that brain maturation continues through the early twenties).

12 For more information *see eg*. Lila Kazemian, *Pathways to Desistance from Crime Among Juveniles and Adults: Applications to Criminal Justice Policy and Practice*, NCJ 301503 Desistance From Crime: Implications for Research, Policy, and Practice, U.S. Department of Justice, National Institute of Justice (2021).

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