The Effects of Holistic Defense on Criminal Justice Outcomes

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Anderson, James; Buenaventura, Maya; and Heaton, Paul, "The Effects of Holistic Defense on Criminal Justice Outcomes" (2018). Faculty Scholarship at Penn Law. 2024.
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Abstract: Debates over mass incarceration emphasize policing, bail, and sentencing reform, but give little attention to indigent defense. This omission seems surprising, given that interactions with government-provided counsel critically shape the experience of the vast majority of criminal defendants. This neglect in part reflects our lack of evidence-based knowledge regarding indigent defense, making it difficult to identify effective reforms.

One newer model gaining support is the holistic defense model, in which public defenders work in interdisciplinary teams to address both the immediate case and the underlying life circumstances—such as drug addiction, mental illness, or family or housing instability—that contribute to client contact with the criminal justice system. This holistic model contrasts with the traditional public defense model which emphasizes criminal representation and courtroom advocacy. Proponents contend holistic defense improves case outcomes and reduces recidivism by better addressing clients’ underlying needs, while critics argue that diverting resources and attention from criminal advocacy weakens results. Although widely embraced, there is no systematic evidence demonstrating the relative merits of the holistic approach.

This Article offers the first large-scale, rigorous evaluation of the impact of holistic representation on criminal justice outcomes. In the Bronx, a holistic defense provider (the Bronx Defenders) and a traditional defender (the Legal Aid Society) operate side-by-side within the same court system, with case assignment determined quasi-randomly based on court shift timing. Using administrative data covering over half a million cases and a quasi-experimental research design, we estimate the causal effect of holistic representation on case outcomes and future offending. Holistic representation does not affect conviction rates, but it reduces the likelihood of a custodial sentence by 16% and expected sentence length by 24%. Over the ten-year study period, holistic representation in the Bronx resulted in nearly 1.1 million fewer days of custodial punishment.

As of one year post-arraignment and beyond, holistic representation has neither a positive or adverse effect on criminal justice contacts. While holistic representation does not dramatically reduce recidivism, as some proponents have claimed, strengthening indigent defense apparently offers considerable potential to reduce incarceration without harming public safety. Indigent defense thus deserves a more prominent place in conversations about how to address mass incarceration, and future research should examine the effects of this promising model beyond the criminal justice system and in other jurisdictions.

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i Senior Behavioral Scientist and Director, Justice Policy Program, RAND. This project was supported by Award No. 2013 IJ-CX-0027 of the National Institute of Justice, Office of Justice Programs, U.S. Department of Justice. The opinions, findings, and conclusions or recommendations expressed in this research are those of the authors and do not necessarily reflect those of the Department of Justice or RAND. We are grateful for the assistance of the Legal Aid Society, the Bronx Defenders, the New York State Division of Criminal Justice Services, the New York State Office of Court Administration, and thoughtful input from Andrew Davies, Kara Finck, John Hollway, Rebecca Widom, participants at the 2018 American Society of Criminology annual meeting, and four anonymous reviewers. Carolyn Cadoret provided invaluable data assistance. Data was provided by the New York State Division of Criminal Justice Services (DCJS) in the interest of information exchange. The opinions, findings, and conclusions expressed in this publication are those of the authors and not those of DCJS. Neither New York State nor DCJS assumes liability for its contents or use thereof. Authors are listed alphabetically.

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INTRODUCTION

The vast majority of U.S. criminal defendants receive government-provided counsel, so methods for organizing, staffing, and appointing indigent defense counsel have far-reaching effects on the criminal justice system. One recent promising development in indigent defense is the growing recognition that indigent clients may be best served by a team of professionals rather than simply a heroic solitary lawyer who represents a defendant at criminal trial. This notion is embodied by the holistic defense model.

According to its proponents, the key insight of holistic defense is that to be truly effective advocates for their clients, defenders must adopt a broader understanding of the scope of their work with their clients. Defenders must address both the enmeshed, or collateral, legal consequences of criminal justice involvement (such as loss of employment, public housing, custody of one’s children, and immigration status), as well as underlying non-legal issues that so often play a role in driving clients into the criminal justice system in the first place. To this end, holistic defender offices are staffed not only by criminal defense lawyers and related support staff (investigators and paralegals) but also by civil, family, and immigration lawyers as well as social workers and non-lawyer advocates, all working collectively and on an equal footing with criminal defense lawyers. This holistic model contrasts with the traditional public defense model, which emphasizes criminal representation and courtroom advocacy.

Proponents of holistic defense contend that it improves case outcomes and reduces recidivism by better addressing clients’ underlying needs and reasons for criminal justice involvement. In addition, holistic defense can anticipate and avoid potential collateral consequences of criminal justice involvement, such as loss of employment and housing, eliminating risk factors for future crime. Traditionalists, in contrast, argue that diverting resources and attention from criminal advocacy leads to worse case outcomes. Despite the fact that it has been embraced in many jurisdictions, there is virtually no systematic evidence demonstrating whether holistic representation delivers on its promise of better case outcomes or lower recidivism. A persistent problem has been isolating the contribution of holistic representation from the myriad of other factors operating in communities and the courts that shape what happens to indigent defendants once they enter the system.

In this Article, we provide one of the first rigorous, large-scale empirical evaluations of the holistic approach to indigent defense, adding to the nascent literature identifying “what works” in indigent criminal defense. In the Bronx, two institutional providers of indigent defense – the Bronx Defenders and the Legal Aid Society of New York (“Legal Aid”) - exist side-by-side within the same court system. The Bronx Defenders have been operating under a holistic defense model since

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their office’s inception in 1997. While Legal Aid also recognizes the importance of addressing collateral issues and clients’ non-legal needs, as one of the nation’s oldest and largest providers of indigent legal services, they follow a more traditional model. Clients are assigned to the two defender associations through a rotating shift assignment system that furnishes a natural experiment enabling rigorous measurement of the effect of the holistic defense approach.

Using administrative data covering over half a million cases and a quasi-experimental research design, we estimate the causal effect of holistic representation in the Bronx on case outcomes and future offending. Holistic representation does not affect conviction rates, but it reduces the likelihood of a custodial sentence by 16% and the expected sentence length by 24%. Over the ten-year study period, holistic representation in the Bronx has reduced custodial punishment sentences by nearly 1.1 million days, saving state and local taxpayers an estimated $165 million on inmate housing costs alone. Holistic defense also increases the likelihood of pretrial release, and while this mechanically results in elevated pretrial arrest and nonappearance, as of one year post-arraignment and beyond, holistic representation has no measurable effect on future criminal justice contacts, with estimates sufficiently precise so as to preclude modest positive or negative effects. While these results suggest holistic representation does not dramatically reduce recidivism, holistic defense does appear to offer considerable potential to reduce incarceration without adversely impacting public safety.

To better understand indigent defense in the Bronx, the holistic defense model, and how holistic defense works in practice, we also conducted semi-structured interviews with criminal justice stakeholders in the Bronx, including Bronx Defenders, attorneys and social workers from Legal Aid, appointed private counsel, judges, and external service providers. Both the Bronx Defenders and Legal Aid describe their representation as “holistic”, and the interviews suggest some degree of convergence in recent years in their goals and staffing models. However, the interviews also revealed differences in their approach to providing defense. Criminal defense attorneys at both organizations make referrals to civil attorneys when non-criminal issues such as risk of deportation or potential loss of public housing arise; however, the Bronx Defenders continuously assesses referral structure and referral success and model, train, and evaluate interdisciplinary communication between advocates. The Defenders also organize their office in interdisciplinary teams with leaders who, along with practice area supervisors, monitor whether team members are communicating effectively and whether team members are identifying needs beyond their independent practice area.. Thus, the Defenders appear to embrace practices likely to facilitate the flow of information across different members of the defense team.

Although the precise explanation for the outcome differences across the two defender organizations remains uncertain, one explanation that seems consistent with both the qualitative and quantitative data is that the holistic approach may enable the criminal justice system to solve an information problem. While incarceration of some defendants may be necessary to protect public safety, for other individuals it serves no corrective purpose and merely represents wasted resources. Given the large caseloads and assembly-line processing of criminal defendants in the Bronx—as in many if not most jurisdictions in the U.S.—prosecutors and judges have difficulty identifying those defendants who could be treated leniently without creating future risk, and they tend to discount information from defense attorneys who have incentives to claim that every defendant is a special case that justifies lenient treatment. Holistic defense, then, may function as

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6 Our quantitative methodology is detailed in Part III of this Article.
a superior information gathering mechanism, helping defense attorneys to identify mitigating features of their cases and then convey these in a convincing manner to prosecutors, judges, and juries.

More broadly, this study suggests that indigent defense has received too little attention in the broader discussion of criminal justice reform in the U.S. Although interest groups and policymakers from all points along the ideological spectrum have expressed considerable concern about mass incarceration and the associated human and fiscal costs, much of the reform agenda has focused on areas such as policing, sentencing reform, and pretrial detention. Perhaps one reason indigent defense has gained less prominence in the debate is policymakers’ perception that providing better quality representation might lead to acquittals of guilty defendants, undermining one of the core purposes of the criminal justice system. However, this study demonstrates that strengthening indigent defense can instead offer a means to reduce unnecessary and unproductive punishment that does not further society’s goal of ensuring public safety. Given the promise of the model, further research to assess its mechanisms of impact, scalability to other jurisdictions, and effects on outcomes outside of the criminal justice system is warranted.

In Part I of this Article, we provide background information on the holistic defense model, and review the limited prior empirical research on holistic defense. In Part II, we discuss how closely the service models used by the Bronx Defenders, Legal Aid, and private counsel adhere to holistic defense principles and we compare these indigent defense providers’ models. In Part III, we describe our quantitative data sources and methodology. In Part IV, we describe the results of our quantitative analysis, i.e. the causal effect of the holistic representation implemented by the Bronx Defenders on case outcomes and future offending. In Part V, we discuss potential implications of our findings for criminal justice policy and practice. In the conclusion, we propose next steps for future holistic defense research.

I. BACKGROUND ON HOLISTIC DEFENSE

A. The Holistic Defense Model

The holistic defense model emerged in the 1990s as a new paradigm for indigent defense. Although the term “holistic defense” has been defined in a variety of ways and affixed to a range of different defender organizations, across the different definitions a few common elements emerge. Holistic defense as a philosophy views the criminal defense attorney as having responsibility not only to provide representation in the current criminal case, but to also attempt to address the antecedent circumstances that lead clients to come into contact with the criminal justice system in the first place. Holistic defenders view their role as helping to address a broader range of client needs—certainly providing legal expertise in a criminal proceeding, but also potentially assisting clients with drug treatment, access to mental health care, maintaining employment, preserving housing, filing immigration applications, or assisting with other issues that can render them vulnerable to future contact with the justice system. This approach contrasts with a more traditional indigent defense approach, which emphasizes the role of the defender as a legal and courtroom advocate who has responsibility or obtaining the best legal outcome for a client in a particular case subject to ethical and other constraints.

Early adopters of the holistic model, such as the Neighborhood Defender Service of Harlem and Bronx Defenders, implemented a number of innovations in order to better align their day-to-
day operations with the holistic philosophy. First, in order to address non-legal needs of clients, these organizations required a different mix of staff than a traditional defender. Holistic organizations tend to hire a fewer number of criminal attorneys as a percentage of total staff and more civil attorneys and other professional personnel such as social workers or mental health professionals.

Because their focus is on addressing a range of interlocking needs, holistic defender organizations have a multidisciplinary focus. This can be manifest in a variety of ways—for example, a holistic defender typically assigns clients to a cross-disciplinary team of staff members (e.g. criminal attorney, civil attorney, and social worker) who independently interact with the client, rather than simply a single attorney who draws upon ancillary services from investigators or social workers but who is the link between the office and the client. Multidisciplinary focus also arises in training, with attorneys gaining expertise in multiple fields. Holistic defense organizations also place significant emphasis on understanding the community and building community relations, because they are dependent on community organizations to provide many of the ancillary services (health care, housing assistance) needed for their clients.

A further difference concerns prioritization. The holistic paradigm attempts to optimize over a wider range of client outcomes, and in some cases these outcomes may be in conflict with one another. For example, a client held in pretrial detention might have a winnable case but face the loss of a job or housing if he remains in detention long enough for a hearing.8 Securing an acquittal might inflict more harm on the client in terms of overall quality of life than a quick guilty plea. As another example a client might be given an opportunity to attend inpatient drug treatment in lieu of a conviction, but doing so would leave her with no way to care for a minor child, whereas accepting a conviction and fine would ensure continuity of child care, her biggest priority. The holistic model puts client priorities front and center, which means that these defenders may be more willing to sacrifice better outcomes in the criminal case if doing so would serve some other client interest.

While initially the term holistic defense was primarily used to describe entire defender organizations that subscribed to the model described above, more recently the term “holistic representation” has been more widely applied, including to individual units or, in some cases, even individual attorneys. Today, holistic representation is often used to describe indigent defenders who share the basic goals of providing legal representation that considers a broader range of client needs, with particular consideration of collateral consequences. Many if not most defender organizations today would view themselves as practicing some version of holistic defense, although a comparatively small number have implemented the staffing, training, and organizational changes described above.

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B. Prior Research on Holistic Defense

The academic literature that discusses holistic defense is relatively small. Writing separately, Kyung Lee, Michael Pinard, J. McGregor Smyth, and Robin Steinberg provide baseline descriptions of the model and detail real-world examples, citing the potential of holistic defense to address collateral consequences of arrests and socioeconomic issues associated with recidivism. Pinard, Lee, and Brooks Holland present critiques of the model, citing potentially problematic aspects of holistic defense including resource constraints, ethical dilemmas such as possible disagreements with clients regarding prioritization of liberty over other interests, and potential for conflict of interest. While Pinard and Lee suggest that the holistic defense model may improve criminal representation in spite of potential barriers and ethical concerns, Holland argues that the holistic model should be adopted with caution and holistic advocacy should not be prioritized above traditional trial practice. Steinberg addresses various criticisms of the model, and offers a characterization of the model as consisting of four “pillars” that has been influential in shaping discourse surrounding holistic defense. Finally, Sarah Buchanan and Roger M. Nooe develop a model of the role of social work as part of holistic public defense and discuss some of the operational challenges in Knoxville, TN.

Beyond this conceptual work, there have been relatively few evaluations of holistic defense programs and as of yet, there has been no large-scale, rigorous evaluation of the impact of holistic defense programs.

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13 Steinberg, supra note 7, at 9.
15 Lee, supra note 10, at 424; Holland, supra note 5, at 642-643.
16 Holland, supra note 5, at 648.
17 Pinard, supra note 11, at 1095; Lee, supra note 10, at 432.
18 See generally, Holland, supra note 5.
21 Lee, supra note 19 (providing frameworks for process evaluations, impact evaluations, and cost-benefit analyses of holistic defense programs. With respect to impact evaluations, Lee recommends examining short-term outcomes such as time spent in pretrial detention, rates of pretrial release, conviction and dismissal rates, usage of alternatives to incarceration, and sentence types and durations and long-term outcomes such as rates of re-arrest, new convictions, probation violations, petitions for post-conviction relief, and appeals.)
representation on criminal justice outcomes. Michele Sviridoff and co-authors\(^\text{22}\) offered a first evaluation effort, comparing outcomes of a small sample of Neighborhood Defender Service of Harlem (NDS) clients arrested between July and November 1990 with individuals who were arrested in Manhattan during the same period. In a follow-up study, Susan Sadd and Randolph Grinc\(^\text{23}\) matched NDS clients to non-NDS clients using race, gender, age, and various criminal history metrics. NDS clients had average sentences 100 days shorter than the comparison group; however, the study found no statistically significant differences in days in pretrial detention, release on recognizance, conviction rates, or dismissals.

More recent studies have typically involved limited samples and do not control for factors other than representation type that might affect case outcomes. For example, Cait Clarke and James Neuhard\(^\text{24}\) surveyed a variety of holistic defender organizations and presented statistics that suggesting that individual defendant outcomes have improved and overall incarceration costs have decreased. Informal evaluations of the Rhode Island Public Defender office’s Defender Community Advocacy Program (DCAP) also concluded that the program saved taxpayers millions of dollars in prison costs.\(^\text{25}\) Brooke Hisle, Corey Shdaimah, and Natalie Finegar\(^\text{26}\) conducted a process evaluation of the Neighborhood Defenders Program (NDP) in Baltimore and concluded from focus groups that clients believed the program assisted them with social and economic concerns outside their legal cases, but did not present an outcomes analysis. Most recently, Dana DeHart and coauthors examined the impact of holistic defense on legal outcomes in an unnamed southeastern judicial district.\(^\text{27}\) Comparing cases before and after program implementation, and controlling for defendant demographics and some case characteristics, holistic representation was associated with an increased likelihood defendants were held on bond, convicted, and incarcerated.\(^\text{28}\)

Susan Ainsley McCarter used a randomized control trial design to measure the effects of wraparound juvenile forensic social work services and holistic defense on recidivism and other outcomes in an unnamed large Southeastern city.\(^\text{29}\) She found that the services significantly improved youth functioning though no change was noted on recidivism or Motions for Review.\(^\text{30}\) While the study is suggestive of the benefits of a holistic approach, the study was limited to


\(^{23}\) Susan Sadd & Randolph Grinc, The Neighborhood Defender Service of Harlem: Research Results from the First Two Years (1993).


\(^{25}\) Peter Wells, Presentation at the National Legal Aid and Defender Association’s Annual Conference in Wash., D.C., Taking Public Defense to the Streets: Working with Client Communities Outside the Courtroom (Dec. 2, 2004); Melanca Clark & Emily Savner, Community Oriented Defense: Stronger Public Defenders (2010).


\(^{28}\) Id. at 175-177.

\(^{29}\) Susan Ainsley McCarter, Holistic Representation: A Randomized Pilot Study of Wraparound Services for First-Time Juvenile Offenders to Improve Functioning, Decrease Motions for Review, and Lower Recidivism, 54 Family Court Review 250 (2016).

\(^{30}\) Id. at 255-56.
juveniles and it is not clear the role that other aspects of holistic defense (apart from the wraparound services) played in the outcome.

To summarize, existing research to date on holistic defense has provided conceptual underpinnings for the model, but most fail to empirically establish the real-world effects of this approach in practice. Existing studies are limited in scope, do not adequately address the possibility that observed outcomes might represent influences other than the type of representation, and come to conflicting conclusions regarding the efficacy of the approach. This lack of a strong evidence base is notable given the growing acceptance of the holistic paradigm in indigent defense circles. In a criminal justice system that is increasingly embracing evidence-based practice, the move towards holistic representation is occurring without much evidence.

The present study seeks to address this shortcoming, offering a methodologically strong evaluation of the criminal justice impacts of a holistic defense program as practiced in a large urban jurisdiction over a considerable period of time. It extends a small but influential body of literature that seeks to apply rigorous methods of causal analysis to understand the effect of legal service models on case outcomes. Examples of studies in this vein include work by David Abrams and Albert Yoon; Radha Iyengar; James Anderson and Paul Heaton; Douglas Colbert, Ray Paternoster, and Shawn D. Bushway; and Cassandra Pattanayak, D. James Greiner, and Jonathan Hennessy. A common finding across studies that use methodologically stronger research designs such as quasi-experiments or randomized controlled trials is that the attorney can exert substantial influence on case outcomes, separate and apart from the legally relevant features of the case. A fairly unique feature of the present study is our ability to follow defendants for a substantial period of time following the resolution of the case, enabling us to assess impacts in not only the immediate proceeding, but also on defendants’ future path of criminal justice system contact.

