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# Progressive Algorithms

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*Our criminal justice system is broken. Problems of mass incarceration, racial disparities, and susceptibility to error are prevalent in all phases of the criminal process. Recently, two dominant trends that aspire to tackle these fundamental problems have emerged in the criminal justice system: progressive prosecution—a model of prosecution adopted by elected reform-minded prosecutors that advance systemic change in criminal justice—and algorithmic decision-making—characterized by the adoption of statistical modeling and computational methodology to predict outcomes in criminal contexts.*

*While there are growing bodies of literature on each of these two trends, thus far, they have not been discussed in tandem. This Article is the first to argue that scholarship on criminal justice reform must consider both developments and strive to reconcile them. We argue that while both trends promise to address similar key flaws in the criminal justice system, they send diametrically opposed messages concerning the role of humans in advancing criminal justice reform: Progressive prosecution posits humans are the solution, while algorithmic tools suggest human discretion is the problem. This clash reflects both normative frictions and deep differences in the modus operandi of each of these paradigms. Such tensions are not only theoretical but have practical implications such that each approach tends to inhibit the advantages of the other with respect to bettering the criminal justice system.*

*We argue against disjointly embedding progressive agendas and algorithmic tools in criminal justice systems. Instead, we offer a decision-making model that prioritizes principles of accountability, transparency, and democratization without neglecting the benefits of computational methods and technology. Overall, this Article offers a framework to start thinking through the inherent frictions between progressive prosecution and algorithmic decision-making and the potential ways to overcome them. More broadly, the Article contributes to the discussions about the role of humans in advancing legal reforms in an era pervaded by technology.*

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## INTRODUCTION

Our criminal justice system is flawed. Problems of mass incarceration, racial inequalities, and susceptibility to error dominate the system every step of the way.<sup>1</sup> A lot of ink has been spilled in attempts to understand these problems and offer solutions. An equally substantial amount of sweat has been shed—by those opting for social activism—to achieve similar goals. Progress has been insufficient, to say the least. However, in recent years, two new, innovative, and transformative trends have appeared,<sup>2</sup> working in parallel to achieve a similar goal: bringing much-needed change to the criminal justice system. *First*, there has been a rise of progressive prosecutors, a development that has been recently characterized as a “tsunami of

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1. In recent years, most prominently during the summer of 2020, public outrage against the criminal justice system has risen to new levels with countless demonstrations across the U.S. against the institutional failure in tackling such flaws and expressing the rage, the pain, and the suffering of those most injured by the criminal justice system, particularly Black communities. Given such a reality, it may not be surprising that in recent elections Americans voted for criminal justice reform. Mark Berman & Tom Jackman, *After a Summer of Protest, Americans Voted for Policing and Criminal Justice Changes*, WASH. POST (Nov. 14, 2020, 8:00 AM), [https://www.washingtonpost.com/national/criminal-justice-election/2020/11/13/20186380-25d6-11eb-8672-c281c7a2c96e\\_story.html](https://www.washingtonpost.com/national/criminal-justice-election/2020/11/13/20186380-25d6-11eb-8672-c281c7a2c96e_story.html) [https://perma.cc/CF3F-HDJV].

2. We call these “trends” for a lack of a better word to describe “a line of development” in the criminal justice system. *Trend*, MERRIAM-WEBSTER, <https://www.merriam-webster.com/dictionary/trend> [https://perma.cc/DQQ2-ATGE] (last visited Jan. 20, 2022). We find this categorization to capture both the internal element of shared traits and the timeliness of their occurrences. However, alternative categorizations—such as “paradigms” or “movements”—remain valid.

change” in the criminal justice system.<sup>3</sup> While there is still debate over how to define these prosecutors,<sup>4</sup> it is widely accepted to describe them as democratically elected, reform-minded prosecutors who aim to tackle entrenched problems in the criminal justice system.<sup>5</sup> *Second*, there has been a rise of algorithmic and computational decision-making in the criminal justice system, spanning virtually all parts of the process.<sup>6</sup> Such reforms are often purported to alleviate human error and biases

3. Tim Arango, ‘A Tsunami of Change’: How Protests Fueled a New Crop of Prosecutors, N.Y. TIMES (Feb. 11, 2021), <https://www.nytimes.com/2020/12/08/us/george-gascon-la-county-district-attorney.html> [<https://perma.cc/B9GE-J2EH>] (offering a recent survey of the trend through a discussion about specific prosecutors and their campaigns); Caren Morrison, *Progressive Prosecutors Scored Big Wins in 2020 Elections, Boosting a Nationwide Trend*, CONVERSATION (Nov. 18, 2020, 8:22 AM), <https://theconversation.com/progressive-prosecutors-scored-big-wins-in-2020-elections-boosting-a-nationwide-trend-149322> [<https://perma.cc/NEA5-6XNB>] (offering an additional illustration of the extent of this phenomenon). For the most comprehensive documentation of the movement, see generally EMILY BAZELON, CHARGED: THE NEW MOVEMENT TO TRANSFORM AMERICAN PROSECUTION AND END MASS INCARCERATION (2019), which was transformative in igniting discussions about the trend in the United States.

4. Scholars also disagree about whether to unite them under one umbrella of “a movement” given the diverse views and approaches they adopt. See, e.g., David Alan Sklansky, *The Progressive Prosecutor’s Handbook*, 50 U.C. DAVIS L. REV. ONLINE 25, 25–26 (2017) (surveying different policies adopted by prosecutors across the country, all united under a “reform-minded” approach and a promise for “a more thoughtful and evenhanded application of criminal statutes”).

5. *Id.* at 26 (“So assume you are one of these new, reform-minded district attorneys.”). See generally Angela J. Davis, *Reimagining Prosecution: A Growing Progressive Movement*, 3 UCLA CRIM. JUST. L. REV. 1 (2019) [hereinafter Davis, *Reimagining Prosecution*] (exploring, through case studies of some progressive prosecution stories, the “new vision” of prosecution); Angela J. Davis, *The Progressive Prosecutor: An Imperative for Criminal Justice Reform*, 87 FORDHAM L. REV. 8, 10 (2018) [hereinafter Davis, *Progressive Prosecutor*] (“These chief prosecutors are implementing a new model of prosecution that focuses on alternatives to incarceration and second chances, and they are making a difference.”). For the purposes of this Article, we follow this widely accepted—if broad—definition. There is still, however, some contention with regards to who should be considered a “progressive prosecutor,” which is beyond the scope of this Article. See Benjamin Levin, *Imagining the Progressive Prosecutor*, 105 MINN. L. REV. 1415 (2021) (addressing the definitional disagreement around who are progressive prosecutors); Heather L. Pickerell, Note, *How to Assess Whether Your District Attorney Is a Bona Fide Progressive Prosecutor*, 15 HARV. L. & POL’Y REV. 285 (2020) (suggesting that an analytical framework to identify progressive prosecutors is required because “not all seemingly progressive district attorneys are in fact pursuing meaningful criminal justice reform”); Lara Bazelon, Opinion, *Kamala Harris Was Not a ‘Progressive Prosecutor,’* N.Y. TIMES (Jan. 17, 2019), <https://www.nytimes.com/2019/01/17/opinion/kamala-harris-criminal-justice.html> [<https://perma.cc/UVK2-SFFP>]; Michael Gelb, *How to Tell if Your DA Is ‘Progressive,’* CRIME REP. (Aug. 3, 2020), <https://thecrimereport.org/2020/08/03/how-to-determine-whether-your-da-is-progressive/> [<https://perma.cc/WX5C-YAWC>].

6. U.S. GOV’T ACCOUNTABILITY OFF., GAO-18-142SP, ARTIFICIAL INTELLIGENCE: EMERGING OPPORTUNITIES, CHALLENGES, AND IMPLICATIONS 73–75 (2018), <https://www.gao.gov/assets/700/690910.pdf> [<https://perma.cc/4MRW-PJ3T>] (noting that algorithms can aid multiple stages of the process). Predictive policing and law enforcement have been on a steady rise. See, e.g., SARAH BRAYNE, PREDICT AND SURVEIL: DATA, DISCRETION, AND THE FUTURE OF POLICING (2021) (portraying, in a most recent addition to the scholarship on predictive policing, the use of predictive methods in the LA police department over several years). Many states have adopted some form of risk assessment tools and other algorithmic techniques for pretrial detention, sentencing, and other purposes. For an overview, see *infra* Section I.A. There has been a lot of discussion of this trend in the public discourse, not always in favorable terms. See, e.g., Karen Hao, *AI Is Sending People to Jail—and Getting It Wrong*, MIT TECH. REV. (Jan. 21, 2019), <https://www.technologyreview.com/2019/01/21/137783/algorithms-criminal-justice-ai/> [<https://perma.cc/SY2W-SUGH>].

leading to overpunitiveness and adverse outcomes for minorities. These reforms essentially aim to achieve the same goals motivating progressive prosecutors but through entirely different means.

Indeed, in recent years there has been an increased interest in those trends by scholars, activists, professionals, and policy makers.<sup>7</sup> However, and to much surprise, studies thus far have discussed these trends in isolation, overlooking the potential relationships between them and their implications on the criminal justice system. This Article breaks such problematic scholarly silos.

One may argue that such isolation stems from the fact that the two trends mostly function in separate institutional domains with different actors and incentives (with algorithms currently implemented more at police departments and to a lesser extent at courts or other administrative agencies such as parole boards). We believe, however, *first*, that this will change as algorithmic decision-making processes gradually expand to additional domains in the criminal justice system.<sup>8</sup> *Second*, we believe that prosecution and algorithmic decision-making are still part and parcel of the same criminal justice system, which cannot—and should not—be disentangled. Particularly, the two trends reflect on each other in defining key concepts that cut through the criminal process, including, but not limited to, risk assessment, racial inequality, and more.

We thus ask an important yet unanswered question: can progressive prosecutors and algorithmic decision-making work hand in hand to reform systemic problems in criminal justice? Our initial answer is no. This is so, we argue, mostly because these trends are in an inherent logical clash regarding a pivotal question in

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7. See, e.g., Jeffrey Bellin, *Defending Progressive Prosecution: A Review of Charged by Emily Bazelon*, 39 YALE L. & POLY REV. 218 (2020) (discussing progressive prosecution and offering a theory of prosecutor-driven criminal justice reform, while striving to balance concerns about prosecutorial power); Note, *The Paradox of “Progressive Prosecution,”* 132 HARV. L. REV. 748 (2018) (claiming that progressive prosecutors are ill positioned to redistribute power in the criminal justice system); Davis, *Reimagining Prosecution*, *supra* note 5, at 2; Sklansky, *supra* note 4, at 26; Levin, *supra* note 5; Andrew Guthrie Ferguson, *Policing Predictive Policing*, 94 WASH. U. L. REV. 1109, 1120–44 (2017) (discussing the adoption of AI and algorithmic decision-making in the criminal justice system, examining the predictive policing evolution, and offering practical and theoretical critiques); John Chisholm & Jeffery Altenburg, *The Prosecutor’s Role in Promoting Decarceration: Lessons Learned from Milwaukee County*, in SMART DECARCERATION: ACHIEVING CRIMINAL JUSTICE TRANSFORMATION IN THE 21ST CENTURY 71 (Matthew W. Epperson & Carrie Pettus-Davis eds., 2017) (describing different initiatives using intelligence-led prosecution to improve law enforcement). Notably, much attention has been drawn to predictive policing, pretrial detention, and sentencing. See generally Rashida Richardson, Jason M. Schultz & Kate Crawford, *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) (analyzing thirteen districts that developed predictive policing tools and raising concerns regarding the implementation of these tools given their substantive reliance on “dirty data” that is created from racially biased and unlawful practices); Megan Stevenson, *Assessing Risk Assessment in Action*, 103 MINN. L. REV. 303 (2018) (empirically evaluating pretrial risk assessment tools in Kentucky, and showing only a small increase in pretrial release, later eroded); Sonja B. Starr, *Evidence-Based Sentencing and the Scientific Rationalization of Discrimination*, 66 STAN. L. REV. 803 (2014) (criticizing the trend of basing sentencing on actuarial recidivism risk prediction tools).

8. See *infra* Part I.

criminal justice reform: what is the role and the potential of humans in advancing systemic change? While the promise behind the progressive prosecutors' movement puts the keys to resolving the problems of the criminal justice system in the hands of humans, the computational decision-making trend sends a whole different message: the solution will arrive by limiting the presence of human discretion in the criminal process.

We move, however, beyond this preliminary answer and offer a more nuanced account of how the two trends interact. This Article thus has two modest goals. *First*, it seeks to disentangle this logical tension stemming from the inherently different vision of the role of humans in criminal justice reform by identifying two main arenas of tension: (1) a normative clash and (2) differences in the modus operandi of each of these trends. These frictions, so we argue, have practical implications that can hinder criminal justice reform. *Second*, and relatedly, the Article offers a path to discuss and evaluate the meanings and consequences of this tension on the probability of advancing criminal justice reform.<sup>9</sup>

As for the normative collision, we argue that under their most paradigmatic manifestations, progressive prosecutors and computational decision-making offer very different visions of *accountability*, *transparency*, and the *democratization* of the criminal justice system. Progressive prosecutors wish to advance new models of accountability, both of themselves and other actors in the criminal process, most notably the police.<sup>10</sup> Moreover, prosecutors' accountability is further advanced by the democratic process through which they are elected.<sup>11</sup> Algorithmic decision-making, on the other hand, shies away from advancing state

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9. For the purposes of our argument, we first consider both trends in their most "paradigmatic" (or "extreme," and some may argue "ideal") version. We acknowledge that there is a degree of abstraction in doing so, and undoubtedly some nuance is lost compared to actual manifestations on the ground. We address additional versions of these trends later on as part of our proposed framework, yet also highlight that this conceptual work can be sensitive to direct concrete applications. That said, the argument we advance in this Article goes beyond any particularities of one system or the other and should be understood to reflect "the DNA" of each trend and the potential tensions that exist.

10. Davis, *Progressive Prosecutor*, *supra* note 5, at 11–12; Davis, *Reimagining Prosecution*, *supra* note 5, at 6–7; BAZELON, *supra* note 3, at xxviii; Sklansky, *supra* note 4, at 31–34; Heather L. Pickerell, Note, *Critical Race Theory & Power: The Case for Progressive Prosecution*, 36 HARV. BLACKLETTER L.J. 73, 88–89 (2020) (emphasizing the role of progressive prosecutors in representing a larger societal push toward reforms in the criminal justice system); Lara Bazelon, *Ending Innocence Denying*, 47 HOFSTRA L. REV. 393 (2018) (discussing how the progressive prosecutor movement reflects changes in public views about crime and punishment). For further discussion, see *infra* Part II.

11. Davis, *Reimagining Prosecution*, *supra* note 5, at 10; BAZELON, *supra* note 3, at xxvi–xxviii; see *infra* Part II. Here it is worth distinguishing between de facto and de jure accountability. While de jure accountability can potentially be achieved by any election process, de facto accountability has an empirical component that looks into actual participation, involvement, and engagement of voters with their elected officials and the election process more broadly. Both Davis and Bazelon emphasize how, after years in which races for prosecutors across the country showed little engagement of voters with candidates (resulting in low participation rates and candidates running unopposed), the progressive prosecutor movement has brought new energy to these races and increased the visibility of prosecutors and the participation of the public in the electoral process. See also *infra* Part III.

accountability.<sup>12</sup> In fact, it pushes back on accountability arguments through the professionalism paradigm by placing the responsibility for outcomes in the hands of private and technical actors that design algorithmic solutions.<sup>13</sup> Relatedly, the progressive prosecution agenda wishes to advance transparency by sharing information about changes in policies and data about current practices alongside future outcomes.<sup>14</sup> Algorithms, on the contrary, advance a “black box” approach where only a handful of experts can potentially understand and evaluate decision-making processes in the criminal justice setting.<sup>15</sup> A broader normative argument relates to how each of these trends reflect on the democratization of the criminal justice system as a whole, particularly the extent to which the public can participate in and affect the decisions made by actors in the criminal justice system. While progressive prosecutors—by reviving years of dormant races for state prosecution—represent a renewed hope in the power of the people to bring change through the democratic process,<sup>16</sup> algorithmic decision-making reflects a much less

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12. We will discuss this later, but with time, and in a direct response to the lack of accountability claims, different models and processes were adopted to allow more administrative accountability in connection with the adoption of algorithmic tools.

13. Kate Crawford & Jason Schultz, *AI Systems as State Actors*, 119 COLUM. L. REV. 1941, 1953–54 (2019) (highlighting accountability concerns stemming from the trend toward deploying AI systems in courts); Alyssa M. Carlson, Note, *The Need for Transparency in the Age of Predictive Sentencing Algorithms*, 103 IOWA L. REV. 303 (2017) (discussing the risks of adopting automated risk assessment tools over clinical tools, and the negative effects of the latter on transparency and accountability); *see also infra* Part III.

14. BAZELON, *supra* note 3, at xxvi–xxviii; Sklansky, *supra* note 4, at 31–33, 38–39; Pickerell, *supra* note 5, at 293–98; Davis, *Reimagining Prosecution*, *supra* note 5, at 9–10; *see infra* Part II.

15. *See generally* Brandon L. Garrett & Megan Stevenson, *Open Risk Assessment*, 38 BEHAV. SCIS. & L. 279 (2020) (discussing the importance of transparency and open science practices in criminal risk assessment); Cecelia Klingele, *Making Sense of Risk*, 38 BEHAV. SCIS. & L. 218 (2020) (arguing decisionmakers need to better understand how risk assessment tools work); Rhys Hester, *Risk Assessment Savvy: The Imperative of Appreciating Accuracy and Outcome*, 38 BEHAV. SCIS. & L. 246 (2020) (pointing out decisionmakers are prone to overestimate the accuracy of algorithms).

16. David Alan Sklansky, *The Changing Political Landscape for Elected Prosecutors*, 14 OHIO ST. J. CRIM. L. 647, 650 (2017) (offering “guarded optimism” about electoral democracy as a tool for prosecutorial reform, while recognizing some concerns regarding the politicization of the prosecution); Jocelyn Simonson, *The Place of “the People” in Criminal Procedure*, 119 COLUM. L. REV. 249, 289–92, 304–05 (2019) (recognizing the progressive prosecution movement as a potential—if insufficient—venue to increase community participation in the criminal justice system); BAZELON, *supra* note 3, at xxviii; Lauren M. Ouziel, *Democracy, Bureaucracy, and Criminal Justice Reform*, 61 B.C. L. REV. 523, 577 (2020) (discussing how in districts that have elected progressive prosecutors, community and civil society groups are taking a more active role in evaluating the extent of progress on promised progressive reforms). About the connections between the political activism of the Black Lives Matter movement and the elections of progressive prosecutors, *see*, for example, Sam Levin, *How Black Lives Matter Reshaped the Race for Los Angeles’ Top Prosecutor*, GUARDIAN (Oct. 15, 2020, 6:00 PM), <https://www.theguardian.com/us-news/2020/oct/15/los-angeles-district-attorney-black-lives-matter> [<https://perma.cc/XR3Q-KZT3>]; Associated Press, *Black Lives Matter Faces Test of Its Influence in Election*, NBC NEWS (Nov. 2, 2020, 8:23 AM), <https://www.nbcnews.com/news/nbcblk/black-lives-matter-faces-test-its-influence-election-n1245771> [<https://perma.cc/84LB-2U4E>]; Daniel Marans, *Black Activist Starts Group That Aims to Elect Progressive Prosecutors*, HUFFINGTON POST (Feb. 15, 2018), [https://www.huffpost.com/entry/black-activist-elect-progressive-prosecutors\\_n\\_](https://www.huffpost.com/entry/black-activist-elect-progressive-prosecutors_n_)

participatory process that starts with the involvement of only a handful of experts and ends with minimal human interference. As such, it detaches the criminal justice system from its constituents (the public) and renders it a more bureaucratic type of system.

