Effects of an interdisciplinary approach to parental representation in child welfare

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ABSTRACT

This study utilizes a quasi-experimental propensity score matching design to assess the causal impact on child welfare outcomes when parents facing an abuse or neglect case in the New York City Family Court were provided interdisciplinary law office representation as opposed to a standard panel attorney. The interdisciplinary law office approach includes social work staff and parent advocates for the parent, and salaried attorneys working in nonprofit organizations. Using administrative child welfare data, the study assesses the foster care and safety outcomes of 9582 families and their 18,288 children. The propensity score matched results do not indicate a preventive effect toward foster care entry nor any difference in children's likelihoods of experiencing a subsequent substantiated report of maltreatment. However, when children's parents received the interdisciplinary representation and those children did enter foster care, children spent 118 fewer days on average in foster care during the four years following the abuse or neglect case filing. Subsequent competing risk models show that children whose parents received the interdisciplinary law office model achieved overall permanency, reunification, and guardianship more quickly. These results provide evidence that interdisciplinary law office parental representation is an effective intervention to promote permanency for children in foster care.

1. Introduction

Many national child welfare and legal experts believe that effective representation for parents in child welfare cases serves the vital purpose of engaging parents, supporting the safety and well-being of children and families, reducing the need for foster care, and saving government dollars (e.g., American Bar Association, 2017). Parents involved in child welfare court cases face steep challenges navigating the court process. The vast majority of child welfare-involved parents live in poverty, and often extreme poverty (Hastings, Taylor, & Austin, 2006). Compared to the general population, child welfare-involved parents have lower educational attainments, lower incomes, and are more likely to be socially isolated and learning disabled (Azar, Maggi, & Proctor, 2013; Phillips & Dettlaff, 2009). A disproportionate number are parents of color, particularly African-American and Native American parents, and

live in disadvantaged communities (Libby et al., 2007; Roberts, 2002). Few parents have experience in advocacy, knowledge of the rules of family court, or of their rights as parents.

Only thirty-nine states have a categorical right to counsel for parent respondents in child protection proceedings in family court (Right to Counsel Map, 2016). Even where parents have the right to counsel, few jurisdictions in the country have secured steady funding for parental representation and the quality and practice of parental representation in many jurisdictions can be described as inconsistent at best (American Bar Association, 2009). The dearth of quality representation is one factor that may lead to parents and their children experiencing unnecessary removals into foster care, and needless, lengthy and often devastating delays in reunifying (American Bar Association Center on Children and the Law, 2009).

In recent years, support for parental representation in child welfare

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has grown nationally. The American Bar Association's (ABA) National Alliance for Parent Representation works to improve "the practice of parents' attorneys… and [to build] a national community of parents and parents' attorneys" (American Bar Association, 2017). The ABA's Family Justice Initiative "unites professionals from around the country to ensure every child and every parent has high-quality legal representation when child welfare courts make life-changing decisions about their families" (Heimov, Laver, & Carr, 2017). In 2017, the Children's Bureau within the U.S. Department of Health and Human Services (DHHS) released a memo encouraging all child welfare agencies and courts to ensure all parties within child welfare proceedings receive high quality legal representation (Administration on Children, Youth, and Families, 2017). At the end of 2018, the U.S. DHHS announced an amendment to the Child Welfare Policy Manual which, for the first time, allows state child welfare agencies operating pursuant to Title IV-E of the Social Security Act to seek reimbursement from the federal government for administrative costs for attorneys to provide legal representation to parents and children in child welfare cases.

In this context, the present study brings empirical evidence to policymakers regarding how *the kind* of parental representation a child welfare court system provides impacts children and their parents. This study presents a strong "quasi-experimental" evaluation of the impact of parental legal representation on permanency and safety outcomes for children and families. New York City offered a rare opportunity to test the impact of two models of representation provided to parents, as the courts gradually assigned more child welfare cases to interdisciplinary law offices as opposed to panels of solo practitioner attorneys. We therefore compared the outcomes of similar, concurrent groups—where parent respondents received interdisciplinary representation and solo legal representation—through propensity score matching. These conditions allowed us to estimate the causal effects of this approach to parental legal representation on several critical child welfare outcomes. We ask the following: *Are children—whose parents are respondents in child abuse or neglect petitions filed in the New York City Family Court and are eligible for court-assigned counsel—more likely to be quickly, safely, and permanently kept together with their families if their parents are represented by interdisciplinary law offices compared to children of similar families whose parents are represented by panel attorneys?* As such, this study adds to the literature about the effects an interdisciplinary approach to parental representation in child welfare has on outcomes for children and families.

2. How interdisciplinary parental representation may impact child welfare outcomes

2.1. Literature review

Stakeholders, including the ABA and the Children's Bureau within the U.S. DHHS, promote an interdisciplinary team approach to parental representation that includes out-of-court engagement. In 2006, the ABA approved Standards of Practice for Attorneys Representing Parents in Abuse and Neglect Cases [Practice Standards]. These standards "are intended to promote quality representation and uniformity of practice for parents' attorneys in child abuse and neglect cases" (Thornton & Gwin, 2012). The Practice Standards emphasize appointing an attorney early in the court process and encouraging attorneys to engage parents outside of court, using an interdisciplinary approach. An interdisciplinary approach incorporates additional professionals into the legal team, such as social workers, parent advocates, interpreters, specialized attorneys, experts, and investigators. These team members can address issues outside the courtroom to support the family unit: applying for public benefits, representing a client in criminal court, employment training, mental health counseling, and substance abuse treatment among others. The additional support these team members provide might allow children to return home sooner or avoid foster care placement altogether.

Though several jurisdictions have piloted parental representation programs based on the Practice Standards, only one program has received significant attention from evaluators: the Washington State Office of Public Defense, which implemented the Parent Representation Program pilot in 2000. The Parent Representation Program created selection criteria for attorneys and attorney caseload and practice standards, increased attorney compensation, assured attorneys' access to expert services and social workers, and supplied ongoing training and oversight. Program designers theorized that adequate parental representation would improve the likelihood of parents' receiving needed services and thus speed up reunification. Additionally, stakeholders believed that the trust between attorney and parent would facilitate guardianship or adoption in situations where parents were unable to meet the court's requirements for reunification. The program was initially evaluated through court record reviews and subsequently through quasi-experimental administrative data analysis (Courtney & Hook, 2012; Oetjen, 2003). The latter evaluation indicated that the implementation of the Parent Representation Program reduced the time children spent in foster care through speeding the time to all permanency outcomes.

However, the strongest quasi-experimental study of improved parental representation—by Courtney and Hook (2012)—was limited due to the nature of the program's implementation and could only tentatively establish the causal impact of parental representation. While other empirical studies concerning parental representation in child welfare support the theory that enhanced parental representation leads to faster permanency outcomes for children and improved court efficiency, each study had limitations (see Table 1). To date, there has been no "promising research evidence" for any models of parental representation according to The California Evidence-Based Clearinghouse for Child Welfare (2018). No parental legal representation program is even rated on the clearinghouse.

The Washington study, furthermore, could not disentangle the effect of numerous ABA best-practices in parental representation applied by the innovative program. In contrast, this study isolates the impact of an interdisciplinary law office approach, in a court system where issues like timely appointment of attorneys, selection criteria for attorneys, caseload and practice standards, attorney compensation, ongoing training and oversight are addressed well. Every element that made Washington's program innovative applies to both models of parental representation operating in New York City. Thus, independent of other ABA best-practices, program stakeholders in New York City posit that the interdisciplinary case practice model increases stable and safe reunification, shortens lengths of stay in foster care, and often avoids foster care placements entirely—through advocacy in and out of court.

2.2. ILO theory of change

Why would an interdisciplinary law office approach to parental representation impact these child welfare outcomes? Program designers theorize that social work staff primarily contribute to these outcomes by advocating for parents at child welfare agency meetings at which decisions around child removal and service plans are made, and connecting parents to needed and appropriate services early on in the case. Then, during a case, social work staff may voice a parent's concerns with particular items in a service plan, paring down or tailoring services to meet a parent's schedule or other needs; this may mean that a parent's service plan contains only absolutely necessary services or services a parent can more readily complete, facilitating reunification more quickly. Social work staff may also address issues outside the courtroom to support the family unit, like applying for public benefits, arranging for representation in criminal court, employment training, mental health counseling, and substance abuse treatment. Comprehensively addressing these issues earlier in the case might allow children to return home sooner or avoid foster care placement altogether. These interdisciplinary services which complement the representation in the

Table 1
Key findings from parent legal representation studies.