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31 In addition to the present study, at least two other evaluations of holistic defense are currently underway: The National Center for State Courts’ multi-site evaluation of holistic defense programs and the Louisiana State University School of Public Health’s evaluation of the Louisiana Center for Children’s Rights’ holistic defense program for children in the juvenile justice system.


33 Radha Iyengar, An Analysis of the Performance of Federal Indigent Defense Counsel (NBER Working Paper No. 13187, 2007) (found that clients represented by public defenders had significantly lower conviction rates and sentence lengths than clients represented by appointed counsel).

34 See Anderson & Heaton, supra note 1, at 154. (taking advantage of a natural experiment in Philadelphia to compare outcomes of defendants represented by appointed private counsel as opposed to public defenders in Philadelphia).

35 Douglas Colbert, Ray Paternoster, Shawn D. Bushway, Do Attorneys Really Matter? The Empirical and Legal Case for the Right of Counsel at Bail, 23 CARDOZO L. REV. 101 (2002) (using randomized design to find that represented defendants were 2.5 times as likely to be released on their own recognizance than unrepresented defendants in Baltimore, MD).

36 D. James Greiner, Cassandra Wolos Pattanayak & Jonathan Hennessy, The Limits of Unbundled Legal Assistance: A Randomized Study in a Massachusetts District Court and Prospects for the Future. 126 HARV. L. REV. 901, 908 (2013) (examining the effects of traditional verses limited representation on outcomes of clients facing eviction from their housing units using a randomized controlled trial).
C. How Might Holistic Defense Affect Criminal Justice Outcomes? A Typology

Proponents of holistic defense argue that it is likely to improve outcomes in both the immediate case and in the future, while critics believe the approach suffers from important weaknesses. The limited empirical work to date on this topic is inconclusive. On a theoretical level, there are various possibilities for how holistic representation might operate in practice. Across these different possible models, there are varying predictions for what one would expect to observe empirically when analyzing the effect of holistic representation on criminal justice outcomes. Thus, understanding these models can offer insights into how one might interpret the empirical results below.

One possibility, which we might term a “no difference” model, is that in actual practice the approach isn’t substantively different from traditional representation. Such a situation might arise if there are practical or resource limitations that impede the full realization of the model—for example, if it is too difficult to get budgetary authority to meaningfully increase the share of non-attorneys in the office—or if traditional offenders are able to address collateral concerns in comparable ways within the context of the more traditional attorney-client relationship. Under this model, we would not expect to see measurable differences in outcomes across defender organizations that practice holistic representation versus those that do not.

A second possibility, which we might term a “better trial advocacy” model, is one in which the holistic approach allows for superior courtroom representation—for example, by enabling attorneys to build better trust relationships with clients—but proves insufficient to address clients’ underlying entrenched problems. Such a situation might also occur if the business as usual model largely applies, except that the holistic office attracts different types of attorneys than a traditional office, and these attorneys are more adept adapt at trial advocacy. Under this model, we would expect the better courtroom advocacy to translate to superior case outcomes from the perspective of the client, such as increased pretrial release or lower conviction rates or sentences, but no enduring reduction in the likelihood of future contact with the criminal justice system. If better trial advocacy leads to fewer or shorter sentences, we might also expect a temporary increase in criminal activity in the short run due to a reverse incapacitation effect.

A third possibility—and the one highlighted by critics of holistic defense—is a “distraction” model. Under this model, holistic representation diverts resources and attention from trial advocacy, but the additional support services offered clients prove to not be rehabilitative. In this scenario, we might expect to observe higher rates of pretrial detention (resulting in a net decrease in pretrial crime through incapacitation), higher conviction rates, and/or more frequent or longer sentences. Future crime is diminished as clients receive more punishment and are incapacitated.

A fourth possibility is that the additional services provided through holistic representation are helpful in addressing underlying circumstances that lead to criminal justice contacts, but that these services are provided at the expense of advocacy in the criminal case. This could occur if, for example, the need to hire additional support personnel but maintain budget neutrality leads to fewer criminal attorneys with higher caseloads, and these larger caseloads impact advocacy. Under this “tradeoff” model, one would expect reductions in pretrial crime—as defendants are less likely to be released and/or the rehabilitative services begin to take hold—more frequent convictions or longer sentences, and lower post-adjudication crime through both incapacitation and as a result of rehabilitation.
A related but distinct possibility is a “better support only” model, where the proffered supports are effective at rehabilitation, but there is a neutral impact on trial advocacy. This could occur either because courts and prosecutors fail to recognize the beneficial nature of holistic representation, or because they do recognize that clients have been rehabilitated, but this is offset by diminished advocacy in other aspects, for example due to higher criminal attorney caseloads. This model offers somewhat similar empirical predictions to the preceding one, except that it predicts no effects on pretrial release and no change in conviction rates or sentences.

A final possibility is that the holistic approach functions as designed and as proponents have articulated, meaning that it enables attorneys to achieve more favorable outcomes in the criminal case, and it simultaneously serves to mitigate factors in defendants’ lives that contribute to contacts with the criminal justice system. This “full success” model offers ambiguous predictions regarding pretrial crime—better advocacy would increase pretrial release, which would tend to increase pretrial crime due to reverse incapacitation, but depending on how quickly the effects of the support services (e.g. drug treatment, housing stabilization, etc.) were realized, some offsetting effects might also occur pretrial. With full success, conviction rates or sentences should decrease, which in the short run could lead to reverse incapacitation, which might again be offset by the mitigation work of the holistic defender. In the longer run, after any reverse incapacitation effects have run their course, the model would predict lower crime.

Table 1 summarizes the six models described above, along with their predictions regarding expected impacts across a range of criminal justice outcomes. Because no two models offer precisely the same predictions regarding criminal justice outcomes, examining the pattern of results in the analysis that follows can offer insights into which of these models seems most likely to apply to holistic defense, at least as practiced in the Bronx.

**Table 1: Alternative Conceptions of How Holistic Defense Might Operate in Practice**

<table>
<thead>
<tr>
<th>Model</th>
<th>Predicted effect of holistic defense on:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pretrial Effect</td>
</tr>
<tr>
<td>1. No difference</td>
<td>0</td>
</tr>
<tr>
<td>2. Better trial advocacy</td>
<td>+</td>
</tr>
<tr>
<td>3. Distraction</td>
<td>-</td>
</tr>
<tr>
<td>4. Tradeoff</td>
<td>-</td>
</tr>
<tr>
<td>5. Better support only</td>
<td>0</td>
</tr>
<tr>
<td>6. Full success</td>
<td>+</td>
</tr>
</tbody>
</table>

**II. Holistic Defense in Practice**

**A. Indigent Defense in the Bronx**

In this section, we briefly discuss the structure of indigent defense in the Bronx, to provide context for our examination of the holistic defense model. The Legal Aid Society (“Legal Aid”) and the Bronx Defenders are the two institutional providers of indigent defense services in the
Bronx. The Legal Aid Society, the city’s largest defense provider, began representing indigent criminal defendants across New York City’s boroughs in 1879. In 1994, Legal Aid went on strike and Mayor Rudolph Giuliani issued requests for proposals (RFPs) for other public defense agencies. As a result, the city entered contracts with several new public defense providers, including the Bronx Defenders.\textsuperscript{37}

Legal Aid has three major practice areas: civil, criminal, and juvenile rights. The civil practice addresses a wide variety of legal issues facing low-income families and individuals, including housing, benefits, disability, domestic violence, family issues, health, employment, immigration, HIV/AIDS, prisoners’ rights and elder law. The criminal practice provides representation in criminal trials, appeals, and parole revocation defense hearings. The juvenile rights practice represents children in child protective proceedings, juvenile delinquency proceedings, people in need of supervision proceedings, and appellate cases. Legal Aid operates through a network consisting of offices in 25 borough, neighborhood, and courthouse locations in all five counties in New York City.\textsuperscript{38} Legal Aid’s Civil Practice and Criminal Practice have a shared office in the Bronx, and the Juvenile Rights Practice has an office nearby in the Bronx.\textsuperscript{39}

The Bronx Defenders, founded in 1997, provides criminal defense, family defense, civil legal services, immigration representation, social work support, and advocacy to indigent individuals in the Bronx. The Bronx Defenders’ advocates include criminal defense attorneys, family defense attorneys, civil generalist attorneys, immigration attorneys, impact litigation attorneys, social workers, benefits specialists, investigators, community organizers, team administrators, civil legal advocates, immigration advocates, re-entry advocates, and parent advocates.\textsuperscript{40} All of these different advocates work out of the same office.

When a conflict exists that prevents Legal Aid and Bronx Defenders from representing an indigent defendant in the Bronx, a private court-appointed attorney is assigned to the defendant pursuant to Article 18B of the County Law, the Assigned Counsel Plan.\textsuperscript{41} These attorneys are often referred to as “18B attorneys.”\textsuperscript{42}

\textbf{B. Service Models Used by the Bronx Defenders, Legal Aid, and 18B Attorneys}

To better understand how the various indigent defense providers in the Bronx operate, and the key operational differences between the Bronx Defender and Legal Aid, from August 2017 to November 2017, we conducted phone interviews with nine attorneys from the Bronx Defenders, seven attorneys and one social worker from Legal Aid, four private attorneys who serve as appointed counsel, three Bronx Criminal Court judges, two Bronx Criminal Court clerks, three representatives from nonprofits that work within the Bronx criminal justice system, and two former criminal defense attorneys who practiced in the Bronx.\textsuperscript{43} Topics covered in the interviews included

\begin{itemize}
\item \textit{Appellate Division}, NYCOURTS.GOV http://www.courts.state.ny.us/courts/ad1/Committees&Programs/18B/index.shtml (last accessed Dec. 22, 2017).
\item For more details about the case assignment process, see section II.A below.
\item The Bronx County District Attorney’s Office did not respond to our interview requests.
\end{itemize}
the case assignment process, service models employed by each organization, collaboration between civil and criminal advocates, the importance of providing non-criminal defense services to criminal defense clients, community impacts, and success metrics. We also reviewed publicly available documents that provide insights into the staffing, budgets, and other operations of the various defense providers.

Robin Steinberg, the founder of the Bronx Defenders, defined four pillars of holistic defense:

1. seamless access to legal and non-legal services that meet client needs,
2. dynamic, interdisciplinary communication,
3. advocates with an interdisciplinary skill set, and
4. a robust understanding of, and connection to, the community served.44

Legal commentators and indigent defense service providers cite Steinberg’s four pillars as the foundational principles of the holistic defense model.45 While the Bronx Defenders are well-known for adopting and expanding the holistic defense model, the Legal Aid attorneys we interviewed also described Legal Aid’s model as “holistic.” Although Legal Aid attorneys did not mention Steinberg’s four pillars or provide any other specific list elements that they believe comprise “holistic defense,” Legal Aid attorneys’ description of the way advocates at their organization practice parallel, to some extent, the four pillars of holistic defense, and all Legal Aid interviewees described their service model as “holistic.” However, advocates for Legal Aid and the Bronx Defenders have differing opinions on how similar their models are in practice. In this subsection, we discuss how closely the service models used by the Bronx Defenders, Legal Aid, and private counsel adhere to holistic defense principles and we compare these providers’ service models.

1. Seamless access to legal and non-legal services that meet client needs

Criminal defense attorneys at both Legal Aid and the Bronx Defenders noted that they begin identifying client needs at arraignment. With respect to legal needs, the Bronx Defenders employ a checklist at arraignment to identify consequences of criminal justice involvement for a client’s employment, housing, mental health, children, immigration status, student loans, public benefits, and other aspects of their life.46 Legal Aid has an immigration checklist to ensure the criminal defense attorney at arraignment identifies any immigration issues that might arise.47 Although Legal Aid does not have an arraignment checklist for non-immigration collateral issues, criminal defense attorneys from Legal Aid noted that they interview clients about life circumstances that might be impacted by their criminal case—for example, the client’s housing situation—at arraignment.48

44 Steinberg, supra note 7, at 967-968.
45 See, e.g., HARRIS COUNTY, supra note 19; MONT. CODE ANN. Title 47, Chapter 1, Part 126 (West 2017) (establishing a holistic defense pilot project and stating that the project must be based on the four pillars of holistic defense); Lee, supra note 10; Frederique et al., supra note 9, at 1335-37.
46 Steinberg, supra note 7, at 988.
47 Telephone interview with Attorney #6 from Legal Aid (Sept. 6, 2017).
48 Telephone interview with Attorney #6 from Legal Aid (Sept. 6, 2017). Telephone interview with Attorney #7 from Legal Aid (Sept. 7, 2017).
Some issues identified at arraignment require immediate involvement. For example, immigration referrals tend to be immediate because many clients face deportation after an arrest.\textsuperscript{49} Criminal defense attorneys at both organizations noted that they also continue to identify legal and nonlegal client needs throughout the duration of the criminal case. For example, one Bronx Defender cited the example of a client working as a security guard who received a letter saying that his security guard license might be suspended several weeks into the case. In this example, the criminal defense attorney made a referral a few weeks after the arrest because the need was not apparent at arraignment.\textsuperscript{50} Both Bronx Defenders and Legal Aid attorneys also noted that clients sometimes return to their organization after a case concludes, seeking assistance with legal needs.\textsuperscript{51}

Although 18B counsel reported that they do what they can to address the impacts of criminal justice involvement on their clients’ immigration status, housing, employment, and other life outcomes, their ability to address these collateral consequences is very limited. As one 18B attorney noted, 18B counsel only get paid for handling cases in criminal court.\textsuperscript{52} If a defendant is faced with non-criminal legal matters, there is little an 18B attorney can do, other than tell their client to try to hire a civil attorney or seek help from an institutional provider (\textit{i.e.}, Legal Aid or the Bronx Defenders).\textsuperscript{53} 18B counsel are not permitted to appear in family court or civil court.\textsuperscript{54} When an 18B attorney needs the assistance of experts, investigators, or interpreters in the criminal case, these services may be requested through an \textit{ex parte} application to the court and the judge must approve the use of the services. This process is commonly referred to as the “vouchering process.” 18B counsel and criminal law judges reported that it is not easy for 18B counsel to get social workers, investigators, or other assistance through the vouchering process.\textsuperscript{55}

Attorneys from the Bronx Defenders and Legal Aid also noted that if a client has nonlegal needs their organization cannot address, each organization can quickly connect the client with churches, food pantries, shelters, and other service providers with whom the organization maintains strong relationships.\textsuperscript{56} For example, Legal Aid connects clients age 19 and younger to an organization called Esperanza for counseling, GED programs, educational services, and home visits.\textsuperscript{57} A community member does not have to be inside the criminal justice system for the Bronx Defenders to help them get food stamps, healthcare, and better access to employment and housing.\textsuperscript{58}

With respect to providing clients with seamless access to services that address their legal and non-legal needs, we identified two primary differences between the Bronx Defenders and Legal Aid. First the team structure at the Bronx Defenders allows for easier referrals and more consistent monitoring of referral success. At the Bronx Defenders, teams of advocates from different practice areas physically sit together. These teams include criminal defense\textsuperscript{59}, family

\textsuperscript{49} Telephone interview with Attorney #2 from the Bronx Defenders (Sept. 18, 2017).
\textsuperscript{50} Telephone interview with Attorney #9 from the Bronx Defenders (Nov. 2, 2017).
\textsuperscript{51} Telephone interview with Attorney #4 from the Bronx Defenders (Oct. 2, 2017).
\textsuperscript{52} Telephone interview with 18B Attorney #4 (Nov. 1, 2017).
\textsuperscript{53} Telephone interview with 18B Attorney #4 (Nov. 1, 2017).
\textsuperscript{54} Telephone interview with 18B Attorney #4 (Nov. 1, 2017).
\textsuperscript{55} Telephone interview with 18B Attorney #1 (Aug. 28, 2017); Telephone interview with 18B Attorney #2 (Sept. 26, 2017). Telephone interview with Criminal Law Judge #3 (Sept. 13, 2017).
\textsuperscript{56} Steinberg, \textit{supra} note 7, at 989.
\textsuperscript{57} Telephone interview with Attorney #5 from Legal Aid (Aug. 30, 2017).
\textsuperscript{58} Telephone interview with Attorney #4 from the Bronx Defenders (Oct. 2, 2017).
\textsuperscript{59} Each team typically has between five and seven criminal defense attorneys.
defense, civil generalist, immigration, and impact litigation attorneys as well as social workers, investigators, team administrators, civil legal advocates, parent advocates, and immigration advocates. Criminal defense attorneys report that physical proximity to other attorneys and advocates facilitates referrals. Teams have one or more team leaders, and advocates outside of the criminal defense practice and non-attorneys (e.g. social workers and parent advocates) may serve as team leaders. Team leaders, along with practice area supervisors, monitor whether team members are communicating effectively and whether team members are identifying needs beyond their independent practice area. Team leaders collect reports on the referrals that each team member makes.

Although Legal Aid’s civil attorneys and criminal defense attorneys do not sit in teams, criminal defense attorneys work closely with Legal Aid’s non-criminal practice areas to address immigration, housing, employment, education, and other life issues that arise as a result of arrests and convictions. Civil and criminal defense attorneys in the Bronx Office of Legal Aid are located in the same building, and Legal Aid attorneys noted that being located in the same building allows for frequent in-person communication between civil practice and criminal practice attorneys.

A practical consequence of the Bronx Defenders’ team structure is that criminal defense attorneys at the Bronx Defenders have consistent access to civil attorneys, even if civil attorneys on their team have an independent caseload. Criminal defense attorneys at the Bronx Defenders reported that advocates in other practice areas are always receptive to referrals, no matter how inundated their independent caseload is. Advocates noted that sitting together in teams helps advocates with independent caseloads triage their cases. Because of physical proximity, advocates can talk about outcomes across all domains and communicate urgent tasks that need to be completed in each advocate’s practice area. In addition, attorneys at the Bronx Defenders noted that because team leaders and practice area supervisors are tasked with monitoring effectiveness and ease of referrals and because the organization in general focuses on making referrals as seamless as possible, teams can quickly respond to any barriers to referrals.

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60 “Parent Advocates assist and support parents who have open Family Court cases and are at risk of having, or who have had, their children removed and placed into foster care. They provide a strong voice for parents, and advocate for clients with the Administration for Children’s Services (ACS) and other social service agencies.” Parent Advocate, THE BRONX DEFENDERS, https://www.bronxdefenders.org/who-we-are/how-we-work/parent-advocate/ (last accessed Dec. 22, 2017).

61 “Parent Advocates assist and support parents who have open Family Court cases and are at risk of having, or who have had, their children removed and placed into foster care. They provide a strong voice for parents, and advocate for clients with the Administration for Children’s Services (ACS) and other social service agencies.” Parent Advocate, THE BRONX DEFENDERS, https://www.bronxdefenders.org/who-we-are/how-we-work/parent-advocate/ (last accessed Dec. 22, 2017).

62 Telephone interview with Attorney #1 from the Bronx Defenders (Sept. 5, 2017).

63 Telephone interview with Attorney #6 from the Bronx Defenders (Oct. 5, 2017).

64 Telephone interview with Attorney #2 from Legal Aid (Aug. 10, 2017).

65 At the Bronx Defenders and Legal Aid, civil attorneys have caseloads independent of referrals they receive from criminal defense attorneys within their organization. For example, the family defense practice at the Bronx Defenders is on duty at family court and receives its own clients through this intake stream. Telephone interview with Attorney #4 from the Bronx Defenders (Oct. 2, 2017).