As for the tensions in their *modi operandi*, we argue that while progressive prosecutors are reformist by nature, algorithmic design creates barriers against reformism by grounding the design to a specific set of decisions, thus limiting the system's flexibility. Moreover, the two trends seem to focus on different spheres of human decision-making. While the algorithmic approach is interested in case-by-case adjudications, inconsistencies across decision makers, and individual decisions which translate into general consequences, progressive prosecution concentrates efforts on roles of power and policymaking with the purpose of creating systemic change.

These two arenas of tension, we contend, are not purely theoretical and have direct manifestations in practice. Specifically, we argue that these normative and operational differences, when combined with a host of systemic, pragmatic, financial, and institutional challenges, can *de facto* jeopardize attempts to advance one solution over the other, ultimately inhibiting their ability to advance meaningful criminal justice reform. This seems to be particularly meaningful in large urban areas, where both these trends exist in full force.<sup>17</sup> Traditionally, these have also been areas where flaws in criminal justice affect the largest number of disadvantaged minorities.<sup>18</sup> Consider, for example, a jurisdiction using risk-assessment algorithms for bail hearings, which encapsulate “risk” as defined by relevant statutes and arrest and charging policies. This could run counter to a progressive prosecutor's agenda, for instance, of redefining risk categories by deciding not to indict suspects in specific drug or property crimes. Therefore, under a new algorithmic model that

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5a85b64ee4b0058d55670e4f [https://web.archive.org/web/20210621093546/https://www.huffpost.com/entry/black-activist-elect-progressive-prosecutors\_n\_5a85b64ee4b0058d55670e4f].

17. Los Angeles is an example of a city that recently elected a new progressive prosecutor (George Gascón) and already had in place, and for a while now, one of the most robust artificial intelligence systems in the service of its police department. See Cara Bayles, *George Gascón on Being LA's New Progressive Prosecutor*, LAW360 (Dec. 6, 2020, 8:02 PM), <https://www.law360.com/articles/1334442> [https://perma.cc/7STD-UVJL] (on George Gascón); BRAYNE, *supra* note 6 (on AI tools used for predictive policing in LA); see also *infra* Part II.

18. *Urban (In)Justice: Transforming Criminal Justice in Cities*, SSA MAG, Fall 2017, [https://ssa.uchicago.edu/ssa\\_magazine/urban-injustice-transforming-criminal-justice-cities](https://ssa.uchicago.edu/ssa_magazine/urban-injustice-transforming-criminal-justice-cities) [https://perma.cc/LV2M-R5E6] (discussing the disproportionate impact of policing and incarceration on urban areas). See generally NICOLE GONZALEZ VAN CLEVE, *CROOK COUNTY: RACISM AND INJUSTICE IN AMERICA'S LARGEST CRIMINAL COURT* (2016) (depicting one illustration of the large scale and devastating effects of the criminal justice system on racial minorities in Cook County, Illinois, the second most populous county in the U.S.). To be clear, this is not to suggest that people in rural areas do not suffer from similar problem when encountering the criminal justice system. In fact, in recent years we are also experiencing an exponential growth in the number of those incarcerated in rural areas. See generally JACOB KANG-BROWN & RAM SUBRAMANIAN, *VERA INST. JUST., OUT OF SIGHT: THE GROWTH OF JAILS IN RURAL AMERICA* (2017), <https://www.vera.org/downloads/publications/out-of-sight-growth-of-jails-rural-america.pdf> [https://perma.cc/7KET-XZZ9].



takes into account new definitions of “risk,” a suspect who was found to be dangerous under the old model may no longer pose the same risk, which will clearly affect the outcome in her bail hearing. This example is just one of many that illustrates the clash between the trends: while courts will likely support the continuous use of the algorithm in its current form and based on current data,<sup>19</sup> the progressive prosecutor will likely call for a reevaluation of the model as a necessary step in advancing reform.

Beyond the novelty of exposing the potential clashes between progressive prosecution and algorithmic decision-making, this Article takes on an additional task, which is the second goal of the Article. We thus offer a host of considerations that should be taken into account when thinking about how to resolve these tensions with an eye towards successful reform. Particularly, in lieu of the current nonsystematic approach for the implementation of these trends, we suggest thinking about them more linearly; we offer a streamlined process that aspires to allow reformism to enter the criminal justice system while maximizing principles of accountability, transparency, and democratization, without foregoing the potential promise of algorithmic decision-making. Normatively, we claim that algorithmic decision-making should be implemented in ways that will advance progressive goals, and as such, the process we discuss places progressive prosecution as the starting point of such a linear approach. We do not ignore, however, the potential promise that algorithmic decision-making could bring.<sup>20</sup> We do believe that a well-thought-out and preplanned process can lead to solutions that maximize the greater good: advancing reform in the criminal justice system.

The Article thus suggests diverting from the current tendency to discuss algorithmic decision-making in the criminal setting and progressive prosecution in isolation. We believe that a holistic vision is a dire necessity for everyone wishing to advance reform in the criminal justice system. Specifically, we offer a framework through which one can reassess the potential successes and failures of humans in transforming the criminal justice system. The Article, however, goes beyond the confines of the criminal justice system to advance a most timely and critical discussion: the role of humans in bringing legal changes in an era of hyper technologies.

The Article proceeds as follows. Part I offers a broad overview of the phenomenon of using algorithmic decision-making in the criminal justice system. It surveys the key, current usages of algorithms in the criminal process and offers a comprehensive account of support and critique of such use. Part II discusses the phenomenon of progressive prosecutors. Through exploration of some leading figures of the movement, and notwithstanding the disagreements about a

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19. This is due to a host of reasons: institutional, financial, ideological, and others.

20. Generally speaking, the literature has recognized that algorithms may improve accuracy, increase consistency across decision makers, and make decision-making more efficient. *See infra* Section I.B.

comprehensive definition of “progressive prosecutor,” this part summarizes some of the key actions taken by these prosecutors across the nation. It further surveys the support this movement receives from scholars, practitioners, activists, and policy makers alongside its growing critique. Part III links these two trends by discussing their inherent logical contradiction regarding the role—and ability—of humans to advance change in the criminal justice system. Relatedly, we further raise normative tensions and differences in the *modi operandi* of these trends and discuss how these theoretical tensions lead to *de facto* tensions in advancing criminal justice reform. Part IV offers a path for moving forward. We discuss some potential streamlined approaches that consider the above clashes and maximize the ability to advance principles of accountability, transparency, and democratic participation while recognizing the potential for human bias and the need to introduce tools that can tackle such a bias. We conclude by summarizing the future scholarly and policy directions our Article calls for and noting its wider implications.

### I. ALGORITHMS IN THE CRIMINAL JUSTICE SYSTEM

Computational and algorithmic systems, broadly defined, are already part of the criminal justice process and have been so for a while.<sup>21</sup> They can be found in virtually all steps of the process, from law enforcement operations to pretrial detention and sentencing.<sup>22</sup> Some enthusiasts contend that algorithms and statistical methods hold great potential for criminal justice, while others challenge the desirability of algorithms in such contexts on ethical, moral, and legal grounds. Many proponents and pessimists seem to agree on the underlying problems of the American criminal justice system—namely that it is overpunitive, prone to error, and plagued by racial and other disparities—yet they differ on whether algorithms are the solution. The debate highlights a central theme of this Article: whether humans are the solution or the problem when it comes to reforming the criminal justice system. To contextualize the debate, we survey the current use of algorithms in the criminal justice system and lay out the arguments in favor and against their use.

#### *A. Current and Prospective Use of Algorithms in the Criminal Justice System*

Criminal justice is a composite name for multiple systems and processes, and algorithmic decision-making methods are applicable in essentially all parts of the process.<sup>23</sup>

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21. BERNARD E. HARCOURT, *AGAINST PREDICTION: PROFILING, POLICING, AND PUNISHING IN AN ACTUARIAL AGE* 39–92 (2007) (tracing and surveying the origins and proliferation of actuarial methods in law enforcement). In fact, statistical risk assessment has been used in the criminal justice system in the United States for nearly one hundred years, dating back to parole decisions in the 1920s. Andrew A. Bruce, Ernest W. Burgess & Albert M. Harno, *A Study of the Indeterminate Sentence and Parole in the State of Illinois*, 19 J. CRIM. L. & CRIMINOLOGY 259 (1928).

22. BRAYNE, *supra* note 6.

23. U.S. GOV'T ACCOUNTABILITY OFF., *supra* note 6.

*First*, on the front end, police departments across the United States are adopting predictive policing tools,<sup>24</sup> often developed by third-party vendors,<sup>25</sup> intended to direct enforcement efforts efficiently.<sup>26</sup> Predictive policing purports to harness data and analytical techniques to predict different aspects of criminal activity instead of relying on intuitions and heuristics.<sup>27</sup> Predictions may include incidents of crime, offenders' and perpetrators' identities, and potential victims.<sup>28</sup> More recently, algorithms have begun to be incorporated into investigative practices, such as (the much-contested) facial recognition techniques.<sup>29</sup>

*Second*, algorithms could be influencing new parts of the process. For instance, predictive prosecution or "intelligence-led" prosecution is such a domain.<sup>30</sup>

24. Ferguson, *supra* note 7; Michael L. Rich, *Machine Learning, Automated Suspicion Algorithms, and the Fourth Amendment*, 164 U. PA. L. REV. 871 (2016) (pointing out that predictive policing may generate doctrinal issues with the determination of probable cause under the Fourth Amendment); Bilel Benbouzid, *To Predict and to Manage. Predictive Policing in the United States*, BIG DATA & SOC'Y, Jan.–June 2019, at 1 (arguing that predictive policing is also used to regulate police work); BRAYNE, *supra* note 6. Predictive policing is mainly touted for purposes of improving public security and better utilizing police resources, thus advancing efficiency. Unlike other types of predictive analysis in criminal justice, it is not often coupled with progressive goals of mitigating over-coercive punitive tools and excess incarceration or of alleviating racial and other biases. In fact, many concerns have been raised over the risks predictive policing (and algorithm use in law enforcement more generally) poses, especially regarding racially biased data sets generated from past police action. See Richardson et al., *supra* note 7, at 18–25; SARAH BRAYNE, ALEX ROSENBLAT & DANAH BOYD, PREDICTIVE POLICING 7 (2015), [http://www.datacivilrights.org/pubs/2015-1027/Predictive\\_Policing.pdf](http://www.datacivilrights.org/pubs/2015-1027/Predictive_Policing.pdf) [[https://web.archive.org/web/20211213160633/http://www.datacivilrights.org/pubs/2015-1027/Predictive\\_Policing.pdf](https://web.archive.org/web/20211213160633/http://www.datacivilrights.org/pubs/2015-1027/Predictive_Policing.pdf)] (last visited Dec. 13, 2021) (pointing out the problems of bias in predictive policing, and other problematic aspects). See generally *United States v. Curry*, for a recent discussion of predictive policing in jurisprudence. 965 F.3d 313 (4th Cir. 2020) (en banc) (holding that exigent circumstances did not justify officers' suspicion-less search of a man based on predictive policing indications). This challenge, of using potentially biased data in training algorithms is particularly troublesome from a reform perspective, as we will further elaborate later. See Sandra G. Mayson, *Bias in, Bias out*, 128 YALE L.J. 2218, 2251–54 (2019) (arguing that prediction is inherently flawed as it relies on past events, projecting former inequalities to the future).

25. See, e.g., BRAYNE, *supra* note 6, at 24–27 (discussing PredPol); Eva Ruth Moravec, *Do Algorithms Have a Place in Policing?*, ATLANTIC (Sept. 5, 2019), <https://www.theatlantic.com/politics/archive/2019/09/do-algorithms-have-place-policing/596851/> [<https://perma.cc/YA49-358D>] (discussing the challenges brought to PredPol's use in the Los Angeles Police Department); Benbouzid, *supra* note 24 (for an overview of Compstat). For a discussion about the normative and practical challenges such an approach poses, see *infra* Part III.

26. WALTER L. PERRY, BRIAN MCINNIS, CARTER C. PRICE, SUSAN C. SMITH & JOHN S. HOLLYWOOD, RAND CORP., PREDICTIVE POLICING: THE ROLE OF CRIME FORECASTING IN LAW ENFORCEMENT OPERATIONS (2013), [http://www.rand.org/content/dam/rand/pubs/research\\_reports/RR200/RR233/RAND\\_RR233.pdf](http://www.rand.org/content/dam/rand/pubs/research_reports/RR200/RR233/RAND_RR233.pdf) [<https://perma.cc/GV27-8VTD>] (arguing that predictive policing promotes efficiency and efficacy and establishes best practices for its implementation). For an overview of predictive policing and its discontents, see BRAYNE ET AL., *supra* note 24 (surveying predictive policing and offering initial critiques).

27. Ferguson, *supra* note 7, at 1149.

28. PERRY ET AL., *supra* note 26, at 10–11.

29. Stephen Caines, *The Many Faces of Facial Recognition*, in RESEARCH HANDBOOK ON BIG DATA LAW (Roland Vogl ed., 2021).

30. Andrew Guthrie Ferguson, *Predictive Prosecution*, 51 WAKE FOREST L. REV. 705 (2016) (defining predictive prosecution as the identification of suspects most likely for future criminal activity

Although not much has been done yet in this regard, it is a burgeoning field of interest, capitalizing on the fact that prosecutors enjoy wide margins of discretion over who to prosecute and on what grounds. Assessments of the risk of reoffending, as well as other considerations, can play a crucial role in deciding whether to prosecute, request pretrial detention, and eventually demand incarceration as a sentence.

*Third*, actuarial risk assessment has been instrumental in decisions on pretrial detention in many jurisdictions.<sup>31</sup> This is hardly surprising, as the task involved is assessing the risk of reoffending or the risk of fleeing justice.<sup>32</sup> A unique cause, however, has been the advent of bail reform, as bail decisions are seen to have a substantial adverse impact on racial minorities.<sup>33</sup> Since the bail system is predicated on monetary capability, many detainees remain in custody solely because they are unable to recruit funds, thus exacerbating the unfavorable conditions and leading to the loss of employment and other negative ramifications.<sup>34</sup> Advocates for reform have called for eliminating money bail and replacing it with several alternatives, the most important being risk assessment tools.<sup>35</sup>

to shape bail, charging, and sentencing arguments); Andrew Guthrie Ferguson, *Big Data Prosecution and Brady*, 67 UCLA L. REV. 180 (2020) (pointing out that intelligence-led prosecution may lead to problematic practices vis-à-vis exculpatory materials); Chisholm & Altenburg, *supra* note 7; Christopher Slobogin, *The Next Steps in Criminal Justice Reform*, JOTWELL (June 10, 2019) (reviewing MATTHEW W. EPPERSON & CARRIE PETTUS-DAVIS, SMART DECARCERATION: ACHIEVING CRIMINAL JUSTICE TRANSFORMATION IN THE 21ST CENTURY (2017)), <https://crim.jotwell.com/the-next-steps-in-criminal-justice-reform/> [<https://perma.cc/45YZ-Y8LS>].

31. Actuarial judgment is the type of judgment predicated on statistical inference from data, as opposed to clinical judgment which is exercised by humans applying intuition and inductive reasoning. See Robyn M. Dawes, David Faust & Paul E. Meehl, *Clinical Versus Actuarial Judgment*, 243 SCIENCE 1668 (1989). Actuarial risk assessment thus refers to the use of data and statistics to predict risk from offenders (or even potential offenders). See Richard F. Lowden, Note, *Risk Assessment Algorithms: The Answer to an Inequitable Bail System?*, 19 N.C. J.L. & TECH. 221, 230–31 (2018) (describing the recent surge in use of risk assessment algorithms for pretrial decisions).

32. MONA J.E. DANNER, MARIE VANNOSTRAND & LISA M. SPRUANCE, LUMINOSITY, INC., RISK-BASED PRETRIAL RELEASE RECOMMENDATION AND SUPERVISION GUIDELINES (2015), <https://www.dcjs.virginia.gov/sites/dcjs.virginia.gov/files/publications/corrections/risk-based-pretrial-release-recommendation-and-supervision-guidelines.pdf> [<https://perma.cc/2C6K-SZYV>]; LINDSAY C. AHLMAN & ELLEN M. KURTZ, PHILA. ADULT PROB. & PAROLE DEP'T, FIRST JUD. DIST. OF PA., THE APPD RANDOMIZED CONTROLLED TRIAL IN LOW RISK SUPERVISION: THE EFFECT OF LOW RISK SUPERVISION ON REARREST (2008), [https://www.courts.phila.gov/pdf/report/APPD-Low\\_Risk\\_Internal\\_Evaluation.pdf](https://www.courts.phila.gov/pdf/report/APPD-Low_Risk_Internal_Evaluation.pdf) [<https://perma.cc/F537-7Z3S>].

33. This is done also by progressive prosecutors—but in different directions. See *infra* Part II.

34. Paul Heaton, Sandra Mayson & Megan Stevenson, *The Downstream Consequences of Misdemeanor Pretrial Detention*, 69 STAN. L. REV. 711, 713 (2017) (finding that detained defendants are more likely to plead guilty and be sentenced for incarceration, for longer periods); Will Dobbie, Jacob Goldin & Crystal S. Yang, *The Effects of Pretrial Detention on Conviction, Future Crime, and Employment: Evidence from Randomly Assigned Judges*, 108 AM. ECON. REV. 201 (2018) (finding that pretrial detention increases probability of conviction, and adversely affects employment and welfare).