Program location and name	Research design highlights	Key findings
California and Colorado	Analyses of approximately 500 dependency cases across California (*N* = 403) and Colorado (*N* = 119) using a quasi-experimental design (Wood & Russell, 2011).	• Cases were significantly more likely to result in reunification when the mother's attorney was present at early hearings or the father's attorney was present at the disposition hearing.
Detroit: Center for Family Advocacy (CFA) (Launched by the University of Michigan Law School)	Longitudinal study with no comparison group (The Detroit Center for Family Advocacy, 2013).	• No children entered foster care of the 110 children served in prevention cases. • 88% of children achieved legal permanency and no families had a new report of abuse or neglect within the pilot study period, of the 128 children in permanency cases.
Minnesota: William Mitchell Clinic Child Protection Program	Comparison of the counties where the program is located with other MN counties (Haight, Marshall, & Woolman, 2015).	• Families in the program had a foster care reentry rate of 7% annually, while comparison data for all of MN shows 12.7%. • Parents in the system reported feeling more supported and were more willing to partner with the county.
New Mexico Family Advocacy Program	Compared outcomes of cases before implementation with those cases after implementation.[a]	• Prior to implementation, time to permanency increased over time for all cases in the time period 2007–2012. After implementation (2013–2017), time to permanency decreased for all cases. • Terminations decreased after implementation. Reunifications did not see a significant increase; guardianships and relinquishments increased.
Vermont Parent Representation Center (VPRC)	Longitudinal study of 26 families with no comparison group (Sankaran & Raimon, 2014).	• In 79% of cases, children did not enter foster care. Of those children who entered foster care, 50% were assisted to early reunification. • VPRC estimates that it saved public systems $315,750 through its work, though the potential cost savings need to be more fully developed.
Washington State Office of Public Defense, Parent Representation Program [b]	*Early pilot study:* Compared outcomes of three groups: (1) 57 pre-pilot cases, (2) 48 cases opened before the implementation of the pilot but closed after implementation, and (3) 39 cases opened after the implementation (Oetjen, 2003). *Northwest Institute for Children and Families evaluation (N = 334):* Compared dependency cases opened and closed prior to implementation and after implementation (Harper, Brennen, & Szolnoki, 2005). *University of Washington study:* Followed 12,104 children who entered foster care for the first time in 2004 to 2007 through the end of 2008. A quasi-experimental design was used where OPD counties were compared to non-OPD counties using Event History Analysis (Courtney & Hook, 2012). [c]	• A significant decrease in the amount of time that family cases were open. • Significant decreases in the amount of time that youth spent in foster care. • A significant increase in the likelihood of family reunification. • Improved parent participation and better access to services. • Increased family reunifications, fewer reunification failures and case re-filings, and reduced time to all permanency outcomes. • Fewer court continuances. • Children whose parents were represented by OPD attorneys achieved permanency faster. • In OPD counties, children achieved reunification about a month sooner and other permanency options about a year sooner.

[a] Data abstracted from the New Mexico Judiciary case management system (Odyssey*) by tracking outcome codes after the close of a case and time to permanency in days from the time counter (Personal Communication, Beth Williams, October 15, 2018).

[b] An independent agency of Washington's judicial branch, the Washington State Office of Public Defense (OPD) offers a parent representation program that provides state-funded attorney representation to indigent parents in dependency and termination cases.

[c] One notable feature of the Washington state study was that the research design took advantage of the staggered implementation of the PRP across Washington's counties. The statistical models leverage this variation in implementation by simultaneously comparing across counties with and without the PRP, *and* comparing within counties prior to and post PRP implementation to isolate an effect associated with the PRP. See Courtney and Hook (2012), p. 1339.

underlying child welfare matter constitute what is often called "holistic" practice. Evidence from other areas of law, notably criminal defense, supports the theory that holistic defense improves outcomes for defendants without impacting public safety; a recent large-scale quasi-experimental study found that holistic criminal defense reduced incarceration with no effect on recidivism when compared against a more traditional defense model (Anderson, Buenaventura, & Heaton, 2018).

Defenders of the panel model believe that rather than holistic practice, seasoned litigators improve child welfare outcomes for families (Commission on Parental Legal Representation, 2018). These stakeholders note that panel attorneys often have more and broader experience than ILO attorneys who are often recent graduates from law school. Panel attorneys use social workers or other professionals as part of their defense team in a minority of cases; therefore, some argue that the interdisciplinary work is not needed as often as the ILOs provide it. Consequently, these stakeholders argue that one would not expect to see any difference in case outcomes overall as most parents do not benefit from the interdisciplinary model.

This study assesses the impact of parental representation on foster care entry, time in foster care, and safety outcomes using a stronger causal design than prior research, and isolates the effect of an interdisciplinary law office approach. In doing so, this study builds on the literature on parental representation in child welfare cases and provides policymakers with critical information to inform what kind of parental representation should be provided in child welfare cases.

3. Parental representation in New York City

Since 1972, parents charged with neglect or abuse in Family Court in New York who are unable to retain counsel have the right to free, court-assigned counsel (In Re Ella B, 1972). Originally based on a ruling in the New York State Court of Appeals, the New York State Legislature codified the right to counsel in a range of family law proceedings in 1975. Between 1972 and 2007, attorneys from a panel administered by the First and Second Departments of the New York State Supreme Court Appellate Division represented all parents in the New York City Family Court who received court-assigned counsel. These attorneys, colloquially named "18-B attorneys" after the section of New York County Law that describes their function, are experienced private practitioners who successfully applied to join the panel. Only attorneys with a minimum

number of years of trial experience and a knowledge of substantive and procedural law involving a broad range of matters heard in Family Court may be appointed. The New York City court system is partitioned into five distinct courts by borough, so each court has its own panel. Panel attorneys represent parents in child protection proceedings, as well as children in these proceedings, and adults in other matters heard in the Family Court, including domestic violence, custody, and visitation disputes.

As private practitioners, panel attorneys individually manage the administration and maintenance of their practices. Attorneys must provide for their own benefits, malpractice insurance, and overhead costs. Many panel attorneys have served on the panel for decades, and they may practice law in other areas outside of child protection cases, adding to their expertise. In the New York City Family Court, panel attorneys operate as solo practitioners without any professional colleagues as invariable parts of their teams. When a panel attorney perceives the need for a professional colleague, such as a social worker, the attorney may apply to the court for an order authorizing them to engage the services of the professional and bill the court for the professional's time. These orders are routinely granted when requested. Current rates for panel attorneys in Family Court proceedings—set in 2003—are $75 per hour for in-court and out-of-court time to a maximum of $4400 per case, though the case maximum may be waived.

In 2007, the New York City Mayor's Office of Criminal Justice, the office responsible for payment of legal services for indigent parents in Family Court proceedings, entered into contracts with three nonprofit organizations to provide interdisciplinary legal defense for parents in Family Court. These organizations are the Center for Family Representation, the Family Defense Practice of Brooklyn Defender Services (formerly of Legal Services New York City), and the Bronx Defenders. In this article, we refer to these organizations collectively as *interdisciplinary law offices* (ILOs). Each organization is authorized to practice in a different county: the Center for Family Representation in New York County (Manhattan), Brooklyn Defender Services in Kings County (Brooklyn), and the Bronx Defenders in Bronx County (the Bronx). In 2011, the Center for Family Representation was awarded an additional contract for Queens County (Queens). Since 2007, these offices have operated concurrently with the panels in Brooklyn, the Bronx, and Manhattan, and, since 2011 in Queens.

Each ILO has some distinct features, but the organizational structure of the three offices differs substantially from panel attorneys. *First,* unlike panel attorneys, lawyers in the ILOs specialize in child welfare cases and represent only parents in those matters. *Second,* each provider is a nonprofit organization—contracted for up to a certain number of cases through the New York City Mayor's Office of Criminal Justice and supplemented with each organization's private fundraising efforts. Nonprofit law offices are paid a set fee per case specified in each organization's contract, regardless of the number of hours worked. *Third,* the attorneys in these offices are employees of the organization and paid a salary with benefits. *Fourth,* the offices offer administrative support and central office locations. *Fifth,* the lawyers in these offices have supervising attorneys and colleagues, allowing the staff to collaborate on complex cases and to appear in court for one another when a principal lawyer is unavailable. *Finally,* as the phrase "interdisciplinary law office" suggests, these offices all have non-attorney professional employees on their paid staff who work with the attorneys. All providers also have the capacity to administer some other legal services in criminal, civil, and immigration cases through additional government contracts.