66 Telephone interview with Attorney #9 from the Bronx Defenders (November 2, 2017).

67 Telephone interview with Attorney #9 from the Bronx Defenders (November 2, 2017).

68 Telephone interview with Attorney #9 from the Bronx Defenders (November 2, 2017).
Although criminal defense attorneys at Legal Aid reported that civil attorneys are generally accessible, one criminal defense attorney at Legal Aid noted that occasionally, civil attorneys are busy with their independent caseloads and this might affect their ability to immediately address a criminal defense client’s issues. The interviewee noted that it might be better if there were some preferential access for criminal clients with collateral needs.\(^{69}\) Another Legal Aid attorney reported that with respect to family court and housing issues, interactions may be less seamless and take a little more work, especially because ethical conflicts of interest sometimes arise.\(^{70}\)

The second notable difference between the Bronx Defenders and Legal Aid is that the Bronx Defenders uses social workers more frequently.\(^{71}\) Social workers at both the Bronx Defenders and Legal Aid conduct psycho-social assessments and recommend treatment for clients experiencing substance use disorders or mental health problems and collect mitigating information to contextualize the behavior that led to criminal justice involvement.\(^{72}\) Attorneys at the Bronx Defenders and Legal Aid note that connecting clients with appropriate treatment sometimes allows them to reach creative plea deals and dispositions. For example, a District Attorney may accept 12 weeks in anger management in place of jail or probation\(^{73}\) or if a defendant does well in a treatment program, the judge might consider a non-incarceration disposition.\(^{74}\) According to Indigent Defense Organization Oversight Committee (IDOOC) reports,\(^{75}\) the Bronx Defenders uses social workers in a much higher proportion of their misdemeanor and felony cases. In fiscal years 2012 to 2013 and 2010 to 2011, Legal Aid used social workers in 1.8% and 0.8% of its misdemeanor cases, and in 5.2% and 5.6% of its felony cases.\(^{76}\) During these respective fiscal years, the Bronx Defenders used social workers in 20% and 25% of its misdemeanor cases, and in 35% and 35% of its felony cases. According to IDOOC reports\(^ {77}\), the Bronx Defenders also typically have a lower attorney-to-social worker ratio. Legal Aid’s attorney to social worker ratio in the Bronx office was 9.7-to-1 in fiscal years 2010 to 2011. During that same period, the Bronx Defenders’ attorney to social worker ratio was 5-to-1.\(^ {78}\) The greater proportion and use of social workers at the Bronx Defenders suggest that, as compared to Legal Aid, the Bronx Defenders might be able to more...

\(^{69}\) Telephone interview with Attorney #6 from Legal Aid (Sept. 6, 2017).
\(^{70}\) Telephone interview with Attorney #7 from Legal Aid (Sept. 7, 2017). An example of such a conflict would be when Legal Aid represents children in family court and their parents end up in criminal court on another matter.
\(^{71}\) Report of the Indigent Defense Organization Oversight Committee (IDOOC) to the Appellate Division First Department for Fiscal Years 2012-2013; Report of the IDOOC to the Appellate Division First Department for Fiscal Years 2010-2011.
\(^{72}\) Steinberg, *supra* note 7, at 988.
\(^{73}\) Telephone interview with Attorney #8 from the Bronx Defenders (Oct. 27, 2017).
\(^{74}\) Telephone interview with Social Worker from the Legal Aid (August 29, 2017). Telephone interview with Attorney #6 from Legal Aid (Sept. 6, 2017).
\(^{75}\) Report of the Indigent Defense Organization Oversight Committee (IDOOC) to the Appellate Division First Department for Fiscal Years 2012-2013; Report of the IDOOC to the Appellate Division First Department for Fiscal Years 2010-2011.
\(^{76}\) Note that these percentages reflect Legal Aid’s use of social workers in felony and misdemeanor cases across the Bronx County office trial office and the New York County trial office.
\(^{77}\) Report of the Indigent Defense Organization Oversight Committee (IDOOC) to the Appellate Division First Department for Fiscal Years 2012-2013; Report of the IDOOC to the Appellate Division First Department for Fiscal Years 2010-2011.
\(^{78}\) The Bronx Defenders reported that in FY 2012 to 2013 their ratio temporarily increased to 9-to-1 due to increased attorney hiring, but indicated that the ratio was expected to decrease again in the future after additional social workers were hired. *REPORT OF THE INDIGENT DEFENSE ORGANIZATION OVERSIGHT COMMITTEE (IDOOC) TO THE APPELLATE DIVISION FIRST DEPARTMENT FOR FISCAL YEARS 2012-2013.*
easily connect clients with treatment for underlying issues, and the organization has more manpower to collect and communicate mitigating information, which may contribute to less punitive sentencing.

2. Dynamic, interdisciplinary communication

Attorneys at the Bronx Defenders and Legal Aid reported that criminal defense attorneys and civil attorneys at their organizations communicate frequently. Attorneys at the Bronx Defenders noted that their office is physically designed to encourage advocates to go to a variety of experts for advice and assistance. The office has an open floor plan and advocates sit with their teams, meaning that criminal defense advocates, civil advocates, social workers, and parent advocates are consistently in very close physical proximity. Attorneys from the Bronx Defenders report that daily interactions with advocates from other practice areas change the kinds of referrals advocates make and improve communication among advocates. In their view, case strategy is more collaborative than under the traditional model, in which one advocate is directing another advocate to help with a specific task. At Legal Aid, criminal defense attorneys and civil attorneys do not sit in teams; however, in the Bronx office, civil attorneys sit in the same building as criminal defense attorneys and social workers sit on the same floor as criminal defense attorneys, facilitating regular communication. Attorneys at the Bronx Defenders and Legal Aid also noted that in addition to in-person communications, there are frequent email, text, and phone communications between civil and criminal advocates. Both organizations also have case management systems that allow all advocates working on a case to review information about all aspects of the case.

One difference with respect to interdisciplinary communication is that the Bronx Defenders evaluates communication between team members. The Bronx Defenders has regular team meetings to discuss examples of effective interdisciplinary communication. In addition, as noted above, teams have one or more team leaders who, along with practice area supervisors, monitor whether team members are communicating effectively and whether team members are identifying needs beyond their independent practice area.

Another difference between the Bronx Defenders and Legal Aid is that civil and criminal advocates at the Bronx Defenders routinely meet with clients as a team early in the case to allow a client to make well-informed decisions and set priorities for the case. After this initial meeting, clients and teams communicate in a variety of ways, tailored to client preferences. Meetings between Legal Aid civil attorneys and criminal defense clients occur as needed. Sometimes a criminal defense attorney at Legal Aid is able to obtain one-time, clear-cut advice on a collateral issue from an immigration attorney or other civil attorney. In cases like this, the criminal attorney might then provide the advice to the client without setting up a meeting between the civil attorney

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79 Telephone interview with Attorney #7 from the Bronx Defenders (Oct. 27, 2017); Steinberg, supra note 7, at 992.
80 Steinberg, supra note 7, at 992.
81 Telephone interview with Attorney #6 from the Bronx Defenders (Oct. 5, 2017).
82 Telephone interview with Attorney #2 from Legal Aid (Aug. 10, 2017).
83 Telephone interview with Attorney #8 from the Bronx Defenders (Oct. 27, 2017); Telephone interview with Attorney #6 from Legal Aid (Sept. 6, 2017); Telephone interview with Attorney #7 from Legal Aid (Sept. 7, 2017).
84 Steinberg, supra note 7, at 992.
85 Steinberg, supra note 7, at 992.
86 Telephone interview with Attorney #5 from the Bronx Defenders (Oct. 3, 2017).
87 Id.
and the client. However, if a client faces a complex issue, then the civil attorney, criminal defense attorney, and client might all meet as a group.

3. Advocates with an interdisciplinary skill set

Both the Bronx Defenders and Legal Aid provide interdisciplinary training and shadowing opportunities for new attorneys. New advocates at the Bronx Defenders receive an introduction to all practice areas and training on how to collaborate with other advocates on issues outside the advocate’s practice area. Criminal defense attorneys at the Bronx Defenders spend time shadowing advocates from other practice areas and receive continuous interdisciplinary training through weekly or biweekly trainings. New criminal defense attorneys at Legal Aid also receive interdisciplinary training on topics such as immigration, housing, and employment. New criminal defense attorneys at Legal Aid shadow civil practice attorneys at housing, immigration, and family courts. Legal Aid also has a continuing legal education program, with a training offered every two to three months. Many trainings address the collateral consequences of criminal cases, like the rapidly changing immigration law landscape.

In contrast to attorneys at the Bronx Defenders and Legal Aid, 18B attorneys have limited formal training opportunities with respect to collateral consequences and this training is not mandatory. One 18B attorney noted that the 18B administrator provides optional training on collateral consequences once a year. However, none of the 18B attorneys interviewed discussed attending trainings on collateral issues.

4. A robust understanding of, and connection to, the community served

The Bronx Defenders and Legal Aid both undertake criminal justice reform efforts, know your rights campaigns, and community intake to better understand and connect with the communities they serve. The Bronx Defenders’ community organizing component works with clients and residents of the Bronx on policing and criminal justice reform campaigns and has achieved reform of policies regarding civil forfeiture and policing. The Bronx Defenders have also undertaken impact litigation related to stop and frisk, policing of non-aggressive panhandling, property forfeiture, and delays in criminal trials due to underfunding. The Bronx Defenders regularly conduct know your rights trainings, including trainings to assist community youth in navigating interactions with law enforcement. The Bronx Defenders has a community intake center that allows any community member to walk into the office to ask questions and seek services, such as help with immigration or housing. One attorney from the criminal defense

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88 Telephone interview with Attorney #5 from Legal Aid (Aug. 30, 2017).
89 Telephone interview with Attorney #5 from Legal Aid (Aug. 30, 2017).
90 Telephone interview with Attorney #6 from the Bronx Defenders (Oct. 5, 2017).
91 Telephone interview with Attorney #6 from the Bronx Defenders (Oct. 5, 2017).
92 Telephone interview with Attorney #6 from the Bronx Defenders (Oct. 5, 2017).
93 Telephone interview with Attorney #7 from Legal Aid (Sept. 7, 2017).
94 Telephone interview with Attorney #7 from Legal Aid (Sept. 7, 2017).
95 Telephone interview with 18B Attorney #4 (Nov. 1, 2017).
96 Telephone interview with Attorney #9 from the Bronx Defenders (November 2, 2017).
97 Telephone interview with Attorney #1 from the Bronx Defenders (Sept. 5, 2017).
98 Telephone interview with Attorney #9 from the Bronx Defenders (November 2, 2017).
99 Telephone interview with Attorney #1 from the Bronx Defenders (Sept. 5, 2017); Telephone interview with Attorney #8 from the Bronx Defenders (Oct. 27, 2017).
practice noted that a lot of clients she meets for the first time at arraignment have had prior contact with the Bronx Defenders. Many were assisted with non-criminal issues through community intake and already had a positive impression the Bronx Defenders. The Bronx Defenders also host block parties with games for children and tables set up by community service providers to provide information about their services.

Legal Aid also undertakes efforts to better understand and serve the community. Legal Aid has several units and projects that have brought about reform in the Bronx and across New York City. Litigation filed by the Criminal Practice’s Special Litigation Unit led to the requirement that New Yorkers be arraigned within 24 hours of arrest. The unit’s impact litigation also brought about reform of the draconian Rockefeller Drug Laws. The unit recently filed a federal class action to challenge arrests for trespass of residents and legitimate visitors in public housing developments. Legal Aid’s Community Justice Unit travels to the communities that Legal Aid serves to conduct know your rights events and resource fairs. In addition, community members can come into Legal Aid’s offices and ask legal questions of the criminal and civil units during all business hours. Legal Aid attorneys volunteer within the community, coaching high school mock trials, speaking with students about jobs in criminal justice, and teaching courses at community and city colleges.

One difference between the Bronx Defenders and Legal Aid with respect to connection to the community is that the Bronx Defenders continuously seeks formal community feedback. In order to get feedback directly from the community, the Bronx Defenders conducts client satisfaction surveys and focus groups and also listens to anecdotal feedback from clients. Through surveys, focus groups, and informal feedback, the Bronx Defenders seeks client input on criminal representation and whether the community has any unmet legal needs. Advocates at the Bronx Defenders note that client feedback has driven the Bronx Defenders’ service model. For example, the family defense practice arose in response to a need voiced by the community. Many clients with children removed from their care during the criminal case would return afterwards seeking assistance in family court, where the parents did not know their rights and responsibilities. The Bronx Defenders’ Family Defense Practice was developed in response to this concern.

100 Telephone interview with Attorney #8 from the Bronx Defenders (Oct. 27, 2017).
101 Telephone interview with Attorney #2 from the Bronx Defenders (Sept. 18, 2017).
103 Id.
104 Id.
105 Telephone interview with Attorney #6 from Legal Aid (Sept. 6, 2017); Telephone interview with Attorney #7 from Legal Aid (Sept. 7, 2017).
106 Telephone interview with Attorney #5 from Legal Aid (Aug. 30, 2017); Telephone interview with Attorney #6 from Legal Aid (Sept. 6, 2017).
107 Telephone interview with Attorney #1 from the Bronx Defenders (Sept. 5, 2017); Telephone interview with Attorney #3 from the Bronx Defenders (Oct. 2, 2017); Telephone interview with Attorney #6 from the Bronx Defenders (Oct. 5, 2017); Telephone interview with Attorney #8 from the Bronx Defenders (Oct. 27, 2017).
108 Telephone interview with Attorney #1 from the Bronx Defenders (Sept. 5, 2017).
C. Potential Convergence of Service Models Over Time

Attorneys who practiced at Legal Aid before Steinberg founded the Bronx Defenders reported that Legal Aid has always addressed clients’ legal and nonlegal needs. These attorneys noted that during their entire tenure with Legal Aid, criminal defense attorneys have worked with social workers and civil attorneys to assist clients with a variety of non-criminal defense-related issues such as benefits and housing. However, Legal Aid Attorneys also indicated that as of approximately five years ago, Legal Aid’s civil attorneys were relocated to the same building as criminal defense attorneys. The consolidation into a single physical location likely improved the ability of criminal defense advocates and other advocates to share information and collaborate on multidisciplinary strategies.

Advocates outside of Legal Aid perceive Legal Aid’s model as becoming more holistic over time. An 18B attorney who practices in the Bronx and who previously worked at Legal Aid notes that although Legal Aid has always assisted clients with a variety of non-criminal defense-related issues, Legal Aid appears to be connecting more clients with programs to address issues such as substance use disorders in recent years. The attorney hypothesized that these increasing connections to community services and programs are a result of greater online presence of community service providers, which makes it easier for attorneys to learn about and connect clients with services. A representative from a nonprofit that works with Legal Aid and the Bronx Defenders on alternative sentencing options and connections to community programs reported that in past years, the nonprofit’s relationship with the Bronx Defenders was stronger because of a more “holistic approach.” The representative noted that around four or five years ago, he observed a cultural change in Legal Aid that has resulted in the nonprofit working with Legal Aid in much the same way as it works with the Bronx Defenders. He reports that current Legal Aid attorneys routinely seek alternative sentencing options and make many referrals to the nonprofit. The representative is not sure why the change in culture came about, but hypothesized that it might be the result of recent justice reform trends.

Attorneys at the Bronx Defenders observe that there has been a greater effort by heads of practice areas at Legal Aid to coordinate and collaborate on their cases and a greater attempt by criminal defense attorneys to seek the assistance of non-criminal attorneys and social workers on their cases. One attorney at the Bronx Defenders also noted that the Deputy Attorney-in-Charge of the Criminal Practice at Legal Aid, in particular, has been focusing on large-scale reforms to benefit the community and on training Legal Aid’s criminal defense attorneys in non-criminal issues. Bronx Defenders attorneys also noted that in the last few years, Legal Aid has become

110 Telephone interview with Attorney #1 from Legal Aid (Aug. 8, 2017); Telephone interview with 18B Attorney #2 (Sept. 26, 2017).
111 Telephone interview with Attorney #1 from Legal Aid (Aug. 8, 2017); Telephone interview with 18B Attorney #2 (Sept. 26, 2017).
112 Telephone interview with Attorney #2 from Legal Aid (Aug. 10, 2017).
113 Telephone interview with 18B Attorney #2 (Sept. 26, 2017).
114 Telephone interview with Representative from a non-profit that works within the criminal justice system (Sept. 27, 2017).
115 Telephone interview with Attorney #1 from the Bronx Defenders (Sept. 5, 2017); Telephone interview with Attorney #2 from the Bronx Defenders (Sept. 18, 2017); Telephone interview with Attorney #3 from the Bronx Defenders (Oct. 2, 2017); Telephone interview with Attorney #6 from the Bronx Defenders (Oct. 5, 2017).
116 Telephone interview with Attorney #3 from the Bronx Defenders (Oct. 2, 2017).
much more visible in terms of community presence, community organizing, and large-scale
criminal justice reform efforts. However, attorneys at the Bronx Defenders do not consider
Legal Aid’s service model to be fully “holistic” because civil and criminal attorneys are still
physically separated and, from the Bronx Defenders’ perspective, do not have unified case
strategies or policies.

Convergence may also have been facilitated by an important infusion of additional
resources. In 2009, the NY legislature passed a law requiring the establishment of case caps for
indigent defense attorneys in New York City, coupled by the infusion of additional funding.
An administrative order required all defender organizations to adhere to uniform caseload
standards by 2014. These workload standards were advisory between enactment and March 31,
2014 but became binding after that. Additional funding to reduce caseloads was provided by the
New York Office of Court Administration. By 2015, an additional $55.6 million dollars had been
allocated to the city’s institutional defenders, representing a 35.2% increase in the funds available
to the city’s institutional defenders. If Legal Aid lawyers had higher case loads, the additional
time per case may have permitted additional attention to the collateral consequences of the case.

In addition, there was growing recognition at Legal Aid of the critical role of social
workers. In 2009, for the Legal Aid Society in the Bronx, the social worker to attorney ratio was
just 1 to 12.4 A report found that social workers were used in Legal Aid cases in just 1% of
misdemeanor cases and 3% of felony cases. By 2010, this ratio has improved to 9.7 to 1 in the
Bronx, and by the close of 2013, the ratio had improved to 8.5 to 1. This data also suggests
that the practice models were converging.

