INNOCENT UNTIL PREDICTED GUILTY: HOW PREMATURE PREDICTIVE POLICING CAN LEAD TO A SELF-FULFILLING PROPHECY OF JUVENILE DELINQUENCY

Nadia Rossbach*

Abstract

Predictive policing is an innovative, evolving approach to crime prevention that law enforcement has recently embraced. These programs are designed to detect crime patterns by employing machine-learned algorithms to identify high-crime areas as well as likely offenders. In doing so, law enforcement hopes to implement a proactive approach in which officers will be able to prevent crime rather than merely respond to it. However, these programs can be plagued with inaccuracies and racial and socio-economic bias. With juveniles, in particular, the programs impress far too great of consequences while failing to accurately predict adolescents' future criminality. The impressionable and developing nature of children causes them to be less predictable than adults and more vulnerable to outside influences. Because the identification of juveniles as future criminals drastically changes the way police interact with them, the actions of police officers toward targeted children may motivate a child's distrust for police, disassociation from society, and inclination toward criminal behavior. This creates a self-fulfilling prophecy where labeling children as likely offenders makes them more likely to become offenders. There are several methods to move the program toward a more constitutional and effective approach; however, juvenile predictive policing, as it stands now, is not substantially related to the state's interest in increasing public safety or helping the best interest of the child, and thus is unconstitutional.

INTRODUCTION

Tammy Heilman's son was fifteen years old when he was labeled as a targeted person under Pasco County's Predictive Policing System in Florida.[1] Due to this characterization, Pasco County Sheriff's Deputies conducted home visits for the following five years, sometimes visiting as often as "multiple times per week or even multiple times *per day*."[2] During these visits, the deputies behaved in an intrusive manner, including looking through the fence into the home's backyard, demanding entry into the home, and once even shining a light into the home through a window.[3] Predictive policing is a relatively new and evolving concept that law enforcement has embraced.[4] The initiative involves "the application of analytical techniques—particularly

---

    1. Plaintiff's Complaint for Damages, Declaratory and Injunctive Relief at 7, Taylor v. Nocco, No. 8:21-cv-00555 (M.D. Fla. filed Mar. 10, 2021) [hereinafter Plaintiff's Complaint].

    2. *Id.* (emphasis added).

    3. *Id.* at 7–8. The invasive monitoring also had detrimental effects for the rest of the family. *Id.* at 8–10.

    4. *See* WALTER L. PERRY ET AL., RAND CORP., PREDICTIVE POLICING: THE ROLE OF CRIME FORECASTING IN LAW ENFORCEMENT OPERATIONS 2 (2013), https://www.rand.org/content/dam/rand/pubs/research_reports/RR200/RR233/RAND_RR233.pdf [https://perma.cc/3D9F-55SX].

quantitative techniques—to identify likely targets for police intervention and prevent crime or solve past crimes by making statistical predictions."[5] In other words, "[i]t offers assessments of risk, rankings of risky areas or people, and can provide insights into associations and patterns that might be missed in the ordinary course of criminal investigation."[6] Jurisdictions have generally welcomed this innovative technology, hoping to improve the overall general welfare and safety of their respective localities. As of today, approximately 188 law enforcement agencies utilize some form of predictive policing.[7]

For most programs, the system involves place-based predictive policing in which police agencies create policing strategies by "us[ing] preexisting crime data to identify places and times that have a high risk of crime."[8] However, other programs take a different approach. Person-based predictive policing,[9] a less common method, "attempts to identify individuals or groups who are likely to commit a crime—or to be victim of one—by analyzing for risk factors such as past arrests or victimization patterns."[10] These programs have received an abundance of constitutional debate from both courts and legal scholars.

Pasco County recently implemented perhaps the most extensive person-based predictive policing system of the current era.[11] Similar to its previous counterparts, the program focuses on "an objective, decision-making framework that prioritizes crime hot spots, repeat victims, prolific offenders, and criminal groups."[12] However, Pasco County's system goes further through its use of juvenile information. Without notice to the public, the system collects data from the school board's early warning system, the police department's records management system, and the Department of Children and Families' Florida Safe Families

---

5. *Id.* at 1–2.

6. Andrew Guthrie Ferguson, *Policing Predictive Policing*, 94 WASH. U. L. REV. 1109, 1125 (2017).

7. *See* List of Agencies Using Predictive Policing Technology, ELECTRONIC FRONTIER FOUND., https://atlasofsurveillance.org/search?utf8=%E2%9C%93&location=&technologies%5B86%5D=on [https://perma.cc/Y8L6-HEW7].

8. Tim Lau, *Predictive Policing Explained*, BRENNAN CTR. FOR JUST. (Apr. 1, 2020), https://www.brennancenter.org/our-work/research-reports/predictive-policing-explained [https://perma.cc/4SD2-H89Y].

9. Some scholars refer to person-based predictive policing as "intelligence-led policing" and place-based predictive policing as "predictive policing." However, for the sake of continuity, this Note refers to these concepts as person-based and place-based throughout.

10. Lau, *supra* note 8.

11. *See* Kathleen McGrory & Neil Bedi, *Targeted*, TAMPA BAY TIMES (Sept. 3, 2020), https://projects.tampabay.com/projects/2020/investigations/police-pasco-sheriff-targeted/intelligence-led-policing/ [https://perma.cc/99J6-QB48].

12. PASCO SHERIFF'S OFFICE, INTELLIGENCE-LED POLICING MANUAL 8 (rev. 2018), https://cryptome.org/2021/06/ilp_manual012918.pdf [https://perma.cc/R8DL-8KGQ].

Network to identify "at-risk youth."[13] To make its assessment, the program analyzes educational records, criminogenic risk factors, and trauma history.[14] This Note demonstrates that the use of juvenile risk assessments to determine a child "who [is] destined to a life of crime"[15] could and should be viewed by courts as a violation of equal protection.

First, Part I traces the highly contentious history of the move from place-based predictive policing to person-based predictive policing. Whether place-based or person-based, many localities have attempted to design specific programs that can be used to prevent criminal actions.[16] Next, Part II delves into an unprecedented method of predictive policing: the use of juvenile records, as recently pioneered by Pasco County. Law enforcement officers take this information to conduct home visits, closely monitor high-risk individuals, and justify the administration of higher punishments to certain potential offenders.[17] The program has ignited much dispute, with a multitude of activist organizations advocating against the system,[18] an investigation by the U.S. Department of Education,[19] and a pending lawsuit over numerous constitutional violations.[20]

Part III analyzes the constitutional validity of a predictive policing program that employs juvenile assessments. Generally, predictive policing programs utilize a multitude of poverty and race-correlated factors, toeing the line of a potential Equal Protection Clause violation.[21]

---

13. *Id.* at 72.

14. *Id.* at 70–72.

15. *Id.* at 13.

16. *See supra* note 7 and accompanying text.

17. *See* McGrory & Bedi, *supra* note 11.

18. *See New Coalition Formed to End Pasco County's Predictive Policing Program*, NAACP LEGAL DEF. & EDUC. FUND, INC. (Apr. 26, 2021), https://www.naacpldf.org/press-release/new-coalition-formed-to-end-pasco-countys-predictive-policing-program/ [https://perma.cc/6Q8E-T2VY].

19. *Id.*

20. *See* Plaintiff's Complaint, *supra* note 1; *see also Federal Judge Rejects Sheriff's Office's Attempt to Dismiss Lawsuit Challenging 'Predictive Policing' Program*, TAMPA BAY 10 (Aug. 5, 2021), https://www.wtsp.com/article/news/local/pascocounty/judge-rejects-pasco-county-sheriff-lawsuit-dismissal-predictive-policing-program/67-5015f72a-edc1-46a0-9bdf-5e0 885483e75 [https://perma.cc/ZSM4-R65U].

21. *See* U.S. CONST. amend. XIV, § 1. *See generally* Renata M. O'Donnell, Note, *Challenging Racist Predictive Policing Algorithms Under the Equal Protection Clause*, 94 N.Y.U. L. REV 544 (2019) (arguing that such programs discriminate based on race and thus facially violate the Equal Protection Clause); Rashida Richardson et al., *Dirty Data, Bad Predictions: How Civil Rights Violations Impact Police Data, Predictive Policing Systems, and Justice*, 94 N.Y.U. L. REV. ONLINE 15 (2019) (asserting that predictive policing systems in jurisdictions with histories of unlawful police practices are thereby tainted by that "dirty data," leading to unreliable predictions); Molly Griffard, *A Bias-Free Predictive Policing Tool?: An Evaluation of the NYPD's Patternizr*, 47 FORDHAM URB. L.J. 43 (2019) (analyzing whether a bias-free predictive policing tool is achievable given the racially biased historic criminal justice data).