35. See COLIN DOYLE, CHIRAAG BAINS & BROOK HOPKINS, CRIM. JUST. POL'Y PROGRAM, HARV. L. SCH., BAIL REFORM: A GUIDE FOR STATE AND LOCAL POLICYMAKERS 13–21 (2019), <https://university.pretrial.org/HigherLogic/System/DownloadDocumentFile.ashx?DocumentFileKey=9a804d1d-f9be-e0f0-b7cd-cf487ec70339&forceDialog=0> [<https://perma.cc/AK3W-BAEN>]. Recently, voters in California decided to reject a proposition on the ballot that would eliminate the bail

Fourth, risk assessment algorithms are incorporated as a component of sentencing decisions.<sup>36</sup> Offender risk assessment in sentencing was used in the past but gradually subsided.<sup>37</sup> Yet recently, there has been a resurgence propelled by the development of algorithms and the abundance of data.<sup>38</sup> Enthusiasts suggest that some of the most pressing problems of the criminal justice system—namely overincarceration—could be ameliorated by their utilization.<sup>39</sup> Simultaneously,

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system and institute a risk-assessment system instead. See Patrick McGreevy, *Prop. 25, Which Would Have Abolished California's Cash Bail System, Is Rejected by Voters*, L.A. TIMES (Nov. 4, 2020, 8:49 AM), <https://www.latimes.com/california/story/2020-11-03/2020-california-election-prop-25-results> [https://web.archive.org/web/20201104201744/https://www.latimes.com/california/story/2020-11-03/2020-california-election-prop-25-results]. Despite the dissemination of algorithmic risk assessment in many jurisdictions, there have been calls for retraction—sometimes from the very pundits touting algorithms. See Tom Simonite, *Algorithms Were Supposed to Fix the Bail System. They Haven't*, WIRED (Feb. 19, 2020, 8:00 AM), <https://www.wired.com/story/algorithms-supposed-fix-bail-system-they-havent/> [https://perma.cc/JU4J-BKJR] (telling the story of a nonprofit, Pretrial Justice Institute, which had long advocated for risk-assessment alternatives to bail but recently reversed course). Objections have largely been focused on the perpetuation of racial discrimination. Doyle et al., *supra* note 35, at 14; Madeleine Carlisle, *The Bail-Reform Tool That Activists Want Abolished*, ATLANTIC (Sept. 21, 2018), <https://www.theatlantic.com/politics/archive/2018/09/the-bail-reform-tool-that-activists-want-abolished/570913/> [https://perma.cc/UM5V-DHS8] (raising concerns over the algorithms used in New Jersey's pretrial risk assessment).

36. Richard Berk & Jordan Hyatt, *Machine Learning Forecasts of Risk to Inform Sentencing Decisions*, 27 FED. SENT'G REP. 222 (2015) (describing the process to incorporate machine learning algorithms in sentencing); Michael E. Donohue, Note, *A Replacement for Justitia's Scales?: Machine Learning's Role in Sentencing*, 32 HARV. J.L. & TECH. 657 (2019) (surveying the practice and problems with machine learning algorithms in sentencing). Some ascribe the expansion of such tools in sentencing to the shift towards discretionary sentencing following *Blakely* and *Booker*. See *Blakely v. Washington*, 542 U.S. 296 (2004) (holding that the Sixth Amendment right to a jury trial prohibited judges from enhancing criminal sentences based on facts other than those decided by the jury or admitted by the defendant); *United States v. Booker*, 543 U.S. 220 (2005) (striking down the provision of the federal sentencing statute that required federal district judges to impose a sentence within the Federal Sentencing Guidelines range). See also Starr, *supra* note 7, at 811; Margareth Etienne, *Legal and Practical Implications of Evidence-Based Sentencing by Judges*, 1 CHAP. J. CRIM. JUST. 43 (2009).

37. Risk assessment was a main element of sentencing in the U.S. until the 1970s, yet was gradually replaced with other measures—sentencing guidelines and mandatory minima—concerned with blameworthiness instead of risk. See John Monahan & Jennifer L. Skeem, *Risk Assessment in Criminal Sentencing*, 12 ANN. REV. CLINICAL PSYCH. 489 (2016) (discussing jurisprudential theories of sentencing and their stance on risk assessment and illustrating the potential role of risk assessment); John Monahan, *Risk Assessment in Sentencing*, in 4 REFORMING CRIMINAL JUSTICE: PUNISHMENT, INCARCERATION, AND RELEASE 77 (Erik Luna ed., 2017) (touting risk assessment in sentencing as a means to reduce mass incarceration). For an account and critique regarding the contribution of mandatory minimums to high rates of incarceration and racial disparities see Sonja B. Starr & M. Marit Rehavi, *Mandatory Sentencing and Racial Disparity: Assessing the Role of Prosecutors and the Effects of Booker*, 123 YALE L.J. 2 (2013).

38. Monahan & Skeem, *supra* note 37; Michael O'Hear, *Actuarial Risk Assessment at Sentencing: Potential Consequences for Mass Incarceration and Legitimacy*, 38 BEHAV. SCI. & L. 193 (2020) (suggesting recommendations to preserve the legitimacy of judges in the eyes of defendants while using risk assessment algorithms for sentencing).

39. O'Hear, *supra* note 38.

there have been more cautious voices concerned with the validation of algorithmic tools<sup>40</sup> and, more generally, with the special considerations in sentencing.<sup>41</sup>

*Finally*, algorithms play a part in making post-conviction decisions, including parole decisions and various correctional determinations.<sup>42</sup> Correctional authorities are using algorithms to assess the risk of offenders' recidivating and to assist with the evaluation of appropriate measures to impose on prisoners and parolees.<sup>43</sup>

### B. Praising Algorithms

Given the punitiveness and overincarceration in the American criminal justice system, there is a movement to adopt a more lenient approach as well as to develop alternatives to detainment, preventing reentry, and investing in social programs instead of law enforcement.<sup>44</sup> Algorithms, or actuarial methods,<sup>45</sup> are a potential component of this trend.<sup>46</sup> As mentioned, the use of statistical methods for predictive purposes in criminal justice itself is not novel and has been around for decades.<sup>47</sup> However, technological advancement and, most importantly, the abundance of administrative data, have increased the potential utility of algorithms. Proponents identify several advantages, somewhat interrelated, that justify the incorporation of algorithms into different parts of the process: accuracy, human biases, and cost saving.

The argument for *accuracy* contends that algorithms perform equally well or are superior compared to humans in predicting the tendency to offend or reoffend.<sup>48</sup> Proponents argue that decision makers exercise risk assessments

40. Monahan & Skeem, *supra* note 37, at 501–08; Melissa Hamilton, *Judicial Gatekeeping on Scientific Validity with Risk Assessment Tools*, 38 BEHAV. SCI. & L. 226 (2020) (arguing that the validity of risk assessment tools should not be presumed).

41. The main argument being that risk assessment in sentencing is somewhat at odds and incompatible with criminal punishment, as one cannot be punished for the prospect of committing a crime, and thus some have argued that risk prediction is more objectionable in sentencing than in other stages of the process such as pre-trial detention or parole, which are predicated on risk. *See* Starr, *supra* note 7, at 870–72. Therefore, some suggest it may only be used in tandem with retributive sentencing, or only for positive purposes with low-risk offenders. *See, e.g.*, Christopher Slobogin, *Introduction to the Special Issue on Implementing Post-Conviction Risk Assessment*, 38 BEHAV. SCI. & L. 187, 188 (2020); Monahan & Skeem, *supra* note 37 (for a comprehensive overview).

42. Richard Berk, *An Impact Assessment of Machine Learning Risk Forecasts on Parole Board Decisions and Recidivism*, 13 J. EXPERIMENTAL CRIMINOLOGY 193, 195 (2017) (evaluating the use of machine learning forecasting in informing parole release decisions).

43. *See* Slobogin, *supra* note 41, at 189 (listing several uses of predictive tools in post-conviction and correctional settings).

44. *See, e.g.*, SMART DECARCERATION: ACHIEVING CRIMINAL JUSTICE TRANSFORMATION IN THE 21ST CENTURY (Mathew W. Epperson & Carrie Pettus-Davis eds., 2017). Interestingly, as we will discuss later, similar aspirations are advanced by progressive prosecutors, but through different means.

45. Dawes, Faust & Meehl, *supra* note 31.

46. *See generally* Christopher Slobogin, *Just Algorithms: Using Science to Reduce Incarceration and Inform a Jurisprudence of Risk* (Vand. Univ. L. Sch., Working Paper No. 21-30, 2021).

47. *See supra*, HARCOURT note 21.

48. The evidence in favor of actuarial prediction in general dates back to the 1950s. *See generally* PAUL E. MEEHL, CLINICAL VERSUS STATISTICAL PREDICTION: A THEORETICAL ANALYSIS AND A

anyway, so algorithms merely replace them with more structured methods.<sup>49</sup> If that is so, then algorithms are justified, as they may provide more precise results or equivalent outcomes with reduced resources.<sup>50</sup>

With regards to *human bias*, it is often argued that many of the problems in the criminal justice system can be ascribed to fallacies of human decision-making.<sup>51</sup> A central argument holds that due to absent information, biases, and risk aversion,

REVIEW OF THE EVIDENCE (1954). See generally Stefania Aegisdóttir, Michael J. White, Paul M. Spengler, Alan S. Maugherman, Linda A. Anderson, Robert S. Cook, Cassandra N. Nichols, Georgios K. Lampropoulos, Blain S. Walker, Genna Cohen & Jeffrey D. Rush, *The Meta-Analysis of Clinical Judgment Project: Fifty-Six Years of Accumulated Research on Clinical Versus Statistical Prediction*, 34 COUNSELING PSYCH. 341 (2006), for a more recent overview and conclusion through meta-analysis that statistical methods were reliably superior in predicting different outcomes. Many promising studies have accumulated over the years, particularly in the criminal justice and recidivism prediction domain. See Zhiyuan “Jerry” Lin, Jongbin Jung, Sharad Goel & Jennifer Skeem, *The Limits of Human Predictions of Recidivism*, SCI. ADVANCES, Feb. 14, 2020, at 1 (for a recent overview of the literature); Sharad Goel, Ravi Shroff, Jennifer Skeem & Christopher Slobogin, *The Accuracy, Equity, and Jurisprudence of Criminal Risk Assessment*, in RESEARCH HANDBOOK ON BIG DATA LAW 9, 9–11 (Roland Vogl ed., 2021). See also Stephen D. Gottfredson & Laura J. Moriarty, *Clinical Versus Actuarial Judgments in Criminal Justice Decisions: Should One Replace the Other?*, FED. PROB., Sept. 2006, at 15, 15 (“In virtually all decision-making situations that have been studied, actuarially developed devices outperform human judgments.”); Patricia M. Harris, *What Community Supervision Officers Need to Know About Actuarial Risk Assessment and Clinical Judgment*, FED. PROB., Sept. 2006, at 8, 9–11 (summarizing literature supporting superiority of actuarial approaches); J.C. Oleson, *Risk In Sentencing: Constitutionally Suspect Variables and Evidence-Based Sentencing*, 64 SMU L. REV. 1329, 1342 (2011) (emphasizing the superiority of actuarial prediction over human judgment and listing other sources making the same claim). See generally Malcolm Feeley & Jonathan Simon, *Actuarial Justice: The Emerging New Criminal Law*, in THE FUTURES OF CRIMINOLOGY 174 (David Nelkin ed., 1994) (tracing the origins of the adoption of actuarial methods in the criminal justice system). This approach has also been adopted and reflected in the Model Penal Code Sentencing Guidelines. See MODEL PENAL CODE: SENTENCING § 6B.09 cmt. a at 53, 55 (AM. L. INST., Tentative Draft No. 2, 2011) (“Actuarial—or statistical—predictions of risk, derived from objective criteria, have been found superior to clinical predictions built on the professional training, experience, and judgment of the persons making predictions. The superiority of actuarial over clinical tools in this arena is supported by more than 50 years of social-science research.”).

49. MODEL PENAL CODE: SENTENCING § 6B.09 cmt. a at 53 (AM. L. INST., Tentative Draft No. 2, 2011); Oleson, *supra* note 48, at 1373 (claiming that judges must engage in predictions about risk, whether implicitly or explicitly); Jennifer Skeem, *Risk Technology in Sentencing: Testing the Promises and Perils (Commentary on Hannah-Moffat, 2011)*, 30 JUST. Q. 297, 298 (2013) (showing that judges rely in their decisions on recidivism assessments by probation officers).

50. It should be noted that there are various types of actuarial risk assessment tools, or rather a continuum ranging from purely clinical, unstructured assessment to completely actuarial, structured assessment. In between, there are a variety of partially actuarial or structured judgment methods. See Lin et al., *supra* note 48; Slobogin, *supra* note 41, at 189. Nevertheless, a main contention among researchers is that, in terms of accuracy, any kind of structured judgment is better than none. See Slobogin, *supra* note 41, at 189. Even simple rules or checklists can improve accuracy. See Jongbin Jung, Connor Concannon, Ravi Shroff, Sharad Goel & Daniel G. Goldstein, *Simple Rules for Complex Decisions* (Apr. 4, 2017) (unpublished manuscript), <https://arxiv.org/pdf/1702.04690.pdf> [<https://perma.cc/7V8T-3KKE>] (showing that weighted checklists can substantially improve accuracy, even without retorting to algorithms).

51. Joseph J. Avery & Joel Cooper, *Racial Bias in Post-Arrest and Pretrial Decision Making: The Problem and a Solution*, 29 CORNELL J.L. & PUB. POL’Y 257 (2019); BIAS IN THE LAW: A DEFINITIVE LOOK AT RACIAL PREJUDICE IN THE U.S. CRIMINAL JUSTICE SYSTEM (Joseph Avery & Joel Cooper eds., 2020).

judges probably err on the harsh side, leading to an unwarranted surge of incarceration.<sup>52</sup> Therefore, actuarial methods provide decision makers with information to counteract their inclinations. Additionally, biases, particularly racial biases, are prevalent in the criminal justice system, which leads to disparate outcomes for racial and other minorities. Algorithms could potentially ameliorate this problem compared to the status quo<sup>53</sup> or at least make trade-offs with fairness explicit.<sup>54</sup> The use of algorithmic systems may allow calibrating predictions and outcomes to decrease the unfair burden on minority groups disadvantaged by racism.<sup>55</sup>

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52. MODEL PENAL CODE: SENTENCING § 6B.09 cmt. a, at 54 (AM. L. INST., Tentative Draft No. 2, 2011) (“Section 6B.09 takes an attitude of skepticism and restraint concerning the use of high-risk predictions as a basis of elongated prison terms, while advocating the use of low-risk predictions as grounds for diverting otherwise prison-bound offenders to less onerous penalties.”); *see also* Itay Ravid, *Judging by the Cover: On the Relationship Between Media Coverage on Crime and Harshness in Sentencing*, 93 S. CAL. L. REV. 1121 (2020) (providing empirical support for the existence, and some potential explanations, of such a judicial tendency).

53. Anthony W. Flores, Kristin Bechtel & Christopher T. Lowenkamp, *False Positives, False Negatives, and False Analyses: A Rejoinder to “Machine Bias: There’s Software Used Across the Country to Predict Future Criminals. And It’s Biased Against Blacks.”* FED. PROB., Sept. 2016, at 38, 38 (“[R]isk assessment tools informed by objective data can help reduce racial bias from its current level. It would be a shame if policymakers mistakenly thought that risk assessment tools were somehow worse than the status quo.”); *see also* Jennifer L. Skeem & Christopher T. Lowenkamp, *Risk, Race, and Recidivism: Predictive Bias and Disparate Impact*, 54 CRIMINOLOGY 680 (2016) (finding little evidence for racial bias in use of risk assessment tools).

54. Human predictions are opaque and inscrutable, which makes them hard to assess for prevalence of racial bias, while in contrast algorithms might be easier to scrutinize. *See* Jennifer Skeem & Christopher Lowenkamp, *Using Algorithms to Address Trade-Offs Inherent in Predicting Recidivism*, 38 BEHAV. SCIS. & L. 259, 261 (2020) [hereinafter Skeem & Lowenkamp, *Trade-Offs*] (“[H]umans’ intuitive predictions of reoffending are opaque, which makes them difficult to challenge as discriminatory, even when they have been implicitly or explicitly influenced by race. By contrast, well-made and well-regulated algorithms can ‘create new forms of transparency and hence opportunities to detect discrimination that are otherwise unavailable.’”); *see also* Jon Kleinberg, Jens Ludwig, Sendhil Mullainathan & Cass R. Sunstein, *Discrimination in the Age of Algorithms*, 10 J. LEGAL ANALYSIS 113 (2018) (arguing that algorithms provide transparency which can allow ascertaining discrimination). An inherent feature of such decisions is the trade-off between a certain goal, namely reducing the rate of incarceration while achieving the same level of crime, and a constraint such as equal rates of errors across racial groups. Jon Kleinberg, *Inherent Trade-Offs in Algorithmic Fairness*, in ABSTRACTS OF THE 2018 ACM SIGMETRICS INTERNATIONAL CONFERENCE ON MEASUREMENT AND MODELING OF COMPUTER SYSTEMS 40 (2018); Sam Corbett-Davies, Emma Pierson, Avi Feller, Sharad Goel & Aziz Huq, *Algorithmic Decision Making and the Cost of Fairness*, in PROC. OF THE 23RD ACM SIGKDD INT’L CONF. ON KNOWLEDGE DISCOVERY & DATA MINING 797 (2017); MICHAEL KEARNS & AARON ROTH, *THE ETHICAL ALGORITHM: THE SCIENCE OF SOCIALLY AWARE ALGORITHM DESIGN* (2019). It has been argued, however, that trade-offs are endemic to predicting risk, regardless of who is making the decision. *See generally* Skeem & Lowenkamp, *Trade-Offs*, *supra* note 54. In the same vein, algorithms may render explicit the problem of relying on permissible or impermissible variables, allowing quantification of the loss associated with the removal of a certain feature from the model, such as gender or race. *See* Slobogin, *supra* note 41, at 190; Garrett & Stevenson, *supra* note 15; Monahan & Skeem, *supra* note 37. Algorithms might convey inconvenient truths about human decision-making, and therefore allow society to tackle certain problems directly and make informed decisions over trade-offs in values and fairness.

55. On the other hand, calibration of algorithms and fairness could be at odds. *See* Geoff Pleiss, Manish Raghavan, Felix Wu, Jon Kleinberg & Kilian Q. Weinberger, *On Fairness and Calibration*, in



Regarding *reducing costs*, proponents argue that actuarial methods can achieve less incarceration with the same level of risk or the same incarceration with less risk.<sup>56</sup> Essentially, this argument proposes that actuarial methods reduce administrative costs of incarceration by avoiding more false decisions both on the negative side (a person released when they should have been incarcerated) and the positive side (a person incarcerated when they should not have been).<sup>57</sup> Furthermore, an approach called selective incapacitation suggests that crime could be reduced by focusing on the small group responsible for a large portion of crimes, thus reducing overall incarceration. Actuarial methods play a key component in this approach.<sup>58</sup>

Despite strong arguments in favor, and the fact that predictive algorithms and actuarial methods are already a fact of the criminal justice system, the debate over algorithm implementation is very much alive.

### C. Criticizing Algorithms

Algorithms in criminal justice have been challenged on many grounds, the main ones mirroring the arguments in favor: first, arguments contesting the veneer of accuracy often attached to statistical and computational methods; second, the possibility that they in fact exacerbate bias; and third, concerns with the legitimacy of the criminal justice system.

First and foremost, some critics cast doubt regarding the superiority of algorithms in predicting the risk of crime, as compared to predictions by clinical assessment.<sup>59</sup> Commentators argue that the evidence for the algorithm's superiority in criminal justice is too inconclusive to warrant widespread use. It has been argued,

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ADVANCES IN NEURAL INFORMATION PROCESSING SYSTEMS 30: 31ST ANNUAL CONFERENCE ON NEURAL INFORMATION PROCESSING SYSTEMS (NIPS 2017) 5681 (Ulrike von Luxburg, Isabelle Guyon, Samy Bengio, Hanna Wallach, Rob Fergus, S.V.N. Vishwanathan & Roman Garnett eds., 2018) (showing that calibration might not be compatible with minimizing errors across groups).