117 Telephone interview with Attorney #2 from the Bronx Defenders (Sept. 18, 2017); Telephone interview with
Attorney #3 from the Bronx Defenders (Oct. 2, 2017).
118 Telephone interview with Attorney #1 from the Bronx Defenders (Sept. 5, 2017); Telephone interview with
Attorney #2 from the Bronx Defenders (Sept. 18, 2017); Telephone interview with Attorney #3 from the Bronx
Defenders (Oct. 2, 2017); Telephone interview with Attorney #6 from the Bronx Defenders (Oct. 5, 2017).
120 Indigent Defense Organization Oversight Committee, General Requirements for All Organized Providers of
Defense Services to Indigent Defendants, § V.B.2(a) (July 1996, as amended May 2011) [hereinafter the “IDOOC
Guidelines”], available at http://www.courts.state.ny.us/courts/ad1/Committees&Programs/IndigentDef
OrgOversightComm/general%20_requirements.pdf; see also https://www.nycourts.gov/rules/chiefadmin/127.shtml#07. (127.7). We are indebted to Andrew Davies for bringing this to our attention.
City of New York (March 27, 2014).
122 See IDOOC, Report of the Indigent Defense Organization Oversight Committee to the Appellate Division
123 IDOOC, Report of the Indigent Defense Organization Oversight Committee to the Appellate Division First
Department for Fiscal Years 2010-2011, at 12 (2012); see also Daniel F. Kolb, Lara Samet Buchwald, Edith
Beersden, and Kahil C. Williams, The Legal Aid Society: An Analysis of Time and Resources Necessary for an
Effective Defense Investigator and Social Work Support, August 29, 2014 at 33 (discussing need for social worker
and investigator support).
124 IDOOC, Report of the Indigent Defense Organization Oversight Committee to the Appellate Division First
Department for Fiscal Years 2012-2013 at 9-10.
D. Perceptions from Other Criminal Justice Participants

We interviewed three criminal law judges in Bronx County who discussed their observations of the criminal defense models employed by the Bronx Defenders and Legal Aid. One judge noted that advocates from the Bronx Defenders have elevated the level of defense practice in the Bronx by pushing other public defenders to be more cerebral and look at cases in a more holistic fashion. The judge noted that when the Bronx Defenders are assigned to arraignments, they do a marvelous job but the calendar moves more slowly because their attorneys take so much time to thoroughly interview every client.125 The judge noted that Legal Aid attorneys tend to be more experienced and handle cases quickly and efficiently. The judge noted that Legal Aid’s ability to handle cases quickly and efficiently does not compromise the quality of the criminal defense they provide. The judge concluded that from his observations, there is no meaningful difference between the quality of representation by Legal Aid and the Bronx Defenders.126

The second judge noted that advocates from the Bronx Defenders tend to be very smart and very energetic about trying to get the best possible outcomes for their clients. The judge said that if he had to name one weakness, it would be that defending the criminal case is not their primary concern. The judge noted that criminal defense attorneys can get caught up in other facets of a client’s life and lose sight of defending the criminal case and getting a good outcome there. The judge believes that if a criminal defense attorney loses sight of being a criminal defense attorney first and foremost, “all is lost.” The judge noted that Legal Aid tends to have more senior lawyers who are very practical but less energetic than the Bronx Defenders.127

The third judge noted that from his perspective as a criminal law judge, it is hard to see the effect of holistic defense collaborations on criminal cases and outcomes. Thus, he could not opine about whether holistic defense is “working” or not or if the Bronx Defenders’ approach is more effective than Legal Aid’s approach. However, the judge has observed that both Legal Aid and the Bronx Defenders work with social workers to connect clients with programs such as substance use disorder treatment. From the judge’s perspective, he has not observed a difference between the models employed by Legal Aid and the Bronx Defenders nor the quality of overall criminal representation and other services.128

We also interviewed other individuals who are or have been involved in providing service to criminal-justice involved individuals in the Bronx. One interviewee from a nonprofit that works within the criminal justice system noted that overall, the Bronx Defenders and Legal Aid are very client-focused and both have internal units that effectively address non-criminal consequences of criminal cases such as impacts of on employment, immigration, and housing. The interviewee noted that the quality and breadth of representation really depends on the individual attorney, not the organization.129

Another interviewee from a nonprofit that works within the criminal justice system noted that although Legal Aid provides very solid criminal defense, if the interviewee had a criminal-

125 This anecdotal impression is confirmed in the empirical analysis below, see Table 4.
126 Telephone interview with Criminal Law Judge #3 (Sept. 13, 2017).
129 Telephone interview with Representative #2 from a non-profit that works within the criminal justice system. (Sept. 18, 2017).
justice involved client with immigration issues or child custody issues, the interviewee would be more likely to send the client to Bronx Defenders because the interviewee believes the Bronx Defenders model is more robust and better equipped to handle non-criminal consequences of criminal matters like losing welfare or housing.\textsuperscript{130}

A former criminal defense attorney who practiced in the Bronx noted that Legal Aid had “better institutional memory” than Bronx Defenders. When she co-counseled cases with Legal Aid attorneys, she noted that Legal Aid had an extensive database of motions, lines of cross-examination, and other legal documents for a wide range of different scenarios. The Bronx Defenders’ written motion and trial practice resources did not appear to be as well-developed.\textsuperscript{131}

\textit{E. Summary}

In summary, criminal defense attorneys at the Bronx Defenders and Legal Aid address clients’ legal and non-legal needs through referrals to civil attorneys and social workers within their organization and through relationships with community nonprofits. Although criminal defense attorneys at Legal Aid report that civil attorneys are generally responsive to the needs of their clients, the team structure and continuous evaluation of interdisciplinary referrals and communication at the Bronx Defenders allows for more robust collaboration between civil and criminal attorneys. In addition, the greater proportion and use of social workers at the Bronx Defenders suggests that as compared to Legal Aid, the Bronx Defenders can more easily connect clients with treatment for underlying issues. As both organizations note, connecting clients with appropriate treatment sometimes allows for non-incarceration plea deals and dispositions. In addition, greater proportion and use of social workers means that the Bronx Defenders have more manpower to collect and communicate mitigating information that may lead to less punitive sentencing. Both defender organizations appear to have considerable advantages vis-à-vis private appointed counsel in their ability to access supports for their clients outside of criminal representation.

With respect to serving and maintaining connections to the community, both the Bronx Defenders and Legal Aid undertake criminal justice reform efforts, know your rights campaigns, and community intake. However, unlike Legal Aid, the Bronx Defenders also seeks formal community feedback through the use of client satisfaction surveys and focus groups. Although interviews with advocates from the Bronx Defenders and Legal Aid revealed differences in how advocates collect information about and address non-criminal issues, judges and other third party interviewees generally have not observed a meaningful difference in the quality of criminal defense representation provided by these organizations. Moreover, the Legal Aid attorneys characterize their own approach as being holistic. These views may in part reflect a convergence across the two organizations over time, as the Legal Aid Society has taken steps to enhance the interdisciplinary training of its attorneys and increase the physical proximity of its civil and criminal attorneys in the Bronx.

With reference to the different models for how holistic defense might operate in actual practice discussed in Section I.C, the interview responses seem most consistent with the “full success” view, espoused by the Defenders themselves and suggested by some of the other

\textsuperscript{130} Telephone interview with Representative #3 from a non-profit that works within the criminal justice system. (Sept. 27, 2017).

\textsuperscript{131} Telephone interview with Former criminal defense attorney who practiced in the Bronx. (Sept. 19, 2017).
interviewees, and the “no difference” view advanced by Legal Aid attorneys, several of the judges, and some of the service providers. Although one interviewee raised the possibility that focusing on concerns outside of the criminal case might adversely impact representation\textsuperscript{132}, in general there was little suggestion from the interviewees that the holistic approach as practiced in the Bronx might lead to worse criminal justice outcomes than a more traditional approach.

II. MEASURING THE EFFECTS OF HOLISTIC REPRESENTATION

While our interviews revealed some similarities between the service models of the holistic and traditional defenders, there are also important differences in philosophy and practice. Ultimately, the extent to which these differences in approach translate into outcomes in the criminal justice system is an empirical question, one to which we now turn.

To measure the effects of holistic representation, ideally, an observer would want a means of comparing what happens to a defendant or pool of defendants with holistic representation to what would have happened to those same individuals had they had traditional representation. Any difference in outcomes would represent the causal effect of holistic representation. In reality, of course, it is impossible to observe the same defendant represented in the same case by both types of counsel. As a result, we are forced to infer the effect of representation by instead comparing outcomes across defendants with and without holistic representation, and, to the extent possible, controlling for underlying differences between the two defendant populations other than counsel type. Because many factors other than counsel type differ across those with and without holistic representation, including potentially unobservable factors such as the degree of cooperation of the defendant, strength of the evidence in the case, etc., cleanly measuring the effect of representation free of other confounding factors is challenging. From a research standpoint, the ideal situation would be one in which counsel are randomly assigned, as random assignment would ensure that, on average, pools of defendants assigned to one type of counsel versus another should be comparable on other characteristics. However, as a practical matter, random assignment is often impossible in the field due to logistical or ethical concerns.

In the present study, we attempt to exploit features of the counsel assignment system in the Bronx that mimic random assignment, in that they cause similarly-situated defendants pools of defendants to differ in whether they are assigned holistic versus traditional defenders. In particular, we take advantage of the Bronx Criminal Courts’ system of assigning counsel based on rotating arraignment shifts, where different defender organizations handle arraignments on different days of the week.

A. The Case Assignment Process in Bronx Criminal Court\textsuperscript{133}

In New York City, the arraignment is typically the first judicial proceeding in a criminal case, and generally occurs within 48 hours of arrest. A judge, defense counsel, and assistant district attorney participate, and the defendant is formally notified of the charges and a bail determination made. Prior to the arraignment, the pretrial services agency interviews the

\textsuperscript{132} Telephone interview with Criminal Law Judge #1 (Aug. 24, 2017).

\textsuperscript{133} Telephone interview with Bronx Criminal Court Clerk #1 (Sept. 19, 2017); Telephone interview with Bronx Criminal Court Clerk #2 (Dec. 4, 2017); Telephone interview with Attorney #6 from the Bronx Defenders (Oct. 5, 2017); Telephone interview with Attorney #6 from Legal Aid (Sept. 6, 2017); Telephone interview with Attorney #7 from Legal Aid (Sept. 7, 2017).
defendant and collects information about the defendant’s employment and salary. This information is available to the judge at arraignment, who can then make a determination about indigency status.

Legal Aid and the Bronx Defenders receive most of their cases at arraignment. On weekdays, there are three eight-hour arraignment shifts that cover the full 24-hour period, with arraignment occurring in two courtrooms during the day and one courtroom in mornings and evenings. Typically, on Saturday, Sunday, and holidays, one courtroom operates two shifts from 9:00 a.m. to 5:00 p.m. and another from 5:00 p.m. to 1:00 a.m. The court averages around 90 arraignments a day, but there is a fair bit of day-to-day variability driven by arrest patterns. Fewer arraignments tend to occur in the beginning of the week and more later because of arrests for DWIs and other weekend conduct.

Either Legal Aid or the Bronx Defenders will be the primary organization assigned to each arraignment shift, and defendants appearing for arraignments during the shift always get assigned to the primary organization absent special circumstances. Currently, the Bronx Defenders are assigned to Sunday day and night; Monday day and night; Tuesday day; Wednesday day; and Thursday day. However, the arraignment shift schedule has changed over the years as the Bronx Defenders have grown and the Office of Court Administration and the City sought to balance out the distribution of cases among the defender organizations.

There are occasional departures from the default assignment system. If the primary organization has a conflict, the defendant will be assigned to the secondary organization (i.e. Bronx Defenders when Legal Aid is primary and Legal Aid when Bronx Defenders is primary) or 18B counsel. If there are two co-defendants, the primary organization takes one and the secondary the other absent other conflicts. Also, if Legal Aid, the Bronx Defenders, or an 18B attorney has previously represented a particular defendant, then they will take that co-defendant.

If there are three or more defendants, attorneys from the 18B panel will be assigned to the extra defendants, and as a general rule the 18B attorneys are the residual claimants whenever conflicts prevent the primary and secondary organizations from providing representation. 18B counsel also get assigned when the defendant discharges their attorney or an attorney discharges the defendant, which can happen at any point during a case. 18B counsel might also be appointed in unique or emergency situations like a hospital arraignment.

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134 One exception is that the court may open two courtrooms on Saturday and Sunday if individuals have been sitting in jail for more than 24 hours. This decision is made at the end of the week, typically on Fridays, and different agencies come together to determine if a second weekend courtroom should be opened.

135 Telephone interview with Bronx Criminal Court Clerk #1 (Sept. 19, 2017); Telephone interview with Attorney #1 from Legal Aid (Aug. 8, 2017); Telephone interview with Attorney #2 from Legal Aid (Aug. 10, 2017); Telephone interview with Attorney #1 from the Bronx Defenders (Sept. 5, 2017); Telephone interview with Attorney #2 from the Bronx Defenders (Sept. 18, 2017).

136 Telephone interview with Bronx Criminal Court Clerk #1 (Sept. 19, 2017); Telephone interview with Attorney #8 from the Bronx Defenders (Oct. 27, 2017).

137 Telephone interview with Bronx Criminal Court Clerk #2 (Dec. 4, 2017).

138 For example, Legal Aid might represent a child in family court. If the parent is arrested and comes in on an arraignment shift during which Legal Aid is the primary organization, then Legal Aid would hand off the parent of the child to the Bronx Defenders.

139 Generally, the primary organization decides which co-defendants it will take and which to hand off.

140 The general sentiment among 18B attorneys interviewed by RAND was that because they get assigned to clients who have discharged their attorneys or have been discharged by their attorneys, they tend to have clients who are difficult to get along with and/or have difficult cases.
Legal Aid and the Bronx Defenders practice vertical representation, meaning that the attorney who a defendant meets at arraignment is almost always the defendant’s attorney for the duration of the case. An 18B attorney who a defendant meets at arraignment will also likely be the defendant’s attorney for the duration of the case.

Appendix Table 1 provides basic summary information about case assignment in the Bronx, demonstrating two important patterns regarding case assignment. First, and unsurprisingly, defendants are much more likely to be assigned to a defender organization when it is covering the shift when they are arraigned. Second, however, it is fairly common for defendants arraigned on shifts covered by the Bronx Defenders to ultimately be represented by the Legal Aid. This occurs because Legal Aid is a much larger defender organization and many defendants have had prior contacts with the criminal courts. When one organization has prior ties representing a client, this triggers an exception to the normal assignment mechanism.

Because of the how assignments are made, whether a particular defendant is assigned to the Bronx Defenders or Legal Aid largely depends on which day he or she is arraigned and/or to which courtroom he or she is assigned, factors that are unlikely to be directly related to case outcomes. Below we outline a more formal statistical framework that reflects this intuition.

B. Data Sources

The primary case-level data used in the analysis below were obtained from the New York Division of Criminal Justice Services (DCJS) and the New York City Office of Court Administration (OCA). We requested an extract of all records from the DCJS Computerized Criminal History (CCH) database involving individuals arraigned within Bronx County between 2000 and the present, and supplemented these data with Bronx arraignment data from OCA.\textsuperscript{141} The CCH database includes all fingerprintable arrests that occur within the state of New York, and is the data source used to generate rap sheets following arrest for arraignments in the state.\textsuperscript{142} DCJS provided data covering over 2.8 million individual arrests involving nearly 400,000 distinct individuals.

In the analysis below, the unit of observation is a defendant/case pairing, and we initially restrict attention to cases where arraignments occurred between 2000 and 2014 that had an initial disposition by October 2016\textsuperscript{143}, leaving a pool of 940,546 observations\textsuperscript{144}. We exclude the roughly 5\% of Bronx criminal defendants who were not indigent and were represented by hired private counsel, as well as the <1\% of cases where the DCJS file had missing data on counsel type. We

\begin{itemize}
  \item \textsuperscript{141}The final data file included arraignments through October 17, 2016.
  \item \textsuperscript{142}New York State Division of Criminal Justice Services Computerized Criminal History System Overview. Criminal citations, commonly referred to as Desk Appearance Tickets (DAT), generally require fingerprinting and are thus included in the CCH.
  \item \textsuperscript{143}The data indicate that over 97\% of cases resolve within 655 days—the shortest available follow-up period for any observation in the dataset—and over 99\% of cases have been resolved within 3 years.
  \item \textsuperscript{144}We compared the annual counts of cases in the DCJS data to the published caseload statistics for the Bronx in the annual reports of the Criminal Courts of the City of New York (New York City Criminal Court, Nycourts.gov, https://www.nycourts.gov/COURTS/nye/criminal/annual-reports.shtml (last visited Mar. 27, 2018)) and observed close, but not perfect, agreement. Our annual felony case counts were generally within 1\% of the published felony countycount, but misdemeanor counts were typically around 90\% of the published count, likely due to the exclusion of unclassified misdemeanors (e.g. DWI, criminal littering)—which do not require fingerprinting—from the CCH database.
\end{itemize}
then cross-checked the DCJS data with annual Bronx Defender caseload statistics published by the New York Court’s Indigent Defense Organization Oversight Committee as a data quality check. Comparison of the two sources suggest that from 2008 through Q3 of 2012, the DCJS data under-recorded the number of cases assigned to the Bronx Defenders, so we omit those years in the analysis that follows. We also omit 4,556 cases (<1% of remaining sample) arraigned on a handful of days where there were unusually few arraignments recorded, reasoning that the court may have departed from the normal assignment process on such days. The final analytic sample includes 587,487 individual defendant/case pairings initiated in the Bronx between 2000-2007 and 2012-2014.

Table 2 reports average characteristics for the overall sample and, separately, for defendants represented by the holistic defender and the traditional defender. Throughout the paper, we measure representation based upon counsel of record at the initial disposition of the case, recognizing that some defendants may have been initially assigned different counsel but then switched to new counsel at some point over the course of the case. Defendants in the sample are predominantly male, with overrepresentation of Black and Hispanic defendants, and a somewhat higher average age than observed in some other contexts. Nearly a third of defendants face felony charges, and nearly 1 in 10 have been charged with a violent felony. Many defendants have experienced multiple contacts with the criminal justice system, with a typical defendant recording prior felony and misdemeanor arrests.

Table 2 also demonstrates some notable differences across defendants represented by the two defender organizations. Bronx Defender clients were more likely to face felony charges and violent and weapons charges, and less likely to face drug charges. Clearly, any outcome comparison between holistic and traditional defender clients that failed to account for such charging differences would provide a misleading view of the effects of holistic representation. While charges are observable and can therefore be controlled for in an empirical analysis, the population differences shown in Table 2 raise the possibility that there may be other, unobserved differences across defendants—for example, in case complexity—that might make it difficult to empirically isolate outcome differences due to holistic representation from other factors.

As omnibus measures of case complexity, for each defendant we predicted the probability of conviction and the expected sentence length. To derive the predicted conviction rate, we estimated a probit model where the outcome was a dummy variable for conviction and the explanatory variables were 269 variables capturing demographics (age, gender, race/ethnicity), case characteristics (top charge, number of charges, arrest location), and prior criminal history.


146 We obtain similar results to those reported below if we include the entire sample, which may reflect some of the robustness properties of our empirical approach to misclassification; see fn.142.

147 For example, there were only 3 arraignments recorded on 9/11/2001 (World Trade Center attacks), and unusually low numbers of arraignments on Oct. 29-31, 2012 (Superstorm Sandy) so cases arraigned on these dates are omitted from the analysis.


