

Empirical Research on the Effectiveness of Indigent Defense Delivery Systems

Maggie Bailey, Graduate Research Assistant, February 2021 UNC School of Government, Criminal Justice Innovation Lab

Introduction

The indigent defense system, or the provision of legal services for defendants who cannot afford to hire a private attorney, is a critical component of the criminal justice system. The right to counsel for federal crimes is established in the U.S. Constitution, and key U.S. Supreme Court rulings, such as Gideon v. Wainwright (1963), have expanded this right to government-provided counsel to include defendants charged with state crimes.

While the Constitution provides indigent defendants with the right to counsel, states have flexibility in determining how to administer that right. States use a variety of approaches for providing indigent defense services, including employing public defenders, appointing private attorneys on a case-by-case basis, and contracting with private attorneys (collectively, "delivery systems"), often using a combination of these approaches to handle caseloads (Cohen 2012, 30). In this paper, I summarize seven empirical studies of the effectiveness of different types of indigent defense delivery systems. These analyses compare case outcomes, collectively suggesting that appointed counsel achieve less favorable outcomes for indigent defendants, and discuss some explanatory factors for gaps in attorney performance across the different delivery systems. A summary table of each study's findings is provided at the end of the document (see page 9).

Philadelphia

The Philadelphia indigent defense system operates through random assignment, where one in five defendants is selected to be represented by a public defender and the remaining four receive a court-appointed private attorney. This study examined 3,173 capital and noncapital murder trials in Philadelphia between 1994 and 2005, comparing the likelihood of conviction and life sentences, as well as sentence lengths for the two attorney types.² The randomization inherent in Philadelphia's system helped eliminate some of the bias that may skew the results, but the authors also controlled for additional variables including defendant race, gender, age, and prior charges and arrests in order to strengthen the model's precision.

Overall, the results suggested that public defenders achieved better outcomes for their clients. Representation by a public defender reduced the likelihood of a guilty charge by 19%, reduced

¹ Studies included in this document use both "assigned counsel" and "appointed counsel" to refer to private attorneys who are appointed in indigent cases. For clarity and consistency, this document will use "appointed counsel" throughout regardless of whether the author uses "assigned" or "appointed."

² Because some defendants have multiple attorneys at different stages of a case, the authors measure representation by a public defender based on the type of attorney representing the defendant at the formal arraignment. While the arraignment is a point in the case where an attorney can start to influence outcomes, this measurement decision means that defendants who are represented by appointed counsel at later phases of the case may be included in the count of defendants represented by a public defender (Anderson & Heaton 2012, 166-167).

the likelihood of receiving a life sentence by 62%, and reduced the length of expected prison terms by 24%. These findings all reflected statistically significant differences between public defenders and appointed counsel.

In addition to this empirical analysis, the authors conducted qualitative interviews with appointed counsel, public defenders, and judges to gain insight into the causes of these observed differences in a subset of capital murder cases. Possible explanations for poorer outcomes for appointed counsel referenced by interviewees included: low rate of payment, lack of funds for investigators and experts, the "relative isolation" of appointed counsel who often work without input from another lawyer, and conflict of interest due to trial judges' appointing counsel who have a history of filing fewer pre-trial motions or present fewer witness as a means to expedite the process and manage crowded dockets (Anderson & Heaton 2012, 197). Of particular note was the payment structure for appointed counsel: based on the flat fee structure for pretrial work, appointed counsel were effectively paid \$2.00 an hour. Appointed counsel received a flat \$1,333 fee for pretrial preparation should the case not proceed to trial and \$2,000 if it went to trial. Once the trial began, they earned \$200 per hour for the first three hours and \$400 per day after the first three hours. The authors speculated that these low wages negatively affected attorney quality and created perverse incentives in terms of sufficient preparation time, number of cases taken on at once, and taking cases to trial when doing so may not have been in the clients' best interest.