Both the panel and ILO models comply with many ABA best-practices. Notably, judges typically assign each parent an attorney at the parent's first appearance in court, often the same day or within a few days of when a neglect or abuse petition is filed. In many jurisdictions outside of New York, attorneys are not appointed until later in the court process when important decisions may have already been determined. Both the panel attorneys and the ILOs appear on every court appearance with their clients, and advocate on behalf of their clients. Both kinds of attorneys represent accomplished and highly proficient practitioners selected based on their strong qualifications to serve in their respective positions. Payment rates for both kinds of attorneys offer the ability to earn a fair wage without exceeding common case-load standards.

The most significant difference between the ILOs and the panel attorneys is the interdisciplinary case practice approach the contracted providers utilize. While both types of attorneys appear in court with their clients, the ILOs' team-based approach to representation focuses greater attention on out-of-court advocacy. With the interdisciplinary case practice model, each attorney teams with a social worker and/or a parent advocate. Parent advocates are staff members who have themselves faced proceedings in the Family Court as parents, though the role description varies by office. Some providers have additional experts on staff, as well: attorneys to represent clients in criminal, housing, and immigration court; experts who focus on troubleshooting public assistance, educational issues, and other government systems; paralegals; and investigators.

Activities foundational to the interdisciplinary approach include attending parent-agency meetings, and helping to shape service plans by identifying the needs of each family and tailoring the service plan to meet those needs (Stone-Levine, 2012). The goals of the model are accomplished primarily through a focus on the early part of a case coupled with advocacy by the team on critical elements including visiting arrangements for children and their parents that are as frequent and long as possible and in natural settings; placement arrangements that support a child's connection to family; services that address a parent and child's strengths and needs; and, conferences and meetings that occur out of court and provide opportunities for parents and older youth to participate in their case planning (Cohen & Cortese, 2009).

4. Research methods

As mentioned earlier, we asked the following: *Are children—whose parents are respondents in child abuse or neglect petitions filed in the New York City Family Court and are eligible for court-assigned counsel—more likely to be quickly, safely, and permanently kept together with their families if their parents are represented by interdisciplinary law offices compared to children of similar families whose parents are represented by panel attorneys?* We addressed our research question about the impact of ILO parental representation on child welfare outcomes by following the trajectory of 9582 families and their 18,288 children. We relied on Propensity Score Matching (PSM) to estimate causal effects on families' outcomes, through limiting observable differences between the two groups (Rosenbaum & Rubin, 1983). To explain those results, we conducted additional exploratory analysis using competing risk models (Fine & Gray, 1999).

4.1. Sample

To build our sample, we started with all children named in child abuse or neglect petitions in the New York City Family Court (referred to as Article 10 cases in New York) filed from 2007 to 2014 where ILOs had contracts. ILOs do not have contracts for cases in Staten Island and contracts in Queens began in 2011, thus we eliminated Staten Island cases as well as Queens cases before 2011. We selected this group in order to include all families who come into contact with one of the two models of parental representation—not only those children who enter foster care. By looking at this broader group, we could assess the impact of representation type on foster care entry.

We then limited our sample to create clearer comparisons between the two models. *First,* we limited our sample to each family's first petition in the data, so that each family is included only once in the sample. This criterion eliminated families who might have received both types of representation over time. Limiting to first petitions

captured the bulk of cases while providing the clearest comparison between the two models. *Second,* we included only single-respondent cases. A single-respondent case means that only one caregiver is charged with neglect or abuse in the case. In a dual-respondent case (meaning that two caregivers are charged), either two panel attorneys, or a panel and an ILO attorney may represent the two caregivers. Dual-respondent cases never experience only the ILO model, which would muddy comparisons. In less than 1% of cases, there were more than two respondents in a case, and these cases were excluded from the study for the same reasons. *Third,* we excluded a small number of cases where private attorneys represented respondents, because these parents would not be eligible for court-appointed counsel. *Fourth,* we excluded cases with an attorney change from one model to another, as similar to dual-respondent cases, these cases would experience both of the models, so we would not be able to attribute the case outcomes to a particular type of representation.

Our final sample comprised all children named in a family's first single-respondent Article 10 petition in the New York City Family Court filed from 2007 to 2014 where ILOs had contracts, and where the child's parent was represented by either an ILO or a panel attorney. This sample contained 9582 families and their 18,288 children, and we followed each case until the end of our data extract on December 1, 2017. We compared, as our *treatment* group, the ILO model of representation for the parent, and, as our *comparison* group, the panel attorney model of representation for the parent. Appendix A discusses further how we arrived at our sample and how we handled missing data.

4.2. Data and measures

4.2.1. Data sources

We constructed our sample and measures from two data sources: [1] administrative data provided by the New York City Administration for Children's Services (ACS), and [2] attorney rosters from each of New York City's panels and ILOs. To acquire these data, we obtained approval from the ACS, the New York State Office of Children and Families (OCFS), Solutions IRB, and the Casey Family Programs Human Subjects Review Committee. As the administrative data contained only the names of the parents' attorneys but not the attorneys' organizations, we obtained attorney staff rosters from each of the ILOs as well as panel rosters from each of the panels. Matching the attorney names in the administrative data to the attorney names from the staff rosters, we created a binary field denoting whether an ILO or panel attorney represented the parent in each case. Our matching procedure identified 169,841 of the 174,866 total attorney records (97.1%) in the administrative data. Further information on our matching procedure is available upon request.

4.2.2. Outcome measures

The stated goals of parental representation with respect to child welfare outcomes are to keep more families together safely, and to decrease the time children spend in foster care. We, therefore, decided to measure the following *outcomes* after discussions with stakeholders: [1] whether any children in the family entered foster care in the 24 months following Article 10 petition filing, [2] the average number of days that children in the family spent in foster care in the 48 months following Article 10 petition filing, and [3] whether any children in the family were victims of a substantiated investigation of child maltreatment in the 24 months following Article 10 petition filing.

With the *first* outcome, we hypothesized that fewer children would enter foster care when their families received ILO representation as compared to panel representation. Most children named in child abuse and neglect court proceedings in New York City do not enter out-of-home care. Of the 18,288 children included in this study, only 7441 (41%) entered foster care through 24 months of petition filing. We operationalized the outcome as whether any of the children who were

not in care at the time of the petition filing entered care in the subsequent 24-month period. We followed the trajectory of 8452 families and their 16,500 children from the date of petition filing for a period of 24 months. To arrive at 8452 families, from our initial sample of 9582 families, we eliminated [1] families where all the children had already entered foster care as of the petition filing as these families had no children for whom representation could prevent foster care entry and [2] families with judges who only presided over cases of one representation type among this sample as these judges would be a "perfect predictor" of representation type, violating the assumptions of PSM.

With the *second* outcome, we hypothesized that children would spend fewer days in foster care when their families received ILO representation as compared to panel representation. We used a 48-month timeframe as New York City has longer lengths of stay in foster care than most other jurisdictions. We operationalized the outcome as the average number of days children in the family spent in foster care during the subsequent 48-month period after petition filing. In our calculations, trial discharge is not considered time spent in foster care, because the child is living at home and foster care board payments for the child are suspended. We later extrapolate the results for only children who entered foster care. For this analysis, we followed the trajectory of 6952 families and their 13,268 children from the date of petition filing for a period of 48 months. To arrive at 6952 families, from our sample of 9582 families, we eliminated [1] families whose cases were filed in 2013 and 2014 as we did not have four full years of follow-up data and [2] families with judges who only presided over cases of one representation type among this sample. Related to this outcome, we conducted further exploratory analysis to understand the relationship between ILO representation and the time to various exits from out-of-home care with more nuance than the number of days children spent in foster care. We hypothesized that reunification, guardianship, and overall permanency (defined as any exit to reunification, guardianship, or adoption) would occur faster and had no defined hypothesis about adoption or aging out of care.

The *third* outcome measures the safety of the children, through a proxy of whether any children were victims of a substantiated investigation of child maltreatment following the Article 10 petition filing. We hypothesized that children whose parents are represented by ILO attorneys will be no more likely to be a victim of repeat maltreatment than children whose parents are represented by panel attorneys. We followed the trajectory of 9539 families and their 18,189 children from the date of petition filing for a period of 24 months. We used all of the families in our sample, except 43 families with judges who only presided over cases of one representation type among this sample.

4.2.3. Matching characteristics

To estimate propensity scores for the three outcomes, we chose a range of covariates about each family that prior research, our understanding of the New York City child welfare system, our fieldwork (see Appendix B), or descriptive analysis demonstrated were associated with attorney assignment or any of the three outcomes. Below we describe these covariates. We converted all variables listed in Tables 2-4 into a series of dummy variables unless we specify "the number of" in the field below.