149 Appendix Figure 1 shows the distribution of predicted values from this model. Predicted conviction probabilities range from around .2 near 1, with appreciable numbers of defendants falling across the entire range, suggesting that model meaningfully differentiates defendants, as would be expected given the large number of
Using estimates from this probit model, we predicted the probability of conviction for each individual in the sample. Then, at the bottom of Table 2, we report the average prediction for those represented by the Bronx Defenders versus those represented by the Legal Aid Society, and a p-value from a statistical test for whether the two groups differed on average. We followed a similar procedure using a Poisson (count) model to build predictions for the expected sentence length (including zeros).\textsuperscript{150}

\textit{Table 2: Defendant and Case Characteristics by Type of Representation}

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Overall Sample</th>
<th>Holistic (Bronx Defenders)</th>
<th>Traditional (Legal Aid Society)</th>
<th>% Difference (Traditional vs. Holistic)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Holistic representation</td>
<td>19.6%</td>
<td>100.0%</td>
<td>0.0%</td>
<td></td>
</tr>
<tr>
<td><strong>Defendant Demographics</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>82.8%</td>
<td>81.4%</td>
<td>83.4%</td>
<td>2.4%*</td>
</tr>
<tr>
<td>Age (years)</td>
<td>31.6</td>
<td>31.9</td>
<td>32.0</td>
<td>0.3%</td>
</tr>
<tr>
<td>Black</td>
<td>46.5%</td>
<td>45.8%</td>
<td>46.7%</td>
<td>1.9%*</td>
</tr>
<tr>
<td>Hispanic</td>
<td>48.0%</td>
<td>48.6%</td>
<td>47.7%</td>
<td>-1.9%*</td>
</tr>
<tr>
<td><strong>Current Charge</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attempted</td>
<td>3.4%</td>
<td>4.0%</td>
<td>3.1%</td>
<td>-20.5%*</td>
</tr>
<tr>
<td>Felony</td>
<td>29.0%</td>
<td>26.5%</td>
<td>24.5%</td>
<td>-7.6%*</td>
</tr>
<tr>
<td># of counts</td>
<td>1.08</td>
<td>1.07</td>
<td>1.07</td>
<td>0.6%</td>
</tr>
<tr>
<td>Top charge—drug</td>
<td>40.8%</td>
<td>34.9%</td>
<td>41.4%</td>
<td>18.4%*</td>
</tr>
<tr>
<td>Violent offense</td>
<td>18.3%</td>
<td>21.1%</td>
<td>15.9%</td>
<td>-24.7%*</td>
</tr>
<tr>
<td>Violent felony</td>
<td>8.4%</td>
<td>8.4%</td>
<td>6.5%</td>
<td>-22.1%*</td>
</tr>
<tr>
<td>Includes firearm charge</td>
<td>31.9%</td>
<td>1.7%</td>
<td>1.5%</td>
<td>-13.3%*</td>
</tr>
<tr>
<td>Includes weapon charge</td>
<td>10.7%</td>
<td>11.4%</td>
<td>9.6%</td>
<td>-16.4%*</td>
</tr>
<tr>
<td>Includes drug charge</td>
<td>45.1%</td>
<td>39.0%</td>
<td>45.8%</td>
<td>17.4%*</td>
</tr>
<tr>
<td><strong>Prior Criminal History</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prior felony arrests</td>
<td>3.26</td>
<td>3.22</td>
<td>3.34</td>
<td>3.6%*</td>
</tr>
<tr>
<td>Prior misdemeanor arrests</td>
<td>5.18</td>
<td>5.57</td>
<td>5.37</td>
<td>-3.6%*</td>
</tr>
<tr>
<td>Prior drug arrests</td>
<td>3.52</td>
<td>3.57</td>
<td>3.62</td>
<td>1.4%</td>
</tr>
<tr>
<td>Prior violent felony arrests</td>
<td>0.983</td>
<td>0.972</td>
<td>0.996</td>
<td>2.5%*</td>
</tr>
<tr>
<td>Prior weapon arrests</td>
<td>0.803</td>
<td>0.823</td>
<td>0.806</td>
<td>-2.0%*</td>
</tr>
<tr>
<td>Prior arrests for crimes against</td>
<td>0.192</td>
<td>0.187</td>
<td>0.193</td>
<td>3.2%*</td>
</tr>
<tr>
<td>minors</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Predicted conviction rate</td>
<td>72.2%</td>
<td>71.6%</td>
<td>73.4%</td>
<td>2.5%*</td>
</tr>
<tr>
<td>Predicted sentence length (days)</td>
<td>61.2</td>
<td>51.5</td>
<td>47.0</td>
<td>-8.8%*</td>
</tr>
</tbody>
</table>

N | 587,487 | 114,856 | 376,393 |

Note: * denotes statistically significant difference, p<.01

\textsuperscript{150} The Poisson model generated predictions that also could widely differentiate defendants.
Clients of the traditional defender face higher predicted conviction rates but lower predicted sentence lengths, likely due to their over-representation of drug cases, which tend to be harder to disprove due to the availability of physical evidence but also which tend to carry shorter sentences. The practically and statistically significant differences in predicted sentence length suggest important non-comparabilities between the clients of the two types of public defenders.

Several important limitations of the data used for this analysis affect the interpretation of the results that follow. Although we have reliable sentencing data, we do not know the actual custody status of any particular defendant post-adjudication, and so our analyses that look at post-trial crime will include both defendants still being held in state custody and those who were never convicted or who were released. A second limitation is that we do not observe the immigration status of defendants. Not only is ability to remain in the United States a plausible outcome of interest -- as many defendants might pursue legal strategies based on potential immigration consequences -- but it also shapes who is observable in the crime data post-adjudication. Finally, our data include only measures of what happens in the criminal justice system, while the holistic model is designed to affect a wider range of outcomes such as family stability, housing, and economic outcomes. The analysis is thus limited to one particular set of outcomes across a much larger set of outcomes that one would ideally evaluate in understanding the overall impact of holistic defense.

C. Natural Experiment

To better account for possible non-random sorting from clients to defender organizations, we seek to identify a factor that affects which type of defendant represents a particular client, but is otherwise unrelated to the quality of the case or other indicia of guilt or innocence. As discussed above, we exploit changes in shift assignments, which varied the organization assigned as primary for defendants arraigned on particular days of the week in an idiosyncratic manner. Figure 1 depicts the shift assignments over the sample period considered in this study.

In the first half of the 2000s, the Bronx Defender shift assignments were centered on Mondays and Tuesdays, with the holistic defender covering all Monday and Tuesday shifts by 2004. In 2005, the Bronx Defenders began taking Sunday shifts, and they were temporarily moved to Thursday and Friday shifts at the end of 2005 before reverting to the prior arrangement in 2006. Beginning in 2012, the Defenders added Wednesday and Thursday shifts and began covering all Sunday and Monday shifts. Figure 1 demonstrates that, with the exception of Saturday shifts, which have always been covered by the Legal Aid Society, the Bronx Defenders have received shift assignments on all other days of the week at various points in time, and the determination of when they cover particular days has been idiosyncratic. This rotating shift assignment pattern permits identification of the effects of holistic representation even when we control for day of week effects to account for the likelihood that crimes committed on particular days of the week, such as weekends, can be qualitatively different from those committed during the week.

Table 3 illustrates that value of focusing on shift assignments, comparing defendants arraigned on dates where the holistic defender was assigned to one or more shifts to defendants arraigned on dates where only that traditional defender was taking cases. Given that crime patterns vary over the course of the week and over time and Figure 1 reveals systematic differences both across days of the week and over time in the likelihood of holistic representation, the comparisons in Table 3 are made conditional on arraignment month and day of week. The first row of
Table 3 demonstrates that shift assignments have a large influence on eventual representation, with only a small number of defendants getting the holistic defenders on off-shift days (likely due to prior representation), but more than a third of defendants obtaining holistic representation on on-shift days. Although for a few characteristics, such as ethnicity or the presence of drug charges, we observe statistically significant differences across the two groups of defendants, for most characteristics there is no measurable difference, and in all cases the disparity between groups is practically small. A Kolmogorov-Smirnov test of the null hypothesis that the p-values shown in Table 3 are distributed uniformly—as would be expected if the shifts were randomly assigned—yields a p-value of .041.

Figure 1: Evolution of Shift Assignments for the Bronx Defenders
Table 3: Defendant and Case Characteristics by Arraignment Schedule

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Bronx Defenders not taking cases</th>
<th>Bronx Defenders taking cases</th>
<th>% Difference (Taking vs. Not taking)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Holistic representation</td>
<td>1.4%</td>
<td>35.8%</td>
<td></td>
</tr>
<tr>
<td><strong>Defendant Demographics</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>83.3%</td>
<td>83.2%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Age (years)</td>
<td>31.7</td>
<td>31.6</td>
<td>-0.5%*</td>
</tr>
<tr>
<td>Black</td>
<td>46.9%</td>
<td>47.5%</td>
<td>1.4%*</td>
</tr>
<tr>
<td>Hispanic</td>
<td>47.7%</td>
<td>47.0%</td>
<td>-1.4%*</td>
</tr>
<tr>
<td><strong>Current Charge</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attempted</td>
<td>3.1%</td>
<td>3.1%</td>
<td>1.3%</td>
</tr>
<tr>
<td>Felony</td>
<td>31.7%</td>
<td>32.7%</td>
<td>3.0%*</td>
</tr>
<tr>
<td># of counts</td>
<td>1.08</td>
<td>1.12</td>
<td>4.0%</td>
</tr>
<tr>
<td>Top charge—drug</td>
<td>42.5%</td>
<td>43.7%</td>
<td>2.6%*</td>
</tr>
<tr>
<td>Violent offense</td>
<td>17.5%</td>
<td>17.2%</td>
<td>-1.4%</td>
</tr>
<tr>
<td>Violent felony</td>
<td>8.8%</td>
<td>8.7%</td>
<td>-0.8%</td>
</tr>
<tr>
<td>Includes firearm charge</td>
<td>2.1%</td>
<td>2.2%</td>
<td>2.9%</td>
</tr>
<tr>
<td>Includes weapon charge</td>
<td>10.9%</td>
<td>10.8%</td>
<td>-0.8%</td>
</tr>
<tr>
<td>Includes drug charge</td>
<td>47.0%</td>
<td>48.2%</td>
<td>2.5%*</td>
</tr>
<tr>
<td><strong>Prior Criminal History</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prior felony arrests</td>
<td>3.40</td>
<td>3.42</td>
<td>0.6%</td>
</tr>
<tr>
<td>Prior misdemeanor arrests</td>
<td>5.19</td>
<td>5.21</td>
<td>0.3%</td>
</tr>
<tr>
<td>Prior drug arrests</td>
<td>3.60</td>
<td>3.64</td>
<td>1.2%</td>
</tr>
<tr>
<td>Prior violent felony arrests</td>
<td>1.021</td>
<td>1.027</td>
<td>0.6%</td>
</tr>
<tr>
<td>Prior weapon arrests</td>
<td>0.816</td>
<td>0.821</td>
<td>0.6%</td>
</tr>
<tr>
<td>Prior arrests for crimes against minors</td>
<td>0.202</td>
<td>0.205</td>
<td>1.7%</td>
</tr>
<tr>
<td>Predicted conviction rate</td>
<td>73.44%</td>
<td>73.24%</td>
<td>-0.3%</td>
</tr>
<tr>
<td>Predicted sentence length (days)</td>
<td>68.4</td>
<td>69.7</td>
<td>1.9%</td>
</tr>
</tbody>
</table>

| N                                      | 349,543                          | 237,944                    |                                     |

Note: * denotes statistically significant difference, p<.01

Given that there appears to be some possibility of residual imbalance, how confident should we be in the natural experiment? We see several reasons to expect that the natural experiment is still likely to yield good causal estimates of the effect of holistic defense. First, none of the statistically significant differences shown in Table 3 appears large enough that one would expect, based on these differences, that there would be an appreciable divergence in outcomes across the two pools of defendants. Examining predicted conviction rate and sentence length, the two omnibus measures of case difficulty presented at the bottom of the table, provides more direct evidence in favor of this argument. These measures were generated taking into account a wide
spectrum of defendant characteristics and asking what the expected outcomes for each defendant would be based upon the totality of those characteristics. For both expected outcomes, the averages are not statistically different from one another and quite close in practical terms. This suggests that despite the minor differences shown for some characteristics in Table 3, overall the two pools of defendants would actually be very similar in terms of their likely outcomes absent any sort of difference in the quality of their representation.

Moreover, for the natural experiment to appropriately yield causal estimates, we require that the shift assignments be as good as random not in some absolute sense, but rather conditional on other variables for which we control. We can directly observe many of the most important determinates of case outcomes (e.g. prior criminal history, current charge, etc.) and directly control for these in the analysis, which lessens potential for failure of the natural experiment. Put differently, the differences shown in Table 3 are actually not likely to contaminate the estimates below, because we can directly control for such differences in the analysis. More problematic would be a situation in which there are both a) unobserved (and therefore uncontrollable) differences across the two groups and b) these differences are large enough in practical terms to appreciably affect the outcomes under consideration. Table 3 suggests that even if a) might be true, b) is not, because observed differences are practically small.

To measure the effects of holistic representation using the natural experiment, we estimate a linear instrumental variables (IV) regression model via two-stage least squares (2SLS)\(^{151}\) where the unit of observation is a defendant in a particular case. Here the outcome of interest is a criminal justice outcome, such as whether the defendant was convicted in the case or the sentence length, and the primary explanatory variable of interest is an indicator for whether a particular defendant was represented by the holistic defender (Bronx Defenders), with defendants represented by the traditional defender (Legal Aid Society) serving as the omitted comparison group\(^{152}\). Because some indigent defendants are ultimately assigned to appointed counsel, we also include an indicator for representation by appointed counsel as an additional, separate control, although comparing public defenders and private appointed counsel is not a primary focus of the study.\(^{153}\)

Given the concerns described above about the potential for non-random sorting across defendants, it seems plausible to imagine that case assignment might be correlated with unobserved factors, such as the difficulty of the case, that affect criminal justice outcomes. To address this concern, we instrument for the holistic defense indicator using a set of two indicators, one equal to one for all cases arraigned on days when the holistic defender was assigned to all courtroom shifts, and another equal to one for all cases arraigned on days where the holistic defender was assigned to some but not all shifts (with the omitted comparison group being days in which the holistic

\(^{151}\) See ch. 4 of JOSHUA D. ANGRIST & JORN-STEFFEN PISCHKE, MOSTLY HARMLESS ECONOMETRICS 113 (2009) for more a more detailed description of IV models and 2SLS. While the binary nature the endogenous variable and some outcomes might suggest the use of non-linear models, in this case, because of the desirability of controlling for many time fixed effects and fixed effects capturing the wide range of different charge patterns seen in the data, estimation using nonlinear models was not feasible. Moreover, Section 4.6.3 highlights some of the advantages of linear IV.

\(^{152}\) The use of an IV model could also help to address certain types of misclassification where the true organizational affiliation of the defender is misrecorded by the court. It thus removes bias that might arise due to some types of clerical errors.

\(^{153}\) Thus, the overall estimation strategy involves estimating three equations, a main equation and two equations for the endogenous variables (holistic representation and appointed counsel representation), where there are three instruments (partial shift indicator, full shift indicator, and daily case count) for each of the endogenous variables.
defender was not taking primary assignments). We also instrument for private appointed counsel representation using the daily count of new arraignments, reasoning that day-to-day case volume is largely random, but on days with an unusually high volume of cases, the public defenders and court personnel might be more inclined to try to shift cases towards appointed attorneys as a means of balancing public defender caseloads. Appendix Figure 2 provides evidence in favor of this supposition, showing that appointed counsel tend to receive a higher fraction of cases when there are large numbers of arraignments on a particular day.

The IV regressions also control for a series of other factors that may influence case outcomes and that may also be correlated with representation type. These include defendant age, gender, race, and ethnicity at the time of the arrest; the number of arrest charges and detailed (1211 categories) top charge; prior arrests and convictions for misdemeanors, felonies, weapons offenses, drug offenses, violent felonies, and offenses involving children; arrest location; holiday (Christmas, Thanksgiving, July 4, Memorial Day, Labor Day, New Year’s Day) offense; and fixed effects for arraignment day of week, day of month, and month by year. Conceptually, then, the regressions compare outcomes across two defendants with the same demographics, current charges, and prior criminal history who vary in the type of representation they receive due to the fact that they were arraigned on dates where different defender organizations were scheduled to take cases. The main requirement for these estimates to measure the causal effect of holistic representation is that, after controlling for the factors listed above, there are no systematic differences in case quality, culpability, or other unmeasured case characteristics between those arraigned during Defender shifts as compared to those arraigned during Legal Aid shifts. While this assumption is not directly testable, there is little reason to suppose that such systematic differences should exist, and Table 3 suggests that the two groups are highly similar on observable dimensions.

III. THE EFFECTS OF HOLISTIC REPRESENTATION

A. Pre-Trial Outcomes and Case Processing

We first consider whether holistic defense affects outcomes prior to case resolution. Table 4 reports the IV estimates of the effect of holistic defense on speed of case resolution and pretrial crime obtained using the statistical model described above. The first-stage estimates indicate a strong relationship between shift timing and holistic representation.

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154 An alternative possibility is that these differences are solely driven by co-defendant cases, which would be less ideal from a research design standpoint. Although we lack data on the frequency of codefendant cases in the Bronx, data from the 2014 National Incident-Based Reporting System reveals that only 3,879 (3.3%) of the 119,124 recorded crime incidents occurring in large (>500,000 population) cities involved three or more co-offenders who were arrested. Given that 16% of defendants in our sample are represented by appointed counsel, it seems unlikely that appointed counsel assignments are driven primarily by co-defendant cases.

155 Luc Behagel et al., Robustness of the Encouragement Design in a Two-Treatment Randomized Control Trial (IZA DP No. 7447, June 2013), http://ftp.iza.org/dp7447.pdf describe other technical assumptions that must be met in order for 2SLS estimation to deliver causal estimates in a setting such as this, assumptions that are likely satisfied in the present situation.