National – Felony Cases in 2004 & 2006

Recognizing that most previous studies have focused on specific jurisdictions, this study sought to compare performance of private attorneys, public defenders, and appointed counsel across a number of jurisdictions. The author also examined the interaction between offense class and type of attorney to determine if different attorneys achieved better outcomes depending on the severity of the offense. This study pulled data from the State Court Processing Statistics (SCPS) Series for felony cases that were resolved in May of 2004 and 2006 in the country's 75 most populous counties.^{3,4}

According to the analysis, 80% of felony cases in the sample employed some type of indigent defense. There were slight differences in the types of offenses between individuals represented by public defender versus appointed counsel. Defendants charged with violent crimes were slightly more likely to have appointed counsel than public defenders, and individuals with a criminal history were less likely to have private counsel. In terms of adjudication, outcomes for defendants with private counsel and a public defender were similar. However, defendants with

-

³ Sponsored by the Bureau of Justice Statistics, the State Court Processing Statistics (SCPS) is a biennial data collection series that compiles a sample of data from felony cases in 40 of the 75 most populous counties in the U.S. These counties provide a list of defendants charged with a felony on randomly selected business days in May in even-numbered years, and this sample of cases is followed until disposition or until May 31 of the following year, whichever comes first. This sampling results in approximately 15,000 to 16,000 cases being followed for the year. Statistical weights are used so that the data in the SCPS are representative of felony cases for the month of May in the U.S.'s most populous 75 counties (Cohen 2012, 34).

⁴ Data from 2004 and 2006 were used because they offered the most complete information about defense counsel. While the SCPS provides a readily-available dataset from multiple jurisdictions, there are challenges with the data collection process. The author found that in other years, about two fifths to one third of cases were missing data on type of defense counsel. In 2004 and 2006, only about 25% of cases were missing data on defense counsel (Cohens 2012, 35).

appointed counsel were significantly more likely to be convicted and sentenced to prison. Comparing the likelihood of conviction across different offense categories, there was not a statistically significant difference between private counsel and public defenders, while those with appointed counsel were more likely to be convicted, especially for drug and property offenses.⁵

This study suggests that defendants with appointed counsel are at a disadvantage compared to their peers with private counsel or a public defender. This study did not examine the factors that might explain the different outcomes for appointed counsel, such as level of oversight, compensation structure, and financial resources (Cohen 2012, 54-55).

Federal Indigent Defense System

This study analyzed the federal indigent defense system, specifically comparing outcomes for defendants represented by public defenders and appointed private attorneys. The federal system uses random assignment to determine who will represent a defendant. However, the author critiqued this process and argued that in some districts, it was possible to predict whether a defendant would receive a public defender or appointed counsel. Consequently, the author excluded 5% of districts where statistical tests revealed that characteristics such as defendant race, age, marital status, offense class, and citizenship could predict being assigned appointed counsel. Ultimately, the analysis included 51 districts and 50,000 cases from 1971-2001.

According to the findings, public defenders performed significantly better than their appointed private counterparts. Defendants with appointed counsel were more likely to be found guilty, and, on average, received a sentence that was eight months longer. Examining the causes for this longer sentence, over half of this difference could be explained by how well the attorney can plea bargain and negotiate sentences while slightly less than half could be explained by the selection of which cases should be taken to trial versus plead (Iyengar 2007, 19). The author then turned to an analysis of the impacts of wages, experience, caseload, and law school quality on attorney performance. It is important to note that this second analysis uses a subset of three of the 51 districts—two in California and one in Arizona—and is not representative of the entire U.S. Findings from these districts indicated that wages, caseload, experience, and law school quality explained 100% of the difference in being found guilty between the two types of counsel (Ivengar 2007, 23). Wages were a more significant factor for appointed counsel than public defender; for example, as the wages moved 1% closer to the market wage, the probability of a defendant being found guilty decreased by 5.5% for those with appointed counsel as compared to 3.7% for public defenders. The impacts of caseload revealed interesting trends, as public defenders tended to perform worse with an increased caseload while appointed counsel performed better. Additional experience and higher law school quality appeared to be equally effective for achieving better outcomes for both public defenders and appointed counsel.