However, the use of juvenile information crosses the threshold into unconstitutional territory. Premature and inaccurate judgment is more likely for juveniles because future criminality is more difficult to identify, given juveniles' underdeveloped natures.[22] In addition, selecting children as future criminals drastically changes how police interact with them because officers conduct home visits, hammer them with petty offense charges, and submit them to higher punishments.[23] Heavy police surveillance and harassment can motivate a child's distrust for police, disassociation from society, and inclination to criminal behavior.[24] Therefore, predictive policing creates a self-fulfilling prophecy where children labeled as likely offenders will more likely become offenders. Finally, Part IV details certain approaches jurisdictions may take to improve juvenile predictive policing both in terms of efficacy and constitutionality. Ultimately, however, the juvenile predictive policing system, as presently exemplified by Pasco County, cannot pass constitutional muster.

I. Predictive Policing Systems: A Proactive Approach to Crime Detection and Prevention

The use of predictions in the criminal justice system is nothing new.[25] With place-based predictive policing especially, law enforcement has always supported mapping "hot spots" as a legitimate means of predicting and preventing crime.[26] Recently, however, law enforcement has turned toward "analytical tools that draw on very large data sets to make predictions in support of crime prevention."[27] Indeed, the use of this

---

22. *See generally* Claire McDiarmid, *An Age of Complexity: Children and Criminal Responsibility in Law*, 13 Youth Just. 145 (2013) (scrutinizing the acquisition of criminal responsibility in the transition from dependence to the autonomy of adulthood in light of psychological and neurological development).

23. *See supra* note 17 and accompanying text.

24. *See* Ryan T. Motz et al., *Does Contact with the Justice System Deter or Promote Future Delinquency? Results from a Longitudinal Study of British Adolescent Twins*, 58 Criminology 307, 319–24 (2019) (concluding that contact with the justice system promotes delinquency).

25. *See* Ferguson, *supra* note 6, at 1117–18. Experiments with prediction can be traced back as early as the 1920s with the parole prediction instrument developed by Ernest Burgess. *Id.* Known as the actuarial approach, this type of program "systematiz[es] risks and appl[ies] those factors to individual persons." *Id.* at 1118. Though initially focused on parolees, the concept soon expanded into other predictions within the criminal justice system. *Id.*

26. Perry et al., *supra* note 4, at 2–3. There is strong evidence to support the theory that criminals tend to operate in their comfort zone; namely, those criminals commit the same crimes in the same general areas and times that they have committed them successfully in the past. *Id.* at 2. Though "this is not universally true, it occurs with sufficient frequency to make these methods work reasonably well." *Id.* at 2–3. In addition, certain crimes are more likely to be committed in certain areas; for example, "certain clubs may be conducive to violent fights because of the typical mix of alcohol, drugs, and late-night errors in judgment." Ferguson, *supra* note 6, at 1133.

27. Perry et al., *supra* note 4, at 2.

sophisticated data collection and machine analysis is quickly replacing the outmoded push-pin wall maps to identify high-crime areas. Place-based predictive technology today usually involves utilizing hot spot analysis, statistical regression, data mining, near-repeat methods, and temporal and spatiotemporal methods.[28] In other words, the technology involves "the collection of historical crime data (time, place, and type) and the application of an experimental computer algorithm that use[s] data to predict likely areas of criminal activity."[29] In addition, many programs also include factors such as current environmental factors that may heighten the risk of crime.[30] With this information, officers visit targeted areas more often, with the belief that increased police presence will disrupt the pattern of crime.[31]

As technology became more refined, some localities turned from a place-based to a person-based focus. This form of technology utilizes "big data capabilities to develop predictive profiles of individuals based on past criminal activity, current associations, and other factors that correlate with criminal propensity."[32] "While arrests based purely on pre-crime predictions will not likely happen any time soon, police have shifted surveillance and investigation resources to focus on prediction as part of a larger push toward proactive policing."[33] For instance, the Chicago Police Department implemented a program called "Strategic Subject List," in which the department scored people on the list through a myriad of factors.[34] Key factors included:

---

28. *Id.* at 17.

29. Ferguson, *supra* note 6, at 1127. Such programs initially focused on property crimes, but they eventually moved toward targeting crimes of violence as well. *Id.* at 1126–27, 1132.

30. *Id.* at 1135–36. For instance, the factors for shootings would be "locations of drug arrests, proximity to 'at-risk' housing developments, 'risky facilities,' locations of gang activity, known home addresses of parolees previously incarcerated for violent crimes and/or violations of drug distribution laws, locations of past shooting incidents, and locations of past gun robberies." *Id.* at 1136 (quoting Leslie W. Kennedy et al., *Risk Clusters, Hotspots, and Spatial Intelligence: Risk Terrain Modeling as an Algorithm for Police Resource Allocation Strategies*, 27 J. QUANTITATIVE CRIMINOLOGY 339, 345–46 (2011)).

31. *Id.* at 1127.

32. *Id.* at 1137.

33. *Id.*

34. Jeremy Gorner, *With Violence Up, Chicago Police Focus on a List of Likeliest to Kill, Be Killed*, CHI. TRIB. (July 22, 2016, 3:54 PM), https://www.chicagotribune.com/news/ct-chicago-police-violence-strategy-met-20160722-story.html [https://perma.cc/47XQ-S5GG]. The program was shut down in late 2019 after it was found to have failed to reduce violence. Jeremy Gorner & Annie Sweeney, *For Years Chicago Police Rated the Risk of Tens of Thousands Being Caught Up in Violence. That Controversial Effort Has Quietly Been Ended*, CHI. TRIB. (Jan. 24, 2020, 8:55 PM), https://www.chicagotribune.com/news/criminal-justice/ct-chicago-police-strategic-subject-list-ended-20200125-spn4kjmrxrh4tmktdjckhtox4i-story.html [https://perma.cc/TZ9F-TK8J].

an individual's criminal history, especially any weapons offenses or crimes of violence; their age at their first arrest; whether the nature of their arrests escalated over the years; if they had been the intended targets of shootings or the victims of violence; and if those they've been arrested with had themselves been shot.[35]

Among other things, the police used this information to monitor and scrutinize individuals, such as conducting uninvited home visits where the police warned the persons of interest that they were being watched and should avoid crime.[36] If officers later arrested one of these individuals, the prosecutors used the prior warnings and the subject list placement to argue for higher charges.[37] In a similar program, Kansas City, Missouri, employed an "advanced social network analysis using official offense data, field interview forms, and gang data."[38] Starting with a finite list of target offenders,[39] the department examined all formal police contacts to identify their associates.[40] Next, the department performed the same analysis that they conducted on the initial target offenders on the newly identified associates, "resulting in a social network that includes three layers of offenders: the initial target offenders, the target offenders' associates, and the associates of the target offenders' associates."[41] These individuals were contacted by the police and, similar to Chicago, were subject to higher charges.[42]

II. THE USE OF JUVENILE INFORMATION TO IDENTIFY CHILDREN AS FUTURE OFFENDERS

Pasco County released an extensive, eighty-two-page manual on its Predictive Policing System.[43] Crime prevention is a major emphasis of the program, with the manual proclaiming a shift in policing from a reactive role to a proactive role in crime fighting.[44] To that end, Pasco County administered a juvenile predictive policing system.[45] Particularly,

---

35. Gorner, *supra* note 34.

36. *Id.*

37. Andrew Guthrie Ferguson, *Predictive Prosecution*, 51 WAKE FOREST L. REV. 705, 705 (2016).

38. Ferguson, *supra* note 6, at 1140 (quoting ANTHONY A. BRAGA ET AL., U.S. DEP'T OF JUST., SMART APPROACHES TO REDUCING GUN VIOLENCE 13 (2014)).

39. These included "suspects in murders, shootings, or other serious assault." *Id.* (quoting BRAGA ET AL., *supra* note 38, at 13).

40. *Id.* at 1140–41.

41. *Id.* at 1141 (quoting BRAGA ET AL., *supra* note 38, at 13).

42. *See id.* Moreover, "Similar projects identifying 'socially deviant networks' have been initiated in Boston, Las Vegas, and other jurisdictions." *Id.*

43. *See generally* PASCO SHERIFF'S OFFICE, *supra* note 12.

44. *Id.* at 4, 15, 28.