156 In the first stage regression where holistic representation is the outcome, arraignment on a partial BD shift day increases the likelihood of BD representation by 29.6 percentage points relative to a non-BD day, arraignment on an all BD shift day increases the likelihood by 48.1 pp, and the new case count is insignificant, with a first stage
Table 4: Effects of Holistic Defense on Pretrial Arrest, Failure to Appear, and Case Processing

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Mean for Clients with Traditional Defender</th>
<th>Estimated Effect of Holistic Representation</th>
<th>% Change in Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Case resolved at arraignment</td>
<td>.308</td>
<td>-.012*(.011)</td>
<td>-3.8%</td>
</tr>
<tr>
<td>Log(Case Length)</td>
<td>2.702</td>
<td>.085**(.037)</td>
<td>8.9%</td>
</tr>
<tr>
<td>Bail and Pretrial Release</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Release on recognizance</td>
<td>.713</td>
<td>.023**(.008)</td>
<td>3.2%</td>
</tr>
<tr>
<td>Detained</td>
<td>.225</td>
<td>-.019**(.007)</td>
<td>-8.6%</td>
</tr>
<tr>
<td>Bail amount (conditional)</td>
<td>$3,504</td>
<td>-216*(314)</td>
<td>N.S.</td>
</tr>
<tr>
<td>FTA and Pretrial Arrest</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bench warrant issued</td>
<td>.214</td>
<td>.013**(.006)</td>
<td>5.9%</td>
</tr>
<tr>
<td>Any pre-adjudication arrest</td>
<td>.148</td>
<td>.019**(.005)</td>
<td>12.7%</td>
</tr>
<tr>
<td>Number of pre-adjudication arrests</td>
<td>.252</td>
<td>.038**(.013)</td>
<td>15.1%</td>
</tr>
<tr>
<td>Misdemeanors</td>
<td>.161</td>
<td>.023**(.009)</td>
<td>14.2%</td>
</tr>
<tr>
<td>Felonies</td>
<td>.091</td>
<td>.015**(.006)</td>
<td>16.7%</td>
</tr>
<tr>
<td>Violent felonies</td>
<td>.026</td>
<td>.003*(.003)</td>
<td>N.S.</td>
</tr>
</tbody>
</table>

Note: This table reports coefficient estimates from linear 2SLS regressions of the listed outcome on indicators for whether a defendant was represented by the holistic defender or private appointed counsel, with the omitted comparison group being defendants represented by the traditional public defender. The regressions instrument for these endogenous indicators using an indicator for arraignment on a date when the holistic defender was taking some but not all shifts, an indicator for arraignment on a date when the holistic defender was taking all shifts, and the daily number of arraignments involving new (<48 hours since arrest) cases. The unit of observation is a defendant in a case. For case resolution at arraignment, case length, and FTA and pretrial arrest, the sample size is 587,156. For release on recognizance and pretrial detention, the sample is limited to defendants who did not resolve their case at first appearance, and the sample size is 428,815. The conditional bail amount analysis further limits the

F-statistic on the excluded instruments of 1129. In the first stage regression where appointed representation is the outcome, arraignment on a partial BD shift day reduces the likelihood of appointed counsel representation by 0.9 pp, arraignment on a full BD shift day is not significant, and each additional new case (mean=145, s.d.=39) increases the likelihood of appointed counsel by .02 pp, with a first stage F-statistic on the excluded instruments of 8.66. The Cragg-Donald F-statistic for the overall first stage is 51.74, and the Kleibergen-Paap F-statistic is 8.41.
sample to only those defendants who had a nonzero bail set, yielding a sample size of 123,598, and bail amounts above the top .5% of observations (> $1,000,000) were trimmed. The regressions also control for defendant age, gender, race, and ethnicity at the time of the arrest; the number of arrest charges and detailed (1211 categories) top charge; prior arrests and convictions for misdemeanors, felonies, weapons offenses, drug offenses, violent felonies, and offenses involving children; arrest location; holiday (Christmas, Thanksgiving, July 4, Memorial Day, Labor Day, New Year’s Day) offense; and fixed effects for arraignment day of week, day of month, and month by year. Standard errors clustered on arraignment day are reported in parentheses. * denotes a statistically significant estimate at the 5% level, ** at the 1% level. N.S.=not statistically significant.

The top rows of Table 4 consider two outcomes related to case processing: whether the case resolves at the initial arraignment (in which case pretrial detention is not a possibility) and how long the case takes to reach an initial disposition. Resolutions at arraignment are fairly commonplace and often involve either immediate guilty pleas or adjournments in contemplation of dismissal (which is generally viewed as a positive outcome from the perspective of the defendant), so an immediate resolution is neither obviously good or bad; in any case, the estimates suggest the frequency of this outcome is not affected by holistic representation. Holistic representation was associated with a 9% increase in the amount of time it takes to resolve a case. Although the precise explanation for this longer case adjudication time is unclear, one possibility is that holistic defenders strategically delay case resolution for some clients in order to allow them to begin drug treatment, secure employment, or engage in other positive actions that might lead to more lenient sentences. Another possibility is that the extensive, checklist-based screening process conducted by the holistic defenders lengthens the case.

We next examine bail and pretrial release for those defendants who do not immediately resolve their cases. Holistic representation increases the likelihood that clients are granted release on recognizance by 2.3 percentage points, and reduces overall rates of pretrial detention by 9%. For those for whom bail is required, holistic defense is associated with lower bail amounts, although this difference is not statistically significant.

Clients with holistic representation were more likely to be arrested during the pretrial period when measuring arrests using either the fraction of clients with a new arrest or the total number of arrests. Pretrial misdemeanors increased by 14% and felonies increased by 17%, although there was no measurable increase in violent pretrial felonies. There is nothing in the holistic defense theory of action that would suggest that any support or services provided during the pretrial period should increase defendant contacts with the criminal justice system. Thus, some -- and perhaps all -- of the measured increase in pretrial arrests and failures to appear is likely attributable to clients’ higher release rate coupled with their longer exposure time before cases are resolved, which would leave them more available time to accrue failures to appear or additional arrests through a reverse incapacitation effect.

B. Immediate Case Outcomes

We next turn to an examination of outcomes in the immediate case. We first examine whether the charges at final case disposition were downgraded relative to the charges at arrest, where we define downgrades based upon the seriousness level of the offense as defined under New York law. Charge downgrades provide one suggestive indicator of quality of representation, as

157 New York categorizes offense severity in three classes for misdemeanors (A, B, and unclassified) and five classes and two subclasses for felonies (A-I, A-II, B, C, D, and E) (Chapter 1: Criminal Justice System for Adults in
charge bargaining is an important tool used by defense attorneys to minimize punishment and sentences for their clients. Table 5 reports that approximately one half of all defendants obtained charge downgrades, and that there was a modest (3%) but statistically significant increase in this rate for those represented by the holistic defender.

Although holistic defenders were more successful at obtaining charge downgrades, there was no statistically significant effect on the overall conviction rate or the guilty plea rate. Whatever benefits the holistic model carries for clients, they do not appear to extend to avoiding convictions altogether. However, Table 5 demonstrates that holistic representation has a statistically significant and practically large impact on punishment severity, reducing the likelihood of a jail sentence by 3.9 percentage points (16%) and the average length of the custodial sentence (including zero sentences) by 9.5 days (24%). These are large effects, implying, for example, that there were roughly 4,500 individuals in our sample who avoided jail sentences who would have otherwise received them had they not had access to holistic representation.

Table 5: Effects of Holistic Defense on Case Outcomes

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Mean for Clients with Traditional Defender</th>
<th>Estimated Effect of Holistic Representation</th>
<th>% Change in Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Charge downgraded</td>
<td>.514</td>
<td>.014*</td>
<td>2.7%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(.007)</td>
<td></td>
</tr>
<tr>
<td>Convicted</td>
<td>.744</td>
<td>.003</td>
<td>0.4%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(.006)</td>
<td></td>
</tr>
<tr>
<td>Guilty plea</td>
<td>.736</td>
<td>.005</td>
<td>0.6%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(.006)</td>
<td></td>
</tr>
<tr>
<td>Sentenced to jail</td>
<td>.254</td>
<td>-.039**</td>
<td>-15.5%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(.006)</td>
<td></td>
</tr>
<tr>
<td>Sentence length (days)</td>
<td>40.2</td>
<td>-9.47**</td>
<td>-23.5%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(3.62)</td>
<td></td>
</tr>
</tbody>
</table>

Note: See notes for Table 4.

For sentence length, the point estimate implies that over our ten year sample period, holistic representation was able to avert nearly 1.1 million days of custodial sentence.\textsuperscript{158} Prior research

\textsuperscript{158} Such aggregate calculations assume a similar effect of holistic representation for both those facing short sentences and those facing longer sentences. As a robustness check, we predicted the expected sentence for each defendant based upon demographics, charge severity, and prior record and then re-estimated the model for the sample of 54,486 defendants with an expected sentence of above 6 months. For this sample, the estimated effect of holistic representation on sentence length was -123 with a standard error of 103, compared with an average actual sentence for the comparison group of traditional defender clients of 365 days. Although not statistically significant
suggests that Bronx defendants serve an average of about 2/3 of the assigned sentence, 159 and, over the period in question, the daily custodial cost per inmate was about $400 in city facilities 160 and $165 in state facilities, 161 with about 75% of time served occurring in state facilities. Combining these numbers with those in Table 5, municipal and state authorities saved an estimated $165 million in inmate housing costs alone during the study period due to holistic representation. Apparently, the staffing and organization of indigent defense services can have large impacts on the downstream costs of incarceration.

Although in theory we could use our research design to compare the effects of public defenders to private appointed counsel, as a practical matter, the estimates we obtain for private appointed counsel are highly imprecise and thus fairly uninformative, so we do not emphasize them in the discussion. For example, the 95% confidence interval for the estimated effect of private appointed counsel representation (as compared to the omitted comparison group of clients with the traditional public defender) on the conviction rate is −.06 to +.37 percentage points. For sentence length, the 95% confidence interval is −212 to +81 days. Thus, we cannot rule out zero effects or appreciable positive or negative effects of private appointed counsel.

C. Future Criminal Justice System Involvement

An appealing argument for holistic defense that has spurred adoption in several jurisdictions is the notion that in addressing defendants’ underlying problems, it can reduce later contact with the criminal justice system, thus improving public safety and reducing future criminal justice costs. To what extent does holistic defense reduce recidivism? To examine this question, we considered cumulative new arrests within 1, 2, 3, 5, and 10 years post-arraignment. The data include arrests anywhere in New York state but exclude arrests in other jurisdictions. We measure recidivism from the time of arraignment rather than the time of case disposition to avoid interpretation issues that would arise given that Bronx Defender cases take longer to resolve. For earlier years, this means that we are measuring recidivism prior to the resolution of the case for some defendants. As the follow-up time increases, the sample size diminishes, although even for the 10-year sample, there still remain over 380,000 defendant/case pairings. 162

Table 6 reports results from the recidivism analysis. New arrests are fairly common in this sample, rising from an average of a bit over 1 per defendant in the first year post-arraignment to over 5 arrests per defendant ten years out. There is no measurable effect of holistic representation on recidivism as measured by arrest at any of the follow-up periods, moreover, the estimates are sufficiently precise so as to rule out modest shifts in either direction. In year 1, for example, we

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162 If we estimate the 1-5 year impacts solely on the sample that is observed for all ten years, we obtain similar longitudinal patterns of effects as those suggested by the results in Table 6.
can statistically reject increases in recidivism due to holistic representation of more than 7.7%, or decreases of more than 0.5%, and in year 10, we can statistically reject declines in new arrest of more than 10%, or increases of greater than 3%. The null effects found in year 1 suggest that any impacts of holistic representation on pretrial arrest are short lived, and defendants with traditional representation quickly catch up in terms of additional police contacts, so ultimately there is no net impact of holistic representation on arrest.

These findings for overall arrest extend to an analysis of specific types of offenses as well. There is no evidence that holistic representation measurably effects misdemeanor arrests, felony arrests, or violent felonies, and the estimates are generally precise enough to exclude practically important changes in these categories of crime. For example, despite the fact that holistic representation leads to sentences that are nearly 25% shorter on average, we can statistically reject increases in felony arrests as of year 5 of greater than 3.1%.

**Table 6: Effects of Holistic Defense on Future Arrest**

<table>
<thead>
<tr>
<th>Years Since Arraignment</th>
<th>Mean Number of New Arrests</th>
<th>All New Arrests</th>
<th>New Misdemeanor Arrests</th>
<th>New Felony Arrests</th>
<th>New Violent Felony Arrests</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>1.14</td>
<td>.041</td>
<td>.027</td>
<td>.014</td>
<td>.000</td>
</tr>
<tr>
<td>(N=587,487)</td>
<td>(.024)</td>
<td>(.020)</td>
<td>(.009)</td>
<td>(.004)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3.6%</td>
<td>2.4%</td>
<td>1.2%</td>
<td>0.0%</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>1.95</td>
<td>.041</td>
<td>.039</td>
<td>.006</td>
<td>.004</td>
</tr>
<tr>
<td>(N=575,888)</td>
<td>(.036)</td>
<td>(.029)</td>
<td>(.015)</td>
<td>(.006)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2.1%</td>
<td>2.0%</td>
<td>0.3%</td>
<td>0.2%</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>2.62</td>
<td>.009</td>
<td>.024</td>
<td>.008</td>
<td>.004</td>
</tr>
<tr>
<td>(N=520,561)</td>
<td>(.044)</td>
<td>(.036)</td>
<td>(.018)</td>
<td>(.007)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.4%</td>
<td>0.9%</td>
<td>0.3%</td>
<td>0.2%</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>3.76</td>
<td>-.041</td>
<td>.006</td>
<td>-.010</td>
<td>-.001</td>
</tr>
<tr>
<td>(N=462,639)</td>
<td>(.066)</td>
<td>(.048)</td>
<td>(.021)</td>
<td>(.008)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>-1.1%</td>
<td>0.2%</td>
<td>-0.3%</td>
<td>0.0%</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>5.75</td>
<td>-.207</td>
<td>-.084</td>
<td>-.061*</td>
<td>-.014</td>
</tr>
<tr>
<td>(N=382,181)</td>
<td>(.189)</td>
<td>(.076)</td>
<td>(.030)</td>
<td>(.010)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>-3.6%</td>
<td>-1.5%</td>
<td>-1.1%</td>
<td>-0.2%</td>
<td></td>
</tr>
</tbody>
</table>

Note: This table reports estimates of the effects of holistic representation on overall crime and crime by offense seriousness across different follow-up periods. Each table entry reports results from a separate IV regression. Follow-up periods are measured relative to the arraignments date, and outcomes are cumulative over the entire period in question. For each estimate, the implied percentage change in the outcome (relative to those with traditional representation) is reported below the standard error. See notes for Table 4.

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163 These results are net of any decreases in crime that occur through deportations. If one of the two models is more successful at preventing deportations of clients, it would be harder for that model to demonstrate future crime reductions, as more defendants would remain available in the country to be arrested.
While the fact that holistic representation does not measurably reduce recidivism may seem disappointing at first glance, taken in concert with the results above, these findings suggest that the model may in fact have important benefits. Because holistic representation produces fairly sizable percentage reductions in custodial sentences and sentence length, other things being equal we might expect to observe greater post-arraignment crime from those with holistic representation through a reverse incapacitation effect.\(^{164}\) For example, using a research design based on the random assignment of sentencing judges, Michael Roach and Max Schanzenbach\(^{165}\) find that a 25% decrease in the sentence length should equate to a roughly 13% increase in recidivism as of three years post-adjudication. Instead, these defendants were de-incarcerated without increasing recidivism and compromising public safety. Although these findings might be explained in a number of plausible ways, one explanation consistent with the views of many stakeholders we interviewed is that the holistic approach may better equip defense attorneys to identify those clients who are of lesser risk of future criminal justice involvement if released, and bring the situations of such clients to the attention of the court.

Appendix Table 2 reports results from two alternative specifications that assess the robustness of these main findings. First, we replicate the analysis performed previously but exclude the number of new cases instrument, relying solely on the case scheduling instruments, which are most plausibly unrelated to outcomes. Next, we implement a matching analysis. Using the model for predicting conviction probability and sentence length described previously, we obtain a predicted probability of conviction and sentence length for each defendant in the sample. We then include as controls in the IV model a full set of indicators for predicted probability of conviction (measured to the nearest tenth of a percent) and predicted sentence length (measured to the nearest day). This is a form of matching estimator as it in effect compares defendants only to those in the sample who are virtually identical in terms of expected outcomes, but who differ in their representation due to the schedule. As shown in the table, both alternative approaches yield estimates that are similar to the baseline.

These results suggest that strengthening indigent defense might be an underappreciated tool in the larger effort to address problems of mass incarceration in the U.S. Opponents of decarceration often express concern that reducing the prison and jail population might lead to higher crime, as defendants who would have previously been held in custody are left on the streets. Holistic representation apparently offers a means to appreciably reduce the use of prison and jail as punishment without fueling future crime.

D. Effects for Defendant Subgroups

Is holistic representation more effective for certain types of defendants? To explore this question, we estimated IV regressions analogous to those presented previously but for particular subsets of the population defined by demographics and alleged criminal activity. The results of that analysis are presented in Table 7.

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\(^{164}\) Moreover, if holistic representation is better at averting deportation for clients, as some have suggested may be the case, this would leave a larger pool of holistically represented defendants available in the population for future arrest, which would tend to increase the number of arrests measured for the holistic population.

Table 7: Effects by Charge Severity and Defendant Race, Gender, and Prior Criminal History

<table>
<thead>
<tr>
<th>Subgroup</th>
<th>Detained pretrial</th>
<th>Any pretrial arrest</th>
<th>Convicted</th>
<th>Sentenced to jail</th>
<th>Sentence length (days)</th>
<th>New arrests through year 1</th>
<th>New arrests through year 5</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Current charge severity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Felony (N=163,546)</td>
<td>-.050*</td>
<td>.014</td>
<td>-.038</td>
<td>-.041*</td>
<td>-6.87</td>
<td>-.005</td>
<td>-.009</td>
</tr>
<tr>
<td></td>
<td>(.020)</td>
<td>(.015)</td>
<td>(.022)</td>
<td>(.018)</td>
<td>(20.3)</td>
<td>(.016)</td>
<td>(.014)</td>
</tr>
<tr>
<td>Misdemeanor (N=411,118)</td>
<td>-.011</td>
<td>.011</td>
<td>-.001</td>
<td>-.043**</td>
<td>.212</td>
<td>.007</td>
<td>-0.11</td>
</tr>
<tr>
<td></td>
<td>(.007)</td>
<td>(.006)</td>
<td>(.007)</td>
<td>(.007)</td>
<td>(.713)</td>
<td>(.010)</td>
<td>(.007)</td>
</tr>
<tr>
<td><strong>Prior criminal record</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No priors (N=291,887)</td>
<td>-.008</td>
<td>.022**</td>
<td>.012</td>
<td>-.018**</td>
<td>.033</td>
<td>.037**</td>
<td>-.006</td>
</tr>
<tr>
<td></td>
<td>(.006)</td>
<td>(.008)</td>
<td>(.010)</td>
<td>(.005)</td>
<td>(4.04)</td>
<td>(.011)</td>
<td>(.010)</td>
</tr>
<tr>
<td>Priors (N=282,744)</td>
<td>-.022</td>
<td>.013*</td>
<td>-.009</td>
<td>-.049**</td>
<td>-14.8**</td>
<td>.001</td>
<td>-0.08</td>
</tr>
<tr>
<td></td>
<td>(.012)</td>
<td>(.006)</td>
<td>(.006)</td>
<td>(.010)</td>
<td>(5.44)</td>
<td>(.010)</td>
<td>(.006)</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male (N=475,896)</td>
<td>-.020**</td>
<td>.018**</td>
<td>.005</td>
<td>-.039**</td>
<td>-9.75*</td>
<td>.015</td>
<td>-0.10</td>
</tr>
<tr>
<td></td>
<td>(.007)</td>
<td>(.006)</td>
<td>(.006)</td>
<td>(.007)</td>
<td>(4.14)</td>
<td>(.008)</td>
<td>(.006)</td>
</tr>
<tr>
<td>Female (N=98,748)</td>
<td>-.009</td>
<td>.018*</td>
<td>-.008</td>
<td>-.040**</td>
<td>-8.33</td>
<td>.025</td>
<td>-0.13</td>
</tr>
<tr>
<td></td>
<td>(.012)</td>
<td>(.009)</td>
<td>(.012)</td>
<td>(.010)</td>
<td>(4.43)</td>
<td>(.014)</td>
<td>(.014)</td>
</tr>
<tr>
<td><strong>Race</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-Black, non-Hispanic (N=31,473)</td>
<td>-.039</td>
<td>-.010</td>
<td>-.016</td>
<td>-.061*</td>
<td>-22.0</td>
<td>.045</td>
<td>-.010</td>
</tr>
<tr>
<td></td>
<td>(.031)</td>
<td>(.022)</td>
<td>(.025)</td>
<td>(.029)</td>
<td>(17.3)</td>
<td>(.030)</td>
<td>(.033)</td>
</tr>
<tr>
<td>Black (N=265,495)</td>
<td>-.022*</td>
<td>.021**</td>
<td>.005</td>
<td>-.043**</td>
<td>-6.88</td>
<td>.011</td>
<td>-0.14</td>
</tr>
<tr>
<td></td>
<td>(.009)</td>
<td>(.007)</td>
<td>(.008)</td>
<td>(.007)</td>
<td>(5.11)</td>
<td>(.010)</td>
<td>(.008)</td>
</tr>
<tr>
<td>Hispanic, non-Black (N=273,320)</td>
<td>-.016</td>
<td>.020**</td>
<td>.002</td>
<td>-.035**</td>
<td>-11.4*</td>
<td>.021</td>
<td>-0.08</td>
</tr>
<tr>
<td></td>
<td>(.009)</td>
<td>(.007)</td>
<td>(.008)</td>
<td>(.009)</td>
<td>(5.32)</td>
<td>(.011)</td>
<td>(.008)</td>
</tr>
</tbody>
</table>

Note: This table reports estimates of the effects of holistic representation for particular subpopulations across a subset of outcomes from Table 4-Table 6. Each table entry reports results from the separate IV regression. See notes for Table 4-Table 6.