In addition to identifying that public defenders generally performed better than appointed counsel, the author also identified some troubling trends regarding racial disparities in indigent defense. The author noted that districts with larger populations of immigrants and people of color had more cases assigned to appointed counsel, and in districts that did not randomly assign

-

⁵ The major offense categories in the SCPS include violent, property, drug, and public-order offenses. Public-order offenses refer to public behaviors that are disruptive to the general public or violate norms of acceptable behavior. This study only analyzed felony offenses within these categories.

defendants to different types of counsel, Black defendants were significantly more likely to be assigned to appointed counsel. Therefore, this performance gap has consequences for racial equity in the criminal justice system.

National – Felony Cases from 1990 to 2004

This multi-county study also used SCPS data to measure performance gaps between public defenders and appointed counsel. However, the author also examined the extent to which labor market options impacted the quality of the appointed counsel pool, offering these external conditions as an explanatory factor for the performance gap. The primary assumption for this analysis is that since appointed counsel do not solely take on indigent defense cases—as compared to public defenders—they may be more influenced by the outside labor market. For example, if market conditions are good and there are a lot of options for attorneys, it might be more difficult to get high-quality attorneys to select into serving as appointed counsel (Roach 2014, 582). The SCPS data used in the analysis reflect felony cases filed in May in even-numbered years between 1990 and 2004 from a total of 65 large counties. To examine the impacts on labor market conditions more granularly, the author used individual-level data reflecting the composition of the appointed counsel panel in Franklin County, Ohio. The author controlled for defendants' criminal history and for random assignment to ensure that there were no differences between the types of cases assigned to public defenders versus appointed counsel.

The findings showed that appointed counsel generally achieved less favorable outcomes for their clients (Roach 2014, 602). For instance, for the most serious crimes, defendants with appointed counsel were 5.2% more likely to be convicted. Defendants with appointed counsel also received sentences that were 3.36 months longer and their cases took about 27 days longer from arrest to adjudication than their peers with public defenders. All of these findings were statistically significant. Turning to the analysis of the role of labor market conditions as an explanatory variable, the author first considered the impact of market wages on case outcomes across. Using Bureau of Labor Statistics data on attorney wages in the corresponding metropolitan areas, the author found that the outcome gap between public defenders and appointed counsel was sensitive to external options. As outside wages increased for attorneys in a metro area, they negatively impacted the sentence lengths for defendants with appointed counsel (Roach 2014, 607). Looking at Franklin County, Ohio, the author examined how attorney market wages impacted the quality of the assigned counsel pool, measured by the number of years of experience and rating of the law school they attended. While results for years of experience were insignificant, findings indicated that market wage increases did significantly impact the quality of appointed counsel as measured by the rating of the law school the attorneys attended.

This study could be strengthened by extending the wage model to public defenders to test the assumption that they are not as impacted by fluctuating wages for private attorneys. However, this study offers an exogenous condition—the local labor market—as a potential contributing factor to the outcome gap between public defenders and appointed counsel.

San Francisco and Federal Cases

Using data from San Francisco and all federal district courts, this study allows for analysis of indigent defense in both state and federal courts. The author compared outcomes for indigent defendants assigned either a public defender or appointed private counsel. However, similar to

other studies, a primary challenge is that the mechanism for assigning either a public defender versus appointed counsel varies across jurisdictions and generally is not random. The author finds that limiting the data to a sample of cases with multiple defendants, the assignment of either a public defender or appointed counsel in both San Francisco and federal cases can be statistically tested to be as good as random. Ultimately, the data include multidefendant cases terminated in San Francisco between 2006 and 2016 and multidefendant cases terminated in federal district courts between 1970 and 2014.