45. *See id.* at 13.

the program purports to "identify[] at-risk youth who are destined to a life of crime and engag[e] them to prevent them from developing into prolific offenders."[46] Criminal justice Professor Jerry Ratcliffe says the manual lists "socio-economic deprivation, antisocial parents and siblings, poor parental supervision and child-rearing, coming from broken homes, low intelligence and a poor school record" as the best predictors of an eventual criminal conviction.[47]

By partnering with the Pasco County School Board and the Department of Children and Families (DCF), the Sheriff's Office collects information to identify at-risk youths.[48] The Sheriff's Office collects data on criminogenic factors.[49] Through the school board, the Sheriff's Office collects data regarding the student's grades, attendance, and behavior to identify underperforming students.[50] Through the DCF, the Sheriff's Office tracks each adverse childhood experience (ACE) of the surveilled children.[51] Supposedly, each ACE "significantly increase[s a juvenile's] likelihood of developing into serious, violent, and chronic . . . offenders."[52] The Sheriff's Office then combines these results to identify and label those most at risk "to fall into a life of crime."[53]

Once children are labeled at-risk by the Sheriff's Office, officers engage in various activities to "get the[] juveniles back on track."[54] For example, the officers plan home visits for the most at-risk students to engage parents and identify additional factors for offending.[55] In practice, these checks are conducted far more often than necessary.[56] Indeed, the case of Tammy Heilman's son, mentioned above, is not an anomaly. Former Strategic Targeted Area Response Team Corporal Royce Rodgers—who is also a plaintiff in a different lawsuit brought by former Sheriff's deputies who claim they were "push[ed] out" by the agency for

---

46. *Id.*

47. *Id.* (quoting JERRY RATCLIFFE, INTELLIGENCE-LED POLICING 44 (2d ed. 2016)).

48. *Id.*; *see also id.* at 72 ("To start, we take the active rosters for each school in the county and match each student with data from the schoolboard's early warning system (EWS), our records management system (RMS), and DCF's Florida Safe Families Network (FSFN).").

49. *Id.* at 13.

50. *Id.*

51. *Id.* Examples of ACEs include having an incarcerated household member, experiencing abuse, and witnessing household violence. *Id.* at 72.

52. *Id.* at 13.

53. *Id.*

54. *Id.* at 14.

55. *Id.* at 66.

56. *See* Nick Sibilla, *Lawsuit: Florida County Uses 'Predictive Policing' to Arrest Residents for Petty Code Violations*, FORBES (Apr. 26, 2021, 7:00 PM), https://www.forbes.com/sites/nicksibilla/2021/04/26/lawsuit-florida-county-uses-predictive-policing-to-arrest-residents-for-petty-code-violations/?sh=29b2bbe82d0f [https://perma.cc/PV8E-7V3R] ("Those targeted in Pasco County must endure a face-to-face 'prolific offender check' at least once every three months, though some residents have been visited multiple times per day by law enforcement.").

criticizing the program—said his captain "ordered him to make the contacts aggressive enough that targets would want to move."[57] Corporal Rodgers admitted that his team conducted visits at people's homes "just to make them uncomfortable," did not always log the contacts in the official records, visited some targets as often as six times in a single day, and once parked five patrol cars outside one target's home all night.[58] Additionally, parents have complained of deputies issuing tickets for petty code violations during their unannounced visits—violations such as tall grass or missing house address numbers.[59] Corporal Rodgers recalled, "We would literally . . . take a tape measure and measure the grass if somebody didn't want to cooperate with us."[60] Most troubling, neither the students nor the parents are informed if the child is being surveilled or if the child is labeled at-risk.[61] Further, the targeted individuals are not allowed to contest this classification.[62] And if a child is labeled as a prolific offender, the sheriff's office usually recommends the juvenile be adjudicated as an adult.[63] Absurdly, the system lists the target's friends, relatives, and other associates as people needing surveillance.[64] Even if the associates have nothing to do with the offender or any past indiscretion, as long as they are listed in the system, the officers harass them as well.[65]

III. How Predictive Policing—Particularly When Juvenile Information is Included—May Deny Equal Protection

Ultimately, predictive policing as a general concept has sparked heated constitutional debate. Among the prevalent fears is a potential violation of the Equal Protection Clause of the Fourteenth Amendment.[66] Predictive policing creates an issue with minority and poverty-stricken populations.[67] Further, Pasco County's version of predictive policing brings in the issue of nonage, which tends to exacerbate underlying equal protection issues that already encompass predictive policing.

---

57. McGrory & Bedi, *supra* note 11.

58. *Id.*

59. D'Ann Lawrence White, *Suit Filed Against Pasco Sheriff for Use of 'Predictive Policing*, Patch (Mar. 16, 2021, 10:35 PM), https://patch.com/florida/newportrichey/suit-filed-against-pasco-sheriff-use-predictive-policing [https://perma.cc/G2W3-5EFR].

60. Sibilla, *supra* note 56.

61. *Id.*

62. *Id.*

63. *Id.* at 18–19.

64. McGrory & Bedi, *supra* note 11.

65. *Id.*

66. U.S. Const. amend. XIV, § 1.

67. O'Donnell, *supra* note 21, at 556–58, 566–67.

A. *The Equal Protection Analysis and Different Levels of Review*

Generally, an equal protection claim involves a law or government policy that includes some form of classification.[68] If the law incorporates a suspect classification,[69] the law must survive strict scrutiny.[70] The state must have a "compelling governmental interest" in the law, and the law must be "narrowly tailored" to serve that interest.[71] As the strictest standard of review applied to state action, the likelihood that courts will deem the law unconstitutional is greatest under strict scrutiny.[72] However, if no suspect classification appears on the face of the law, rational basis scrutiny is applied and the statute need only be "rationally related" to a "legitimate government purpose."[73] With this level of scrutiny, courts view the law in strong favor of constitutionality.[74] Sometimes, courts find a semi-suspect classification where intermediate scrutiny—a middle ground between rational basis and strict scrutiny—is applied, requiring the state to show an important interest and substantially related means.[75] Finally, in rare circumstances, courts have used heightened scrutiny when a class is neither suspect nor semi-suspect but constitutes a vulnerable class denied an important state service.[76] In *Plyler v. Doe*,[77] the Supreme Court of the United States struck down a Texas statute that denied undocumented school-age children public education.[78] In writing for the majority, Justice William J. Brennan opined that, while undocumented immigrants are a non-suspect class, the children of these aliens are a "discrete class . . . not accountable for their

---

68. *See, e.g.*, City of Cleburne v. Cleburne Living Ctr., 473 U.S. 432, 439–40 (1985).

69. "Suspect classifications refer to a legal classification or restriction curtailing the rights of a specific group." Brant K. Brown, Note, *Scrutinizing Juvenile Curfews: Constitutional Standards & the Fundamental Rights of Juveniles & Parents*, 53 VAND. L. REV. 653, 664 (2000). While the Equal Protection Clause was originally intended to protect Blacks, it was expanded during World War II to other groups, with the Court striking down "legislation imposing special disabilities upon groups disfavored by virtue of circumstances *beyond their control*." *Id.* (emphasis added) (quoting Plyler v. Doe, 457 U.S. 202, 217 n.14 (1982)).

70. *See, e.g.*, Adarand Constructors, Inc. v. Pena, 515 U.S. 200, 235–36 (1995).

71. *Id.* at 235.

72. *See* ERWIN CHEMERINSKY, CONSTITUTIONAL LAW: PRINCIPLES AND POLICIES § 6.5, at 554 (Vicki Been et al. eds., 4th ed. 2011); *see also* Regents of Univ. of Cal. v. Bakke, 438 U.S. 265, 291 (1978) (identifying strict scrutiny as the "most rigid scrutiny" (quoting Korematsu v. United States, 323 U. S. 214, 216 (1944), *abrogated on other grounds by* Trump v. Hawaii, 138 S. Ct. 2392 (2018))).

73. CHEMERINSKY, *supra* note 72, § 6.5, at 552 (emphasis omitted).

74. *See id.* at 552–53.

75. *See id.* at 553.

76. Robyn K. Bitner, *Exiled From Education:* Plyler v. Doe*'s Impact on the Constitutionality of Long-Term Suspensions and Expulsions*, 101 VA. L. REV. 763, 764 (2015).

77. 457 U.S. 202 (1982).