56. Skeem & Lowenkamp, *Trade-Offs*, *supra* note 54, at 261 (“These algorithms are purpose-built to predict reoffending, and one way to reduce incarceration without increasing crime rates is to accurately identify the people who are least likely to reoffend and release them, supervise them in the community on probation or parole, or abbreviate their period of incarceration. Risk assessment can also be used to identify higher risk people and prioritize them for high-quality correctional services, given that these people have been shown to benefit the most from treatment that reduces the likelihood of recidivism.”). For an overview, see Lin et al., *supra* note 48. *See also* Monahan, *supra* note 37; Monahan & Skeem, *supra* note 37. *See generally*, Christopher Slobogin, *Implementing Post-Conviction Risk Assessment*, 38 BEHAV. SCIS. & L. 187 (2020) (regarding post-conviction risk assessment).

57. Flores et al., *supra* note 53, at 39.

58. *See* PETER W. GREENWOOD WITH ALLAN ABRAHAMSE, *SELECTIVE INCAPACITATION* (1982). For an overview, see Bernard E. Harcourt, *Risk as a Proxy for Race: The Dangers of Risk Assessment*, 27 FED. SENT’G REP. 237, 238 [hereinafter Harcourt, *Risk as a Proxy for Race*] (2015).

59. *See generally* Julia Dressel & Hany Farid, *The Accuracy, Fairness, and Limits of Predicting Recidivism*, SCI. ADVANCES, Jan. 17, 2018, at 1, <https://www.science.org/doi/10.1126/sciadv.aao5580> [<https://perma.cc/3QQY-B5ZP>] (showing that commercial risk assessment tools are not better than lay people in predicting risk); *see also* Starr, *supra* note 7, at 850–55 (arguing the evidence is mixed and not overwhelming, and therefore that risk prediction instruments offer little advantage over the status quo).

in this vein, that algorithms' predictive accuracy varies substantially and that they generally perform better with respect to low-risk individuals than high-risk offenders.<sup>60</sup> Thus, the criticisms oscillate between an argument for a fundamental inability to predict crime and offenders and the empirical assertion that risk assessment and predictive tools on the ground are failing to live up to their promises.

A *second* central argument is that algorithms exacerbate biases and racially oriented predispositions rather than mitigate them.<sup>61</sup> Recently, algorithmic bias in the criminal justice system gained attention over several high-profile accounts of bias in risk assessment,<sup>62</sup> as well as in other domains like financial markets and healthcare.<sup>63</sup> These accounts suggest that despite alleged neutrality, algorithmic systems may be providing differing outcomes based on race and/or other protected characteristics. Critics have pointed out that statistical models, however technically sophisticated, are only as good as the data they rely on and that algorithms are prone to reproduce and enhance biases, as they rely on data imbued with biases.<sup>64</sup> In fact, it has been argued that algorithms do not ameliorate racial biases but embolden

60. SEENA FAZEL, JAY P. SINGH, HELEN DOLL & MARTIN GRANN, USE OF RISK ASSESSMENT INSTRUMENTS TO PREDICT VIOLENCE AND ANTISOCIAL BEHAVIOUR IN 73 SAMPLES INVOLVING 24,827 PEOPLE: SYSTEMATIC REVIEW AND META-ANALYSIS (2012), <https://www.bmj.com/content/bmj/345/bmj.e4692.full.pdf> [<https://perma.cc/CAJ3-BJ3R>] (“Although risk assessment tools are widely used in clinical and criminal justice settings, their predictive accuracy varies depending on how they are used. They seem to identify low risk individuals with high levels of accuracy, but their use as sole determinants of detention, sentencing, and release is not supported by the current evidence.”). This has led some to argue algorithms should be used in mitigating circumstances but not in harshening decisions. *See, e.g.*, MODEL PENAL CODE: SENTENCING § 6B.09 cmt. a, at 54 (AM. L. INST., Tentative Draft No. 2, 2011). Other critics have argued that actuarial methods predict group averages and not individual behavior, and are thus inaccurate in practice when observing a specific offender. *See* Starr, *supra* note 7, at 806. Furthermore, Starr argues that risk assessment tools do not provide an answer to the question that needs to be asked—judges do not need to know what the current level of risk is, but rather what would be the level of risk predicated on a certain decision (such as incarceration or nonincarceration). *Id.* at 855–62.

61. For an overview of this argument, see Goel et al., *supra* note 48, at 6; *see also* Mayson, *supra* note 24, at 2251–59; Melissa Hamilton, *The Biased Algorithm: Evidence of Disparate Impact on Hispanics*, 56 AM. CRIM. L. REV. 1553 (2019) [hereinafter Hamilton, *Biased Algorithm*] (showing bias towards Hispanics in algorithmic risk assessment); Melissa Hamilton, *The Sexist Algorithm*, 37 BEHAV. SCIS. & L. 145 (2019) (showing risk assessment tools overclassify women in high-risk groups).

62. Julia Angwin, Jeff Larson, Surya Mattu & Lauren Kirchner, *Machine Bias*, PROPUBLICA (May 23, 2016), <https://www.propublica.org/article/machine-bias-risk-assessments-in-criminal-sentencing> [<https://perma.cc/LS8W-UUHC>] (showing COMPAS, a popular risk assessment algorithm, exhibits overprediction of risk for Blacks compared to Whites).

63. With respect to financial markets, see, e.g., Michelle Seng Ah Lee & Luciano Floridi, *Algorithmic Fairness in Mortgage Lending: From Absolute Conditions to Relational Trade-Offs*, 31 MINDS & MACHS. 165 (2021), <https://link.springer.com/content/pdf/10.1007/s11023-020-09529-4.pdf> [<https://perma.cc/L98Y-9TCX>]. With respect to healthcare, see, e.g., Jessica K. Paulus & David M. Kent, *Predictably Unequal: Understanding and Addressing Concerns That Algorithmic Clinical Prediction May Increase Health Disparities*, NPJ DIGIT. MED., July 30, 2020, at 1, <https://www.nature.com/articles/s41746-020-0304-9.pdf> [<https://perma.cc/2C94-CSXC>].

64. Solon Barocas & Andrew D. Selbst, *Big Data's Disparate Impact*, 104 CALIF. L. REV. 671 (2016) (arguing that algorithmic techniques inherit prejudices prevalent in the data they rely on).

them<sup>65</sup> and that they bring attributes such as race and poverty to the fore,<sup>66</sup> create an undue burden on racial minorities, and have a negative expressive message.<sup>67</sup> In one of the most articulate and expansive critiques of risk prediction, Harcourt suggests that predictive methods will create a “Ratchet Effect”—in practice, such methods will embolden the targeting of minorities, and their oversampling will incrementally become worse and more disproportionate.<sup>68</sup> This effect is likely to worsen the racial imbalance in society and, given the enormous size of the criminal justice system and the number of incarcerated people, will have substantial adverse effects on society writ large.<sup>69</sup>

*Third*, algorithms may bring about a legitimacy deficit. For instance, it has been argued that criminal justice decisions such as sentencing serve multiple purposes and comprise several components, yet algorithmic risk assessment enhances the relative weight ascribed to incapacitation and deterrence in lieu of other factors, such as moral desert.<sup>70</sup> Moreover, risk assessment encourages decision makers to focus only on what is measurable and not on what is just and fair.<sup>71</sup>

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65. Michael Tonry, *Predictions of Dangerousness in Sentencing: Déjà Vu All Over Again*, 48 CRIME & JUST. 439 (2019) (criticizing the unsatisfactory, biased results of recidivism prediction).

66. With respect to race, see Hamilton, *Biased Algorithm*, *supra* note 61. With respect to poverty, see Klingele, *supra* note 15. Starr has gone as far as arguing that actuarial methods that incorporate demographic, socioeconomic, or similar protected variables raise constitutional and normative concerns, and amount to discrimination. See Starr, *supra* note 7. Starr argues that such variables add little marginal predictive power. Starr, *supra* note 7, at 850–55. Conversely, it has been argued that, in the case of racial bias, including race explicitly in the model leads to better-calibrated results (false negatives and false positives) than blind models. See Skeem & Lowenkamp, *Trade-Offs*, *supra* note 53.

67. Starr, *supra* note 7, at 806 (“It can be expected to contribute to the concentration of the criminal justice system’s punitive impact among those who already disproportionately bear its brunt, including people of color. And the expressive message of this approach to sentencing is, when stripped of the anodyne scientific language, toxic. Group-based generalizations about dangerousness have an insidious history in our culture, and the express embrace of additional punishment for the poor conveys the message that the system is rigged.”)

68. Harcourt, *Risk as a Proxy for Race*, *supra* note 58, at 237.

69. Harcourt argues that despite the advantages of actuarial tools, they are outweighed by the overall costs to racial justice and to society, thus rendering them inefficient. *Id.* at 237 (“There are, to be sure, political and strategic advantages to using ‘technological’ instruments, such as actuarial tools, to justify prison releases. Risk assessment tools protect political actors and serve to de-responsibilize decision makers. Given that we still today ‘govern through crime,’ these strategic considerations are undoubtedly important.”). Harcourt further suggests that the problem of mass incarceration is propelled by admission into the system, while predictive tools are mostly utilized in the release stage of the process, such as sentencing or parole. *Id.* at 241. However, that argument is not applicable to the front end of the criminal justice system, especially pre-trial detention.

70. Starr, *supra* note 7, at 808. For the argument that legitimate risk factors, such as past and present criminal conduct, are reflective of moral culpability, see John Monahan, *A Jurisprudence of Risk Assessment: Forecasting Harm Among Prisoners, Predators, and Patients*, 92 VA. L. REV. 391, 427–28 (2006).

71. Harcourt, *Risk as a Proxy for Race*, *supra* note 58, at 237 (arguing that risk assessment focuses primarily on prior criminal history and does not take into consideration other aspects that are harder to measure).

In the same vein, others have suggested that using opaque algorithms could erode public trust in the criminal justice system.<sup>72</sup> Transparency is paramount to avoid such problems<sup>73</sup> and ensure defendants' due process rights.<sup>74</sup> From a procedural justice framework, highlighting the importance of transparency and the ability to voice one's arguments, it has been argued that defendants should be allowed to challenge prediction results in legal proceedings. However, such prospects become problematic in the face of the technical opacity of complex algorithms and proprietary secrets.<sup>75</sup> Finally, in a similar vein, decision makers themselves will find it hard to scrutinize models and to comprehend their outcomes,<sup>76</sup> which could also result in eroding of legitimacy.

Notwithstanding the ongoing debate over their desirability, the incorporation of algorithms into the criminal justice system is undoubtedly already modifying it. One important aspect of criminal justice processes directly affected is the role envisioned for humans in the system. Algorithms serve different purposes: they complement, assist, review, or displace humans. All these functionalities offer a very different vision for the role of humans and reduce their overall direct impact on the criminal process.<sup>77</sup> With algorithms, the decisional power, arguably, is shifted from

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72. See O'Hear, *supra* note 38.

73. Garrett & Stevenson, *supra* note 15 (discussing the importance of transparency and open science practices in criminal risk assessment). For further discussion see *infra* Part III.

74. Carlson, *supra* note 13 (arguing that private companies should be required to conform to public transparency requirements in criminal justice).

75. See O'Hear, *supra* note 38; Slobogin, *supra* note 41, at 191; Garrett & Stevenson, *supra* note 15.

76. Klingele, *supra* note 15 (arguing that decision makers need to better understand how risk assessment tools work); Hester, *supra* note 15 (pointing out that decision makers are prone to overestimate the accuracy of algorithms).

77. It is often argued that algorithms do not determine outcomes or specific decisions but inform decision makers. See *Malenchik v. State*, 928 N.E.2d 564, 573 (Ind. 2010) (holding that evidence-based assessment instruments are supplemental in sentencing); David E. Patton, *Guns, Crime Control, and a Systemic Approach to Federal Sentencing*, 32 CARDOZO L. REV. 1427, 1456 (2011) (arguing actuarial assessments are not "the determining factor in any given sentence"). This is reflected in the legal requirement that human decision makers retain a "final say" in making decisions in criminal proceedings, and that algorithms are designated as aids. See *State v. Loomis*, 881 N.W.2d 749, 764–65 (Wis. 2016) (holding that judges retain the discretion and information to disagree with a risk assessment when appropriate). For a discussion about whether there is a *right* to a human decision, see Aziz Z. Huq, *A Right to a Human Decision*, 106 VA. L. REV. 611 (2020) (concluding that only a right to a well-calibrated machine decision should be recognized). Nevertheless, even if human decision makers retain discretion, it might well be that their roles are redefined. According to Starr, algorithms are meant to be used by judges and decision makers, and do in fact alter outcomes. Starr, *supra* note 7, at 862–64. It is unrealistic to argue that they merely complement decision-making. Moreover, the use of algorithms raises the concern that decision makers would descend into complacency and de facto defer their judgment to the algorithms. Raja Parasuraman & Dietrich H. Manzey, *Complacency and Bias in Human Use of Automation: An Attentional Integration*, 52 HUM. FACTORS 381 (2010) (pointing out that decision makers may become complacent, developing a habit of unequivocal trust in the algorithmic decision support systems). This is often discussed in the context of what is called automation bias, the process in which decision makers forego independent judgment and overly rely on algorithmic advice in lieu of cognizant judgment. Linda J. Skitka, Kathleen Mosier & Mark D. Burdick, *Accountability and Automation Bias*, 52 INT'L J. HUM.-COMPUT. STUD. 701 (2000); Linda J. Skitka, Kathleen L. Mosier

frontline adjudicators, such as police officers, judges, and parole board members, to technical designers of algorithmic functions and processes. This prompts us to think about human and machine decision-making in tandem rather than as distinct realms. Currently, however, there is a surprising dearth of scholarship discussing these jointly, particularly in the context of the criminal justice system. Our study contributes to closing this gap by coupling algorithmic decision-making with another prominent trend in criminal justice—progressive prosecution—to which we now turn.

## II. PROGRESSIVE PROSECUTORS

Alongside the trend to reduce the magnitude of human discretion in the criminal process with algorithmic decision-making, another somewhat contradictory process has occurred. While aiming to address the exact same acute problems of the criminal justice system—racial inequalities, harsh and excessive punishment, and inclination to human error—this time, an opposite methodology was employed: allowing *more* human discretion into the system but of a *different*, new form.<sup>78</sup> Across the United States—in what has been referred to as “A Tsunami of Change”<sup>79</sup>—a new breed of prosecutors started winning office under reformist agendas, with a promise to advance deep, systemic change in the criminal justice system.<sup>80</sup> Their most popular moniker is “progressive prosecutors,” a phrase the concrete meaning of is debated, as discussed above.<sup>81</sup>

Indeed, an outside observer might likely assume that prosecutors are to be blamed for most, if not all, wrongs of the criminal justice system. Scholars, policy makers, and civil rights activists have repeatedly argued that prosecutors are the most powerful officials in the criminal justice system, controlling the criminal process from entry to exit and, as such, are responsible for any outcomes, systemic challenges, and eventual flaws of the criminal justice system.<sup>82</sup> Prosecutorial

& Mark D. Burdick, *Does Automation Bias Decision-Making?*, 51 INT’L J. HUM.-COMPUT. STUD. 991 (1999). Moreover, traditional arguments regarding the workload of different members of the criminal justice system push toward similar concerns. It should be noted that the different roles of algorithms vis-à-vis humans affect the level of tension that exists between the trends that are the focus of this paper: progressive prosecution and algorithmic decision-making. *See also infra* Part III.

78. To borrow from Abbe Smith’s controversial question, “can you be a good person and a good prosecutor?” Abbe Smith, *Can You Be a Good Person and a Good Prosecutor?*, 14 GEO. J. LEGAL ETHICS 355 (2000) (discussing the morality of prosecution, and suggesting that the answer to the question posed in the title is likely no); *see also* Abbe Smith, *Good Person, Good Prosecutor in 2018*, 87 FORDHAM L. REV. ONLINE 3 (2018) (the recent update of this piece in the specific context of progressive prosecutors, remaining skeptical as to the ability of a few progressive prosecutors to bring justice to the criminal justice system: “I would like to believe that good, well-intentioned people who become prosecutors could bring justice back to the criminal justice system in 2018. But I doubt it.”).

79. Arango, *supra* note 3.

80. BAZELON, *supra* note 3, at xxv–xxx; Davis, *Reimagining Prosecution*, *supra* note 5, at 1–3.

81. *See sources cited supra* notes 4–5.

82. ANGELA J. DAVIS, ARBITRARY JUSTICE: THE POWER OF THE AMERICAN PROSECUTOR 5 (2007) (“Prosecutors are the most powerful officials in the criminal justice system.”); JOHN F. PFAFF, LOCKED IN: THE TRUE CAUSES OF MASS INCARCERATION—AND HOW TO ACHIEVE REAL REFORM

discretion thus has become synonymous with the failures of the criminal justice system.<sup>83</sup>

As such, a lot of excitement emerged as the movement of progressive prosecutors slowly but surely gained power in the last five or so years—including the following: Kim Foxx in Cook County, Illinois (the county that includes Chicago);<sup>84</sup> Rachael Rollins in Suffolk County, Massachusetts (which includes

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127, 206 (2017) (“Prosecutors have been and remain the engines driving mass incarceration.”); WILLIAM J. STUNTZ, *THE COLLAPSE OF AMERICAN CRIMINAL JUSTICE* (2011) (making links between the vanishing rule of law in the criminal justice system and the power of prosecutors to decide guilt and innocence); David Alan Sklansky, *The Nature and Function of Prosecutorial Power*, 106 J. CRIM. L. & CRIMINOLOGY 473, 474 (2016); Jed S. Rakoff, *Why Prosecutors Rule the Criminal Justice System—and What Can Be Done About It*, 111 NW. U. L. REV. 1429, 1430 (2017) (“This is what has happened over the past few decades in the United States, with prosecutors increasingly being thrust into the role, not of advocates, but of rulers—with very unfortunate results.”); Jeffrey Bellin, *Reassessing Prosecutorial Power Through the Lens of Mass Incarceration*, 116 MICH. L. REV. 835, 837 (2018) (reviewing JOHN F. PFAFF, *LOCKED IN: THE TRUE CAUSES OF MASS INCARCERATION—AND HOW TO ACHIEVE REAL REFORM* (2017)) (“Prosecutors are the Darth Vader of academic writing: mysterious, powerful and, for the most part, bad.”). Note that, although recent decades have shown an increased support for this paradigm about the role of prosecutors, this is not a new approach, and already in 1940 Attorney General Robert Jackson proclaimed that “the prosecutor has more control over life, liberty, and reputation than any other person in America.” Robert H. Jackson, *The Federal Prosecutor*, 31 J. CRIM. L. & CRIMINOLOGY 3, 3 (1940).

83. Although it may now be a consensus, some scholars challenge the proposition about prosecutors’ all-encompassing dominance (identified elsewhere as the “king prosecutor” approach). See, e.g., Jeffrey Bellin, *The Power of Prosecutors*, 94 N.Y.U. L. REV. 171 (2019) (claiming that the scholarly consensus regarding the rule of prosecutors is inaccurate and lacks the required evidence-based empirical support: “[This Article] reveals a flawed academic consensus enabled by a puzzling lack of dissent. Without anyone challenging the ever-more-strident rhetoric, scholars’ claims became casual and imprecise. Bold, often-hyperbolic assertions morphed through sheer repetition into an unshakeable empirical consensus. As a result, today’s prosecutorial-power rhetoric is, upon close examination, frustratingly incoherent. This is a striking state of affairs for these are, at base, empirical claims resting comfortably unchallenged in a prominent scholarly literature.”).