We first consider whether impacts differ by whether the defendant was charged with a misdemeanor or a felony. Felony defendants represent about 30% of the overall sample. The first rows of Table 7 indicate that holistic representation reduced the pretrial detention rate by 5 percentage points for felony defendants. The represents a 13% reduction relative to the baseline detention rate for this population of 38.9%. Estimated effects on pretrial detention for
misdemeanor defendants were of similar magnitude in percentage terms, as this group is less likely to be detained overall, but were not significantly different from zero. The table also demonstrates that neither group experiences significant changes in conviction rates or future arrest rates. Both types of defendants experience measurable reductions in the likelihood of a jail sentence.\footnote{While the results here for sentence length may at first glance seen at odds with the baseline results, they reflect the fact that expected sentence length for felony defendants is much larger than of misdemeanor defendants. In essence, these regressions are limiting attention to those with only a narrower subset of the outcome than the overall sample, which has the effect of excluding useful identifying information from the analysis.}

The final rows of Table 7 examine effects by gender and race/ethnicity of the client. Although the majority of defendants are male, the Bronx Defenders represent a substantial number of female defendants, and most clients are Black or Hispanic. In general, we do not observe statistically or practically meaningful differences in the estimated effects of holistic representation across these various demographic subpopulations, suggesting that the impacts of holistic defense are widely experienced across different types of individuals involved in the criminal justice system. The estimates in Table 7 are not sufficiently precise to support meaningful statements regarding whether holistic representation affects racial disparities in incarceration.

\textbf{E. Effects by Offense}

We next consider whether holistic representation is more or less effective based on the alleged top charge of the defendant. We focus on the six FBI Uniform Crime Reporting program offense categories for which we observe at least 25,000 defendants in our sample; these six offense categories collectively account for over 75\% of the defendants in the entire sample. Table 8 reports results disaggregated by offense type.\footnote{We also examined effects of new arrests at 1 and 5 years post arraignment, but did not find statistically significant changes for any of the offense types.}

We do not observe statistically significant impacts of holistic representation for those accused of assault, fraud/forgery, or weapons offenses. However, there are substantial impacts for those charged with larceny and drug offenses. The likelihood of a jail sentence decreases by 25\% and the expected sentence length by 63\% for defendants in drug cases; for larceny defendants; holistic representation decreases sentences by over 70\% on average. Given the enormous number of drug cases in the sample—nearly a quarter of a million—these large measured impacts of holistic representation are of considerable import.

The pattern across different offenses shown in Table 8 comports with logic and seems consistent with prior research and interviewees’ views regarding how an approach like holistic representation might shape case outcomes. For those accused of drug offenses, engagement with drug treatment providers and social services to address each individual’s underlying reasons for substance misuse can be critical steps towards reformation, and courts are more likely to extend leniency to those who demonstrate a desire to address their problems through such means. The team-based approach central to the holistic model enables attorneys to enlist the help of outside experts in understanding the extent of a client’s substance involvement, and simplifies the process of referring clients to treatment.

Similarly, the wraparound services offered under the holistic model to address concerns such as housing or employment stability may be particularly effective for those accused of larceny, as these are largely offenses that arise due to poverty. Prosecutors and judges may also view themselves as having greater leeway to deal leniently with larceny offenders; this greater degree
of discretion may make informed advocacy by the defense attorney particularly impactful. For violent or weapon offenses, it is less obvious how social services might be used to mitigate future risk, and judges and prosecutors may be less willing to offer leniency. Overall, the results in Table 8 indicate that holistic representation has very large impacts for charges that seem most amenable to social service intervention.

### Table 8: Effects by Offense Type

<table>
<thead>
<tr>
<th>Top Charge</th>
<th>Convicted</th>
<th>Sentenced to jail</th>
<th>Sentence length (days)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drug (N=236,037)</td>
<td>.008</td>
<td>-.069**</td>
<td>-29.11**</td>
</tr>
<tr>
<td></td>
<td>(.010)</td>
<td>(.013)</td>
<td>(7.57)</td>
</tr>
<tr>
<td></td>
<td>N.S.</td>
<td>-24.6%</td>
<td>-63.1%</td>
</tr>
<tr>
<td>Fraud/forgery (N=57,792)</td>
<td>-.021</td>
<td>.000</td>
<td>-2.31</td>
</tr>
<tr>
<td></td>
<td>(.021)</td>
<td>(.017)</td>
<td>(2.09)</td>
</tr>
<tr>
<td></td>
<td>N.S.</td>
<td>N.S.</td>
<td>N.S.</td>
</tr>
<tr>
<td>Simple assault (N=55,349)</td>
<td>.013</td>
<td>-.021</td>
<td>5.14</td>
</tr>
<tr>
<td></td>
<td>(.019)</td>
<td>(.012)</td>
<td>(3.51)</td>
</tr>
<tr>
<td></td>
<td>N.S.</td>
<td>N.S.</td>
<td>N.S.</td>
</tr>
<tr>
<td>Aggravated assault (N=30,651)</td>
<td>-.046</td>
<td>-.055</td>
<td>2.86</td>
</tr>
<tr>
<td></td>
<td>(.041)</td>
<td>(.030)</td>
<td>(28.00)</td>
</tr>
<tr>
<td></td>
<td>N.S.</td>
<td>N.S.</td>
<td>N.S.</td>
</tr>
<tr>
<td>Larceny (N=28,987)</td>
<td>-.020</td>
<td>-.042*</td>
<td>-21.96*</td>
</tr>
<tr>
<td></td>
<td>(.019)</td>
<td>(.020)</td>
<td>(8.59)</td>
</tr>
<tr>
<td></td>
<td>N.S.</td>
<td>-11.8%</td>
<td>-71.9%</td>
</tr>
<tr>
<td>Weapon (N=26,977)</td>
<td>.008</td>
<td>-.001</td>
<td>-5.72</td>
</tr>
<tr>
<td></td>
<td>(.019)</td>
<td>(.026)</td>
<td>(14.00)</td>
</tr>
<tr>
<td></td>
<td>N.S.</td>
<td>N.S.</td>
<td>N.S.</td>
</tr>
</tbody>
</table>

Note: This table reports estimates of the effects of holistic representation for defendants facing a top charge belonging to the listed offense type. Each entry reports results from a unique regression. See notes for Table 4, and fn. 167. For statistically significant impacts, the percent change relative to the average among those represented by the traditional defender is reported below each entry. N.S=estimated change not statistically significant.

### F. Effects Over Time

Has the effect of holistic representation remained consistent throughout the study period, or is there evidence of variation over time? To explore that question, we re-estimated the baseline model but allowed the effects of holistic representation to vary across three different time periods: 2000-2003, 2004-2007, and 2012-2014. An important limitation of this analysis is, because the
particular shift changes used to measure the causal impact of holistic representation are different in each time period, it is possible that some of the differences over time shown below reflect how impacts are being measured, rather than true variation in the effect of holistic representation.\textsuperscript{168} We thus view the evidence below as suggestive but not dispositive regarding any intertemporal effects.

\textit{Table 9: Effects Over Time}

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Estimated effect of holistic representation in</th>
<th>P-value from test of</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2000-2003</td>
<td>2004-2007</td>
</tr>
<tr>
<td>Detained pretrial</td>
<td>0.012</td>
<td>-0.024**</td>
</tr>
<tr>
<td></td>
<td>(0.016)</td>
<td>(0.009)</td>
</tr>
<tr>
<td>Bench warrant</td>
<td>-0.037*</td>
<td>0.017</td>
</tr>
<tr>
<td></td>
<td>(0.019)</td>
<td>(0.011)</td>
</tr>
<tr>
<td>Any pretrial arrest</td>
<td>-0.003</td>
<td>0.016*</td>
</tr>
<tr>
<td></td>
<td>(0.012)</td>
<td>(0.008)</td>
</tr>
<tr>
<td>Convicted</td>
<td>-0.013</td>
<td>-0.009</td>
</tr>
<tr>
<td></td>
<td>(0.014)</td>
<td>(0.008)</td>
</tr>
<tr>
<td>Custodial sentence</td>
<td>-0.056**</td>
<td>-0.043**</td>
</tr>
<tr>
<td></td>
<td>(0.018)</td>
<td>(0.009)</td>
</tr>
<tr>
<td>Sentence length (days)</td>
<td>-12.301</td>
<td>-4.753</td>
</tr>
<tr>
<td></td>
<td>(10.559)</td>
<td>(4.753)</td>
</tr>
<tr>
<td>Any arrest within 1 year</td>
<td>0.005</td>
<td>0.001</td>
</tr>
<tr>
<td></td>
<td>(0.017)</td>
<td>(0.009)</td>
</tr>
<tr>
<td>Any arrest within 5 years</td>
<td>0.007</td>
<td>-0.010</td>
</tr>
<tr>
<td></td>
<td>(0.013)</td>
<td>(0.006)</td>
</tr>
</tbody>
</table>

Note: This table reports estimates of the effects of holistic representation, where the effects of holistic representation are allowed to vary over time. Each row reports coefficients from a separate regression, and the entire sample is used for each regression. These specifications include six endogenous variables—an indicator for Bronx Defender representation interacted with an indicator for 2000-2003, a Bronx Defender indicator interacted with a 2004-2007 indicator, and a Bronx Defender indicator interacted with a 2012-2014 indicator, plus three other indicators for appointed counsel interacted with these same three time periods. There are nine instruments, comprising the complete set of interactions between the partial Bronx Defender shift indicator, all Bronx Defender shifts indicator, and new case count and indicators for the periods 2000-2003, 2004-2007, and 2012-2014. The other control variables are as described for Table 4. See notes for Table 4.

Table 9 reports the effects estimates across a range of outcomes. The final column in the table reports results from a statistical test of the hypothesis that there was no change over time in the impact of holistic representation for the given outcome. For most outcomes, there is little evidence of a change over time. One notable exception, however, is custodial sentences, where we observe large reductions due to holistic representation in the earlier years but limited evidence of

\textsuperscript{168} We do not see a strong reason to expect different shift changes to yield different answers, but the ground truth remains unknown.
a reduction in the most recent years, a difference that is statistically significant. While not statistically significant, the estimated coefficients on sentence length follow a similar pattern, with the largest point estimates observed in early years.

There are several potential explanations for this pattern. One possibility is that there has been an actual convergence in performance across the holistic and traditional defenders, as Legal Aid attorneys have increasingly embraced the need consider collateral consequences and increased involvement of outside experts such as social workers and civil attorneys in their practice. Under this interpretation, the view expressed by many judges and Legal Aid attorneys in our interviews that there are few substantive differences across the two defender organizations today receives some support.

An alternative possibility is that this pattern is attributable to changes over time in how the holistic defenders operated. For example, due to a contract modification the Bronx Defenders substantially increased their caseloads beginning in 2012, necessitating a ramp-up in hiring and training and temporarily reducing the ratio of available personnel such as investigators and social workers to attorneys. Some of the patterns shown in Table 9 may represent internal adjustments such as these. A third possibility is that other changes within the criminal justice system and the community at large influence the efficacy of holistic representation. For example, if holistic representation is particularly effective at addressing substance-related offending, as suggested by Table 8, but the system as a whole moves towards decriminalizing minor drug offenses, this might narrow the scope for the holistic model to exert change. Alternatively, client preferences might evolve over time in a manner that favors non-criminal justice outcomes over criminal justice outcomes, in which case we might observe a convergence such as that suggested in Table 9. Unfortunately, the data do not provide a clear means of adjudicating across these possibilities, and reality may involve some combination of these possibilities or none at all.

G. Non-Experimental Estimates

A key advantage of the estimates presented above is that they exploit variation across defendants in assignment to holistic representation that is plausibly unrelated to guilt or innocence or the underlying quality of the case, and thus are likely to represent the causal effect of holistic representation. Absent a source of quasi-experimental variation, a more conventional approach to evaluating the impact of holistic representation would be to use statistical techniques such as regression modeling to estimate the expected difference in outcomes associated with holistic representation, controlling for other factors related to the outcomes. Is this conventional approach adequate for measuring the effects of holistic defense?

In Table 10, we report estimates from linear regression models where we model the outcome in question (e.g., whether the defendant received jail time) as a function of whether she was represented by the holistic public defender or by appointed counsel (with traditional public

\[ 169 \text{ REPORT OF THE INDIGENT DEFENSE ORGANIZATION OVERSIGHT COMMITTEE TO THE APPELLATE DIVISION FIRST DEPARTMENT FOR FISCAL YEARS 2012-2013,} \]
\[ \text{https://www.nycourts.gov/courts/AD1/Committees\&Programs/IndigentDefOrgOversightComm/IDOOC\%20FY\%2012-13\%20Report\%20Addendum\%20and\%20Appendix.pdf} \text{ (last visited Mar. 27, 2018).} \]
\[ 170 \text{Indeed, PREETI CHAUHAN ET AL., TRENDS IN ARRESTS FOR MISDEMEANOR CHARGES IN NEW YORK CITY,} \]
Table 10: Comparison Between Conventional and Quasi-Experimental Estimates of the Effects of Holistic Defense

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Regression Estimate</th>
<th>Quasi-Experimental Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Detained pretrial</td>
<td>-.002</td>
<td>-.019**</td>
</tr>
<tr>
<td></td>
<td>(.002)</td>
<td>(.007)</td>
</tr>
<tr>
<td></td>
<td>-.8%</td>
<td>-8.6%</td>
</tr>
<tr>
<td>Bench warrant</td>
<td>-.012**</td>
<td>.013*</td>
</tr>
<tr>
<td></td>
<td>(.002)</td>
<td>(.006)</td>
</tr>
<tr>
<td></td>
<td>-5.6%</td>
<td>5.9%</td>
</tr>
<tr>
<td>Any pretrial arrest</td>
<td>.001</td>
<td>.019**</td>
</tr>
<tr>
<td></td>
<td>(.002)</td>
<td>(.005)</td>
</tr>
<tr>
<td></td>
<td>0.8%</td>
<td>12.7%</td>
</tr>
<tr>
<td>Log(Case length)</td>
<td>-.077**</td>
<td>.085*</td>
</tr>
<tr>
<td></td>
<td>(.011)</td>
<td>(.037)</td>
</tr>
<tr>
<td></td>
<td>-7.4%</td>
<td>8.9%</td>
</tr>
<tr>
<td>Charge downgraded</td>
<td>-.004</td>
<td>.014*</td>
</tr>
<tr>
<td></td>
<td>(.002)</td>
<td>(.007)</td>
</tr>
<tr>
<td></td>
<td>-0.8%</td>
<td>2.7%</td>
</tr>
<tr>
<td>Convicted</td>
<td>.011**</td>
<td>.003</td>
</tr>
<tr>
<td></td>
<td>(.002)</td>
<td>(.006)</td>
</tr>
<tr>
<td></td>
<td>1.4%</td>
<td>0.4%</td>
</tr>
<tr>
<td>Guilty plea</td>
<td>.011**</td>
<td>.005</td>
</tr>
<tr>
<td></td>
<td>(.002)</td>
<td>(.006)</td>
</tr>
<tr>
<td></td>
<td>1.6%</td>
<td>0.6%</td>
</tr>
<tr>
<td>Sentenced to jail</td>
<td>.014**</td>
<td>-.039**</td>
</tr>
<tr>
<td></td>
<td>(.002)</td>
<td>(.006)</td>
</tr>
<tr>
<td></td>
<td>5.5%</td>
<td>-15.5%</td>
</tr>
<tr>
<td>Sentence length (days)</td>
<td>5.802**</td>
<td>-9.47**</td>
</tr>
<tr>
<td></td>
<td>(1.127)</td>
<td>(3.62)</td>
</tr>
<tr>
<td></td>
<td>14.4%</td>
<td>-23.5%</td>
</tr>
</tbody>
</table>

Note: This table compares effects estimates from traditional regression modeling with those reported above in Table 4-Table 6 for the quasi-experimental IV models. In addition to indicators for representation by the holistic public defender or appointed counsel (with traditional public defense as the omitted comparison group), the regressions also control for defendant demographics (age, gender, race), current case characteristics (detailed charge codes, number of counts, month, day of month, location), and prior criminal history. Each entry comes from a separate regression or IV model. See notes for Table 4.
month, day of week, month/year, location), and prior criminal history. For ease of comparison, the table also reports the analogous quasi-experimental estimate from above. Because many defendants do not in fact end up being represented by the defender organization they would receive based solely on shift schedules (Appendix Table 1), and the final assignments depend on factors such as conflicts or dismissals that can be influenced by client or attorney behavior, there is potential for non-random sorting of defendants to attorneys. Comparing the traditional regression results to the quasi-experimental results offers one means of assessing whether such non-random sorting is relevant from an evaluation standpoint.

Table 10 reveals that the conventional regression approach yields misleading estimates of the effects of holistic representation, erroneously suggesting that holistic representation increases conviction rates and sentences. Such a pattern would be consistent with an environment in which holistic defenders end up representing clients whose cases are less favorable than average in ways not fully accounted for with regression modeling; failure to account for such unobservable differences biases estimates obtained via the conventional approach. To be credible, future research seeking to identify the effects of other indigent defense practices will need to address the problem of potential non-random sorting of clients to defenders.

IV. WHY DOES HOLISTIC DEFENSE WORK?

The results presented in Section III demonstrate that holistic representation impacts a range of criminal justice outcomes. Compared to similarly positioned defendants with traditional representation, those with holistic lawyers are less likely to be detained pretrial, no more or less likely to be convicted, less likely to receive custodial sentences, more likely to receive shorter sentences, and are no more or less likely to accumulate new arrests -- including violent arrests -- up through ten years post-arraignment. With reference to the models presented in Section I.C, this pattern seems most consistent with the “better advocacy” model, under which holistic representation enables lawyers to more successfully advocate for client interests, yet does not fully resolve the underlying issues bringing clients into contact with the criminal justice system.

What is the connection between the Bronx Defenders’ service model and our findings? Robin Steinberg, founder of the Bronx Defenders, argues that under the status quo, judges make decisions without information about particular challenges that defendants face, such as recent job loss or alcoholism. The client-centered, holistic defense approach encourages advocates to better understand clients and their circumstances and communicate this information to judges. Steinberg argues that when holistic defenders present mitigating information about individual clients to judges and prosecutors, they feel more comfortable with pretrial release and non-incarceration sentences.