78. *See id.* at 230.

disabling status"[79] who "can affect neither their parents' conduct nor their own status."[80] Justice Brennan stated:

> In determining the rationality of [the law], we may appropriately take into account its costs to the Nation and to the innocent children who are its victims. In light of these countervailing costs, the discrimination contained in [the law] can hardly be considered rational unless it furthers some substantial goal of the State.[81]

Ultimately, the Court held that no such showing of a substantial state interest was made.[82]

Importantly, a law may be unconstitutional on equal protection grounds without being facially discriminatory, but a plaintiff must prove that the law incorporates both a disparate impact and purpose. In *Yick Wo v. Hopkins*,[83] the Court concluded that biased enforcement of an ordinance was unconstitutional despite the ordinance's impartial wording.[84] As noted by the Court,

> [t]hough the law itself be fair on its face and impartial in appearance, . . . if it is applied and administered by public authority with an evil eye and an unequal hand, so as practically to make unjust and illegal discriminations between persons in similar circumstances, material to their rights, the denial of equal justice is still within the prohibition of the Constitution.[85]

However, the Court qualified the *Hopkins* decision in *Washington v. Davis*[86] by requiring the state's official conduct to have a discriminatory purpose and a disproportionate impact to constitute a Fourteenth

---

79. *Id.* at 223.

80. *Id.* at 220 (quoting Trimble v. Gordon, 430 U.S. 762, 770 (1977)).

81. *Id.* at 223–24; *see also id.* at 238–39 (Powell, J., concurring) ("Our review in a case such as these is properly heightened. The classification at issue deprives a group of children of the opportunity for education afforded all other children simply because they have been assigned a legal status due to a violation of law by their parents. . . . In these unique circumstances, the Court properly may require that the State's interests be substantial and that the means bear a 'fair and substantial relation' to these interests." (footnote omitted) (citations omitted)).

82. *Id.* at 227–30 (majority opinion).

83. 118 U.S. 356 (1886).

84. *Id.* at 373–74.

85. *Id.*

86. 426 U.S. 229 (1976).

Amendment violation.[87] The Court clarified an "invidious discriminatory purpose may often be inferred from the totality of the relevant facts."[88]

B. *How Predictive Policing Risks Violating Equal Protection Through Racial and Socio-Economic Discrimination*

Machine-based policing systems bring a new challenge to equal protection claims because machines are seemingly objective. On its face, these types of policing systems proffer no suspect or semi-suspect classifications. However, law enforcement can easily manipulate these systems, purposefully or accidentally, to include biases.

1. The Impact on Public Safety

Of course, law enforcement agencies implemented these programs with righteous goals of enhanced public safety in mind, and certainly, implementing these innovative policing systems has its benefits. In furtherance of public safety, predictive policing allows jurisdictions to deploy their resources more accurately in place and time.[89] For instance, the Predictive Police Patrolling Decision Support System analyzes crime data to optimally distribute police officers in a geographic area when the chance of criminal behavior is at its highest.[90] Likewise, an analysis of the predictive policing techniques of the New York City Police Department revealed a six percent decrease in the overall crime index.[91] Indeed, studies have shown a spatiotemporal pattern toward specific crimes and certain times or places—detectable through mass data collection—that officers can survey to more efficiently and effectively

---

87. *Id.* at 239 ("The central purpose of the Equal Protection Clause of the Fourteenth Amendment is the prevention of official conduct discriminating on the basis of race. . . . But our cases have not embraced the proposition that a law or other official act, without regard to whether it reflects a racially discriminatory purpose, is unconstitutional *solely* because it has a racially disproportionate impact.").

88. *Id.* at 242.

89. Albert Meijer & Martijn Wessels, *Predictive Policing: Review of Benefits and Drawbacks*, 42 INT'L J. PUB. ADMIN. 1031, 1033 (2019).

90. M. Camacho-Collados & F. Liberatore, *A Decision Support System for Predictive Police Patrolling*, 75 DECISION SUPPORT SYS. 25, 25–26 (2015).

91. E. S. Levine et al., *The New York City Police Department's Domain Awareness System*, 47 INTERFACES 70, 80 (2017). But note that the decline could not be fully attributed to this system. *Id.* at 80–81.

utilize police forces.[92] Of course, this can be, and often is, accomplished through place-based rather than person-based policing systems.[93]

A benefit more specific to person-based policing systems is the identification of individuals who will likely be involved in a future crime, either as a victim or perpetrator. Evidence of the merits of this claim has produced mixed results. Researchers Jessica Saunders, Priscillia Hunt, and John S. Hollywood tested the Strategic Subject List in Chicago, which was designed to prevent gun violence.[94] While they found no evidence of targeted individuals having an increased chance of becoming victims of such violence, the researchers did find an increased chance of arrests for shootings by targeted individuals.[95] Nonetheless, scholars have noted that this result could derive "from the fact that officers used the Strategic Subject List as leads for cases that were unresolved or because of extra monitoring,"[96] thus creating a positive feedback loop.

2. The Disparate Impact Caused by "Objective" Algorithms

The limits of predictive policing systems remain a potential issue that may trigger an equal protection violation. When algorithms "are trained on historical crime data or dragnet searches[,] . . . this information allows the algorithms to classify and target on the basis of race."[97] An analysis uncovered at least nine jurisdictions where predictive policing systems were informed by data disclosed by police departments that allegedly engaged in biased policing practices.[98] In a widely cited article, Professor Sonja Starr argued that using demographic and socio-economic characteristics within the risk-assessment algorithm violates the Equal Protection Clause.[99] Professor Christopher Slogobin raised similar concerns, arguing that a narrowly tailored predictive policing program is

---

92. A study conducted in Ventura, California, concluded that weather conditions (specifically those that create favorable surf conditions and attract people to popular surf areas) lead to more criminal activity in locations close to surf sites, but only during a specific time-interval of 2:30 PM to 5:29 PM. Lisa M. Dario et al., *The Point Break Effect: An Examination of Surf, Crime and Transitory Opportunities*, 28 CRIM. JUST. STUD. 257, 271 (2015). Further, a comparable study examining spatiotemporal crime patterns in Philadelphia found an increased chance of armed street robberies within 1,200 feet and seven days of an initial armed street robbery. Cory P. Haberman & Jerry H. Ratcliffe, *The Predictive Policing Challenges of Near Repeat Armed Street Robberies*, 6 POLICING 151, 158 (2012).

93. *See* sources cited *supra* note 92.

94. Jessica Saunders, Priscillia Hunt & John S. Hollywood, *Predictions Put into Practice: A Quasi-Experimental Evaluation of Chicago's Predictive Policing Pilot*, 12 J. EXPERIMENTAL CRIMINOLOGY 347, 349, 354 (2016).

95. *Id.* at 362–63.

96. Meijer & Wessels, *supra* note 89, at 1035.

97. O'Donnell, *supra* note 21, at 566–67.

98. Richardson et al., *supra* note 21, at 27.

99. *See* Sonja B. Starr, *Evidence-Based Sentencing and the Scientific Rationalization of Discrimination*, 66 STAN. L. REV. 803, 805–06 (2014).

"unlikely, given the less-than-robust correlation between these characteristics and risk, as well as the large number of other risk factors available to the government."[100] Another commentator noted,

> Machine learning-based predictive policing algorithms can learn to discriminate facially on the basis of race because they are exposed to and learn from data derived from the racist realities of the United States criminal justice system—a world in which Black Americans are incarcerated in state prisons at a rate that is 5.1 times the imprisonment of whites . . . .[101]

Indeed, scholars warn that factors, such as prior arrests, may reflect not only criminal behavior but also racial discrimination "baked in" the algorithm.[102] A letter, titled "Abolish the #TechToPrisonPipeline"—signed by numerous researchers and practitioners across a variety of fields including statistics, machine learning, sociology, history, and law—warned that "[m]achine learning programs are not neutral; research agendas and the data sets they work with often inherit dominant cultural beliefs about the world[,] . . . reproducing ideas which normalize social hierarchies and legitimize violence against marginalized groups."[103] Since courts[104] and sentencing commissions[105] have struck down

---

100. Christopher Slobogin, *Risk Assessment and Risk Management in Juvenile Justice*, 27 CRIM. JUST. 10, 14 (2013).

101. O'Donnell, *supra* note 21, at 547; *see also* Ross Dawson, *The Self-Perpetuating Social Feedback Loops in AI-Based Predictive Policing Could Stop Social Evolution* (June 24, 2020), https://rossdawson.com/self-perpetuating-feedback-loops-ai-predictive-policing/ [https://perma.cc/WMT4-5QB2] ("It is nonsense to claim that there is 'no bias' in algorithms that are built on data about outcomes that may have resulted from bias, in this case either from the judicial system, or the different social systems in which individuals are raised and live their lives.").