84. Kim Foxx was elected the Cook County State’s Attorney in early 2016 and took office in December of that year. Prior to her election, Foxx served as an Assistant State’s Attorney for twelve years and was also a guardian ad litem, where she worked as an attorney advocating for children navigating the child welfare system. The flash point in Foxx’s 2016 primary campaign was the killing of Laquan McDonald by a police officer, followed by a thirteen-month delay by then-State’s Attorney Anita Alvarez in bringing charges against the officer. *Kimberly M. Foxx*, COOK CNTY STATE’S ATT’Y, <https://www.cookcountystatesattorney.org/about/kimberly-foxx> [<https://web.archive.org/web/20211224063351/https://www.cookcountystatesattorney.org/about/kimberly-foxx>] (last visited Jan. 21, 2022). See also Sklansky, *supra* note 16, at 661–62.

Boston);<sup>85</sup> Kim Ogg in Harris County, Texas (which includes Houston);<sup>86</sup> Aramis Ayala in the Ninth Judicial Circuit of Florida (the jurisdiction that includes Orlando);<sup>87</sup> Larry Krasner in Philadelphia;<sup>88</sup> Chesa Boudin in San Francisco;<sup>89</sup> and

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85. Rachael Rollins became the first African American woman to hold the office of district attorney in Massachusetts after she was elected to the post in November 2018. Rollins, a former federal prosecutor, ran on a platform that encouraged communication between law enforcement and local communities. She decided to run for office in 2017 when she was angry and distraught over the spate of killings of unarmed black men by police officers across the country. Maria Cramer & Jackson Cote, *Rachael Rollins Wins Suffolk DA Race*, BOS. GLOBE (Nov. 7, 2018, 12:21 AM), <https://www.bostonglobe.com/metro/2018/11/06/contested-races-for-decided-mass-counties/ZqYhxN69Yx6hOwHPGp7Ztj/story.html> [https://web.archive.org/web/20181107054401/https://www.bostonglobe.com/metro/2018/11/06/contested-races-for-decided-mass-counties/ZqYhxN69Yx6hOwHPGp7Ztj/story.html]; Dialynn Dwyer, *Q&A: Suffolk County District Attorney-Elect Rachael Rollins on Her Priorities and How Her Personal Experiences Inform Her Work as a Prosecutor*, BOSTON.COM (Nov. 14, 2018), <https://www.boston.com/news/politics/2018/11/14/rachael-rollins-elected-suffolk-county-district-attorney> [https://perma.cc/4T4X-CFU5]. See also Davis, *Reimagining Prosecution*, *supra* note 5, at 19–20.

86. Kim Ogg was elected Harris County District Attorney in November 2016 on a platform of criminal justice reform, with a specific focus on decriminalizing marijuana. Prior to her election, Ogg's lengthy legal career included jobs as the Chief Felony Prosecutor in the Harris County District Attorney's Office, Director of Houston's Anti-Gang Task Force, and Executive Director of Crime Stoppers of Houston. Ogg, the daughter of former Texas State Senator Jack Ogg, has stated her goal is to build a model for public safety that rivals the "tough-on-crime" narrative in her state. Gail Delaughter, *Democrat Kim Ogg Elected Harris County District Attorney*, HOUS. PUB. MEDIA (Nov. 9, 2016, 6:46 AM), <https://www.houstonpublicmedia.org/articles/news/2016/11/09/176853/democrat-kim-ogg-elected-harris-county-district-attorney/> [https://perma.cc/Z522-SE29]; Ronald Brownstein, *Will Texas Follow Houston's Lead on Drug-Policy Reform?*, ATLANTIC (May 24, 2018), <https://www.theatlantic.com/politics/archive/2018/05/will-texas-follow-houstons-lead-on-drug-policy-reform/561035/> [https://perma.cc/ST7H-87LH]. See also Note, *supra* note 7, at 750.

87. Aramis Ayala was elected State Attorney for the Ninth Judicial Circuit of Florida in 2016, becoming the first African American State Attorney in Florida's history. Ayala started her legal career as a prosecutor in the Ninth Judicial Circuit's State Attorney's Office before joining the public defender's office two years later, where she worked until her 2016 election. Her office was the subject of national controversy in 2017 when Ayala announced she would not seek the death penalty in any case, causing then-Governor Rick Scott to assign capital punishment cases to other offices. After a lengthy legal battle over the constitutionality of Governor Scott's act, the Florida Supreme Court ruled against Ayala with two justices dissenting. Gal Tziperman Lotan & Gray Rohrer, *Florida Supreme Court Hears from Aramis Ayala, Rick Scott on Death-Penalty Cases*, ORLANDO SENTINEL (June 28, 2017, 5:55 PM), <https://www.orlandosentinel.com/news/breaking-news/os-ayala-scott-oral-arguments-supreme-court-20170627-story.html> [https://perma.cc/5GRZ-U5KK]. See also Davis, *Reimagining Prosecution*, *supra* note 5, at 18–19.

88. Larry Krasner was elected the District Attorney for Philadelphia in November 2017 and took office in 2018. Coming from a rich career as a public defender in Philadelphia and later in private practice, he was famous for filing numerous lawsuits alleging police behavior and representing civil rights activists. It is often mentioned, however, that he had never prosecuted a case coming into this position. Chris Brennan & Aubrey Whelan, *Larry Krasner Wins Race for Philly DA*, PHILA. INQUIRER (Nov. 7, 2017), <https://www.inquirer.com/philly/news/politics/city/larry-krasner-wins-race-for-philly-da-20171107.html> [https://perma.cc/8P4Y-B6XF]. See also Davis, *Reimagining Prosecution*, *supra* note 5, at 10. Larry Krasner was recently reelected for another term as the Philadelphia DA.

89. Elected District Attorney in November 2019, Chesa Boudin took office in January 2020 never having prosecuted a case before. A former public defender, Boudin ran on a platform centered on ending mass incarceration, protecting crime survivors, and addressing the root causes of crime. Incarceration was a personal subject for Boudin, as both of his parents were incarcerated throughout his childhood. See *About the Office*, S.F. DISTRICT ATTORNEY, <https://www.sfdistrictattorney.org/>

George Gascón in Los Angeles.<sup>90</sup> In fact, there is no real doubt that the numbers are growing.<sup>91</sup> According to Bazelon in 2019, “12 percent of the population live[s] in a city or county with a [District Attorney] who [could] be considered a reformer,”<sup>92</sup> and the most recent account shows that additional counties in many States have elected progressive prosecutors.<sup>93</sup> All these appointments bring new energies and hopes for a meaningful human-made systemic change to a flawed criminal justice system.<sup>94</sup> Generally speaking, these prosecutors offer “a radically different vision of what it means to be a prosecutor,”<sup>95</sup> with a focus on reducing prison and jail population, narrowing the intolerable racial disparities, decriminalizing poverty, and increasing the accountability of the prosecution and the police.<sup>96</sup>

#### A. What Do Progressive Prosecutors Do?

With the ambitious goals of radically reforming the criminal justice system, reducing the number of incarcerated people in jails and prisons, fighting deep

about-us/ [https://perma.cc/RZ2Y-26F8] (last visited Jan. 21, 2022); Heather Knight, *How Chesa Boudin, a Public Defender Who Never Prosecuted a Case, Won SF D.A. Race*, S.F. CHRON. (Nov. 11, 2019, 5:39 PM), <https://www.sfchronicle.com/bayarea/heatherknight/article/How-Chesa-Boudin-a-public-defender-who-never-14826323.php> [https://perma.cc/G56D-635K].

90. George Gascón took office as District Attorney of Los Angeles County in December 2020. Gascón, who previously served as District Attorney of San Francisco, Assistant Chief of Police for the Los Angeles Police Department, and Chief of Police in Mesa, Arizona, and San Francisco, implemented sweeping changes to California’s most populous county on his first day in office (including ending cash bail for misdemeanor or nonviolent offenses and prioritizing resentencing inmates serving excessive prison terms). Brakkton Booker, *George Gascón Implements Sweeping Changes to Los Angeles District Attorney’s Office*, NPR (Dec. 8, 2020, 7:04 PM), <https://www.npr.org/2020/12/08/944396495/george-gascon-implements-sweeping-changes-to-los-angeles-district-attorneys-offi> [https://perma.cc/5EHQ-4SCQ]; *California Lieutenant Governor Gavin Newsom Endorses George Gascon for District Attorney*, BUS. WIRE (May 5, 2011, 8:47 PM), <https://www.businesswire.com/news/home/20110505007581/en/California-Lieutenant-Governor-Gavin-Newsom-Endorses-George> [https://perma.cc/HA2Y-JG8T]. For additional information on some of the above prosecutors, see, for example: Davis, *Reimagining Prosecution*, *supra* note 5; Allan Smith, *Progressive DAs Are Shaking up the Criminal Justice System. Pro-Police Groups Aren’t Happy*, NBC NEWS (Aug. 19, 2019, 9:01 AM), <https://www.nbcnews.com/politics/justice-department/these-reform-prosecutors-are-shaking-system-pro-police-groups-aren-n1033286> [https://perma.cc/7F6L-KGY7]; Justin Miller, *The New Reformer DAs*, AM. PROSPECT (Jan. 2, 2018), <https://prospect.org/api/content/b82a6756-6104-5490-843c-9acb644c05b5/> [https://perma.cc/QR7J-C8PX]; Arango, *supra* note 3.

91. Arango, *supra* note 3; Morrison, *supra* note 3.

92. BAZELON, *supra* note 3, at 290.

93. Including Alabama, California, Colorado, Florida, Georgia, Illinois, Indiana, Kansas, Louisiana, Main, Massachusetts, Mississippi, Missouri, New Mexico, New York, North Carolina, Ohio, Pennsylvania, Tennessee, Texas, Vermont, and Virginia. See Darcy Covert, *Transforming the Progressive Prosecutor Movement*, 2021 WIS. L. REV. 187 (2021) (providing additional information about the different prosecutors elected across the U.S.).

94. BAZELON, *supra* note 3, at xiii.

95. Davis, *Reimagining Prosecution*, *supra* note 5, at 7.

96. Sklansky, *supra* note 4, at 25–42; Sklansky, *supra* note 16, at 647–74; Levin, *supra* note 5, at 1443.



systemic racism, and increasing the accountability of public officials, one can find a few typical domains in which progressive prosecutors are particularly active.<sup>97</sup>

*First*, changes in charging policies, particularly in drugs and property-related offenses. For example, one of Kim Foxx's first announcements was the decision not to charge retail theft as felonies for property worth less than \$1,000 and the decision not to prosecute individuals for driving with suspended licenses due to financial reasons.<sup>98</sup> Larry Krasner circulated a memo directing prosecutors not to charge marijuana possession, possession of marijuana paraphernalia, or prostitution.<sup>99</sup>

*Second*, changes in sentencing policies. Larry Krasner, for example, ordered prosecutors to state during sentencing hearings the costs and benefits of the sentence sought, including actual incarceration costs.<sup>100</sup>

*Third*, advancing diversion programs such as the Seattle Law Enforcement Assisted Diversion program (cofounded by King's County, Washington's, Chief Prosecutor Dan Satterberg), in which police officers divert individuals in possession of certain drug amounts or involved in prostitution to relevant services in lieu of arrests.<sup>101</sup>

*Fourth*, offering deep bail reforms such as the elimination of cash bail under specific conditions.<sup>102</sup>

*Fifth*, requiring increased accountability from police officers, specifically through aggressive charges for police misconduct, including but not limited to police brutality cases. Krasner was particularly active in this domain, prosecuting two officers for illegal stop and frisks and falsifying official paperwork.<sup>103</sup>

*Sixth*, increased accountability and transparency with regards to prosecutorial work. Kim Foxx, for example, released unprecedented amounts of data in felony cases prosecuted by the office even before she took office, and Krasner initiated a research unit within the District Attorney's office.<sup>104</sup>

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97. Levin, *supra* note 5 (offering a typology of four types of progressive prosecutors, which seems to follow the categories discussed here).

98. Davis, *Reimagining Prosecution*, *supra* note 5, at 8–9.

99. *Id.* at 11.

100. *Id.* at 11–12.

101. *Id.*

102. *Id.* at 12, 20.

103. Police1 Staff, *Pa. DA Charges 2 Cops for 'Illegal' Stop-and-Frisks in Landmark Case*, POLICE1 (Oct. 9, 2018) <https://www.police1.com/stop-and-frisk/articles/pa-da-charges-2-cops-for-illegal-stop-and-frisks-in-landmark-case-X6fsWbz9nkkySQHz/> [<https://perma.cc/9KD8-6QYD>].

104. Davis, *Reimagining Prosecution*, *supra* note 5, at 9; Press Release, Cook Cnty. State's Att'y, State's Attorney Foxx Announces Unprecedented Open Data Release (Mar. 2, 2018), <https://www.cookcountystatesattorney.org/news/states-attorney-foxx-announces-unprecedented-open-data-release> [<https://web.archive.org/web/20210123043652/https://www.cookcountystatesattorney.org/news/states-attorney-foxx-announces-unprecedented-open-data-release>] (last visited Jan. 21, 2022); Chris Palmer, *Philly DA Larry Krasner Launches Data Website Aimed at Tracking His Office's Impact*, PHILA. INQUIRER (Oct. 3, 2019), <https://www.inquirer.com/news/larry-krasner-da-data-website-charges-bail-sentencing-20191003.html> [<https://perma.cc/NRF7-75HT>].

### B. Praising Progressive Prosecutors

Indeed, with such active, direct, revolutionary activities, and the general promise this movement brought, it is not surprising to discover that progressive prosecutors have received meaningful support from different groups in society.<sup>105</sup> After years of stagnation in criminal justice reform alongside the increased awareness of its flaws, the potential institutional changes these prosecutors could bring seemed promising.<sup>106</sup> Angela Davis suggested the following in a recent symposium about progressive prosecutors: “In a law review article written seventeen years ago, Professor Abbe Smith asked the question, ‘Can You Be a Good Person and a Good Prosecutor?’ . . . Whether or not one agreed with her conclusion at the time, today we know that the answer to the question is ‘Yes.’”<sup>107</sup>

Moreover, and in what might be a surprise to some, the movement of progressive prosecutors, at least when it started, was more bipartisan than one might have imagined. While advocates of civil rights and Black Lives Matter campaigning against violence and racism were the most obvious supporters of the movement, conservative concerns about ineffective expenditure of taxpayers’ money and libertarian discomfort with extreme governmental power also suggested the need to transform American prosecution.<sup>108</sup>

The excitement from the movement, however, might have stemmed not only from the hopes for a much-needed change in the criminal justice system but also a renewed belief in the idea of representational democracy. For many years, the theory that the electoral process could hold our prosecutors accountable for their activities was, well, just a theory.<sup>109</sup> This absence of accountability was due to the lack of transparency with regards to prosecutorial decision-making and performance (mostly in charging and plea bargain decisions),<sup>110</sup> alongside a general belief among

105. BAZELON, *supra* note 3, at xxvii (“A movement of organizers and activists and local leaders and defense lawyers and professors and students and donors is fighting [for that] change.”).

106. BAZELON, *supra* note 3, at 282–90; Shaun King, *Philadelphia DA Larry Krasner Promised a Criminal Justice Revolution. He’s Exceeding Expectations.*, INTERCEPT. (Mar. 20, 2018, 12:59 PM), <https://theintercept.com/2018/03/20/larry-krasner-philadelphia-da/> [<https://perma.cc/3MWX-HSMK>]; Hao Quang Nguyen, *Progressive Prosecution: It’s Here, But Now What?*, 46 MITCHELL HAMLINE L. REV. 325 (2020); Pickerell, *supra* note 5, at 302 (emphasizing the role of progressive prosecutors in positively subverting power dynamics in the criminal justice system); Note, *supra* note 7 (discussing the positive support the movement received, but introducing some potential hurdles it might face in achieving its goals—see section below); Bellin, *supra* note 7; Jeffrey Bellin, *The Changing Role of the American Prosecutor*, 18 OHIO ST. J. CRIM. L. 329 (2020) (calling on other “non-progressive” prosecutors to adopt some of the policy directions taken by progressive prosecutors).

107. Davis, *Progressive Prosecutor*, *supra* note 5, at 8 (quoting Smith, *supra* note 78).

108. BAZELON, *supra* note 3, at xxvii–xxviii. Indeed, currently elected progressive prosecutors “include Democrats and Republicans, in red states as well as purple and blue ones.” *Id.* However, it does seem that over time the movement as a whole is leaning left (or is at least framed this way by the media). See, e.g., Berman & Jackman, *supra* note 1.

109. Bruce Green & Ellen Yaroshfsky, *Prosecutorial Accountability 2.0*, 92 NOTRE DAME L. REV. 51, 66 (2016). See also Davis, *supra* note 82, at 164–65.

110. See, e.g., Pfaff, *supra* note 82, at 158 (“It’s unclear why prosecutors remain such black boxes.”); Davis, *supra* note 82, at 22–24, 45–48.

the judiciary and the media that “intentional prosecutorial law-breaking was aberrational.”<sup>111</sup> Moreover, any declared de jure accountability did not translate into a de facto accountability, as most of the public paid little to no attention to district attorneys’ electoral races, and candidates often ran unconsented and remained in office for many years.<sup>112</sup>

The movement of progressive prosecutors represents a deep change not only in prosecutorial goals but also in public accountability. As a movement that grew with the support of organizations and community leaders, it ignited new public interest in the position and in the elected officials fulfilling the role of prosecutors. After years of stagnation and lack of public interest, competitive campaigns have become more common, and the progressive platform has increased the involvement of voters in the election process.<sup>113</sup> The stronger ties between competitive races, the change of incumbents, and the contribution of the public to that change are a move in a positive direction towards reconnecting prosecutors with their constituents and potentially increasing their accountability.<sup>114</sup> In fact, accountability as a goal—both for the office of the prosecutor and other officials (mainly the police)—is part of the platform on which progressive prosecutors run. This translates, for example, into increased transparency, public access to data that was usually behind closed doors, and aggressive prosecution of rogue police officers. Moreover, the success of progressive prosecutors represents a change in political dynamics in the context of criminal justice, giving voice—through the political process—to diverse groups, including marginalized communities that are often most affected by the criminal

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111. Green & Yaroshefsky, *supra* note 109, at 52.

112. Ronald F. Wright, *How Prosecutor Elections Fail Us*, 6 OHIO ST. J. CRIM. L. 581 (2009); Davis, *Progressive Prosecutor*, *supra* note 5, at 10; Carissa Byrne Hessick & Michael Morse, *Picking Prosecutors*, 105 IOWA L. REV. 1537 (2020) (providing empirical support to the conventional wisdom about the noncompetitive nature of district attorney elections, but offering a more nuanced understanding about distinctions between prosecutors in rural versus urban areas); Sklansky, *supra* note 16, at 647–74.