The findings indicated that defendants who were represented by a public defender had more favorable outcomes than those represented by appointed counsel. These defendants had a lower probability for imprisonment, and those who were imprisoned received a shorter prison sentence, controlling for differences in defendants' demographics. In San Francisco, defendants assigned to public defenders had more favorable sentencing outcomes, including a lower probability of conviction (6.4%) or prison sentence (22%) and shorter prison terms (10.5%). In federal cases, defendants with public defenders had shorter prison sentences (4.64%) and a slightly lower probability of prison time (0.819%) than defendants with appointed counsel. Federal case defendants with public defenders also had a higher likelihood of probation (2.39%). In both jurisdictions, representation by a public defender had particularly strong positive effects for those with more severe charges and a more extensive criminal history; thus, those at the greatest risk of imprisonment are the ones for whom attorney type matters the most (Shem-Tov 2017, 20). Comparing attorney characteristics, the author found that attorney characteristics explained about 50% of the difference in case outcomes—public defenders were generally more diverse and studied at more selective law schools.

In addition to case outcomes, the author compared the cost-effectiveness of both delivery systems using county-level data from Texas as a subset. Results suggested that it was more cost effective for public defenders to take on the majority of the cases in counties that already had a public defender office. The author argues that this study of multidefendant cases is a valuable addition to the literature by providing evidence that the type of attorney may impact the sentencing outcomes for defendants in the same case, which raises concerns about a violation of the defendants' Sixth Amendment rights (Shem-Tov 2017, 16).

Anonymous Midwestern Jurisdictions

This study examined case outcomes in two similar jurisdictions in a Midwestern state with different indigent defense delivery systems. One jurisdiction used an ad-hoc method of appointing private counsel for indigent defendants, while the other had a part-time public defender. While the authors' goal was to examine the quality of counsel provided through these two systems, they acknowledged the tensions among stakeholders' objectives and the lack of agreement on what constitutes the best model of indigent defense. For instance, elected officials

⁶ While it was more cost-effective for counties with an existing public defender office to take on the majority of cases, the author acknowledged that the start-up costs of establishing a public defender office would increase the per-case cost. The author quantified the average per-case cost for appointed counsel at \$617 for felony cases and \$258 for misdemeanors. The \$617 cost per felony case was discussed as being comparatively low, although the per-case cost for public defenders was not specifically quantified for comparison. The cost section of this study concluded with an estimation of the causal impact of attorney type on per-case cost, but the author noted that bias in the analysis due to non-random attorney assignment impacted the results.

may be mostly concerned with costs, defendants are likely concerned with acquittal or a lesser sentence, and prosecutors may prefer speedy dispositions (Houlden & Balkin 1985, 553-554).

The data included 400 cases from the two counties. Outcomes of cases represented by retained counsel were used as a control to compare both the appointed counsel and public defender systems. Several outcomes achieved statistically significant results. First, defendants with ad-hoc appointed counsel were more likely to be in jail at the time of case disposition, and ad-hoc appointed counsel were less likely to get jailed felony defendants released on bond prior to case disposition. Second, defendants with ad-hoc appointed counsel were also more likely to receive a prison sentence than their peers with a public defender. Finally, public defenders appeared to bring misdemeanor cases to disposition more quickly than appointed counsel (47.9 days versus 81.3 days, respectively).

The authors also considered the cost of the two systems, which again favored the public defender system. The cost-per-case was lower for public defenders for both misdemeanor and felony cases at \$249.56 and \$80.06, respectively, compared to \$293.31 and \$121.19, respectively, for appointed counsel.

Virginia

In the early 1970s, the Virginia General Assembly passed legislation that led to the establishment of public defender offices in four jurisdictions. Previously, Virginia had relied on an appointed counsel system to handle indigent defense cases. This study served as an evaluation of the public defender pilot program that examined the quality and cost effectiveness of public defender services. To assess quality, the authors consider case outcomes, case processing issues, and interviews with judges, prosecutors, and counsel. Public defender cases were compared with appointed counsel cases within the same jurisdictions, and additional comparison jurisdictions with solely appointed counsel systems were also selected for comparison purposes. The data ultimately included 1,423 cases between the 8 jurisdictions.