102. Crystal S. Yang & Will Dobbie, *Equal Protection Under Algorithms: A New Statistical and Legal Framework*, 119 MICH. L. REV. 291, 313 (2020). For example, a poor credit rating or a prior arrest record might be a result of discrimination by humans before the predictive algorithm is initiated on a particular person. *Id.* at 316 (citing Cass R. Sunstein, *Algorithms, Correcting Biases*, 86 SOC. RSCH. 499, 509 (2019)). The risk here is "that algorithms could perpetuate discrimination and extend its reach, by using factors that are genuinely predictive but products of unequal treatment," in effect "turn[ing] discrimination into a kind of self-fulfilling prophecy." *Id.* (quoting Sunstein, *supra*, at 509).

103. Coal. for Critical Tech., *Abolish the #TechToPrisonPipeline: Crime Prediction Technology Reproduces Injustices and Causes Real Harm*, MEDIUM (June 23, 2020), https://medium.com/@CoalitionForCriticalTechnology/abolish-the-techtoprisonpipeline-9b5b1 4366b16 [https://perma.cc/C7MC-87GT].

104. *See, e.g.*, United States v. Leung, 40 F.3d 577, 585, 587 (2d Cir. 1994) (remanding for resentencing based in part on the trial judge's remark that "the purpose of [the] sentence here is to punish the defendant and to generally deter others, particularly others in the Asiatic community").

105. Yang & Dobbie, *supra* note 102, at 306–08. For example, the Sentencing Reform Act of 1984 directed the U.S. Sentencing Commission to "assure[] that the guidelines and policy statement are entirely neutral as to the race . . . of offenders." 28 U.S.C. § 994(d). The most recent

sentencing decisions made on the basis of race, the disapproving view on race as a factor of predictive policing should come as no surprise.

Even if algorithms do not include racial factors, and indeed, most do not,[106] the use of seemingly neutral algorithmic inputs may nevertheless act as a proxy for the suspect factors. For instance, "some have argued that using residential zip codes in predictive algorithms is 'almost tantamount to using race,'" given the prevalence of racial minorities in low socio-economic localities.[107] A study found that the predicting algorithm used to target drug offenses in Oakland, California, targeted areas with higher concentrations of Latinos and Blacks despite evidence that suggested drug usage was more evenly scattered throughout the city.[108] Arguments by District Attorney Larry Krasner of Philadelphia, "led to the exclusion of inputs such as education, employment status, zip code, and socioeconomic status from many predictive algorithms in the criminal justice system."[109] Ultimately, the biased algorithm may lead to a feedback loop, in which officers are repeatedly sent to the same areas or groups of people, naturally leading to more arrests and a flawed showing of accuracy. This only "perpetuat[es] every negative aspect of our existing [social] systems, stopping our ability to evolve as a society."[110]

3. The Facially Non-Discriminate Algorithms Would Likely Survive Constitutional Muster Despite the Disparate Impact

Under the current doctrine, the impact of these facially non-discriminate algorithms can *only* be unconstitutional if they are found to have a discriminatory purpose,[111] which would be incredibly difficult to prove given the nature of machine learning and algorithms. Interestingly, the barrier of proving discriminatory purpose also seems to impede the possibility of having a narrowly tailored predictive policing system. Namely, it is exceedingly difficult to identify the discriminatory proxies and impossible to remove all the discriminatory proxies while

---

draft of the Model Penal Code's sentencing provisions also takes the position that "[t]he consideration of race and ethnicity is disapproved . . . and raises serious constitutional concerns." MODEL PENAL CODE: SENT'G § 6B.09 reporter's note (AM. L. INST., Proposed Final Draft 2017).

106. Yang & Dobbie, *supra* note 102, at 331.

107. *Id.* at 311 (quoting Cathy O'Neil, *The Ethical Data Scientist*, SLATE: FUTURE TENSE (Feb. 4, 2016, 8:30 AM), https://slate.com/technology/2016/02/how-to-bring-better-ethics-to-data-science.html [https://perma.cc/23XJ-U3XJ]).

108. Aaron Shapiro, Comment, *Reform Predictive Policing*, 541 NATURE 458, 460 (2017).

109. Yang & Dobbie, *supra* note 102, at 313.

110. Dawson, *supra* note 101.

111. *See supra* notes 87–88 and accompanying text. Some commentators have argued that the framework of an equal protection analysis should be expanded to allow for innovative issues such as this one. *See, e.g.*, Note, *Beyond Intent: Establishing Discriminatory Purpose in Algorithmic Risk Assessment*, 134 HARV. L. REV. 1760 (2021).

maintaining an effective predictive policing system.[112] Thus, it is likely that courts would review the facially non-discriminate algorithms under a rational basis test.[113] On this, it would likely survive constitutional muster.

Though the programs are not without imperfections, one could easily see a rational relationship between policing software designed to predict crime and the government's interest in public safety. And the systems are effective to at least some extent. It appears that place-based programs tend to be more accurate, less controversial, and carry slightly less risk of racial discrimination claims than their person-based counterparts. It is one thing to patrol high-crime-targeted areas frequently; however, it is another thing entirely to conduct frequent visits with a high-crime-targeted person. But even place-based predictions carry risks associated with discrimination. Still, under the most lenient review standards, courts will likely accept these programs as constitutional.

To be sure, the constitutionality of predictive policing under the Fourteenth Amendment has yet to be properly challenged[114] and remains a novel question that courts may decide either way. However, policy considerations may sway precincts to move policing techniques in another direction and some jurisdictions have become wary of the dangers in the algorithm. Santa Cruz, California, became the first city to officially ban predictive policing technology, barring the technology from combating police brutality and racism because predictive policing can be "disproportionately biased against people of color."[115] Nonetheless, other jurisdictions continue to advance predictive policing, including more information in their assessments, and consequently, pushing closer toward unconstitutional territory. Namely, the inclusion of juvenile assessment adds a highly problematic aspect to these systems.

C. *How the Inclusion of Juvenile Factors and the Corresponding Effect Substantiates the Infringement on Equal Protection*

Pasco County's use of predictive policing presents a novel issue in terms of equal protection, particularly with the type of juvenile information it utilizes. The underlying issues of racial and socio-economic prejudice remain in this unique juvenile system. In addition, psychological differences between juveniles and adults exacerbate the

---

112. Yang & Dobbie, *supra* note 102, at 315. Removing correlated inputs that serve as proxies for protected characteristics comes with a loss in accuracy. *Id.* at 318–19.

113. *See* Pers. Adm'r of Mass. v. Feeney, 442 U.S. 256, 272 (1979).

114. *Id.* at 317.

115. Avi Asher-Schapiro, *California City Bans Predictive Policing in U.S. First*, REUTERS (June 24, 2020, 2:33 PM) (quoting Mayor Justin Cummings), https://www.reuters.com/article/us-usa-police-tech-trfn/california-city-bans-predictive-policing-in-u-s-first-idUSKBN23V2XC [https://perma.cc/V885-4G6W].

detrimental effects of predictive policing systems. Socio-economic and racial issues embedded in predictive policing algorithms may not be enough to consider the typical predictive policing systems as unconstitutional due to a lack of discriminatory purpose. However, the inclusion of elements outside of the control of juveniles, along with exaggerated racial and socioeconomic issues and attributes unique to juveniles, lend strong support to the argument that Pasco County's particular system violates the Equal Protection Clause.

1. The Impact on Public Safety and the Best Interest of the Child

Similar to predictive policing in general, the state's interest concerns public safety.[116] In addition, the state potentially has an interest through the doctrine of *parens patriae*.[117] That doctrine says that the state will play the proper role of a parent when necessary "to protect children or the broader populace from harm."[118] A state can achieve these goals if the policing system curtails criminal action from the flagged juveniles. However, this is often not the case due to premature labeling and the negative effects of subsequent police interaction.

a. The Neurological Difference between Juveniles and Adults

It is well established that youth develop through a series of neurological processes, during which they lack the complete mental capacity enjoyed by most adults. One of the key differences between an adult's brain and an adolescent's brain is the lack of prefrontal cortex development in the adolescent's brain.[119] A key feature of the prefrontal cortex is "reconciling internal emotional states with the demands of external reality."[120] Noted by child psychology researcher, Dr. Angela Griffin:

> As the pre-frontal cortex develops, utilising feedback from the environment to shape its progress, we learn how to manage long term planning, monitoring what is going on and

---

116. *See supra* Section III.B.1.

117. In American jurisprudence, *parens patriae* provides "not merely authority but a duty to the vulnerable—with a humanitarian and benign aim." Daniel L. Hatcher, *Purpose vs. Power:* Parens Patriae *and Agency Self-Interest,* 42 N.M. L. REV. 159, 164 (2012).