We included covariates about the family's court case: *[1] petition type (abuse or neglect), [2] petition filing year, [3] court borough, [4] the judge assigned to the case, and [5] the allegation types listed in the petition.* Petition filing year is important as system-wide policy changes or events may affect children's outcomes (Kramer, 2018). Each court borough in New York City differs in its culture, and each judge has wide latitude in attorney assignment and case decisions (Lee, 2016). Research shows that the reason for removal is associated with a child's length of stay in foster care, so we included the allegation types listed by the ACS attorney in the Article 10 petition (Akin, 2011). The specific allegation
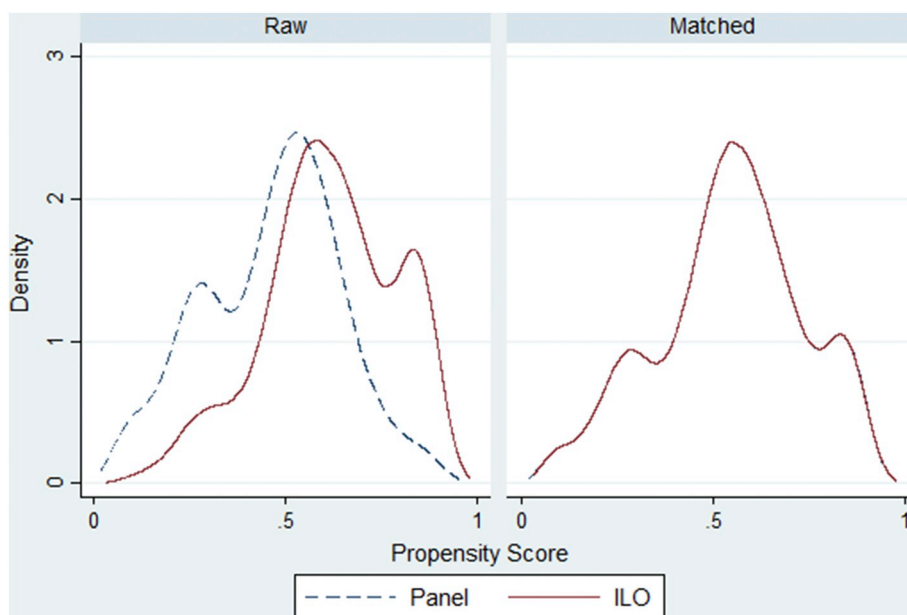
Fig. 1. Analysis 2, Kernel density plot of the propensity score.

types are listed in Table 2.

We further included relevant information on the respondent parent in the petition. As we isolated single-respondent cases, there is only one parent in each case. *First,* we included the respondent parent's child welfare history prior to the filing: *[6] the number of substantiated CPS investigations in which the parent was a perpetrator, [7] the number of days the parent spent in foster care as a child, [8] the number of times the parent exited foster care as a child, and [9] whether the parent was in foster care themselves at the time of the filing.* Previous maltreatment reports and parental foster care involvement are often related to future child welfare involvement (Putnam-Hornstein & Needell, 2011; Stith et al., 2009; Wall-Wieler, Brownell, Singal, Nickel, & Roos, 2018). *Second,* we included *the respondent parent's [10] age, [11] sex, and [12 and 13] race and ethnicity.* These factors have been shown to be associated with our outcomes and may affect attorney assignment (Needell, Brookhart, & Lee, 2003; Wildeman et al., 2014; Wildeman & Emanuel, 2014). We collapsed the administrative data on parent and child race and ethnicity into categories from prior research; ethnicity was coded as a flag for individuals who identified as Hispanic/Latino (Courtney & Hook, 2012).

Though we matched families, characteristics of the children in the family remain important as predictors of attorney assignment and outcomes. We included *[14] the number of children who were in foster care at the time of the filing, [15] children's sexes, [16] the number of children listed in the petition, [17] children's ages, and [18 and 19] children's races and ethnicities.* We included these covariates for the reasons described above. For these variables, we included counts of the number of children in the family within each age, sex, and race and ethnicity group. The number of children from each family who were in care at the time of the filing affects how long those children spend in foster care and the likelihood of other children in the family who are not in foster care entering care. We added the number of children in the family as family size may affect outcomes as well.

4.3. Analytical approach

4.3.1. Propensity score matching

We relied on Propensity Score Matching to estimate causal effects on families' outcomes, through limiting observable differences between the two groups (Rosenbaum & Rubin, 1983). The propensity score in this study is the likelihood of a family being assigned an ILO attorney

instead of a panel attorney, given a wide range of factors likely to influence assignment to different forms of representation and likely to affect outcomes. We assessed that the three assumptions of PSM were reasonably met. *First*, our unit of analysis was families and each family had a unique and independent case in the New York City Family Court in the sample, satisfying the independent and identically distributed (i.i.d.) sampling assumption. *Second*, the attorney assignment process involved primarily observable characteristics and we matched on a wide range of factors likely to influence assignment to different forms of representation and likely to affect outcomes, complying with the conditional-independence (CI) assumption (see Appendix B for more detail). We further conducted supplementary analyses to assess the consequences of any influential characteristics we may have excluded where applicable, including Rosenbaum Bounds analysis and other sensitivity analyses. *Third*, we conducted tests after the matching to verify that the overlap assumption held true.

To conduct the PSM, we used Stata 14's *teffects psmatch* package to estimate the average treatment effect (ATE) of a family having an ILO attorney on our outcome measures (teffects psmatch, 2018). We used nearest neighbor matching with replacement and a logistic treatment model. Following Austin (2011a), we used a caliper width of one-fifth of the standard deviation of the logit of the propensity score. We report the default robust standard errors estimated using two matches following the method derived by Abadie and Imbens (2006, 2011, 2012). The *teffects psmatch* procedure and standard errors correct for the fact that the propensity score is an estimate, an advantage over other approaches (teffects psmatch, 2018).

To test the covariate balance of our three propensity score matched samples, we *first* analyzed [1] kernel density plots of the propensity score, [2] box plots of the propensity score, and [3] whether the overlap assumption held. These methods—presented for Analysis 2 only (additional figures available upon request) in Figs. 1 to 3 showed strong balance on the propensity score among the matched samples and that the overlap assumption held for all three samples. If the kernel density plots of the matched data are similar between the treatment levels, we conclude that the PSM procedure balanced the data on the propensity score. If the median, the 25th percentile, and the 75th percentile of the box plot are similar between the treatment levels, we also conclude that the PSM procedure balanced the data on the propensity score. Lastly, excessive mass around 0 or 1 in the overlap graph would indicate the overlap assumption is violated as the two groups would have few cases
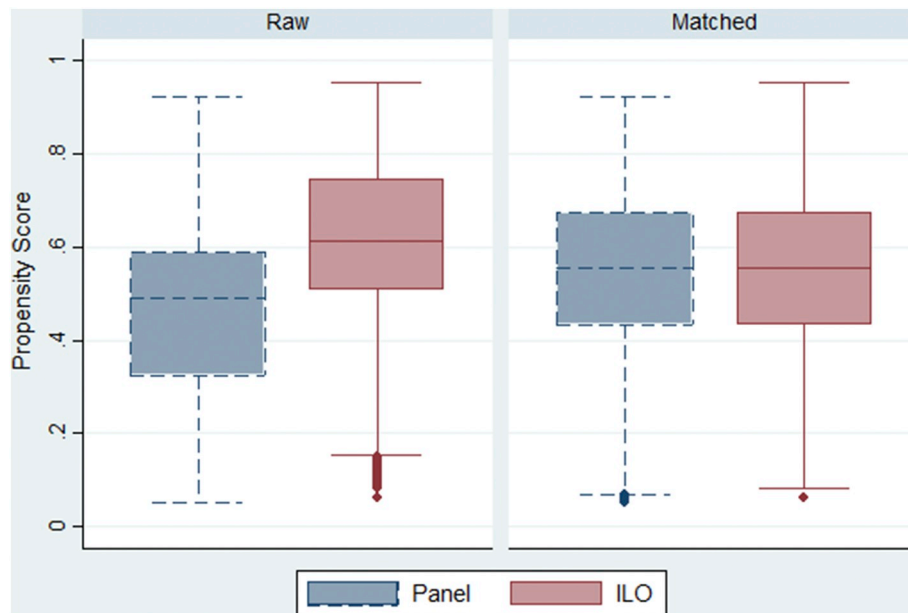
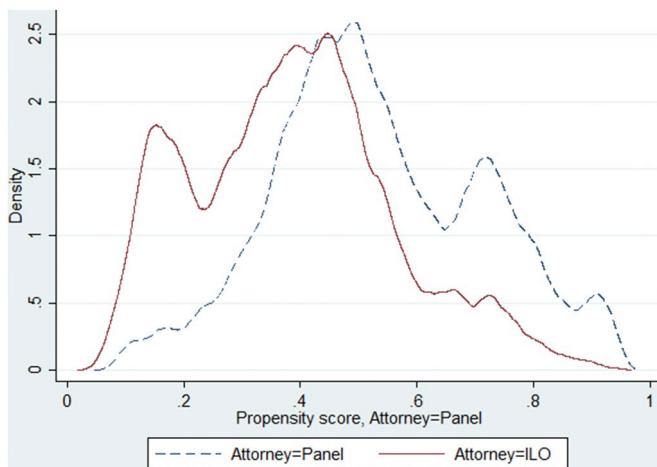Fig. 2. Analysis 2, box plot of the propensity score.