The authors noted that the defendants represented by public defenders tended to be older and predominantly White as compared to defendants in the same jurisdiction who received appointed counsel. This suggests that assignment of either type of defense was not random, as other studies in this paper also identified. Looking at measures of quality, the authors found that defendants in appointed counsel jurisdictions were slightly more likely to be brought to trial than defendants in public defender jurisdictions; however, the effects of the type of attorney, defendants' race, and other variables account for very little of this variation—suggesting that these results might be due to some other factor not included in the analysis. Within public defender jurisdictions, defendants with public defenders were significantly more like to plead guilty than their peers with appointed counsel (85% of public defender cases and 67% of appointed counsel cases). There was very little observed difference in conviction or acquittal rates between the types of counsel. Type of counsel did not have significant impacts on the length or severity of a defendant's sentence, but within public defender jurisdictions, appointed counsel took an average of 37 days longer to process their cases. In terms of cost, the cost per case suggested that public defenders were a more efficient approach. For the first four years of the evaluation, public defenders were less costly than appointed counsel—ranging from \$31.30 to \$12.15 less per case in a given year. However, this changed in years five and six where appointed counsel cost less

per case, although this could have been due to the start-up costs of establishing a public defender office in one of the pilot jurisdictions.

With only two significant—but small—differences between the two attorney types, this study presents a much more mixed picture than the other studies in this paper. The authors concluded that there was not sufficient evidence to suggest that public defenders provided superior defense for indigent defendants (Radtke et al. 1982, 104).

A Note on Earlier Studies

The effectiveness of different delivery systems has been a topic of interest to scholars for decades. Numerous studies dating back to the 1960s—and even one in 1919—have considered this question. Table 1 briefly summarizes the findings of these studies. Most of these studies are not discussed in depth due to the evolution of statistical methods that has allowed for more sophisticated analysis. Specifically, the studies prior to 1973 did not include any type of statistical controls in their analysis, which given the observed impact of demographic characteristics, criminal records, and other confounding factors in the more recent studies, raises questions about the validity of the results. Table 1 is included to demonstrate that this topic has been frequently studied over the years, and that the results of studies prior to the 1990s reveal a mixed picture for the effectiveness of different delivery systems.

Table 1: Studies Comparing Public Defenders and Appointed Counsel, 1919-1987

Author(s)	Date	Result	Outcome Measure	Controls
Smith	1919	PD better	Acquittals, Probation	None
Silverstein	1965	Similar	Dismissals	None
Oaks & Lehman	1968	Similar	Convictions	None
		PD better	Sentences	
Summers	1969	AC better	Dismissals, Probation	None
Kittel	1969-	PD better	Convictions, Sentences	None
	1970			
Grier	1971	PD better	Dismissals, Probation	None
Greenwood et al.	1973	AC better	Acquittals	None
		PD better	Sentences	
Cohen et al.	1983	PD better	Convictions	None
		Similar	Sentences	
McConville & Mirsky	1986-	PD better	Acquittals	None
	1987			
Benjamin & Pedeliski	1969	Similar	Dismissals, Probation	None
Nagel	1973	AC better	Convictions	Simple
		Mixed	Sentences	
Singer et al.	1976	AC better	Convictions	Simple
		Similar	Sentences	
Kramer	1977	Similar	Convictions	Simple
		PD better	Sentences	
Rovner-Pieczenik	1983	Similar	Convictions, Sentences	Simple
Houlden & Balkin	1985	Similar Convictions, Sentences Sin		Simple

⁷ Table adapted from Floyd Feeney and Patrick G. Jackson, "Public Defenders, Assigned Counsel, Retained Counsel: Does the Type of Criminal Defense Counsel Matter," Rutgers Law Journal 22, no. 2 (1991): 417.