118. Lisa V. Martin, *Modernizing Capacity Doctrine*, 73 FLA. L. REV. 821, 862 (2021). This doctrine has faced a myriad of criticism. Among other things, scholars argue that courts apply the doctrine inconsistently and unpredictably, leading to incoherent jurisprudential principles, and that the Court has used the doctrine to suppress children's rights. *See* Justin Witkin, Note, *A Time for Change: Reevaluating the Constitutional Status of Minors*, 47 FLA. L. REV. 113, 124–25 (1995).

119. Angela Griffin, *Adolescent Neurological Development and Implications for Health and Well-Being*, HEALTHCARE, Dec. 2017, at 2.

120. *Id.*

> adjusting smoothly while keeping our emotions and behaviours appropriate to the context. This ability is assisted by the growing inhibitory influence of the prefrontal dopamine system, which gradually improves the ability of teens to "apply the brakes."[121]

Juveniles' pre-matured prefrontal cortex inhibits their ability to "delay and reflect," "take all options into account," "contemplate risks and consequences," and "have social intelligence."[122]

According to a view informed by developmental neuroscience, risk-taking behavior during adolescence is "the product of the interaction between changes in two distinct neurobiological systems: a socioemotional system . . . and a cognitive control system."[123]

The socioemotional system, which "includes the limbic midbrain system and orbital frontal areas of the frontal lobe[,] . . . controls the emotional state of the brain."[124] The system "develops faster than the cognitive control system."[125] With the rapid development of this system, adolescents tend to experience an "increased need for a sense of reward," "increased sensation seeking," "more reactive emotional responses to both positive and negative emotions," and "increased attentiveness to social cues."[126] The cognitive control system, the slower-developed system, consists of the dorsolateral area of the frontal lobe.[127] Until this system matures, an adolescent will suffer from poor impulse control, weaker emotional regulation, less foresight and detection of options, worse planning and anticipation of outcomes, and limited resistance to stress and peer pressure.[128]

With this dual-system model, there is a "period of heightened vulnerability to risk-taking" in early adolescence due to "[t]he temporal gap between the arousal of the socioemotional system . . . and the full maturation of the cognitive control system."[129] In other words, the

---

121. *Id.*

122. Morgan Tyler, *Understanding the Adolescent Brain and Legal Culpability*, AM. BAR ASS'N: CHILD L. PRAC. TODAY (Aug. 1, 2015), https://www.americanbar.org/groups/public_interest/child_law/resources/child_law_practiceonline/child_law_practice/vol-34/august-2015/understanding-the-adolescent-brain-and-legal-culpability/ [https://perma.cc/4H6R-AR55]; *see also* Griffin, *supra* note 119, at 4 ("We typically think of adolescents as having an urge to experiment and explore. Many, but not all, are drawn to temptations, such as testing their alcohol limits, seeing how fast their car can go, or how high a wall they can jump from.").

123. Laurence Steinberg, *Adolescent Development and Juvenile Justice*, 5 ANN. REV. CLINICAL PSYCH. 459, 466 (2009).

124. Tyler, *supra* note 122.

125. *Id.*

126. *Id.*

127. *Id.*

128. *See id.*

129. Steinberg, *supra* note 123, at 466.

process is like starting an engine without a skilled driver behind the wheel.[130] This leads to the following trends in juvenile development: "[i]mpulsivity [that] declines with age," "[s]ensation seeking [that] declines with age," "[s]usceptibility to peer influence [that] declines with age," "[t]ime spent problem solving [that] increases with age," and "[g]ratification delays [that] increase with age."[131]

Indeed, the Supreme Court has shifted toward a recognition of the neurological differences between juveniles and adults and the consequential differences between the goals of delinquency and criminal court. First, the Court struck down the use of the death penalty for crimes committed by juveniles.[132] Next, the Court held that minors could not be sentenced to life without parole for a nonhomicide offense without granting an opportunity for the minors to obtain release by demonstrating that they are rehabilitated.[133] Finally, the Court prohibited the mandatory imposition of a life sentence without parole for a homicide committed by a juvenile.[134] In making its decision, "the Court pointed to developmental influences that impair juveniles' decision-making capacities, including their 'inability to assess consequences' and the 'recklessness, impulsivity, and heedless risk-taking' that contribute to an 'underdeveloped sense of responsibility.'"[135] Importantly, these attributes are similar to factors that have long been sources of mitigation in criminal law doctrine.[136] Due to these differences, according to Professor Elizabeth S. Scott, the Court's opinions in *Roper v. Simmons*, *Graham v. Florida*, and *Miller v. Alabama* suggest that "juveniles are likely to desist from involvement in criminal activity as they mature; thus they are less likely than their adult counterparts to be 'incorrigible' criminals."[137] In effect, the Court's opinions suggest a shift in higher protections for juveniles and "offer two consistent messages—that juveniles who commit offenses are less culpable than their adult counterparts and that they are more likely to reform."[138]

Further, environmental factors play a huge role in the development of adolescents' moral character and judgment. The "capacity for self-control

---

130. *Id.*

131. Tyler, *supra* note 122.

132. Roper v. Simmons, 543 U.S. 551, 574–75, 578 (2005).

133. Graham v. Florida, 560 U.S. 48, 74–75, 82 (2010).

134. Miller v. Alabama, 567 U.S. 460, 479, 489 (2012).

135. Elizabeth S. Scott, *"Children are Different": Constitutional Values and Justice Policy*, 11 Ohio St. J. Crim. L. 71, 85 (2013) (footnote omitted) (quoting *Miller*, 567 U.S. at 471–72).

136. *See id.* at 85 n.72 ("[T]he attributes of adolescence that make juveniles less culpable than their adult counterparts constitute conventional sources of mitigation in criminal law: diminished decisionmaking capacity; susceptibility to external coercion; and the absence of bad character.")

137. *Id.* at 72–73.

138. *Id.* at 72.

and self-direction" is a learned behavior.[139] Adolescents are often influenced by those around them during their development, such as their peers in school and in their neighborhoods, their parents, and even the media.[140] Adolescents with negative influences, or adolescents who lack positive influences, typically develop moral character and self-control at a later age, making them susceptible to making bad decisions for a longer period of time.[141] In addition, those who experience social rejection engage in more risk-taking behavior to win peer approval.[142] They are also "more at risk of low mood or social anxiety."[143] Thus, when adolescents offend, their communities "bear some responsibility for the failures of socializing institutions.[144]

Importantly, interactions with police officers are one of the social influences that may drive adolescents to commit an offense.[145] Accordingly, how adolescents respond to the police is vitally important. This begs the question of whether an increased level of police interaction with juveniles targeted by a predictive policing system creates a negative or positive effect.

b. The Effect of Increased Police Interaction on Youth

A long line of research has revealed detrimental effects on adolescents resulting from increased police encounters. The effects may be attributed to a greater sensitivity to stress when compared to adults.[146] Moreover, the "development of neuroregulatory systems" is negatively affected for children who experience chronic stressors like abuse or trauma, "making it harder for young people to exercise cognitive control and to regulate their emotions and behaviour."[147] Indeed, the Supreme Court has recognized the enhanced mental pressure juveniles suffer from police interaction by considering a juvenile's age when determining whether they are in "custody" for *Miranda*[148] purposes.[149] These effects are

---

139. Barry C. Feld, *Abolish the Juvenile Court: Youthfulness, Criminal Responsibility, and Sentencing Policy*, 88 J. CRIM. L. & CRIMINOLOGY 68, 114 (1997).

140. *Id.*

141. *Id.* at 114–15.

142. Griffin, *supra* note 119, at 3.

143. *Id.*

144. Feld, *supra* note 139, at 114.

145. *See* Michael J. McFarland et al., *Police Contact and Health Among Urban Adolescents: The Role of Perceived Injustice*, SOC. SCI. & MED., Oct. 2019, at 2.

146. *See* Griffin, *supra* note 119, at 4 (explaining that juveniles are more sensitive to, and have a harder time managing, the stressors in their environment).

147. *Id.*

148. *See* Miranda v. Arizona, 384 U.S. 436 (1966).