Given that traditional attorneys could also obtain mitigating evidence and present it to judges and prosecutors— and indeed often do— what can explain the superior performance of the

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172 Id.
173 Id.
174 This argument echoes the argument of Brandon Garrett’s recent work on the decline of the death penalty (BRANDON GARRETT, END OF ITS ROPE: HOW KILLING THE DEATH PENALTY CAN REVIVE CRIMINAL JUSTICE (2017)), in which he argues that better presentation of mitigation evidence by defense attorneys is one of the main drivers of the move away from the most punitive sanction in death penalty cases.
holistic model? One possibility is that collecting the information necessary to present convincing mitigating stories of clients requires either different skills than those of the attorney—for example, a social worker’s skill set—or more time than that available to the attorney in a traditional defender office. In altering the personnel mix within the office, the holistic model better matches team member skills to the needs of the client, generating informational efficiencies. Indeed, Steinberg notes that gathering and communicating details about clients’ lives is “part and parcel of the representation,” but most of the information-gathering itself is done by social workers, and then the team structure and interdisciplinary communication allows the information to be integrated into persuasive representation by the team’s attorney. Other data reinforce this view, demonstrating that the Bronx Defenders have a lower attorney-to-social worker ratio than the Legal Aid Society and use social workers in a much greater percentage of their misdemeanor and felony cases.

Alternatives to this information-centric view of holistic defense exist, but none as comprehensively explain the full pattern of results from the interviews and empirical analysis. For example, one possibility is that there is nothing inherent about holistic model that affects outcomes, but instead, holistic defenders recruit more highly skilled attorneys, and this skill differential explains the different case outcomes. This account, if correct, would tend to limit the scalability of the holistic model.

However, several pieces of evidence seem at odds with such a “cream-skimming” account. First, while there are performance differences between the holistic and traditional defender in the early period, this difference disappears in the latest period (2012-2014) (Table 9). Since attorney quality is likely comparatively stable over time, we would not expect such a pattern if better recruiting primarily explains the results. This pattern does, however, make sense if holistic practices are important, because our interviews revealed that over time the Legal Aid Society has embraced interdisciplinary practices used by the Bronx Defender, including the integration of more social workers.

Second, the holistic defenders have their biggest effect in drug cases and larcenies (Table 8). In distinguishing a high-quality recruit from an average one, most legal professionals would likely cite traits such as excellent trial advocacy, quick learning, creative arguments, or ability to identify the essential parts of a complex case. Superior handling of high volume, run-of-the-mill cases would probably not be seen as an obvious indicator of quality, yet the largest effects occur in such cases. Stated differently, effects are present for the types of crimes where holistic practices might most plausibly offer an advantage—cases where identifying and addressing a substance abuse or economic issue might shift how the court sees a client—and not obviously present for serious felonies or other types of cases where cream skimming would seemingly offer the greatest advantage.

A second alternative to the information-centric view is that judges treat holistic defenders differently, and it is this differential treatment, rather than the actual staffing and organizational features of holistic defense, that explain outcomes. While not irrefutable, this account also seems unsatisfactory in light of some evidence presented above. First, in the interviews, the judges did not articulate strong distinctions between the two different organizations, at least in ways that

175 Steinberg, supra note 162.
176 REPORT OF THE INDIGENT DEFENSE ORGANIZATION OVERSIGHT COMMITTEE (IDOOC) TO THE APPELLATE DIVISION FIRST DEPARTMENT FOR FISCAL YEARS 2012-2013; REPORT OF THE IDOOC TO THE APPELLATE DIVISION FIRST DEPARTMENT FOR FISCAL YEARS 2010-2011.
might suggest that their advocates would be treated differently. Second, there are differences over time and across offenses in the measured impact of holistic representation. This seems hard to explain using judge behavior, as such an account would require judges to change preferences over time or show selective favoritism. Finally, if judges really do offer better treatment to holistic clients, that would be a finding in need of an explanation. Why do judges treat the holistic defenders differently? Do they make different arguments? Are they better trained or more professional? If so, then presumably there is something about the model itself that affects outcomes beyond judge preferences.

If holistic practices do make a difference, why then does holistic representation not appear to generate lasting reductions in future criminal justice contacts for clients? One possibility is that clients’ problems are sufficiently entrenched that whatever assistance is offered through the defense organization is ultimately insufficient to fundamentally change the client’s trajectory with respect to the criminal justice system. Clients receive additional services through their holistic defender, but the dosage is too small. Under this paradigm, a possible solution that might increase the efficacy of the holistic model would be to provide additional resources to enable the holistic defender and partner organizations to offer a more comprehensive suite of supportive services.

To a legal cynic, the lack of impact would reflect the fact that actions of the criminal justice system are divorced from the actual behavior of those caught within the system, instead reflecting other priorities such as a desire to control certain groups. In this view, the null result has little to do with the actions of the defender or the client, but instead lies in the lack of responsiveness of the criminal justice system to true criminal behavior. If the legal cynical view is correct, then the “better advocacy” model described above is perhaps the best that can be hoped for from the defense function, as it reduces the harms inflicted by the criminal justice system on clients.

A third possibility is that holistic representation serves more of a sorting function than a rehabilitative function. Here, the information gathering role of the defender is paramount—some defendants require incapacitation in order to preserve public safety, but others do not, and judges and prosecutors have little means of identifying which defendants belong in which group, leading to over-incarceration. In holistically constructing each defendant’s case, the defense team more accurately identifies those defendants who can be released without any consequence to public safety than the traditional defender, and brings these situations to the attention of the court. The result would be a decrease in incarceration with no net change in crime.

These three possibilities are not mutually exclusive, and available data do not provide a clear way of adjudicating across them. Whatever the underlying explanation for the recidivism results, however, holistic defenders clearly are able to modify how judges and prosecutors view their clients in a way that generates shorter, less punitive sentences. This advantage at relaying information—essentially, clients’ stories—to the court plausibly results from the increased specialization afforded by the holistic team-based model coupled with the interdisciplinary communication it emphasizes.

**CONCLUSION**

Our findings are relevant to at least three ongoing debates. First, and most obviously, we quantified the difference that holistic defense makes as compared to a more traditional defender. This is relevant to jurisdictions that may be considering different approaches to providing defense

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177 See Sec. II.D above.
services. Second, our findings suggest that improving the defense function may be an overlooked tool to reduce the problem of overincarceration. Finally, our findings add to the growing body of work that shows that defense counsel is an important factor in the outcome of cases. While this may seem obvious, it is a rebuttal to the notion that the facts of the case rather than the characteristics of the lawyer exclusively determine the outcome of the proceeding and provides important information about how outcomes are actually produced in criminal cases.

*How should we provide indigent defense services?*

While holistic defense is a promising approach in improving the efficacy of providing defense services, there has been limited research on its effectiveness. Taking advantage of the fortuity of the methods of assigning counsel in the Bronx, we were able to use a quasi-experimental research design to measure its causal effect. We found that representation by the Bronx Defenders reduces the likelihood of a custodial sentence by 16% and the expected sentence length by 24%. This is a dramatically superior indigent defense service.

However, a key question is the extent to which the gains observed for the Bronx Defenders are replicable elsewhere. If the results shown in this paper primarily reflect “cream-skimming” of more talented advocates, the scalability of the holistic model may be limited. Alternatively, if the use of multidisciplinary teams with an emphasis on communication and information flow explains the improved case outcomes, then there is considerable potential for these methods to be more widely adopted.

There is substantial work yet to be done to further the adoption of holistic representation. For example, many defender organizations today consider themselves “holistic” because they take into account a range of client needs and outcomes both within and outside of the criminal justice system in their advocacy, yet they have not substantially adjusted their personnel mix, disciplinary training, approaches for staffing cases, or communication methods from what might be common in a traditional defender office. The results here suggest that adopting the holistic philosophy without some of the underlying internal organizational and structural changes may not be sufficient to generate large changes in client’s case outcomes. For the holistic model to reach its full potential for improving the criminal justice system, we need richer understanding of how to apply the model across the myriad of different communities and circumstances facing indigent defenders today.

Another important objective for future holistic defense research is to evaluate the effect of holistic defense on outcomes beyond the criminal justice sphere. After all, a key purpose of holistic defense is to address a client’s needs beyond their criminal case. Any legal service organization

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178 See section I.C. for discussion of prior evaluations of holistic defense.


180 Attorneys at the Bronx Defenders noted that in order measure the impacts of holistic defense, the following outcomes should be examined: deportations prevented, housing retention, connecting clients to Section 8 vouchers, getting clients’ bail money back, getting clients’ property back, maintaining static income through public benefits, avoiding removal of children from their homes/stabilizing families/shortening time in foster care. Attorneys at the Bronx Defenders noted that in order measure the impacts of holistic defense, the following outcomes should be
that has a contract with New York City is required to keep comprehensive data on public benefits and other non-criminal justice outcomes and the organizations report this information to the City.\textsuperscript{181} Researchers may be able to use data collected by the Bronx Defenders and other providers of indigent defense to evaluate the effects of holistic defense on non-criminal outcomes. Other administrative datasets—for example, earnings records or records of health care utilization—could also be analyzed using the same quasi-experimental approach employed here. Client satisfaction is another important measure of the success of a holistic defense program.\textsuperscript{182}

Because of the potential for holistic defense to improve indigent defense nationwide, it is important to continue to build an evidence base. Evaluations of indigent defense programs allow public defenders to monitor and improve their performance, identify the features of the program that are associated with better client outcomes, ensure resources are properly allocated, and advocate for funding in an era when legislatures increasingly prefer that empirical data accompany funding requests.\textsuperscript{183}

\textit{Can better defense counsel reduce incarceration?}

Numerous scholars, policymakers, and activists have decried the U.S. system of mass incarceration,\textsuperscript{184} and highlighted a range of potential solutions. Much of the conversation has focused on areas such as policing, sentencing reform, and bail and pretrial detention, with much less attention afforded indigent defense. Out results suggest that indigent defense deserves a more prominent place in discussions about how to address mass incarceration. Like a small number of prior studies, it rigorously demonstrates the large and critical role that defense counsel can have in shaping case outcomes; however, unlike past work, it identifies a solution that improves the quality of defense with no apparent tradeoff in terms of downstream crime. Over the ten-year study period, holistic representation in the Bronx has resulted in nearly 1.1 million fewer days of custodial punishment. This suggests that improving defense counsel may be an overlooked tool for reducing overall incarceration.

\footnotesize{examined: deportations prevented, housing retention, connecting clients to Section 8 vouchers, getting clients’ bail money back, getting clients’ property back, maintaining static income through public benefits, avoiding removal of children from their homes/stabilizing families/shortening time in foster care. Telephone interview with Attorney #2 from the Bronx Defenders (Sept. 18, 2017); Telephone interview with Attorney #4 from the Bronx Defenders (Oct. 2, 2017); Telephone interview with Attorney #5 from the Bronx Defenders (Oct. 3, 2017); Telephone interview with Attorney #6 from the Bronx Defenders (Oct. 5, 2017). The Bronx Defender collects data on these outcomes. Telephone interview with Attorney #6 from the Bronx Defenders (Oct. 5, 2017).

\textsuperscript{181} Telephone interview with Attorney from the Bronx Defenders (Oct. 2, 2017).

\textsuperscript{182} As noted in Part II, the Bronx Defenders conducts client satisfaction surveys. One Bronx Defenders attorney noted that a common misconception is that clients cannot distinguish between quality representation and good criminal case outcomes. However, she noted that she has had clients facing life in prison who told her that she has done the best possible job on their case. Telephone interview with Attorney from the Bronx Defenders (Oct. 5, 2017).

On the other hand, a representative from a nonprofit that works within the criminal justice system in New York City opined that clients should not be surveyed by the organization that is currently representing them, as the power dynamic can be a huge distorting feature. Telephone interview with Representative from a non-profit that works within the criminal justice system (Sept. 27, 2017).

While the results presented above are specific to one jurisdiction, they are of significant import for the criminal justice system as a whole. Although pioneered in the Bronx, the holistic model has spread to multiple other jurisdictions, and there is are efforts underway in many traditionally-oriented defender offices to move towards the holistic model. To the extent that the results observed in the Bronx extend to other jurisdictions practicing holistic defense, the model could result in thousands or even tens of thousands of fewer custodial sentences each year, with all of the associated savings in both human and fiscal terms. Moreover, in jurisdictions that, unlike the Bronx, lack a well-functioning, highly capable traditional defender as an alternative to the holistic model, the gains may even be larger.

As demonstrated here, the effects of different choices about how to organize and staff indigent defense are substantial, and carry with them immense practical implications. As an illustration, closing Rikers Island has become a prominent issue in public discourse due to reports of brutality against inmates. New York City Mayor Bill de Blasio has put forth a plan to close the facility that would require reducing the city’s jail population by 4,400, from 9,400 to 5,000. If all New York City defendants received representation comparable to that offered by the Bronx Defenders, the estimates above suggest there would be roughly 3,200 fewer custodial sentences each year. Apparently, much of the needed reduction might be accomplished through a concerted effort to improving indigent defense, and this without requiring large new expenditures by the city or generating additional crime as a result of the reduced incarceration.

What difference does the lawyer make?

We often claim, in the words of John Adams, to be “a government of laws, not of men.” Under no plausible theory of punishment should the institutional arrangement of indigent defense provider make any difference to the punishment inflicted upon the offender -- which should depend solely on the case and culpability of the offender. Our findings are useful in helping to measure the extent to which we have not achieved that ideal and the difference that the defense lawyer makes to the criminal justice process.

Relatedly, it would be useful for policymakers to have a tractable model of the criminal justice process that illuminates the effects of changing various policies or resource constraints. Such models do not yet exist because it has proven difficult to isolate the effect of one part of the criminal justice system from all the others. In this study, we were able to measure the effect of one portion of that system.

Numerous commentators and jurists have decried the state of indigent defense services and have argued that the Supreme Court’s jurisprudence in this area does not result in adequate

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187 JOHN ADAMS, NOVANGLUS LETTER NO. 7 (1775), reprinted in THE POLITICAL WRITINGS OF JOHN ADAMS: REPRESENTATIVE SELECTIONS (George A. Peek ed., 2003); see MASS. CONST. art. XXX (1780).
To understand the effect of counsel and to weigh the importance of devoting resources to improving the quality of defense counsel, we must know how much difference defense counsel makes. Our work shows that it matters quite a bit.

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188 See, e.g., Stephen B. Bright, Counsel for the Poor: The Death Sentence Not for the Worst Crime But for the Worst Lawyer, 103 YALE L.J. 1835, 1858-64 (1994); Richard L. Gabriel, The Strickland Standard for Claims of Ineffective Assistance of Counsel: Emasculating the Sixth Amendment in the Guise of Due Process, 134 U. PA. L. REV. 1259 (1986); William S. Geimer, A Decade of Strickland Tin Horn: Doctrinal and Practical Undermining of the Right to Counsel, 4 WM. & MARY BILL RTS. J. 91, 93 (1995) (“Directly contrary to its rhetoric in Strickland, the Court has effectively ensured that Gideon guarantees little more than the presence of a person with a law license alongside the accused during trial.” (footnote omitted)); Bruce Green, Lethal Fiction: The Meaning of “Counsel” in the Sixth Amendment, 78 IOWA L. REV. 433, 500-07 (1993); Richard Klein, The Constitutionalization of Ineffective Assistance of Counsel, 58 MD. L. REV. 1433, 1446 (1999) (“[T]he Strickland Court interpreted the requirements of the Sixth Amendment’s right to effective assistance of counsel in such an ultimately meaningless manner as to require little more than a warm body with a law degree standing next to defendant.” (footnotes omitted)).
APPENDIX

Appendix Table 1: Eventual Case Assignment by Type of Shift

<table>
<thead>
<tr>
<th>Share of Defendants Ultimately Represented By:</th>
<th>Days Where Bronx Defender Assigned:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No Shifts</td>
</tr>
<tr>
<td>Bronx Defender</td>
<td>1.4%</td>
</tr>
<tr>
<td>Appointed Counsel (18B)</td>
<td>17.4%</td>
</tr>
<tr>
<td>Legal Aid Society</td>
<td>81.1%</td>
</tr>
<tr>
<td>N</td>
<td>349,543</td>
</tr>
</tbody>
</table>

Appendix Table 2: Robustness Checks

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Excluding New Cases Instrument</th>
<th>Matching Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benh warrant</td>
<td>0.014*</td>
<td>0.015*</td>
</tr>
<tr>
<td></td>
<td>(0.006)</td>
<td>(0.006)</td>
</tr>
<tr>
<td>Any pretrial arrest</td>
<td>0.037**</td>
<td>0.046**</td>
</tr>
<tr>
<td></td>
<td>(0.012)</td>
<td>(0.013)</td>
</tr>
<tr>
<td>Convicted</td>
<td>0.006</td>
<td>-0.002</td>
</tr>
<tr>
<td></td>
<td>(0.008)</td>
<td>(0.006)</td>
</tr>
<tr>
<td>Custodial sentence</td>
<td>-0.032**</td>
<td>-0.038**</td>
</tr>
<tr>
<td></td>
<td>(0.008)</td>
<td>(0.006)</td>
</tr>
<tr>
<td>Sentence length (days)</td>
<td>-8.116*</td>
<td>-6.636*</td>
</tr>
<tr>
<td></td>
<td>(3.857)</td>
<td>(2.992)</td>
</tr>
<tr>
<td>Any arrest within 1 year</td>
<td>0.050</td>
<td>0.053*</td>
</tr>
<tr>
<td></td>
<td>(0.032)</td>
<td>(0.026)</td>
</tr>
<tr>
<td>Any arrest within 5 years</td>
<td>-0.053</td>
<td>-0.054</td>
</tr>
<tr>
<td></td>
<td>(0.073)</td>
<td>(0.072)</td>
</tr>
</tbody>
</table>

Note: This table reports estimates of the effect of holistic defense obtained using variants of the baseline specification. The estimates in the first column are based upon IV models similar to those presented in Table 4-Table 6, but omitting the number of new cases instrument. These models are identified because there are two endogenous variables (holistic representation and representation by appointed counsel) and two available instruments based on shift schedules. The next column estimates IV models that implement a matching-type estimator as described in the text. Each entry comes from a separate regression. See notes for Table 4.
Appendix Figure 1: Distribution of Predicted Values from Probit Model of Conviction

Note: In the probit model, the outcome is an indicator for whether a particular defendant was convicted, the unit of observation is a defendant/case pairing, and the predictors are defendant age (63 categories), gender (3 categories, including missing), race (5 categories), and ethnicity (2 categories); top arrest offense (75 categories); arrest charge count (5 categories); whether that arrest charges included a hate crime, drug charge, firearm charge, weapon charge, charge involving a minor, or DWI/DUI; defendants number of prior misdemeanor (11 categories), felony (11 categories), drug (11 categories), violent felony (11 categories), weapon (11 categories), and offense involving a minor (6 categories) arrests; number of prior felony (11 categories), misdemeanor (15 categories), firearm (3 categories), and violent felony (4 categories) convictions; and arrest location (15 categories).
Note: This figure plots the daily count of new cases—defined as arraignments occurring within 0-2 days following arrest—against the share of cases that were assigned to appointed (18B) counsel. Each dot represents a calendar date, and the scatterplot includes a total of 3,673 observations. A bivariate regression of the share of appointed counsel on the daily new case counts indicates a positive, statistically significant relationship between the two variables (p<.001).