7

Taylor et al.	1972	Similar	Convictions, Sentences	Multivariate
Hermann et al.	1977	Similar	Convictions, Sentences	Multivariate
Vining	1977-78	AC better	Sentences	Multivariate
Fernsler	1979	AC better	Guilty pleas, Sentences	Multivariate
Clarke & Koch	1980	Similar	Convictions, Sentences	Multivariate
Radtke et al.	1982	Similar	Guilty pleas, Sentences	Multivariate
Sterling	1983	Mixed	Deferred dispositions	Multivariate

Notes: PD = public defender; AC = appointed counsel

Conclusion

Taken together, the studies discussed here suggest that, when compared to public defenders, appointed counsel generally achieve less favorable outcomes for their defendants. However, the severity of this performance gap varies across studies. Scholars offer a number of a number of variables that may explain some of these differences, including low wages, lack of experience, variable caseloads, lack of resources, and law school quality.⁸

There are opportunities for more research, including repetition of previous studies, to provide a comprehensive understanding of the pros and cons of these systems. For example, while the studies in this paper discuss variables like wages and attorney experience, there are not consistent findings to parse out the extent to which these variables impact attorney performance and case outcomes. The availability of sufficient, high-quality data appears to be a barrier to empirical research. Additionally, while focusing on case outcomes is a critical part of measuring attorney performance, attorney quality is a multifaceted concept, and more research can contribute to identifying criteria for performance measurement. Finally, it is worth examining and comparing the administrative structures of indigent defense systems to understand how elements such as qualification standards, funding, support services, and level of oversight influence outcomes for different delivery systems, although access to data may complicate this level of analysis. Further research can help determine reforms that might enhance these systems to ensure the provision of equitable, high-quality representation for indigent defendants.

_

⁸ Several studies have specifically focused on the impacts of compensation structures for indigent defense on case outcomes and attorney quality. Priehs (1999) examined the impact of different pay structures for appointed counsel (hourly rate, hourly rate with a maximum threshold, and set fee schedules for different types of cases) on outcomes for indigent defendants in appellate cases in Michigan. Results indicated that compensation rates and methods had limited impacts on attorney effort. Roach (2017) examined outcomes for defendants with appointed counsel before and after an hourly rate increase in the State of New York, and found a slight, albeit statistically significant, increase in favorable outcomes in high-poverty counties after the pay increase. Finally, Schwall (2015) examined attorney effort in South Carolina after the system switched from appointed counsel to a contract system and from an hourly rate to a flat fee. Schwall found that after these reforms, attorneys were reporting fewer hours per case. However, these studies were omitted from this paper for a few reasons. Primarily, these three studies only analyze appointed counsel and the impacts of pay on their performance, which strays from the primary focus of this review, which is comparing performance of different delivery systems. Priehs' analysis of Michigan pay structures was limited to appellate cases, which, while an important part of the criminal justice system, reflect only a small portion of cases in the system. Roach's study of appointed counsel outcomes in New York relied heavily on a proxy variable for defendants' indigence which raises questions about its precision. Thus, while compensation is an important policy consideration for indigent defense, these studies fall out of the intended scope of this document.

Table 2: Sumn	Γable 2: Summary of Findings					
Study Site	Sample Size	Study Date	Key Findings			
Philadelphia, PA	3,173	2012	Compared to peers with appointed counsel, defendants with a public defender: • were 19% less likely to be found guilty* • were 62% less likely to receive a life sentence** • received 24% shorter prison terms**			
National – Felony Cases in 2004 & 2006	87,661	2012	Compared to peers with public defenders, defendants with appointed counsel: • were more likely to be convicted*** and sentenced to prison** • received an overall sentence length that was 25.9% longer** • received a sentence length that was 32.7% longer for violent crimes*** and 22.5% longer for property crimes***			
Federal System	46,167	2007	Compared to their peers with public defenders, defendants with appointed counsel: • were slightly more likely to be found guilty* • received an average sentence that was 8 months longer*** In a subset of three districts, wages, caseload, experience, and law school quality were found to explain 100% of the different in being found guilty between the two types of counsel. Wages appeared to influence appointed counsel more—as wages moved 1% closer to the market wage, the probability of a defendant being found guilty decreased by 5.5% for those with appointed counsel*** as compared to 3.7% for public defenders.**			
National – Felony Cases from 1990 to 2004	48,108	2014	Compared to peers with public defenders, defendants with appointed counsel: • were 5.2% more likely to be found guilty for the most serious offenses*** • received sentences that were 3.36 months longer*** • and had cases that took 27 days longer from arrest to adjudication***			
San Francisco and Federal Cases	7,164 state and 84,260 federal	2017	Compared to peers with appointed counsel, defendants with public defenders: • were sentenced to 10.5%** shorter prison sentences, were 6.4%*** less likely to be convicted, and 22%** less likely to receive any prison time in state courts • received 4.64%*** shorter sentences, had a 2.39%* higher likelihood of probation, and a 0.819%** lower likelihood of prison time in federal courts In both settings, the impact of representation by a public defender was particularly strong for defendants with more severe charges and a more extensive criminal history.			
Midwestern Counties	400	1985	In comparing public defender systems with an ad-hoc appointed counsel system:			