Fig. 3. Analysis 2, overlap graph.

in the region in which they overlap.

Second, we reviewed descriptive statistics before and after matching, the standardized differences, and the variance ratios of all covariates in each sample; these are shown in Tables 2–4 for Analysis 2 only, excluding the judge variable due to space (additional tables available upon request). The standardized difference of the mean is the difference in means between the two groups, divided by the pooled standard deviation. Variance ratios are the mean ratios of the variance in treated subjects to the variance in untreated subjects. Standardized differences close to zero and variable ratios close to one indicate that the PSM procedure balanced the covariate. Following Austin (2009), we considered absolute values of less than 0.1 to be within acceptable range for standardized differences. Following Rubin, we considered values of less than 0.5 or greater than 2 to be outside acceptable range for variance ratios (Rosenbaum & Rubin, 1983; Rubin, 2001; Stuart & Rubin, 2008). The standardized differences of the mean for the matched sample ranged from a low of −0.046 to a high of 0.055 for Analysis 1, a low of −0.065 to a high of 0.049 for Analysis 2, and a low of −0.054 to a high of 0.057 for Analysis 3. These standardized difference values are all within acceptable range, indicating that the means of covariates were very similar between the two groups in the matched sample. The

variance ratios for all covariate variables ranged from 0.454 to 3.999 for Analysis 1, from 0.200 to 5.996 for Analysis 2, and from 0.305 to 2.000 for Analysis 3. These variance ratios are all within acceptable range except a few binary flags for judges: three flags in Analysis 1, four flags in Analysis 2, and two flags in Analysis 3. We note, however, that variance ratios are insignificant for binary variables (Rosenbaum & Rubin, 1983; Rubin, 2001; Stuart & Rubin, 2008). In sum, our analyses indicate that the matched sample eliminated any observed differences between families who were represented by ILO attorneys and panel attorneys.

4.3.2. Competing risk models

In order to understand children's exits from foster care beyond the results from Analysis 2, we ran two sets of competing risk models (Fine & Gray, 1999). In addition to the sheer number of days children spent in foster care, we sought to understand whether children exited care sooner and the effect on the time to different exits from out-of-home care—reunification, guardianship, adoption, and aging out. Competing risk models are used to analyze the time to an event in the presence of other events that may impede the event of interest. Contrary to Cox regression which presumes the lack of competing events to the event of interest, competing risk models regress on the subdistribution of the hazard, a transformation of the cumulative incidence function (CIF). The coefficients estimated are subhazard ratios (SHR), interpreted the same as hazard ratios from Cox regression. These models have similarly been used in child welfare to analyze the time to permanency exits for children in foster care, with exit types as the "competing" events (Courtney & Hook, 2012).

The *first* model looked at the time to foster care entry from petition filing. We ran this competing risk model following 16,527 children over the span of our full data, with the same covariates included in our PSM models. This group of children is nearly identical to those in Analysis 1. As the independent and identically distributed (i.i.d.) sampling assumption no longer applied, we used individual children as the unit of analysis and report standard errors clustered by family. For this model, we used Stata 14's *stcrreg* package (stcrreg, 2018).

The *second* models looked at the time to various foster care exits from foster care entry. We ran a series of competing risk models following 8163 children who entered foster care over the span of our full data, with the same covariates included in our PSM analyses. While we did not re-calculate any covariates (e.g., age as of the petition filing),

Table 2
Court characteristics of the study sample, Analysis 2.

Court variables	Raw (% or mean)		Matched (% or mean)		Balance			
					Std. difference of the mean		Variance ratio	
	Panel	ILO	Panel	ILO	Raw	Matched	Raw	Matched
[1] Petition type								
Abuse***	9%	7%	9%	7%	−0.09	−0.05	0.77	0.87
Neglect	91%	93%	91%	93%				
[2] Petition filing year								
2007***	30%	10%	19%	18%	−0.52	−0.03	0.42	0.96
2008**	13%	15%	14%	15%	0.08	0.01	1.18	1.02
2009	15%	16%	14%	16%	0.03	0.03	1.05	1.07
2010***	14%	17%	15%	15%	0.09	0.00	1.20	0.99
2011*	18%	20%	19%	20%	0.05	0.01	1.09	1.02
2012***	11%	22%	18%	17%	0.30	−0.02	1.76	0.96
[3] Court Borough								
Brooklyn***	40%	35%	38%	38%	−0.11	0.00	0.95	1.00
Bronx***	43%	33%	37%	38%	−0.19	0.02	0.91	1.01
Manhattan***	12%	24%	17%	18%	0.30	0.01	1.66	1.02
Queens***	5%	8%	7%	6%	0.13	−0.04	1.64	0.88
[5] Petition allegations								
Severe/repeated abuse	0%	0%	0%	0%	0.01	−0.01	1.39	0.63
Physical abuse	3%	3%	3%	3%	0.00	−0.03	1.01	0.83
Sexual abuse***	5%	3%	4%	4%	−0.10	−0.03	0.63	0.88
Failure to protect from physical abuse	0%	0%	0%	0%	−0.02	0.00	0.76	0.94
Failure to protect from sexual abuse*	1%	0%	0%	0%	−0.05	−0.01	0.46	0.82
Other**	14%	17%	16%	16%	0.07	0.01	1.15	1.02
Inadequate supervision**	68%	71%	71%	70%	0.07	−0.01	0.94	1.01
Drug use***	27%	23%	26%	25%	−0.09	−0.01	0.90	0.99
Alcohol use	8%	9%	9%	9%	0.04	0.02	1.11	1.07
Excessive corporal punishment***	18%	23%	21%	21%	0.12	0.02	1.19	1.02
Educational neglect	14%	13%	12%	13%	−0.03	0.03	0.93	1.06
Medical neglect**	8%	11%	9%	9%	0.08	0.00	1.24	1.00
Domestic violence	12%	12%	12%	12%	−0.02	0.00	0.95	1.00
Emotional neglect	3%	2%	3%	3%	−0.03	0.00	0.86	1.00
Mental illness***	14%	18%	15%	16%	0.12	0.02	1.25	1.03
Mental retardation	0%	0%	0%	0%	0.01	−0.01	1.16	0.91
Failure to plan	6%	6%	6%	6%	−0.03	0.00	0.90	0.99
Failure to provide adequate food/shelter/clothing	7%	7%	7%	7%	−0.01	−0.02	0.95	0.94
Abandoned baby	0%	0%	0%	0%	0.01	0.00	1.29	1.00
Derivative	2%	2%	1%	2%	0.01	0.03	1.07	1.28
N	3157	3795	6952	6952				

Asterisks indicate significant differences between ILO and Panel based on a chi-square test (binary) or independent samples t-test (continuous) before matching.

  * $p < .05$.
  ** $p < .01$.
  *** $p < .001$.

we included an additional covariate for the time from petition filing to foster care entry. Furthermore, we added covariates relevant only to children who entered foster care, notably placement type and foster care provider agency. Initially, we ran these models without time-varying covariates and found that the proportional subhazard assumption was violated. To correct the violation, we re-ran our models with the dependent variable—type of representation—as a time-varying covariate and report those results. Like in the model above, we used individual children as the unit of analysis and report standard errors clustered by family. Due to computational constraints, we used Stata 14's *stcrprep* and *stcox* packages; we additionally ran the model on time to adoption converting the time units to years, as opposed to days in all other models (Lambert, 2016; stcox, 2018).

5. Results

5.1. Analysis 1: Foster care entry

Analysis 1 showed a very small, non-significant effect ($ATE = -0.007$; $p = .608$), meaning the data did not support the hypothesis that ILO representation decreased children's chances of entering foster care when compared to panel representation (see Table 5).

We did not conduct a sensitivity analysis on Analysis 1, since the model showed no statistically significant effect.