113. Davis, *Reimagining Prosecution*, *supra* note 5, at 6–7 (emphasizing the bottom-up movement of progressive prosecutors and claiming that “[r]ecent years have seen modest progress in improving the effectiveness of prosecutorial elections”); BAZELON, *supra* note 3, at 271–97; *see also* Simonson, *supra* note 16 (suggesting that progressive prosecutors indeed increase the voice of the people, but not enough). *But cf.* Smith, *supra* note 78; Davis, *Progressive Prosecutor*, *supra* note 5, at 10–12 (discussing the challenges of voters holding prosecutors accountable for their decisions); Wright, *supra* note 112.

114. Sklansky, *supra* note 16; Angela J. Davis, *Prosecutors, Democracy, and Race*, in PROSECUTORS AND DEMOCRACY: A CROSS-NATIONAL STUDY 195, 209 (Máximo Langer & David Alan Sklansky eds., 2017), <https://www.cambridge.org/core/books/prosecutors-and-democracy/prosecutors-democracy-and-race/E183B84B3DE5CEE9EE6CA7A62A2AE20E> [<https://perma.cc/JVK6-JQIX>] (“Although the electoral process for state and local prosecutors has its flaws, it presents the best opportunity for holding prosecutors accountable.”); Rebecca Goldstein, *The Politics of Decarceration*, 129 YALE L.J. 446 (2019) (reviewing RACHEL ELISE BARKOW, PRISONERS OF POLITICS: BREAKING THE CYCLE OF MASS INCARCERATION (2019)) (while recognizing the slow change progressive prosecutors have brought thus far, emphasizing how constituents of progressive prosecutors are able to hold the prosecutors accountable for their promises).

justice system.<sup>115</sup> As we saw, this immediately translates into changes in policy and might, in fact, also have a broader symbolic role in amplifying voices that were muted for decades. Nevertheless, alongside the hopes, progressive prosecutors have attracted meaningful criticism.

### C. Criticizing Progressive Prosecutors

It may not be surprising that, with the tsunami of excitement, there arrived a hurricane of critique against the progressive prosecutors, from both conservatives and liberals, and through different lenses. Some of the criticism directly rejects the core goals of the reform-minded prosecutors, but most of it, in fact, seeks to explain why these reformists are likely to fail in bringing systemic change in the criminal justice system. We identified four main branches of critiques: political opposition, external constraints, internal constraints, and diffusion of power. We will now briefly summarize the main arguments of each of these branches.

*First*, political opposition. This branch of critique is mostly comprised of those opposing the core narratives advanced by the progressive prosecutors. Its proponents include some of the highest-level state officials, including the former Attorney General William Barr, who systematically criticized the movement for an anti-tough-on-crime approach and as “demoralizing to law enforcement and dangerous to public safety.”<sup>116</sup> Similar ideological critiques often surfaced among other federal and state officials,<sup>117</sup> including—and this may not be surprising—the police.

*Second*, internal constraints. This branch of criticism focuses on the challenges progressive prosecutors might face either from within their own office or from components inherent to the prosecutors’ office work process. When discussing challenges from within, scholars emphasize a potential clash between the broad-scale reformist agenda of the elected prosecutor and the narrower interests of line prosecutors.<sup>118</sup> Some define this as a classic principal-agent problem, where

115. See also Ouziel, *supra* note 16 (suggesting that “bureaucratic resistance demands that elected leaders not only advance a criminal enforcement agenda approved by a majority of voters, but that they convince the professional enforcement apparatus of the benefits of such an agenda.” In districts that have elected progressive prosecutors, community and civil society groups are taking a more active role in evaluating the extent of progress on promised progressive reforms.).

116. Michael Balsamo, *Barr Defends Police, Takes Swipe at Progressive Prosecutors*, PBS NEWSHOUR (Aug. 12, 2019, 1:48 PM), <https://www.pbs.org/newshour/nation/barr-defends-police-takes-swipe-at-progressive-prosecutors> [https://perma.cc/84LR-ABNZ]. For the critique of Barr’s approach, see Aaron Leibowitz, *Officials Blast Barr for Criticism of Progressive Prosecutors*, LAW360, (Aug. 16, 2019, 4:06 PM), <https://www.law360.com/articles/1189627/officials-blast-barr-for-criticism-of-progressive-prosecutors> [https://perma.cc/U3SL-5AZM].

117. For example, the U.S. Attorney for the Eastern District of Pennsylvania, William McSwain, was highly critical of Krasner, stating at one point that Krasner “[u]nfortunately seems wholly unconcerned about providing justice to victims. He seems preoccupied with advocating for defendants.” Davis, *Reimagining Prosecution*, *supra* note 5, at 17.

118. Kay L. Levine & Ronald F. Wright, *Prosecution in 3-D*, 102 J. CRIM. L. & CRIMINOLOGY 1119, 1133 (2012).

the progressive prosecutor strives to achieve some idealized goals but, in fact, cannot constantly control how the agent (the line prosecutor) performs her role and whether she diverts from the new reformist agenda.<sup>119</sup> Indeed, line prosecutors might have different agendas and motivations than those of their bosses, which may overcome the reformist agenda.<sup>120</sup> While some of the most “rogue” line prosecutors could be fired for not following the reformist agenda, it is impossible to control each and every decision of line prosecutors, including interactions with witnesses, discovery procedures, and more.<sup>121</sup> It is thus understandable that some of the first moves of progressive prosecutors were to immediately replace some of their line prosecutors after coming into office.<sup>122</sup> However, such staff purging is clearly a radical move and can only be embraced in a few instances, given that progressive prosecutors also have an office to run and a clear interest in maintaining a degree of stability and continuity in the office, with the hope of achieving the reformist goals.

Another related critique undermining the potential success of the movement is tied to the inherent traits of the prosecutorial work, the structure of the criminal justice system, and human psychology. This line of reasoning predicts that the chances for the movement’s success are rather slim: first, because prosecutors become more punitive over time;<sup>123</sup> second, because there is no meaningful alternative to prosecuting violent crime; and third, because the adversarial nature of our trial system is too narrow to provide fairness in the vast majority of cases where guilt is not contested.<sup>124</sup>

*Third*, and probably the most extensive line of criticism, relates to the external limitations of progressive prosecutors. Interestingly, the arguments raised under this branch are somewhat at odds with the core argument against prosecutors, which in

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119. Note, *supra* note 7, at 760–61.

120. See Ronald F. Wright & Kay L. Levine, *Career Motivations of State Prosecutors*, 86 GEO. WASH. L. REV. 1667 (2018) (suggesting, based on interview data, that the career motivations of prosecutors may not align with what a progressive prosecutor might hope to advance). McWithey, for example, distinguishes between line prosecutors in urban and rural areas, but discusses ways where their individual pursuit of career goals could be at odds with a reformist agenda; for example, if they wish to gain trial experience, they may be more combative; or if they believe in a “good-guys bad-guys” narrative of criminal justice, rather than the progressive view, they may pursue a more punitive agenda in their own caseload. Madison McWithey, *Taking a Deeper Dive into Progressive Prosecution: Evaluating the Trend Through the Lens of Geography: Part One: Internal Constraints*, 61 B.C. L. REV. E. SUPP. I-32 (2020), <https://lawdigitalcommons.bc.edu/cgi/viewcontent.cgi?article=3821&context=bclr> [https://perma.cc/B5Q7-17Y5].

121. Note, *supra* note 7, at 761; McWithey, *supra* note 120, at I-42–I-44.

122. For example, Krasner took this route. See Davis, *Reimagining Prosecution*, *supra* note 5, at 11 (“Shortly after taking office in January of 2018, Krasner began to fulfill his campaign promises. During his first week on the job, he fired 31 of the office’s prosecutors and immediately began recruiting and filling the open positions with lawyers who share his vision of criminal justice reform.”).

123. Seema Gajwani & Max G. Lesser, Note, *The Hard Truths of Progressive Prosecution and a Path to Realizing the Movement’s Promise*, 64 N.Y.L. SCH. L. REV. 69, 78–82 (2019–2020) (positing this would happen given the salience of reoffenders, the reductionism of the criminal process, and the transference of negative feelings about defense attorneys to their clients).

124. *Id.* at 82–86, 92.

many ways ignited the progressive prosecutor movement—that “[p]rosecutors are the most powerful officials in the criminal justice system.”<sup>125</sup> This line of critique instead suggests that prosecutors are not as strong as one would expect and that additional players outside the prosecutorial office can sabotage any reformist goals.<sup>126</sup> For example, it is argued that judges might push back on reformist agendas by refusing to approve “progressive” plea bargains, claiming they are too lenient,<sup>127</sup> or by setting precedent based on legal interpretations that constrain the reformist agenda.<sup>128</sup>

Additional pushback, and maybe the most meaningful form, can come from the police, the gatekeepers of the criminal process. They decide who to arrest and sometimes what to arrest a person for.<sup>129</sup> If their interests do not align with the prosecutor’s progressive goals, they have the ability to subvert information and make decisions that will sabotage the prosecutor’s agenda.<sup>130</sup> This is particularly concerning given the police’s independence. As such, the police’s ability to thwart progressive prosecutors’ goals is likely to persist even if prosecutors will attempt to constrain the police’s discretion by implementing new reformist directives.<sup>131</sup> Police, and particularly police unions, can also directly fight prosecutors in court or in the public domain when feeling pressured by actions prosecutors take to increase police accountability, such as advancing criminal investigation in cases of police brutality.<sup>132</sup> The lack of support from the police not only stands as an obstacle for

125. See Davis, *supra* note 82, at 5.

126. In so claiming, those offering such a critique support Bellin’s key argument that “the core substantive problem with this state of affairs [in which prosecutors *are* the criminal justice system] is that claims about prosecutorial power are oversimplified and overstated. As reformers are finding, the criminal justice system is not a prosecutorial fiefdom. And while the country could use more thoughtful criminal justice practitioners of every stripe, prosecutors remain just one piece of a complex puzzle.” Bellin, *supra* note 83, at 175 (footnote omitted).

127. As some PA courts did with regards to some bargains brought by Krasner. Pickerell, *supra* note 10, at 83; Andrew Cohen, *Reformist Prosecutors Face Unprecedented Resistance from Within*, BRENNAN CTR. JUST. (Jun. 19, 2019), <https://www.brennancenter.org/our-work/analysis-opinion/reformist-prosecutors-face-unprecedented-resistance-within> [<https://perma.cc/3PMM-UUW7>].

128. See Bellin, *supra* note 83, at 849 (positing that judges can act as a check on prosecutors because they have the final say on sentencing decisions). *But see* Darryl K. Brown, *Judicial Power to Regulate Plea Bargaining*, 57 WM. & MARY L. REV. 1225 (2016) (emphasizing the diminished role of judges in plea bargaining).

129. Daniel S. Medwed, *Emotionally Charged: The Prosecutorial Charging Decision and the Innocence Revolution*, 31 CARDOZO L. REV. 2187, 2202–04 (2010); Alexandra Natapoff, *Misdemeanors*, 85 S. CAL. L. REV. 1313, 1317 (2012) (describing how “police are effectively empowered to decide not only who will be arrested but who will be convicted”); Bellin, *supra* note 83, at 191–94 (discussing the power of the police to affect outcomes before the formal charging process).

130. See Madison McWithey, *Taking a Deeper Dive into Progressive Prosecution: Evaluating the Trend Through the Lens of Geography: Part Two: External Constraints*, 61 B.C. L. REV. E. SUPPL. I.-49 (2020) (providing some examples for situations where—given the high level of discretion police officers have with regards to arrest—strong union leaders or police commissioners can guide police officers to subvert from the prosecutor’s policy and consequently undermine her legitimacy).

131. We can see this as another Principal-Agent problem. See Note, *supra* note 7, at 762–63.

132. McWithey, *supra* note 130. For some illustrations from Philadelphia, Chicago, and Massachusetts, see Pickerell, *supra* note 10, at 82–83.

the prosecutor to perform her role but also puts her reelection chances at risk.<sup>133</sup> When assessing those challenges, however, the literature distinguishes between urban and rural progressive prosecutors, suggesting that prosecutors in rural areas are likely to have fewer constraints in advancing their agenda.<sup>134</sup>

Another external challenge to the success of the reform-minded prosecutorial agenda is the prosecutors' dependence on the voting public for elections (and reelections), which is often characterized by erratic and unpredictable decision-making processes. In fact, if we look at numbers, we should note that out of more than 2,300 positions of local prosecutors, only about 100 or so were taken by progressive prosecutors, and in some liberal states, such as California, some progressive prosecutors have in fact lost their elections.<sup>135</sup> Another related argument focuses on the geography of progressive prosecutors, according to which most of the achievements of the movement are focused on urban areas, despite the fact that rural areas are where minorities are more consistently ill-treated by the criminal justice system.<sup>136</sup>

*Fourth*, the diffusion of power critique, or the “you’re doing it all wrong” approach. This branch of criticism often comes from the liberal end of the spectrum. At its core, this branch proclaims that by supporting the progressive prosecutor movement, we are merely replacing one form of coercive power with another coercive power while grounding the “prosecutor-king” narrative.<sup>137</sup> More broadly, we are preserving the power structures that brought the criminal justice system to where it is today: ultra-punitive, racist, and acutely sensitive to human error. Instead, we should restructure some key elements of the criminal justice system or simply “go bigger.”<sup>138</sup> Progressive prosecutors can thus engage in

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133. See McWithey, *supra* note 130, at I-50; Note, *supra* note 7, at 762–63.

134. McWithey, *supra* note 120, at I-48.

135. PAUL BUTLER, CHOKEHOLD: POLICING BLACK MEN (2017); see also Note, *supra* note 7, at 758 (“At best, that is what a reform-minded prosecutor is: an exception. They are significantly outnumbered by their nonprogressive counterparts, who are the rule and are necessary to accelerate the wholesale rot of the criminal legal system.”); Rachel E. Barkow, *Three Lessons for Criminal Law Reformers from Locking Up Our Own*, 107 CALIF. L. REV. 1967, 1970 (2019).

136. Maybell Romero, *Rural Spaces, Communities of Color, and the Progressive Prosecutor*, 110 J. CRIM. L. & CRIMINOLOGY 803, 817 (2020) (questioning the mere existence of progressive prosecutors: “Given the inherent power imbalances, racial biases, and other inequities intentionally established as part of the criminal legal system, I believe it to be impossible to be a progressive prosecutor.” Romero is recognizing the slow change occurring in urban areas but focuses on the lack of such prosecutors in rural areas, where the flaws of the criminal justice system are particularly evident.). But see John F. Pfaff, *Why the Policy Failures of Mass Incarceration Are Really Political Failures*, 104 MINN. L. REV. 2673, 2691–92 (2020) (recognizing the lack of progressive prosecutors in rural areas but suggesting these prosecutors could in fact have a meaningful role in promoting change in those areas); BAZELON, *supra* note 3, at xxviii (“[Prosecutors] hold the reins of law enforcement in an increasing number of major cities as well as scattered rural areas.”).

137. Bellin, *supra* note 7.

138. Alec Karakatsanis, *The Punishment Bureaucracy: How to Think about “Criminal Justice Reform,”* 128 YALE L.J. F. 848, 929 (2019) (“But we must also guard against the tendency to inflate the importance of existing ‘progressive prosecutors.’ We must be clear about who they are; what they are proposing; the differences across the cohort and within each prosecutor office between genuinely

activities that will diffuse power across the system and prioritize different allocation of funds to support alternative solutions that will replace the need for prosecutorial action.<sup>139</sup> Moreover, it was also argued we should get rid of prosecutors altogether by reestablishing a system of private prosecution that was once the norm.<sup>140</sup>

Having established the scope of the debates over algorithmic decision-making and progressive prosecution separately, we now proceed to assess them in tandem.

### III. DIVERGENT OR CONVERGENT TRENDS?

As we have seen, in recent years, there has been increased interest in advancing both progressive prosecution and algorithmic decision-making, each of which shares the hope of bringing a much-required change to a flawed system. However, while scholars, activists, and policy makers do engage in debates about both these trends, these are treated separately, without regard for any potential interactions between them. By surveying the development of progressive prosecution as a movement and a discursive community, alongside the coming-of-age of algorithmic methods in criminal justice, we attempt to holistically investigate these two trends and evaluate their potential compatibility or incompatibility to bring the desired reforms to the criminal justice system.

Indeed, and as we explored in Parts I and II, both trends are concerned with similar problems. They stem from a deep disquiet with the state of the American criminal justice system as it presently stands, and particularly with the acute racial disparities that plague it, its vulnerability to error, and the conundrum of mass incarceration in the United States. Both problems have severe adverse effects on society at large, and both call for dramatic improvements in the workings of the system. As such, we saw, from the progressive prosecutors' end, an advancement of a plethora of policies directly aimed at tackling these exact problems. For example, progressive prosecutors have advanced changes in charging policies for offenses that traditionally affect minorities, changes in bail reforms to reduce the

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transformative changes and minor tweaks; how a newer generation of 'progressive prosecutors' can be even more bold than this current cohort; how specifically organizing around prosecutor issues can shift concentrations of local power, and what the theory is for how 'progressive prosecutors' can be a stepping stone to much more significant structural change.”).

139. Covert, *supra* note 93, at 187 (suggesting that prosecutors aiming to advance systemic change should: “Advocate for the reallocation of funds from prosecutors’ offices—rather than the expansion of diversion programs—to social services to keep the mentally ill, substance-addicted, and poor out of the criminal system. Rather than hoping to prevent wrongful convictions and overpunitiveness by changing who works in your office, lobby for a stronger indigent defense system and more external limits on prosecutorial power. To combat racial inequities in the criminal system, support efforts to strengthen defendants’ equal protection rights, instead of simply publishing statistics. Through these shifts, we can harness this moment where criminal justice reform tops the national agenda and implement truly transformative change.”).

140. I. Bennett Capers, *Against Prosecutors*, 105 CORNELL L. REV. 1561, 1564 (2020) (calling to replace a system “where prosecutors hold a monopoly in deciding which cases are worthy of pursuit” with a system in which “‘we the people,’ including those of us who have traditionally had little power, would be empowered to seek and achieve justice ourselves”).



numbers of imprisoned members from low-income communities, and increases in police accountability by adopting more aggressive charges for police brutality cases that often involve minorities.<sup>141</sup> Algorithmic tools offer their own visions of how to address those similar concerns and create an overall change in incarceration levels and accuracy—for instance, by adopting predictive models that alleviate human bias and errors, thereby mitigating racially adverse outcomes in the decision-making process.<sup>142</sup>

Moreover, both the algorithm-adoption and progressive prosecution trends focus on the follies of human discretion and bias as a fundamental source of these overarching problems. To be sure, there are other crucial reasons for the disparity and overpunitiveness, but biases on the part of decision makers at different stages in the criminal justice pipeline are likely detrimental.<sup>143</sup> Decision makers are riddled with racial and other biases, which lead to adverse effects in different decision points, such as entry into the system, pretrial detention, sentencing, and others.<sup>144</sup> Other systematic decisions also distribute burdens unevenly, such as the criminalization of specific offenses (for example, drug offenses) that implicate specific racial minorities more than others.<sup>145</sup> On this front, progressive prosecutors call the child by its name; they identify biased policies and unchecked discretion by decision makers as the source of the problem and offer to replace, omit, or redesign areas of the criminal justice system in order to tackle such biases.<sup>146</sup> Algorithmic tools adopt statistical models and methods with the explicit purpose of overcoming those exact same human biases and errors in high-stakes decision-making. In sum, there might be an area of agreement between the two trends regarding the problem and its causes.