			 Defendants with ad-hoc appointed counsel were more likely to be in jail at the time of case disposition** Defendants with ad-hoc appointed counsel were also more likely to receive a prison sentence** Public defenders appeared to bring misdemeanor cases to disposition more quickly than appointed counsel
Virginia	1,423	1983	Defendants with public defenders were more likely to plead guilty** Appointed counsel took longer to process their client's cases**

^{*}Statistically significant at the .05 level (95% chance findings are not due to random chance)

References

- Anderson, James M. & Paul Heaton. "How Much Difference Does the Lawyer Make? The Effect of Defense Counsel on Murder Case Outcomes." *The Yale Law Journal* 122, no. 1 (2012): 154-217
- Cohen, Thomas H. "Who is Better at Defending Criminal? Does Type of Defense Attorney Matter in Terms of Producing Favorable Case Outcomes?" *Criminal Justice Policy Review* 25, no. 1 (2014): 29-58.
- Feeney, Floyd and Patrick G. Jackson. "Public Defenders, Assigned Counsel, Retained Counsel: Does the Type of Criminal Defense Counsel Matter," *Rutgers Law Journal* 22, no. 2 (1991): 361-456.
- Frederique, Nadine, Patricia Joseph, and R. Christopher C. Hild. "What Is the State of Empirical Research on Indigent Defense Nationwide: A Brief Overview and Suggestions for Future Research." *Albany Law Review* 78 (2014): 1317-1340.
- Hartley, Richard D., Holly Ventura Miller, and Cassia Spohn. "Do You Get What You Pay for? Type of Counsel and Its Effect on Criminal Court Outcomes." *Journal of Criminal Justice* 38, no. 5 (2010): 1063-1070.
- Houlden, Pauline and Steven Balkin. "Performance Evaluation for Systems of Assigned Providers: A Demonstration Assessing Systems of Indigent Defense." *Evaluation* Review 9, no. 5 (1985): 547-573.
- Iyengar, Radha. "An Analysis of the Performance of Federal Indigent Defense Counsel. National Bureau of Econ. Research, Working Paper No. 13187, (2007).
- Priehs, Richard E. "Appointed Counsel for Indigent Criminal Appellants: Does Compensation Influence Effort?" The Justice System Journal (1999): 57-79.
- Radtke, P., P. Semple, L. Cohen, and R. E. Crew. "Alternative models for defending the indigent

^{**}Statistically significant at the .01 level (99% chance findings are not due to random chance)

^{***}Statistically significant at the .001 level (99.9% chance findings are not due to random chance)

- in Virginia." Washington, DC: American Institutes for Research (1982).
- Roach, Michael A. "Indigent Defense Counsel, Attorney Quality, and Defendant Outcomes." *American Law and Economics Review* 16, no. 2 (2014): 577-619
- Roach, Michael A. "Does raising indigent defender pay rates improve defendant outcomes? Evidence from New York." *Applied Economics Letters* 24, no. 14 (2017): 1025-1030.
- Schwall, Benjamin. "More bang for your buck: How to improve the incentive structure for indigent defense counsel." *Ohio State Journal of Criminal Law* 14 (2016): 553.
- Shem-Tov, Yotam. "Make-or-Buy? The Provision of Indigent Defense Services in the U.S." *Review of Economics and Statistics* (2017): 1-27.