149. J.D.B. v. North Carolina, 564 U.S. 261, 277 (2011); *see also id.* at 269 ("[T]he pressure of custodial interrogation is so immense that it 'can induce a frighteningly high percentage of people to confess to crimes they never committed.' That risk is all the more troubling—and recent

exacerbated when adolescents who are of a certain racial minority or low socioeconomic backgrounds interact with police.[150] In part, the interactions between police officers and adolescents of a racial minority or low socio-economic community often have a greater negative effect due to the negative relationships between these communities and the police.[151] The tension between police officers and racial minorities and lower socio-economic communities is no surprise. The beginning level of trust between individuals and police is at least partially dependent on the notion of procedural fairness.[152] If individuals perceive police officers as making neutral decisions based on law rather than personal biases, their encounters tend to elicit less negative responses compared to encounters perceived as procedurally unjust, even if both encounters lead to the same outcomes: tickets, fines, or imprisonment.[153] In turn, this "perception of unfair treatment . . . feeds into disbelief about the legitimacy of the law,"[154] and can lead to increased delinquent behavior.

To add to this tension, "nonwhite teens experience significantly more intrusive police contact than white teens,"[155] and these encounters lead to detrimental effects.[156] Students at economically disadvantaged schools have a higher number of total arrests.[157] This is consistent with the well-researched notion that minority youth are disproportionately involved with the criminal justice system.[158] Several reasons may contribute to this: a "clash between middle-class school systems and low socio-economic status students,"[159] "parents from lower socio-economic backgrounds lack[ing] the resources and influence needed to protect their

---

studies suggest, all the more acute—when the subject of custodial interrogation is a juvenile." (citations omitted) (quoting Corley v. United States, 556 U.S. 303, 321 (2009))).

150. McFarland et al., *supra* note 145, at 2.

151. A "prejudice hypothesis" suggests that the history of "personal, vicarious, or collective police mistreatment" toward racial minorities in comparison to white adolescents amplifies the negative effects of future encounters. *Id.* On the other hand, an opposing "experience of the expected" hypothesis suggests minorities are less affected by police contact because it merely fulfills their expectations of mistreatment. *Id.*

152. "Procedural justice refers to fairness in dealings with police that encompasses four dimensions: respect, neutrality, trustworthiness, and voice." *Id.*

153. *Id.*

154. *Id.*

155. *Id.*

156. *See* Dylan B. Jackson et al., *Police Stops Among At-Risk Youth: Repercussions for Mental Health*, 65 J. ADOLESCENT HEALTH 627, 629 (2019).

157. Matthew T. Theriot, *School Resource Officers and the Criminalization of Student Behavior*, J. CRIM. JUST. 280, 285 (2009).

158. *Id.* at 285–86.

159. *Id.* at 286. For instance, "Caucasian teachers and principals might misunderstand or misconstrue the physical communication style common among ethnic minority youth, particularly African American youth," which may lead to a harsh response from teachers as well as law enforcement. *Id.*

children from the juvenile justice system,"[160] and inherent racial biases.[161]

Further, adolescents who are more often stopped by police are significantly more likely to report higher levels of emotional distress during police stops.[162] Indeed, the link between police stops and detrimental effects on health is most strongly associated with adolescents "who perceive[] the greatest procedural injustice in their personal and vicarious interactions."[163] Importantly, adolescents residing in neighborhoods characterized as low-income "are significantly more likely to report posttraumatic stress after a stop" from a police officer.[164] Additionally, race may play a large factor in stressful police encounters, with Hispanic youth reporting higher levels of distress than other races.[165] The effects of vicarious police contact harm adolescents within the same social network, regardless of whether adolescents in the same social networks had any direct interaction with the police.[166]

c. The Danger of Predictive Policing as a Self-Fulfilling Prophecy

It appears that increased police interaction largely does not have a positive effect on youth development. Instead, it causes a negative effect that could, in effect, lead to skewed results of predictive policing systems. Officers' increased presence in a particularly high-risk area—or worse, their increased presence to monitor a single child—begs the question: are people committing more crime, or are police detecting more crime? As noted by Professor Andrew G. Ferguson, "Suspicion based on correlation may be acceptable when talking about place-based crimes, but it is insufficient when talking about person-based crimes. Sending a police car to patrol a suspected area is less consequential than sending a police detective to interrogate a suspect."[167] This notion rings even more true when it comes to juveniles, who by nature are more susceptible to outside influences, such as police encounters.[168]

It might be the case that the labeling process itself—or the "dramatization of evil"[169]—is what secures an at-risk youth into a

---

160. *Id.*

161. Yang and Dobbie, *supra* note 102, at 316–17.

162. Jackson et al., *supra* note 156, at 629.

163. McFarland et al., *supra* note 145, at 2.

164. Jackson et al., *supra* note 156, at 629.

165. *Id.*

166. McFarland et al., *supra* note 145, at 7.

167. Ferguson, *supra* note 6, at 1143.

168. *See* Feld, *supra* note 139, at 114–15.

169. Emily Beth Ciaravolo, Once a Criminal, Always a Criminal 1 (2011) (Ph.D. dissertation, Florida State University) (DigiNole) (quoting FRANK TANNENBAUM, CRIME AND THE COMMUNITY 19 (1938)).

criminal lifestyle.[170] In other words, adolescents "may consider how society perceives them and then alter their behavior to fit their newly assigned identity," leading to future criminal acts.[171] Indeed, a multitude of research has found a link between labeling and future criminal action.[172] Importantly, research has shown that the effect that labeling has on future criminal behavior is amplified by a "perception that police are acting in an unfair manner or are not doing their job correctly."[173]

Recall that increased police surveillance due to the predictive policing system can occur due to circumstances beyond the youth's control, such as poor parental supervision or economic disadvantage.[174] Additionally, even associating with someone who has been labeled by police officers as a target can trigger increased surveillance,[175] leading to the stigmatization of the adolescent and, in turn, influencing the adolescent into a life of crime based solely on the adolescent's friends, not individual delinquent behavior. The overbreadth of factors considered by police officers in the juvenile assessment essentially channels juveniles, especially those of color or from lower socio-economic backgrounds, into a category of suspicion. Those juveniles then become more likely to commit future criminal acts. In fact, David Kennedy, a criminologist whose research is referenced in the Pasco Sheriff's Office's intelligence manual, referred to the predictive policing program as "[o]ne of the worst manifestations of the intersection of junk science and bad policing . . . that [he] ha[s] seen in [his] career."[176]

2. The Inclusion of Juvenile Information Within a Predictive Policing System is Unconstitutional

Including juvenile analysis in a predictive policing system, such as the one implemented by Pasco County, is highly problematic within the realm of constitutional law. For the most part, the constitutionality of juvenile classifications in the setting of equal protection has been largely left unsettled. In fact, some arguments hold that the Court has purposefully avoided this issue in the past.[177] However, age classification, at least in the context of old age, has not historically been considered suspect.[178]

---

170. *Id.*

171. *Id.*

172. *See id.* at 1–2.

173. *Id.* at 91.

174. *See* PASCO SHERIFF'S OFFICE, *supra* note 12, at 13 (identifying these factors as indicative of at-risk youth).

175. *See supra* notes 38–42, 64–65 and accompanying text.

176. McGrory and Bedi, *supra* note 11 (quoting David Kennedy).

177. Irene Merker Rosenberg, *The Rights of Delinquents in Juvenile Court: Why Not Equal Protection?*, 45 CRIM. L. BULL. 723, 729 (2009).

178. *See* Mass. Bd. of Ret. v. Murgia, 427 U.S. 307, 312–14 (1976) (per curiam).

In *Massachusetts Board of Retirement v. Murgia*,[179] the Court used rational basis scrutiny to evaluate a law requiring state police officers to retire upon reaching fifty years of age.[180] The Court stated that old age merely "marks a stage that each of us will reach if we live out our normal span."[181] Similarly, the Court would likely view young age as a "stage out of which we all will grow."[182]

However, some lower courts have required age classifications to satisfy intermediate scrutiny in the context of juvenile curfews. In *Hutchins v. District of Columbia*,[183] the U.S. Court of Appeals for the D.C. Circuit faced (and ultimately rejected) a constitutional challenge to a juvenile curfew ordinance.[184] Although a plurality would have found that the facts did not warrant a heightened scrutiny,[185] five of the eleven judges deciding the case would have found (or at least assumed) that intermediate scrutiny applied in light of the curfew's burden on juveniles' freedom of movement.[186] Another judge would have applied strict scrutiny.[187] Likewise, the U.S. Court of Appeals for the Fourth Circuit utilized intermediate scrutiny when deciding *Schleifer v. City of Charlottesville*,[188] which involved a similar ordinance.[189] The court stressed the special vulnerability of children and noted that "[s]tate authority complements parental supervision."[190] And again, the Supreme Court recognized a need for heightened scrutiny when dealing with a vulnerable class in some circumstances, such as in *Plyler*.[191]

The level of scrutiny used by courts to review juvenile predictive policing makes a significant difference. To be sure, strict scrutiny would likely not be used by courts because age classification has not been viewed as a suspect class.[192] However, the Court could follow the route

---

179. 427 U.S. 307.