However, despite some potential overlap regarding the *causes*, we argue that there is an inherent logical tension between these two trends regarding the *solutions* they advance.<sup>147</sup> Particularly, these trends are *prima facie* in disagreement about the role of humans as part of the solution. For progressive prosecution, the solution is allowing “new” and “different” people to enter in order to advance progressive thinking into positions of power within the criminal justice system, thereby

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141. See *supra* Part II.

142. See *supra* Part I.

143. See generally Traci Schlesinger, *The Cumulative Effects of Racial Disparities in Criminal Processing*, 7 J. INST. JUST. & INT'L STUD. 261 (2007) (showing that racial minorities suffer disparities in criminal outcomes emanating in earlier stages of the process); Besiki L. Kutateladze, Nancy R. Andiloro, Brian D. Johnson & Cassia C. Spohn, *Cumulative Disadvantage: Examining Racial and Ethnic Disparity in Prosecution and Sentencing*, 52 CRIMINOLOGY 514 (2014) (finding that effects of race and ethnicity vary by discretionary points and accumulate over the criminal justice process).

144. See Avery & Cooper, *supra* note 51.

145. In the context of drug offenses see, for example, MONA LYNCH, *HARD BARGAINS: THE COERCIVE POWER OF DRUG LAWS IN FEDERAL COURT* 6–10 (2016).

146. See *supra* Section II.A.

147. As mentioned earlier, as a first step we consider the most paradigmatic cases for each of these trends. Later on, we are willing to recognize some blurred lines between the trends that represent some of their *de facto* manifestations.

propelling systemic transformation. Conversely, for the algorithmic trend, the fallibility of human decision-making is the essential obstacle; therefore, the solution entails replacing humans with actuarial and other methods, or at least constraining human discretion and doing away with unrestrained clinical judgment. These are two very different visions for the role of humans in the criminal justice system.

Such an inherent logical tension regarding the prospective role of humans suggests these movements could fundamentally be at odds. Furthermore, we argue, this structural, methodological conflict translates into two levels of tension. *First*, it evokes a normative tension, as both trends hold other values dear and prioritize differing goals, which leads to serious contention over the image and character of criminal justice. *Second*, there is tension in these trends' *modi operandi* and the ways in which they purport to implement solutions and transform the criminal justice system.

Both these arenas of tension are not purely theoretical but rather have direct, practical implications. Therefore, these tensions will not remain a conceptual, hypothetical problem but might lead to situations where the two trends can each hinder the other's capacity to make progress in ending racial bias and disparity, reducing incarceration, and improving outcomes. This suggests that the continuous isolated discussion about each trend is not only insufficient but also a disservice to reformist goals.

In order to assess more accurately the apparent incompatibility of the two approaches, we now take a deeper look into the normative tensions between them. We will later discuss additional tensions stemming from the differences in these trends' *modi operandi* and further elaborate on how both these arenas of tension have immediate, practical points of contention that could ultimately frustrate attempts to reform the criminal justice system.

#### *A. Normative Tensions*

On a normative level, we identify three points of contention between the two trends, where the values advanced by each vision could prove challenging to reconcile. These are accountability, transparency, and the democratization of the criminal justice system.

*First*, the *accountability* of a public institution can be defined as its responsiveness to its constituency and fidelity to the goals set forth by the latter, the lack of which will lead to sanctions.<sup>148</sup> Progressive prosecution, at least in its most ideal form, is concerned with advancing the accountability of the criminal justice system as a whole.<sup>149</sup> This translates to the advancement of accountability

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148. See generally Mark Bovens, *Public Accountability*, in THE OXFORD HANDBOOK OF PUBLIC MANAGEMENT 1–3, 11 (Ewan Ferlie, Laurence E. Lynn Jr. & Christopher Pollitt eds., 2007); Green & Yaroshefsky, *supra* note 109, at 61–62.

149. This is done directly and indirectly. See Davis, *Progressive Prosecutor*, *supra* note 5, at 2–3; cf. Lauren M. Ouziel, *Prosecution in Public, Prosecution in Private*, 97 NOTRE DAME

mechanisms for different actors in the criminal justice system, foremost the prosecutors themselves. As discussed, prosecutors are held to be crucial actors who should not be viewed merely as bureaucrats “doing their job” but rather should be held accountable for their actions. This is true not only because prosecutors are elected officials but also because they sit at a critical junction between state use of power and fundamental civil rights. What seems a simple and logical axiom, however, was in much contention over the years.<sup>150</sup> In recent years, the role of the prosecutor was brought into the limelight, and the wide range of their influence was emphasized and revealed.<sup>151</sup> With this increased awareness came increasing calls for accountability—accountability that would correspond to the degree of independence and discretionary power of the prosecutorial position.<sup>152</sup>

Consequently, much of the promise behind progressive prosecution is to advance a new vision of accountability for these public figures. And for obvious reasons, accountability, it is contended, has the potential to harness free-ranging prosecutorial discretion to the will of the public and attune it to the goals worthy of pursuing—mitigating racial inequalities and reducing mass incarceration.<sup>153</sup> But the accountability revolution brought by the progressive prosecution movement did not stop at the gate of the District Attorney’s office, and a majority of prosecutors ran on platforms promising to also dramatically increase the accountability of the police.<sup>154</sup> Such reformist vision was tightly attached to prevalent voices calling for a systemic change in police behavior and was often motivated by deep inequalities in the treatment of minorities. Indeed, as evidenced from the discussion in Part II above, the goal of increasing accountability throughout the criminal justice system was and still is a pivotal element in the work of progressive prosecutors. In fact, in the context of progressive prosecutors, accountability is advanced every step of the way: from competitive races supported by social activism, through the election process, and finally with the adoption of the different policies aimed at increasing accountability of key actors in the criminal justice system.

In contrast, algorithmic systems can be averse to administrative accountability. Public officers cannot be held accountable for the outcomes of algorithmic systems they do not understand and have no control over. Most algorithmic applications in criminal justice are provided by private companies.<sup>155</sup> These applications are far away from the public eye and enjoy propriety protection and lessened

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L. REV. (forthcoming 2021) (arguing that some progressive prosecutors fail to act on their promises of increased accountability and transparency).

150. See Green & Yaroshefsky, *supra* note 109, at 51–53.

151. See Starr & Rehavi, *supra* note 37, at 10–14, 78–79; Sklansky, *supra* note 4; Bellin, *supra* note 7, at 219–21.

152. See generally Sklansky, *supra* note 4.

153. See Bovens, *supra* note 148.

154. See Bayles, *supra* note 17; Davis, *Reimagining Prosecution*, *supra* note 5, at 7–8, 10.

155. See *supra* Section I.A.

responsibilities compared to public actors.<sup>156</sup> Outsourcing the development of systems makes public agencies less accountable to their design and choices embedded within them, to the point where public figures in charge of a program cannot attest to its workings.<sup>157</sup> Whether this is done deliberately or not is a question of importance, but nevertheless, there seems to be less accountability with algorithms than without. The development of algorithms in criminal justice applications requires many design decisions, among them: What is the training data on which the model is developed? Which variables are included in the model and which are excluded? What outcomes are optimized?<sup>158</sup> Such decisions are value-laden<sup>159</sup> and crucial to fairness considerations—for instance, where the allocation of false positives and false negatives may unevenly burden minority groups over others.<sup>160</sup> Many of these decisions are highly technical and are not easily accessible for public servants. This is also why private contractors have a lot of influence on the design of algorithms, which the state might not be capable of monitoring and auditing. Yet, the responsibility is shifted to the technical actors that develop them, mostly outside the organizational structure of public agencies.

Insofar as accountability is the ability to point fingers at an agent and demand explanations, algorithms reduce the ability to do so. It is fairly straightforward to see how the black boxing of decision-making is incongruent with the goal and purpose of the progressive prosecution movement, which—by adopting accountability-inducing initiatives—seeks to undo what was once considered the impenetrability of prosecutorial discretion.

A *second*—related—arena of tension between the trends is *transparency*—that is, allowing the public to understand and assess the thought processes, rationales, and outcomes of the various state agents participating in the criminal process. The progressive prosecution trend focuses on transparency to the public. After years of prosecutorial decision-making processes behind a veil, progressive prosecutors have advanced two critical transparency-promoting tools: *first*, clear and elaborated policies relating to the prosecution, sentencing, and treatment of police brutality cases and *second*, announcing the creation of data-accessibility projects that allow, or will allow, public access to data about criminal cases from start to end.<sup>161</sup>

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156. Garrett & Stevenson, *supra* note 15; Klingele, *supra* note 15; Hester, *supra* note 15; Crawford & Schultz, *supra* note 13; Carlson, *supra* note 13.

157. See Ryan Calo & Danielle Keats Citron, *The Automated Administrative State: A Crisis of Legitimacy*, 70 EMORY L.J. 797, 820–21 (2021) (recounting instances where public officials in litigation proceedings could not explain the decisions that were issued by algorithm).

158. See, e.g., Deirdre K. Mulligan & Kenneth A. Bamberger, *Procurement as Policy: Administrative Process for Machine Learning*, 34 BERKELEY TECH. L.J. 773, 781, 798–808 (2019).

159. See Danah Boyd, *Undoing the Neutrality of Big Data*, 67 FLA. L. REV. F. 226, 227 (2016) (pointing out that algorithms are not normatively neutral).

160. See O’Hear, *supra* note 38 (pointing out that, if wrongly used, risk-assessment tools might not advance decarceration).

161. See Davis, *Reimagining Prosecution*, *supra* note 5, at 24–25; Sklansky, *supra* note 4, at 30–32.

In contrast, the incorporation of algorithmic tools to public decision-making in the criminal justice context (and more generally) hinders transparency. A main component of this argument is the so-called opacity of algorithmic systems, which are not easily accessible for decision makers. Algorithms are opaque due to their technical complexity, which makes them inaccessible for non-technically-trained professionals, which includes most judges and legal decision makers.<sup>162</sup> Yet even with technical knowledge, algorithms—mostly those based on state-of-the-art machine learning and deep learning techniques—can be indecipherable, in the sense of understanding and reproducing their input-to-output process.<sup>163</sup> This is potentially at odds with the legal requirement for explanations of decisions, which is a basic hallmark of administrative decision-making<sup>164</sup> and is all the more important in criminal justice.

This is where accountability and transparency meet. As a general rule, private individuals have a right to an explanation of the decision meted out by public officials in their individual cases.<sup>165</sup> If decision makers cannot explain how they reached decisions, as in the realm of algorithms, a rudimentary expectation of the individual subject to that decision is possibly violated, which in turn may lead to the wearing down of trust in the institution.<sup>166</sup> Thus the algorithmic approach is not focused on holding actors accountable by exposure to sunlight but rather on shaping the outcomes of their decisions through technological interventions.

Beyond the accountability and transparency tensions between the movements, there may be a *third*, somewhat deeper friction between the two trends—that is, the democratizing and reformist character of progressive prosecution versus the bureaucratizing and possibly conservative attributes of algorithmic decision-making.

Progressive prosecution can be seen as a democratizing force, focusing on electing officials into government and strengthening public participation in the criminal justice process.<sup>167</sup> Indeed, as evidenced, the movement received support

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162. Klingele, *supra* note 15; Hester, *supra* note 15.

163. Often referred to as the explainability or interpretability problem. See Leilani H. Gilpin, David Bau, Ben Z. Yuan, Ayesha Bajwa, Michael Specter & Lalana Kagal, *Explaining Explanations: An Overview of Interpretability of Machine Learning*, in 2018 IEEE 5TH INTERNATIONAL CONFERENCE ON DATA SCIENCE AND ADVANCED ANALYTICS 80, 80 (2018); Cynthia Rudin, *Stop Explaining Black Box Machine Learning Models for High Stakes Decisions and Use Interpretable Models Instead*, 1 NATURE MACH. INTEL. 206, 206 (2019).

164. See generally Andrew D. Selbst & Solon Barocas, *The Intuitive Appeal of Explainable Machines*, 87 FORDHAM L. REV. 1085 (2018).

165. See generally Cary Coglianese & David Lehr, *Transparency and Algorithmic Governance*, 71 ADMIN. L. REV. 1 (2019); Margot E. Kaminski & Jennifer M. Urban, *The Right to Contest AI*, 121(7) COLUM. L. REV. 1957 (2021).

166. Min Kyung Lee, *Understanding Perception of Algorithmic Decisions: Fairness, Trust, and Emotion in Response to Algorithmic Management*, BIG DATA & SOC'Y, Jan.–Jun. 2018, at 1, 2.

167. Davis, *Reimagining Prosecution*, *supra* note 5, at 6–7. When referring to democratization, we mostly consider the advancement of participatory democracy in which communities can directly advance systemic changes in the criminal justice system through the democratic process.

from grassroots and civil rights movements and infused energy and democratic vigor after years of hibernated prosecutorial election processes, characterized by a general lack of interest from voters and candidates that often ran unopposed.<sup>168</sup> Even if it might shy away from a maximizing concept of criminal justice,<sup>169</sup> the progressive prosecution movement still undoubtedly contributes to advancing democratic values of participation and deliberation.<sup>170</sup> In turn, it also purports to legitimize criminal justice more broadly by making it more equitable, fair, and less punitive—in fact, more just.<sup>171</sup>

On the other hand, the adoption of algorithms in the criminal justice system can be seen as part of a program to transform it into a more bureaucratic system. Proponents of algorithmic decision-making envision the justice system as a bureaucratic process more attuned to data than to exogenous characteristics.<sup>172</sup> It advances, at least supposedly, data-driven, rational decision-making based on statistical methods rather than clinical, human judgment.<sup>173</sup> Algorithms potentially allow for more consistency across decision makers and structure decision-making in a way that makes it less dependent on an individual judge’s (or prosecutor’s) inclinations. This is aimed at taming discretion in favor of consistent decision-making, in the spirit of bureaucratic rationality.<sup>174</sup> In that sense, and given the bureaucracy’s resistance to change, algorithms reflect a more conservative vision of the criminal justice system. We do not claim algorithms cannot lead to substantial changes—indeed, that is what they are meant to do—but rather that they may make systems more resistant to change, especially given their tendency to reflect normative facts about the world embedded in their underlying data.<sup>175</sup>

168. *Id.*; Sklansky, *supra* note 16, at 647–49; Arango, *supra* note 3.

169. See, e.g., Jerry L. Mashaw, *Administration and “The Democracy”*: *Administrative Law from Jackson to Lincoln, 1829–1861*, 117 YALE L.J. 1568, 1574 (2008) (“‘The Democracy’ that Andrew Jackson symbolized was about power to the people, and to the states and localities, not power to the federal government.”).

170. Davis, *Reimagining Prosecution*, *supra* note 5, at 6–7. See also Joshua Kleinfeld, *Three Principles of Democratic Criminal Justice*, 111 NW. U. L. REV. 1455, 1467–72 (2017) (discussing three definitions of “democratization” that differ in their level of community participation; progressive prosecutors seem to advance democratization under all three categories). For a different vision about the extent to which prosecutors represent the “we the people” in the criminal justice system, see Capers, *supra* note 140.

171. See generally Capers, *supra* note 140 (discussing the crisis of legitimacy of the criminal justice system in the introduction and citations).

172. See *supra* Section I.B.

173. See *supra* Section I.B.

174. See JERRY L. MASHAW, BUREAUCRATIC JUSTICE: MANAGING SOCIAL SECURITY DISABILITY CLAIMS 25–26 (1983); Kleinfeld, *supra* note 170, at 1467.

175. See, e.g., Michelle Bao, Angela Zhou, Samantha Zottola, Brian Brubach, Sarah Desmarais, Aaron Horowitz, Kristian Lum & Suresh Venkatasubramanian, *It’s COMPASlicated: The Messy Relationship Between RAI Datasets and Algorithmic Fairness Benchmarks* (June 10, 2021) (unpublished manuscript), <https://openreview.net/pdf?id=qeM58whnpXM> [<https://perma.cc/P3NJ-UXZX>] (arguing that datasets used for training criminal justice algorithms suffer from biases and inaccuracies, reflecting problematic real-world effects). See also *infra* Section III.B.

Algorithmic approaches do not focus on democratizing the process. In fact, they even push out more accountable actors, replacing them with less salient decision makers and with technical functions in charge of developing the systems.<sup>176</sup> These are two very distinct normative accounts of what the criminal justice system ought to be and how it evaluates the values that are at stake.

In this context, it should be noted that while we argue that algorithms are generally at odds with the democratization of the criminal justice system, one could think of participatory frameworks for the adoption of algorithms that incorporate public views and concerns and thus lean more democratic per our definition in this Article. One actual example for such framework is the still-ongoing eight-year-long process undergone by the Pennsylvania Commission on Sentencing to adopt sentence risk-assessment instruments. The adoption of these instruments involved participatory process where stakeholders—reform advocates, affected communities, lawyers, and lawmakers—engaged and provided input to the development process.<sup>177</sup> Such processes, however, seem to be at present the exception, rather than the rule,<sup>178</sup> but they can point at potential directions to alleviate concerns of lack of democratization.

### B. Differences in Modus Operandi

A key feature of the progressive prosecution trend has to do with its reformist attitude aiming at an overhaul of certain aspects of the fossilized criminal justice system. However, the advent of algorithms is not obviously in line with such reformism, and in fact, algorithms have the potential to create a more rigid and less adaptable system, which is adverse to broad changes in attitudes.

That progressive prosecutors work under a reformist agenda seems self-explanatory. As we saw in Part II, prosecutors across the country adopted varied measures to rethink, assess, or simply throw out different aspects of the

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176. See Ngozi Okidegbe, *The Democratizing Potential of Algorithms?*, 53 CONN. L. REV. (forthcoming 2021) (arguing that algorithms exclude viewpoints and values of racially marginalized communities which are most affected by them). As discussed earlier, progressive prosecutors on the contrary aspire to amplify the voices of these marginalized communities, hence their potential democratization promise.

177. See Proposed Model Pretrial Risk Assessment Tool, 50 PA. BULL. 294 (Jan. 18, 2020), <https://www.pacodeandbulletin.gov/secure/pabulletin/data/vol50/50-3/50-3.pdf> [<https://perma.cc/F2PN-BBYY>]; Samantha Melamed, *Pa. Officials Spent 8 Years Developing an Algorithm for Sentencing. Now, Lawmakers Want to Scrap It.*, PHILA. INQUIRER (Dec. 12, 2018), <https://www.inquirer.com/news/risk-assessment-sentencing-pennsylvania-20181212.html> [<https://perma.cc/M4FX-W3LL>]. For other examples, for instance in the context of child protection agencies, see Anna Brown, Alexandra Chouldechova, Emily Putnam-Hornstein, Andrew Tobin, Rhema Vaithianathan, *Toward Algorithmic Accountability in Public Services: A Qualitative Study of Affected Community Perspectives on Algorithmic Decision-Making in Child Welfare Services*, in PROCEEDINGS OF THE 2019 CHI CONFERENCE ON HUMAN FACTORS IN COMPUTING SYSTEMS (2019). Adopting these participatory models has some potential in improving the democratization concern of algorithms, but these seem to still be too few and far between and require additional investigation.