5.2. Analysis 2: Days spent in foster care

Analysis 2 detected a statistically significant effect ($ATE = -47.161$; $p = .001$) of -47 days, meaning the data show that ILO representation decreased the average days children in each family spent in foster care by 47 days when compared to panel representation through 48 months of petition filing (see Table 5). According to this child average per family analysis, while a child will spend 339 days on average in foster care when represented by ILOs, a child will spend 386 days when represented by panel attorneys—47 fewer days with ILO representation.

Shown in Table 6, we recalculated this measure to estimate the effect per child, by weighting the family outcomes by the number of siblings in each family. This calculation produced a difference of 55 days per child. In order to assess the impact on children who entered foster care, we took these estimates per child and extrapolated that to only the children who entered out-of-home care (55 days divided by the percentage of children who entered care); given that Analysis 1 found no difference in whether children entered foster care, we can

Table 3
Parent characteristics of the study sample, Analysis 2.

| Parent characteristics | Raw (% or mean) | | Matched (% or mean) | | Balance | | | |
| | Panel | ILO | Panel | ILO | Std. difference of the mean | | Variance ratio | |
					Raw	Matched	Raw	Matched
[6] Number of substantiations before filing	1.7	1.7	1.7	1.7	0.00	0.01	1.01	1.11
[7] Number of days spent in foster care before filing*	225.8	268.7	268.1	251.4	0.05	−0.02	1.27	0.90
[8] Number of foster care exits before filing	0.2	0.2	0.2	0.2	0.02	−0.01	0.89	0.87
[9] In foster care at filing*	3%	2%	3%	3%	−0.05	0.01	0.73	1.07
[10] Age at filing								
Less than 21	11%	10%	11%	10%	−0.05	−0.01	0.89	0.97
Age 21 to 25	16%	15%	15%	16%	−0.04	0.01	0.94	1.02
Age 26 to 30	18%	19%	19%	18%	0.04	−0.03	1.06	0.95
Age 31 to 35	19%	18%	18%	19%	−0.02	0.02	0.96	1.03
Age 36 to 40	15%	15%	15%	15%	0.00	0.00	0.99	1.00
Age 41 to 45	10%	11%	11%	11%	0.03	0.01	1.09	1.04
Age 46 to 50	6%	7%	6%	6%	0.02	0.02	1.07	1.06
Age 51 to 55	2%	3%	3%	2%	0.03	−0.02	1.19	0.90
Age 56 to 60	1%	1%	1%	1%	0.01	−0.02	1.14	0.84
Age 61 to 65	0%	1%	0%	1%	0.02	0.01	1.41	1.20
Age 66 and over	1%	1%	1%	1%	0.00	0.01	1.02	1.14
[11] Sex								
Male	12%	12%	13%	12%	0.01	0.02	0.99	0.95
Female	88%	88%	87%	88%				
[12] Race								
African-American	58%	58%	59%	59%	0.00	0.01	1.00	1.00
Native-American	0%	0%	0%	0%	0.00	0.02	1.04	1.67
*Asian***	2%	3%	2%	2%	0.07	0.03	1.55	1.18
Multiracial	3%	3%	3%	3%	0.01	0.00	1.07	1.02
White	20%	20%	20%	19%	−0.01	−0.02	0.99	0.97
Unknown	17%	16%	16%	17%	−0.02	0.00	0.96	1.00
[13] Ethnicity***								
Hispanic/Latino	38%	38%	38%	37%	−0.02	−0.01	0.99	1.00
Non-Hispanic	62%	62%	62%	63%				
N	3157	3795	6952	6952				

Asterisks indicate significant differences between ILO and Panel based on a chi-square test (binary) or independent samples *t*-test (continuous) before matching.
* *p* < .05.
** *p* < .01.
*** *p* < .001.

Table 4
Child characteristics of the study sample, Analysis 2.

| Children characteristics | Raw (% or mean) | | Matched (% or mean) | | Balance | | | |
| | Panel | ILO | Panel | ILO | Std. difference of the mean | | Variance ratio | |
					Raw	Matched	Raw	Matched
[14] Sum of children in foster care at filing	0.24	0.27	0.25	0.26	0.04	0.01	1.09	1.04
[15] Sum of female children	0.99	0.95	0.95	0.97	−0.04	0.02	0.96	1.00
[16] Number of children in family	1.92	1.90	1.90	1.92	−0.02	0.02	0.93	0.98
[17] Age at filing (sum of children in each age group)								
*Age 0*_*	0.24	0.22	0.22	0.23	−0.06	0.02	0.93	1.07
*Age 1 to 4*_*	0.47	0.44	0.45	0.45	−0.05	0.01	0.96	1.00
Age 5 to 8	0.42	0.44	0.43	0.44	0.03	0.01	1.04	1.02
Age 9 to 12	0.37	0.36	0.36	0.37	−0.01	0.01	0.98	1.04
Age 13 to 15	0.29	0.29	0.28	0.28	0.02	−0.01	1.00	0.99
Age 16 and over	0.14	0.14	0.14	0.14	0.02	−0.01	0.97	0.84
[18] Race (sum of children in each race group)**								
African-American	1.17	1.14	1.16	1.18	−0.03	0.02	0.97	1.03
Native-American	0.00	0.00	0.00	0.00	−0.01	0.01	0.60	1.22
Asian	0.03	0.05	0.04	0.05	0.05	0.02	1.34	1.28
Multiracial	0.04	0.04	0.04	0.04	−0.01	0.02	0.97	1.30
White	0.34	0.34	0.34	0.32	0.00	−0.03	1.03	0.90
Unknown	0.33	0.32	0.31	0.33	−0.01	0.03	0.93	1.02
[19] Ethnicity (sum of children in group)***								
Hispanic/Latino	0.80	0.76	0.77	0.76	−0.04	−0.01	0.96	1.00
N	3157	3795	6952	6952				

Asterisks indicate significant differences between ILO and Panel based on a chi-square test (binary) or independent samples *t*-test (continuous) before matching.
* *p* < .05.
** *p* < .01.
*** *p* < .001.

Table 5

Average treatment effect (ATE) results from PSM analyses estimating treatment effects of ILO.

Outcomes	ATE	Abadie-Imbens Robust SE	z	p	95% Confidence interval	
Analysis 1. Foster care entry through 24 months (N = 8452)	−0.007	0.01	−0.51	0.608	−0.032	0.019
Analysis 2. Days spent in foster care through 48 months of filing (N = 6952) ***	−47.161	14.05	−3.36	0.000	−74.692	−19.630
Analysis 3. Subsequent substantiated report of child maltreatment through 24 months of filing (N = 9539)	−0.001	0.01	−0.1	0.922	−0.022	0.020

*p < .05, **p < .01, ***p < .001.

Table 6

Average treatment effect (ATE) results from PSM Analysis 2.

Predicted outcomes	Mean (days)		Difference
	ILO	Panel	
Average per child in the family	339.20	386.36	−47.16
Per child	307.12	362.21	−55.09
Per child who entered foster care	658.62	776.76	−118.14

reasonably attribute any difference in days spent in foster care to only those children who entered foster care. For children who entered out-of-home care, the data show a difference of 118 days, or nearly 4 fewer months in out-of-home care. On average, a child who enters out-of-home care will spend 658 days in foster care through 48 months of petition filing if an ILO attorney represents their parent, compared to 776 days if a panel attorney represents their parent—118 fewer days with ILO representation. In the exploratory analysis section, we conducted additional competing risk models to understand why children represented by ILO attorneys spent fewer days in foster care.

Because we found a statistically significant effect in Analysis 2, we conducted a sensitivity analysis to scrutinize the validity of the finding. In doing so, we intended to test how susceptible the model's findings may be to bias from unmeasured characteristics of families, and to validate our results on alternative model specifications. Full sensitivity analysis tables are available upon request. *First,* in order to test the potential impact of an unobserved characteristic on our findings, we conducted a Rosenbaum bounds analysis (Rosenbaum, 2002). Because the Rosenbaum bounds analysis only works for one-to-one matching without replacement, we re-ran Analysis 2 with these specifications and performed the Rosenbaum Bounds sensitivity analysis (Gangl, 2004; Leuven & Sianesi, 2003). When gamma is greater than 1.1, the ATE of ILO representation and children's days spent in foster care through 48 months of filing would no longer be significant (with a p-value of 0.110). These results suggest that the findings from Analysis 2 are sensitive to an unobserved confounder which would only need to minimally impact attorney assignment to nullify the findings. *Second,* since the main challenge to the CI assumption is that the attorney assignment process in later years of the program introduced unmeasured

bias, we addressed this issue by re-running Analysis 2 isolating only the early years of implementation. To do so, we ran a propensity score match analysis identical to Analysis 2, except only including petitions filed from 2007 to 2009. This analysis detected a similar, statistically significant effect (*ATE* = −41.109; p = .036) of −41 days. Given that the results remained similar in this analysis, we conclude that the changes in assignment process are unlikely to have impacted the study's findings. Therefore, while the Rosenbaum Bounds analysis indicates high levels of sensitivity, we have addressed the one known unmeasured confounder.