180. *Id.* at 312–14.

181. *Id.* at 313–14.

182. Rosenberg, *supra* note 177, at 730.

183. 188 F.3d 531 (1999) (en banc).

184. *Id.* at 534.

185. *Id.* at 538–41 (plurality opinion).

186. *Id.* at 551 (Edwards, J., concurring in part and concurring in the result); *id.* at 552 (Wald & Garland, JJ., concurring in part and concurring in the result); *id.* at 552–53 (Rogers, J., concurring in part and dissenting in part). The fifth judge, Judge Karen L. Henderson, did not state her position, but she joined the plurality only insofar as it applied intermediate scrutiny and upheld the curfew.

187. *Id.* at 571 (Tatel, J., dissenting).

188. 159 F.3d 843 (4th Cir. 1998).

189. *Id.* at 845–47.

190. *Id.* at 847.

191. *See* 457 U.S. 202, 223–24 (1982); *see also supra* notes 76–82 and accompanying text (discussing circumstances where the courts have applied heightened scrutiny to a vulnerable class that was denied an important state service).

192. *See supra* notes 178–82 and accompanying text.

of *Plyler* and provide some level of intermediate scrutiny to protect children's interests.[193] Indeed, children monitored by Pasco County's system have a heightened level of vulnerability. Because of the wide range of factors that trigger a future criminal label, police officers are treating these children differently based on matters outside of their control—just like the children in *Plyler*. Certainly, factors such as "socio-economic deprivation, antisocial parents and siblings, [and] poor parental supervision"[194] are not matters that can be controlled by a child. Even factors more related to a child's discipline, such as their grades and school records, can be heavily influenced by their home life[195]—over which, again, they are powerless. As noted in *Plyler*,

> condemnation on the head of an infant is illogical and unjust. . . . [L]egal burdens should bear some relationship to individual responsibility or wrongdoing. Obviously, no child is responsible for his birth and penalizing the . . . child is an ineffectual—as well as unjust—way of deterring the parent.[196]

Further, the effects of external factors, including police interaction itself, can affect juveniles more than adults because of the juvenile's lack of fully developed neurological processes, as discussed above.[197] Therefore, a compelling argument for intermediate scrutiny exists.

If courts use intermediate scrutiny, the state must show that the predictive policing system is substantially related to its goals of public safety and protecting its children under *parens patriae*. To begin, the effectiveness of predictive policing is murky at best. The programs suffer from inherent biases that may lead to inaccurate data, masked by a feedback loop. In assessing juveniles, the drawbacks of predictive policing are far more problematic. The risk of inaccuracy is increased both by the unpredictable nature of juveniles due to their developing neurological processes and by the negative impact of increased police interaction on juveniles once targeted. Thus, a self-fulfilling prophecy is even more likely.

Additionally, the neurology of juveniles makes future criminalization hard to identify,[198] suggesting that an offense committed by a juvenile

---

193. *See Plyler*, 457 U.S. at 223–24.

194. *See* PASCO SHERIFF'S OFFICE, *supra* note 12, at 13 (quoting JERRY RATCLIFFE, INTELLIGENCE-LED POLICING 44 (2d ed. 2016)).

195. Brian A. Jacob & Joseph Ryan, *How Life Outside of a School Affects Student Performance in School*, BROOKINGS (Mar. 22, 2018), https://www.brookings.edu/research/how-life-outside-of-a-school-affects-student-performance-in-school/ [https://perma.cc/6P93-C7L6].

196. *Plyler*, 457 U.S. at 220 (second ellipsis in original) (quoting Weber v. Aetna Cas. & Sur. Co., 406 U.S. 164, 175 (1972)).

197. *See supra* Section III.C.1.

198. *See* Steinberg, *supra* note 123, at 473.

may be the product of "transient immaturity," whereas comparable conduct by an adult may be "evidence of irretrievable depravity."[199] In sentencing, courts often find children less culpable than adults for this very reason.[200] Similarly, a child's actions should bear less consequence in terms of predicting future criminal behavior because a child's mental capacity is not fully matured.[201] Instead, systems such as Pasco County's predictive policing scrutinize actions more deeply, taking aspects such as bad grades as a sign of future criminality. Finally, the negative effects of predictive policing on juveniles are exacerbated by racial and socio-economic disparities, creating two indications: the algorithm is inaccurate due to inherent bias, and the self-fulfilling prophecy is worse with minorities and economically disadvantaged youth.

In effect, this form of predictive policing on juveniles demonstrates that flagging at-risk juveniles is not in their best interest—thus cutting against the state's *parens patriae* interest—nor would the predictive policing of juveniles benefit public safety, as the programs may increase the probability of future criminality in these juveniles. The system is likely riddled with prejudice and creates a toxic environment that increases the chance of children—who already struggle with issues that come with living in lower socio-economic communities, such as broken homes and low income—becoming criminals. Ultimately, the system is not substantially related to the goals of public safety or protecting the best interest of children under *parens patriae*.

IV. POLICY PROPOSAL

While current practices of predictive policing have exposed numerous issues, there is still merit in a proactive framework to manage crime. To avoid constitutional issues, jurisdictions must craft their system carefully.

First, jurisdictions should limit the breadth of data collected—avoiding factors strongly correlated with poverty or race—though this may reduce the accuracy of these systems. Due to the potential of a self-fulfilling prophecy, it is preferable that the system flag fewer juveniles overall—with a greater percentage of flagged juveniles being legitimate risks for criminality, even if some juveniles are missed—as opposed to more juveniles overall, which results in erroneously flagging a greater percentage of juveniles, but lessening the chance that the system will miss legitimate, at-risk juveniles. While reducing the factors used may not catch all the future criminals, it would certainly reduce the number of juveniles who may be influenced by encounters with police into a life of crime due to being flagged. Among factors that should not be considered

---

199. *See* Roper v. Simmons, 543 U.S. 551, 570, 573 (2005).

200. *See, e.g.*, *id.* at 574–75.

201. Steinberg, *supra* note 123, at 466.

by the system are socioeconomic deprivation, parents' prior criminal history, and poor grades.

In addition, legislatures should promulgate laws to require external audits of predictive policing algorithms used by the police.[202] "These audits would examine algorithms for disparate impact using the most up-to-date tools developed by big data and machine learning experts."[203] The benefits of regular audits are threefold: to increase the chance of catching biases that may creep in unexpectedly; to motivate companies and police departments to "be on their toes" and constantly search for biases; and to facilitate discussion between departments, companies, auditors, and the general public about the positive and negative impacts and how best to create rules for its usage.[204]

In dealing with juveniles, however, the greatest factor that will determine whether predictive policing will be effective—both in terms of constitutionality and from a larger policy perspective—will be how the information is used by law enforcement. At the very least, police must stop home visits. In-person contact with at-risk juveniles by police officers should be discouraged by agencies entirely. Instead, welfare departments should have licensed professionals reach out to parents and offer additional support and services. These services will vary depending on the specific needs of the child and family but may include mental health treatment, mentoring programs, afterschool recreation programs, and social competence promotion curricula.[205] Finally, parents should receive instruction on how best to proceed to reduce the probability of the child engaging in future criminality; however, the child should not be made aware of his identification as a future troublemaker to avoid the negative effects of labeling.

CONCLUSION

Ultimately, a predictive policing system that utilizes juvenile assessment, particularly with a broad range of factors outside of the juvenile's control, cannot pass constitutional muster. These programs are plagued with inaccuracies along with racial and socio-economic bias. In addition, present predictive policing systems impress far too great of consequences that do not accurately predict the future criminality of adolescents. Children's impressionable and developing nature makes them less predictable than adults and more vulnerable to outside influences. Because the identification of juveniles as future criminals

---

202. *See* Jeremiah Scanlan, *Auditing Predictive Policing*, 33 BYU PRELAW REV. 1, 7–8 (2019).

203. *Id.* at 7.

204. *Id.* at 9.

205. Rolf Loeber et al., U.S. Dep't of Just., *Child Delinquency: Early Intervention and Prevention*, CHILD DELINQ., May 2003, at 10.

drastically changes the way police interact with them, the actions of police officers toward targeted children may influence a child's distrust for police, disassociation from society, and inclination to criminal behavior. This creates a self-fulfilling prophecy where the children who are being labeled as likely offenders are more likely to become offenders. There are several methods to move the program toward a more constitutional and effective approach. However, as it stands now, juvenile predictive policing is not substantially related to the state's interest in increasing public safety or helping the best interest of the child and is unconstitutional.