178. Cary Coglianese & Lavi M. Ben Dor, *AI in Adjudication and Administration*, 86 BROOK. L. REV. 791, 802–03 (2021).

criminal justice system to which they were elected. In fact, they all run on political cards that aspire to challenge the much-criticized status quo.

Algorithmic decision-making processes, on the contrary, are more conservative in nature, as they tend in effect to support the status quo, in the sense that they reduce the impact each individual decision maker has and make the system dependent on certain design choices and past data.<sup>179</sup> Algorithmic design might create barriers against the reformism of progressive prosecution by grounding the design to a specific set of decisions and not allowing future flexibility. This is especially true if prosecutors can only intervene after the fact and are not part of the design process, and particularly since bureaucratic systems are slow to adopt changes and are resistant to revoking measures that have already been incorporated.

Furthermore, algorithms have the potential of making it harder to change policy directions due to the reliance on past data to train instruments. Algorithmic models are developed based on past decisions of judges or other relevant decision makers and might encode underlying existing biases and tendencies (such as racial biases leading to disparate outcomes).<sup>180</sup> They may even enhance such tendencies by inflating their weight as predictors of risk or other outcomes of interest. Such attributes might render the direction harder to steer and thus may run counter to the aspirations of reformist prosecutors who wish to change course.

Moreover, both the progressive prosecutors and algorithmic decision-making approaches are moving forward alongside much more far-reaching calls for a criminal justice overhaul, including abolitionist and similar critiques.<sup>181</sup> While the two trends may both fall short of a revolutionary transformation, it appears that progressive prosecution is closer in aim and goal than the algorithmic trend. To put it more succinctly, while algorithms are designed to modify specific parts of the criminal justice pipeline, progressive prosecutors are interested in “rooting out” systematic problems. This divergence between the two approaches may lead to clashes of interests.

Another point of tension relating to the operationalization of these trends has to do with their focus on different spheres of human decision-making. The algorithmic approach is interested in case-by-case adjudications, inconsistencies across decision makers, and in general, individual decisions that translate into general consequences. On the other hand, progressive prosecution concentrates efforts on roles of power and policymaking, with the purpose of creating systemic change. Although not completely accurate, those approaches can be characterized as bottom-up for the former and top-down for the latter.

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179. See generally Mayson, *supra* note 24.

180. See *id.* at 2223–25.

181. See, e.g., Allegra M. McLeod, *Prison Abolition and Grounded Justice*, 62 UCLA L. REV. 1156 (2015) (discussing the “prison abolitionist ethic”); V. Noah Gimbel & Craig Muhammad, *Are Police Obsolete? Breaking Cycles of Violence Through Abolition Democracy*, 40 CARDOZO L. REV. 1453 (2019) (discussing police abolition through a democratic-abolitionist framework).



*C. Practical Implications*

The discussion above points to more than theoretical tensions. In fact, and as we will discuss below, these tensions can have direct practical implications on the ability to advance reform in the criminal justice system.

Although, as discussed earlier, algorithms and prosecutors currently tend to function in mostly separate institutional domains with different actors and incentives (algorithms mainly implemented at courts and police departments), they are part and parcel of the same system. This relationship cannot be disentangled, as algorithmic decision-making tools and progressive prosecutors may encounter each other in various decision points and processes in which prosecutors take some part, such as policing, pretrial detention, sentencing, and parole decisions. In these cases, prosecutors do not necessarily hold the primary authority and power.<sup>182</sup> However, they may have a public role as stakeholders and political actors in the arena with leverage to push for or against such implementation. In policing, for instance, the use of facial recognition software or predictive policing techniques may cut against policies that prosecutors are seeking to advance and therefore put these prosecutors on a collision course with police departments. This may, in fact, undercut some of the prosecutors' reformist agenda, forcing them to decide whether to utilize their political capital in such struggles.

Moreover, where prosecutors play an active role, such as pretrial detention or sentencing discussions, they may strive to bring forward a policy (for instance, offsetting racial bias in detention rates)—even if it does not coincide with the risk assessment prediction of algorithms. In such cases, the data used in the risk assessment tool is likely to be trained on old data preceding the reforms advanced by the prosecutor. Under such a scenario, prosecutors might be disinclined to adopt any algorithmic decision-making tool. Other participants in the criminal process, particularly judges, might still opt for adopting such a tool to save time and costs or simply due to institutional inertia. As such, algorithms may hinder or undermine any advancement of agenda that is not aligned with the potential predictions of the algorithmic tool and push back on the reformist agenda.

All of the tensions discussed above suggest that, depending on the stages in which they are introduced, algorithmic tools can hinder progressive efforts.

Consider, for example, a jurisdiction in which the courts have adopted a risk assessment algorithm for bail hearings. As discussed, this is a widely used tool in many U.S. jurisdictions. Such an algorithm, when adopted, was likely trained based on data that captured inherent biases in how suspects' risk was assessed, such as specific involvement in crimes, recidivism, socioeconomic status, and more. Some of these definitions encapsulate "risk" as defined by relevant statutes but also by arrest and charging policies.<sup>183</sup> A new progressive prosecutor is likely to redefine

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182. Bellin, *supra* note 83. But see Capers, *supra* note 140, and sources cited *supra* note 82 for the dominant view about the almost unlimited power of prosecutors in the criminal justice system.

183. See Richardson et al., *supra* note 7.

some of these categories—for example, by deciding not to indict suspects in specific drug or property crimes. Therefore, under a new algorithmic model that considers new definitions of “risk,” suspect A—who was found to be dangerous under the old model—may no longer pose the same risk, which will clearly affect the outcome in her bail hearing. New training data, however, may take a long time to accumulate. Ideally, a progressive prosecutor would like to minimize the use of the current, potentially flawed, model until a new model under a new policy and with additional accountability measures is designed. For the judges sitting in the jurisdiction’s criminal court, this means going back to individual decision-making processes. Those judges who already went through the implementation of and adaptation to using algorithms in their risk assessment process, and most likely appreciate its contribution to reducing their workload, will likely resist such a change. Doing so will clearly perpetuate the same decision-making patterns that the progressive prosecutor promised to address. Under this scenario, the progressive prosecutor’s path to advance a meaningful change is significantly narrowed.

Another example could be predictive policing algorithms that evaluate risk in specific neighborhoods based on socioeconomic status and arrest rates. As discussed, these tools are commonly used by police departments and often allow the department to increase the effectiveness of the police work. Assessing risk based on arrest rates, however, depends heavily on the specific policies regarding the types of felonies that warrant arrests. That is, one would consider a suspect to be dangerous only if the suspect’s behavior can be categorized as a felony that carries moral blameworthiness justifying arrest. The question of what carries moral blameworthiness is often not an axiom but rather a social construct that is heavily dependent on questions of policy. It is therefore not surprising that progressive prosecutors around the country have targeted this domain as a key in the reform they wish to advance.<sup>184</sup> As such, a new progressive prosecutor will likely challenge the use of such a predictive policing tool based on an assessment that does not reflect the prosecutor’s view of dangerousness (for example, using a risk assessment tool that takes into account marijuana possession). Given the advantages it brings, and maybe simply due to institutional inertia, the police department will likely push back on any attempts to reduce, or even bring to a halt, the usage of the algorithmic tool until further assessment of the policies. Their refusal would thus suggest that similar—most likely biased—patterns of arrest will continue while limiting the prosecutor’s ability to offer a true reform.

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184. See, for example, Kim Foxx’s decision in her second week as State Attorney not to charge retail theft as felonies (with some caveats related to the value of the property or the defendant’s criminal history). Davis, *Reimagining Prosecution*, *supra* note 5, at 8. See also Larry Krasner’s decision in his second month in office not to charge “marijuana possession, possession of marijuana paraphernalia, or prostitution.” *Id.* at 11. By doing so, these prosecutors signaled that according to their policies, subjects implicated in such activities are not considered dangerous, at least to the extent that warrants their arrest. Other prosecutors, however, might adopt different policies that do categorize these offenses as warrant arrests, thus suggesting that subjects involved in these activities are dangerous (and should be arrested).

There are multiple possible outcomes of such clashes, which heavily depend on the circumstances, including which stages of the process, by whom, out of what motivation (fiscal concerns? progressive tendencies?) and how long ago algorithms were introduced, how acclimatized the decision makers are to those systems, and what concrete goals prosecutors are seeking to achieve. For example, if the judges using the risk-assessment tool in bail hearings in the first scenario used the tool as purely suggestive and diverted from the recommendation on a regular basis (which according to studies is an unlikely scenario), or if the judges sitting in the specific court have a liberal agenda of their own, there is a greater likelihood of reaching an understanding regarding the usage of the tool. If, on the contrary, the specific jurisdiction has long used risk-assessment tools in bail hearings and judges got accustomed to fully relying on such an assessment, the clash between the reformist agenda and the algorithmic tool is likely to persist. Indeed, in the scope of this Article, it is impossible to determine *ex ante* how those clashes will look without understanding the specific and local ecosystems. It is clear, however, that a string of potential clashes between progressive prosecutors and algorithmic decision-making in fact exists.

In sum, in this Section, we introduced a number of points of tension between the progressive prosecution movement and the increased use of algorithmic decision-making in the criminal justice system. We first discussed some inherent normative conflicts between those trends and additionally showed how they differ operationally. We then showed how some of the inherent features of each of these trends could lead to potential practical clashes that, at the end of the day, can inhibit the success of a much-desired criminal justice reform.<sup>185</sup>

In any event, it is clear there needs to be a diversion from current scholarship—which discusses these trends in isolation—towards a more unified approach that looks at both these trends in conjunction, as this Article does. Indeed, current scholarship can be considered a mere reflection of the current reality where both progressive prosecutors and algorithmic tools are being thrown into the muddy pool of the criminal justice system in an unorganized fashion. In the next Part, we propose a more linear approach to the introduction of these trends that takes into account the normative and practical clashes, with an eye toward advancing accountability, transparency, and democratization, without abandoning the greater goal of bringing much-required change to the criminal justice system.

Given the novelty of such an approach, we are not presuming to offer a complete set of policy solutions to the inherent challenges we discussed above. However, we suggest in this Article a potential path forward that will hopefully

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185. It should be noted that at this stage, despite the prevalence of algorithmic systems in different phases of the criminal justice process and the growing numbers of elected progressive prosecutors, many of the concrete manifestations of the tensions need to be empirically assessed. Yet we believe that given the trajectories of these trends, their contention is only likely to expand, and is therefore important to heed to already at this stage.

advance these important conversations among advocates of a more just criminal justice system.

#### IV. TOWARD A UNIFIED APPROACH TO CRIMINAL JUSTICE REFORM?

In our discussion so far, we have identified a few crucial, albeit overlooked, problems relating to the current dynamics between two of the most dominant trends in the criminal justice system—progressive prosecutors and algorithmic decision-making. Some of these problems, to which we devoted most of the discussion so far, relate to inherent normative, operational, and practical tensions between these trends. As such, we argue that adopting algorithmic decision-making (in its most paradigmatic version) is likely to hinder principles of accountability, transparency, and democratization, which stand at the core of progressive prosecution. Moreover, we claim that algorithmic decision-making tools are inherently inclined towards the status quo such that they might stand in the way of the progressive agenda. These tensions, so we argue, ultimately stand in the way of achieving our shared goals of addressing systemic flaws in the criminal justice system, most notably racial discrimination, ultra-punitiveness, and error.

We raised another challenge that exacerbates the above concerns: the chaotic adoption of these two trends within criminal systems. If the potential interplay between these domains is not explored more thoroughly, as we suggest, policy makers will have little incentive to organize the current situation and will continue thinking about progressive prosecutors and algorithmic decision-making as two parallel trends that bring “something to the table” but need *not* be reconciled. As discussed at length, we believe this is wrong and frustrates meaningful attempts to offer reform in the criminal justice system.

Addressing these concerns would require a move toward a process-oriented approach that takes into account the embedded clashes between these trends, with an eye towards mitigating these clashes through cooperation and careful tailoring of implementable policies. Such a process could maximize the advantages of each of these trends in lieu of creating obstacles to reform.

To be clear, we do not suggest that mere recognition of the potential contradictions between the trends would suffice to advance reform. This recognition is a *sine qua non*, but it is not sufficient. Instead, we envision a linear process of implementation. Linear processes, by their nature, require a decision about a starting point. That inevitably prioritizes one solution over the other. Two assumptions direct us towards our starting point. *First*, accountability, transparency, and democratization of the criminal justice system are values worth pursuing. *Second*, there is more potential in advancing systemic change through reform than tools that preserve the status quo. Under these assumptions, we suggest that algorithmic decision-making tools, whether existing or planned, should be designed or redesigned through a reform-oriented approach. These are our progressive algorithms.

What does this mean in practice? In short, algorithmic decision-making will serve the reform advanced by progressive prosecutors and not the other way around. Such an approach can take on many forms and processes. At first, this view affects the mere decision of whether or not to introduce any given algorithmic decision-making tool into the system. Prosecutors should clearly be involved in such a decision in the domains directly related to their own work and their involvement in the criminal process, but they should also have a voice in decisions that are not directly under their discretionary power but can clearly affect the overall success of the reform.<sup>186</sup> If accountability, transparency, and democratization of the criminal justice system as a whole are worth pursuing, then other players in the criminal justice system could be more attentive to reformist voices in the decisions to implement computational tools.

A similar approach can also be adopted after a decision to implement an algorithmic tool is made. For example, we suggest adopting a participatory model of algorithmic design in which elected prosecutors take part. This would increase the probability that reformist considerations be taken into account from the early stages of the design process and would equip prosecutors with much-required knowledge for their decision to implement particular variables/considerations, propagating more accountability. Moreover, such a process can potentially address transparency concerns, as the elected official can serve as a mediator to the public and the connection between humans and the machine. Indeed, most prosecutors will likely lack much of the technical knowledge required to immerse in the design process fully. However, if accountability is what we wish to advance, one potential solution could include adding an in-house professional that is an employee of the District Attorney's office, with sufficient substantive knowledge and sophistication to enable her to engage with questions of algorithmic design and process. Additional solutions could include efforts to strengthen cooperation between prosecutors and those academics with the required knowledge to design algorithmic solutions.<sup>187</sup> While this is not an ideal solution to the black box problem, it adds increased levels of accountability and transparency into the process and guarantees that reform-minded considerations will be taken into account when deciding to implement algorithmic decision-making tools.

However, even if reform-minded approaches are followed, particularly through the participation of the prosecution and other players in the criminal justice

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186. Recall, however, that a common view among practitioners, scholars, and policy makers is that prosecutorial discretion cuts through each step of the criminal process. See sources cited *supra* note 82 and accompanying text. As such, there could be an argument that supports processes that require at least some prosecutorial involvement in many, if not all, of the decisions pertaining to the implementation of algorithmic decision-making in the criminal process.

187. For an example of such a cooperation, see generally Alex Chohlas-Wood, Joe Nudell, Keniel Yao, Zhiyuan (Jerry) Lin, Julian Nyarko & Sharad Goel, *Blind Justice: Algorithmically Masking Race in Charging Decisions*, in AIES '21: PROCEEDINGS OF THE 2021 AAAI/ACM CONFERENCE ON AI, ETHICS & SOCIETY (2021) (using algorithms to redact race-related information from case summaries, aiding a district attorney's office to make race-blind charging decisions).

system willing to engage in advancing systemic change, concerns related to the data used in the models remain valid. Algorithms, as well designed and sophisticated as they may be, need to be serving normatively valuable goals. If they fail to do so, they should be seen as flawed, no matter if they technically perform the task they were designed for. A policy shift by a progressive prosecutor that is deemed desirable by the political community—for instance, regarding cash bail on certain minor offenses—might be frustrated by an algorithm not encoding it that still highlights certain defendants as high risk because it was trained on past data. This is flawed in the sense that it is not only contradictory to the policy the prosecutor is seeking to implement but also fails to capture the normative position she wishes to advance. The prosecutor will be justified in not adopting recommendations in this case, and the algorithm needs to be adapted in an iterative process.

Indeed, and as we discussed earlier, advancing systemic change might be difficult if the data on which algorithmic models are trained are imbued with all the systemic flaws that preceded the arrival of the progressive prosecutor. Questions of risk assessment, for example, based on the categorization of both offenders and offenses, are likely to yield different outcomes after the implementation of new policies. As such, for a progressive movement to successfully tackle concerns for bias and error, any use of algorithms based on old data should be put to a halt, allowing sufficient time for new data under the new policies to be collected and models to be updated, or other meaningful interventions in the algorithmic design should be pursued. Only then, we argue, can computational tools help advance, rather than hinder, serious criminal justice reform.

A harder question may arise when the algorithm accurately predicts risk and yet recommends a policy that is not in line with the prosecutor's stated goals—for instance, the algorithm suggests that high bail postings may lead to decreased shooting incidents. However, we do not see a fundamental problem with adopting a policy generated or suggested by an algorithm, even if it *prima facie* contradicts the progressive agenda. It requires the prosecutor to be explicit about why she thinks that the policy is rational and to understand how the algorithm reached the conclusion. She needs to understand in depth how the algorithm works, how the data were generated, and all that was involved in the process. If the prosecutor decides to accept the policy despite its alleged tension with progressive goals, from our perspective, neither the accountability problem nor the democratization problem will be of grave concern. The public will judge that prosecutor on election day.

We trust that the latter solution (and maybe our approach as a whole) might frustrate the tech enthusiast. We are aware there might be some cost-prohibitive considerations that will come into play when thinking about the linear approach we offer here, particularly in jurisdictions that have already adopted algorithmic decision-making tools. This will likely require a substantive organizational change. However, for reform enthusiasts, and more generally for those believing that

regaining public trust in the criminal justice system requires increased levels of accountability and transparency, this approach is likely inevitable.

To be clear, this Article intends to be the start of a conversation. In fact, we are aware that we leave a number of open questions, generalities, and assumptions. Indeed, we emphasize the value of offering an innovative lens to understand and think about the inherent tensions between the most dominant trends in the criminal justice system. Rather than offering a complete set of solutions to these inherent tensions, we suggest that discussions about criminal justice reform cannot, and should not, overlook the systemic and normative clashes between these trends, as this can potentially undermine the shared goal of bettering the criminal justice system. We offer a rather simple yet unapplied linear approach that prioritizes principles of accountability, transparency, and democratization without neglecting the potential benefits technology can bring to the criminal justice system. Our approach is not human against machine, but rather human first, machine later.

#### CONCLUSION

This Article offers a bird's-eye view of two of the most dominant trends aiming to advance reform in the criminal justice system: progressive prosecutors and algorithmic decision-making. We ask an important but surprisingly unanswered question: can both these trends live side by side? We first answer this question in the negative. This is due to an inherent logical clash between these trends as they relate to the role of humans in advancing change. Such a logical clash, we argue, is directly manifested through normative frictions in the different visions of the system the trends advance and differences in their *modi operandi*, as we discuss at length. Such tensions lead to direct practical clashes—expected to grow given these trends' trajectories—that can ultimately, so we argue, frustrate important and much-needed reforms in the criminal justice system. We do not end there, however, and offer a potential path towards reform that promotes principles of transparency, accountability, and democratization while recognizing the potential inclusion of machine-learning processes in the criminal justice system rather than rejecting them outright. In a world where human-machine interactions hold the promise of correcting what needs correction, such a unified approach is likely essential.