5.3. Analysis 3: Repeat maltreatment

Analysis 3 shows a miniscule, non-significant effect (*ATE* = −0.001; p = .922), meaning the data did not detect any difference in safety outcomes when families received ILO representation as compared to panel representation (see Table 5). We did not conduct a sensitivity analysis on Analysis 3, since the model showed no statistically significant effect.

5.4. Exploratory analysis

We conducted additional exploratory analysis to understand why children whose parents are represented by ILO attorneys spend fewer days in foster care, as shown in Analysis 2. Table 7 presents the key results from these models.

First, we sought to understand whether ILO and panel representation differed in the time to entering foster care for children not in care at the time of filing; if children whose parents were represented by ILOs entered care longer after filing, that might partially explain why those children spent fewer days in foster care through 48 months. Results show that ILO representation did not have a statistically significant effect (*SHR* = 0.94; p = .078) on the time to a child entering foster care. This result is consistent with findings from Analysis 1 that representation type does not impact foster care entry. Furthermore, the output from Analysis 2 shows that ILO representation causes children to spend fewer days in foster care; since the results here demonstrate that ILO representation does not cause children to enter care later, children *exiting care sooner* must account for the difference in days spent in foster

Table 7

Results from competing risk models estimating effects of ILO.

Outcomes	Variable	Subhazard ratio (SHR)	Cluster robust SE	z	p
Time in days to foster care entry (N = 16,527)	ILO	0.94	0.04	−1.76	0.078
Time in days to permanency (N = 8163)	ILO (t = 0)	1.34	0.07	5.73	0.000***
	ILO X Time	0.9998	0.00	−3.93	0.000***
Time in days to reunification (N = 8163)	ILO (t = 0)	1.43	0.08	6.44	0.000***
	ILO X Time	0.9996	0.00	−5.15	0.000***
Time in days to guardianship (N = 8163)	ILO (t = 0)	2.06	0.74	2.01	0.045*
	ILO X Time	0.9994	0.00	−2.18	0.029*
Time in *years* to adoption (N = 8163)	ILO (t = 0)	1.49	0.37	1.58	0.113
	ILO X Time	0.8931	0.05	−2.24	0.025*
Time in days to age out (N = 8163)	ILO (t = 0)	1.43	0.32	1.59	0.112
	ILO X Time	0.9997	0.00	−2.58	0.010*

*p < .05, **p < .01, ***p < .001.

care from Analysis 2.

Second, we sought to account for the difference shown in Analysis 2, by explaining which exits from foster care children whose parents were represented by ILOs experienced more quickly. Note that the effect sizes reported with these models include the effect size at $t = 0$ (time equals zero, or the first day in foster care for the child) and a coefficient describing how that effect changes over time. These models indicate that children achieved permanency more quickly when their parents received interdisciplinary representation, most especially reunification early in the case. Results from the models show that, controlling for other factors, children represented by ILO attorneys experienced reunification 43% faster ($SHR = 1.43$; $p < .001$) and achieved guardianship more than twice as fast ($SHR = 2.06$; $p < .05$). However, each of these effects apply at $t = 0$ but diminish each day of the case (*reunification tvc* = 0.9996, $p < .001$; *guardianship tvc* = 0.9994, $p < .05$), meaning that the impact of the intervention on these outcomes occurs earlier in the case and eventually fades. Using the results above, children achieved reunification approximately 43% more often in the first year; 25% more often in the second year; and, 8% more often in the third year. With respect to guardianship, children achieved guardianship approximately 106% more often in the first year; 67% more often in the second year; 36% more often in the third year; and 10% more often in the fourth year. We found no statistically significant impact on a child's time to aging out of foster care nor being adopted from foster care. Regarding overall permanency, the results in Table 7 mean that children achieved permanency approximately 34% more often in the first year; 25% more often in the second year; 17% more often in the third year; and 9% more often in the fourth year.

We further plotted out the cumulative incidence function for each of the permanency exit types through 48 months from foster care entry, to illustrate the results. Of children whose parents received ILO representation, cumulative incidence functions show the following after 48 months: 65% reunified, 4% guardianship, 7% adopted, 3% aged out, 21% in care. Whereas, of children whose parents received panel representation, cumulative incidence functions show the following after 48 months: 60% reunified, 3% guardianship, 7% adopted, 4% aged out, 26% in care.

6. Discussion

This study utilizes a "quasi-experimental" design to assess the causal impact of interdisciplinary parental representation on child welfare outcomes. We intended to answer whether children—whose parents are respondents in child abuse or neglect petitions filed in the New York City Family Court and are eligible for court-assigned counsel—are more likely to be quickly, safely, and permanently kept together with their families if their parents are represented by ILO attorneys compared to children of similar families whose parents are represented by solo practitioner attorneys. The key findings are that [1] when children do enter foster care, ILO representation decreases their stays in foster care by nearly four months (118 days) on average through faster early reunification and guardianship when compared to a solo practitioner attorney, [2] that ILO representation did not impact child safety—defined as the likelihood of a subsequent substantiated report of child maltreatment—when compared to solo attorney representation, and [3] that ILO representation did not impact the prevalence of foster care entry, as compared to solo attorney representation. Our findings with respect to time spent in foster care and permanency outcomes comport with the findings in Courtney and Hook (2012), except we found no effect on the time to adoption. Contrary to our hypothesis, we did not find an impact on foster care entry. One unique aspect of New York City is that many children who enter foster care do so on an "emergency removal" provision which gives child protective workers broad leeway to remove children from their homes prior to court action; as these children may be recorded as entering foster care in the administrative data, parental attorneys may not be fully able to impact

foster care entry as this study has defined it.

The current study presents the most comprehensive assessment of parental representation to date, adding significant depth to the literature on this topic. However, the key limitation to our propensity score approach is the possibility that unobserved confounders impact our findings and—if measured—would nullify our results. The Rosenbaum Bounds analysis suggests that our findings in Analysis 2 are vulnerable to such an unmeasured confounder. While we still believe this study contains the most comprehensive assessment of interdisciplinary parental representation to date, a future natural experiment—or possibly a randomized-controlled trial—would further develop the field's knowledge around the impact of parental representation (see, e.g., Orlebeke, Zhou, Skyles, & Zinn, 2016 for a discussion of challenges in completing such research). We particularly encourage further research to assess the impact of parental representation programs that work with parents prior to court petition filing, often known as "pre-filing" work.

The findings bring strong empirical evidence to policymakers asking, *what kind of parental representation should child welfare systems provide to promote child safety and timely permanency?* An interdisciplinary law office approach to parental representation furthers the shared goal of timely permanency, and thus benefits children, parents, and families. Laws, research, and stakeholders agree that foster care should be a temporary stop on the path to a safe and loving family, returning children home when possible. While there are vigorous discussions concerning the circumstances in which children should be reunified, adopted, or placed in guardianship, it is universally held that foster care stays should be as short as possible while ensuring safety (see, for example, Guggenheim, 2007). To children, parents, and families, four fewer months in foster care can mean the difference between spending a birthday or a Thanksgiving together, celebrating a graduation, or simply 118 fewer days of missing each other. That ILO representation decreases children's length of time spent in foster care is precious to children and parents. In addition to promoting timely permanency, we find no evidence that interdisciplinary parental representation impacts the likelihood of children experiencing a subsequent substantiated report of child maltreatment.

Altogether, the findings that interdisciplinary parental representation promotes timely permanency for children and upholds children's safety bolster a new narrative around parental representation. Our study's findings suggest that interdisciplinary parental representation is an effective intervention that child welfare agencies and court systems may implement to further their goals. Some stakeholders have expressed concerns that—in an adversarial court system which pits parents against the child welfare agency, strong advocacy on behalf of parents may put children at risk. However, this study finds that high-quality interdisciplinary parental representation benefits child welfare professionals by aiding their own objectives. When answering the question of what kind of parental representation should be provided, the study's findings demonstrate that interdisciplinary family defense reinforces public child welfare agencies' work by promoting timely permanency with no cost to child safety.

7. Conclusion

Our results support policymakers in the child welfare field expanding the ILO approach to parental representation to other jurisdictions. In addition to benefiting children and families, an interdisciplinary law office approach to parental representation may save millions of government dollars, though the inquiry in this paper provides only illustrations of potential gross cost savings for public child welfare agencies in foster care board payments. Nearly 4000 children enter foster care each year in New York City. Presuming our results hold for dual-respondent petitions and subsequent petitions, a savings of 118 days per child who enters foster care would mean 472,000 bed days per cohort year (4000 times 118) should all children's parents receive the ILO representation as compared to the panel representation. Using a

foster care board rate of $83.83 for family foster care in New York City—a rate provided by the ACS—yields annual savings of almost $40 M for a fully implemented program. These savings are conservative in that we do not include the higher rates of [1] of residential treatment or group care bed days and [2] children who qualify for special or exceptional rates due to behavioral, developmental, or medical challenges. Of course, any calculation of cost-savings would need to factor in any increased costs of providing interdisciplinary parental representation. Any calculation of cost-savings should additionally consider the generalizability of these findings. Yet, the potential impact on the size of our country's foster care system could be tremendous should the findings hold for other jurisdictions.

However, we should be cautious about generalizing the findings to other jurisdictions or populations for two reasons: [a] New York City may differ from other jurisdictions in ways that impact the program's effectiveness, and [b] we narrowed our sample to first-time single-respondent cases. The structure and operations of New York City's Family Court and child welfare system differ from other jurisdictions, particularly those outside of large metropolitan areas; these differences may limit the impact of this model if, for example, there are no service providers in a family's area to which a social worker could refer the family. New York City has longer lengths of stay in foster care, meaning the findings here may look different in other jurisdictions with shorter lengths of stay. Within New York City, we narrowed our sample to include only single respondent cases and only each family's first petition in the family court. We did so to create the clearest comparison possible, but the downside is that the findings may not apply to the groups we did not study. Policymakers seeking to generalize these findings to other jurisdictions should consider these nuances. Future research from additional programs, sample groups, and geographic areas may confirm the generalizability of these findings. Jurisdictions in California, New Mexico, Oregon, Minnesota and elsewhere have already developed or taken steps to develop interdisciplinary parental representation programs. Rigorous evaluations of these programs will help develop the field's understanding of the impact of interdisciplinary family defense.

The current policymaking context in child welfare—emphasizing prevention and decreasing the unnecessary use of foster care—provides a rare opportunity for stakeholders to re-imagine parental representation in children welfare. In late 2018, the Children's Bureau altered longstanding policy, announcing that costs for parental representation are now reimbursable at a 50% rate under the Title IV-E entitlement, lessening the burden of state and local investments. Furthermore, the Family First Prevention Services Act (FFPSA) of 2018, bipartisan legislation that reformed federal financing of child welfare, provides Title IV-E funding for prevention programs and services to support eligible children, youth, and their families. This study identifies an intervention that deserves to be in any discussion of preventing long stays in foster care: interdisciplinary parental representation. Building on prior research on parental representation in child welfare cases, we estimated the causal impact of an interdisciplinary law office approach on children's involvement in the foster care system. We find that the ILO approach significantly reduces the length of time children spend in foster care; increases rates of timely permanency, reunification, and guardianship; and does so without increasing repeat maltreatment. These results align with the stated goals not only of children, parents, and parent defenders, but of family courts, child welfare agencies, and other advocates. In a national political context suffused with a new focus on decreasing foster care stays, these findings provide compelling evidence for jurisdictions to embrace an interdisciplinary law office approach to parental representation.

Declaration of interest

Action Research is a consultancy and was hired by the Center for Family Representation for an unrelated small project that was completed before this study began. Professor Guggenheim is a member of the board of directors of the Center for Family Representation.

Appendix A. Missing data

To build our sample, we started with all families named in Article 10 petitions in the New York City Family Court filed from 2007 to 2014 where ILOs had contracts. There were 27,811 such families in the LTS data. From there, we first limited our sample to each family's first petition in the data, which left 22,670 families. We subsequently selected only single-respondent cases, which left 14,871 families. Of the 22,670 families, 1820 (8%) were missing the number of respondents in the data and excluded from the sample. From the 14,871, we isolated 10,362 families who were represented by either an ILO attorney or a panel attorney. Of the 14,871 families, 6184 (42%) were represented by an ILO attorney, 4178 (28%) were represented by a panel attorney, 1864 (13%) were represented by both an ILO and an panel attorney, 1732 (12%) had no attorney in the data, 679 (5%) had attorneys that we could not identify the attorney type, and 234 (2%) were represented by private attorneys. For substantive reasons described earlier, we excluded families represented by both attorney types (1864) and private attorneys (234). Due to missing data, we excluded families with no attorney in the data (1732) and an unidentified attorney (679).

From the 10,362 families who fit all the qualifications to be in the sample, we deleted 457 (4%) families with missing outcome data and 323 (3%) families with missing parent or child age or sex information. This left us with 9582 families in our sample. Though some families in the final sample contained missing parent or child race/ethnicity information, we opted not to delete those cases and instead included an unknown race category in our PSM models. Even though complete case analysis is the standard approach to PSM, we deemed that the race unknown group was too critical and large to exclude from our model, as many of the families were identified as Hispanic or Latino with unknown race. However, we subsequently re-ran Analysis 2 deleting all cases with any missing race or ethnicity information and the results were similar ($ATE = -44.045$; $p = .012$).

Appendix B. Attorney assignment process

Because the validity of PSM depends on adequately capturing the attorney assignment process in the PSM model, we describe the attorney assignment process here. We observed the case assignment process in the New York City Family Court in the Bronx, Brooklyn, Manhattan, and Queens for a total of 22 h in October 2016. In addition to observing and taking notes in the courtroom, we discussed the assignment process with attorneys, court clerks, judges, and other court personnel. Prior to conducting court observation, we designed a set of guiding questions based on the core question, *how does respondent (parent) attorney assignment work?*

Each courthouse is divided up into parts, or courtrooms, and each

judge has their own part. An "intake" is an Article 10 petition filed that day, and in each courthouse, one part is assigned daily to hear all intakes that day. In some boroughs, the intake part rotates between judges, and in others, one judge always does intake. The judge will assign the parent an attorney at the intake hearing—or the parent's first appearance in court—often the same day or within a few days of when the petition is filed. While legally a parent must be indigent to be eligible to receive a court-appointed attorney, in practice any parent in New York City who appears without representation will be assigned a court-appointed attorney. Many judges do not ask parents about their income or employment status before appointing an attorney. In our fieldwork, no parent was ever denied a court-appointed attorney, and in our data, almost no parents retained private counsel (2%).

When ILO contracts were first awarded, panel and ILO attorneys alternated cases either by day of the week or case by case, depending on the borough. The ILO contracts capped the total number of cases each provider could accept in a given year. Relatively low contract caps meant that ILOs reached their contracted limits quickly and subsequent cases were assigned to panel attorneys. In the early years of the program, cases were assigned to ILO or panel without any systematic difference between families that would affect outcomes. Individual panel attorneys were selected by rotation, and each ILO would select the individual ILO attorneys working on new cases on a given day.

Over several years, however, the assignment process shifted as the number of cases contracted to ILOs increased. Currently, cases are presumptively assigned to ILOs unless there is a conflict, in which case a panel attorney represents the client. Additionally, there are two uncommon reasons a panel attorney would represent a client: if a panel attorney has previously represented the client, the same attorney may be assigned for continuity, based on judge discretion (this would not apply to cases in our sample which are all first-time petitions); or if the ILO has reached their caseload cap, any new cases will be assigned to panel attorneys. A conflict means that the provider represents or previously represented the parent or another person in such a way that the interests of one case could compromise the other. For example, if a provider represents the mother in a neglect or abuse petition, that provider cannot also represent the father, because the interests of one client could potentially be at odds with the interests of the other. The assignment process varies slightly by court borough, but the ILO conducts a "conflict check" on each new family, and, if no conflict arises, the parent is assigned an ILO attorney, otherwise the parent is assigned a panel attorney by rotation. A "conflict check" usually includes asking the parent a few questions and running any names listed in the Article 10 petition through the provider's case management system to see whether the provider represents or had represented anyone in the case. The timing of shifts in assignment processes varied by borough and sometimes by the individual judge. While we were unable to gather the exact dates of the changes, we understand from stakeholders that this newer attorney assignment process did not begin in any borough until 2010 at the earliest.

The newer assignment process presents challenges to the CI assumption for PSM by suggesting that parents were assigned ILO or panel attorney based on characteristics that we cannot directly observe or include in the PSM model. To address this issue, we conducted a sensitivity analysis where we ran a PSM analysis using only cases from the early years of program implementation where conflict cases were rare. We describe these results in the Analysis 2 section.

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