***FOSTERING A PERMANENT HOME*:**
A Mixed Methods Evaluation of the ZERO TO THREE
Court Teams for Maltreated Infants and Toddlers Initiative

Kimberly L. McCombs-Thornton

A dissertation submitted to the faculty of the University of North Carolina at Chapel Hill in partial fulfillment of the requirements for the degree of Doctor of Philosophy in the Gillings School of Global Public Health (Maternal and Child Health).

Chapel Hill
2011

Approved by:

E. Michael Foster, PhD

Lisa Pearce, PhD

Jonathan Kotch, MD

Jon Hussey, PhD

Sherri Green, PhD

Abstract

KIMBERLY L. MCCOMBS-THORNTON   Fostering a Permanent Home: A Mixed Methods Evaluation of the ZERO TO THREE Court Teams for Maltreated Infants and Toddlers Initiative (Under the direction of E. Michael Foster)

Infants and toddlers are the largest group entering the U.S. child welfare system each year. This disrupted caregiving occurs at a critical period of their development. In response, ZERO TO THREE: National Center for Infants, Toddlers, and Families (ZTT) developed the Court Teams for Maltreated Infants and Toddlers initiative. In the Court Teams model, a locally-based family court judge works with a community coordinator to convene social service representatives. This local Court Team designs a plan to address the needs of young foster care recipients. The plan incorporates monthly case reviews, referral to child-focused services, and other components of the Court Team model. One goal is to reduce "time to permanency".

This dissertation uses mixed methods to evaluate the effect of the Court Teams program on time to permanency. The quantitative study compares Court Teams children from the four initial sites (n=298) with a nationally representative sample of young child welfare participants (n=511) from the National Survey of Child and Adolescent Well-Being (NSCAW). Propensity score weights and survival analysis are used to determine program effect on length of time before a child 1) moves into what ultimately becomes the permanent home, and 2) is officially discharged from foster care.

The Court Teams initiative has a significant effect on how quickly children exit foster care. ZTT children leave foster care nearly 3 times as fast as the comparison sample. The program does not, however, affect time before a child moves into what eventually becomes the permanent home. Findings also suggest that ZTT cases experience a different pattern

of exits from foster care. Reunification is most common for Court Teams cases (38%) while adoption is most prevalent for the comparison group (41%). Court Teams children appear to leave foster care faster regardless of the type of exit.

Phone interviews were conducted with project staff in each site to understand how the program works to accelerate time to permanency.   Qualitative data suggest that parental compliance with the service agreement heavily affects the case outcome. Both judicial approach and the monthly case reviews appear to contribute most to reducing time to permanency.

To the health and well-being of all young children, especially my own –

Matthew, Andrew, and Tad.

Table of Contents

List of Tables

List of Figures

List of Abbreviations

ASFA   Adoption and Safe Families Act

CASA   Court Appointed Special Advocate

CPS   Child Protective Services

NSCAW   National Survey of Child and Adolescent Well-Being

TPR   Termination of parental rights

ZTT   ZERO TO THREE: National Center for Infants, Toddlers, and Families

I. Introduction

Every year more infants enter the child welfare system than any other age group, followed by toddlers under age three. Nearly 200,000 infants and toddlers were victims of maltreatment in 2009, representing over a quarter (27%) of all new cases.(1) This disrupted caregiving occurs at a critical period of development for infants and toddlers. Children experience more rapid development during the first year of life than at any other point.(2) As the parent or caregiver is the most significant factor in the child's environment (3), lack of a stable caregiver can result in poor attachment, linked to emotional withdrawal and ultimately, behavioral issues such as poor self-regulation.(4-5)   Repeated exposure to stressful environments beginning in infancy also can harm physical health, including stress regulation and premature aging.(6) Despite these risks, infants are likely to experience longer time in foster care than older children.(5)

Foster care should provide a safe, temporary haven for maltreated children. While the children stay in foster care, the parents have an opportunity to seek services and to demonstrate their ability to provide an appropriate home for the child. The U.S. Department of Health and Human Services recognizes four ways young children can exit the foster care system: reunification, adoption, placement with a relative custodian, or placement with a non-relative legal guardian.(7) Reunification is the most common permanency goal. When parents show some progress on achieving their service plans, then reunification remains a possibility. However, when parents show only minimal progress or once parental rights are terminated and no appropriate permanent home exists, children can linger in the child welfare system. This phenomenon is known as foster care drift.(8)

The Adoption and Safe Families Act (ASFA) was enacted in 1997 to shorten the time children stay in foster care. Among its mandates, ASFA compels states to terminate parental rights (TPR) when the child has been in out of home placement for 15 of the previous 22 months (though children in kinship care are exempt)(9); hold a permanency hearing within 12 months of the child's initial placement,(10), and to have child welfare workers engage in concurrent planning to identify a suitable back up permanency plan.(8) In the three years following ASFA's enactment the mean time to exit foster care increased slightly (from 11 months to 12 months) and the median time fell (from 43 months to 39 months).(11)

ASFA also provides states an economic incentive to place children in adoptive homes. Adoptions rose 64.5% in the three years following ASFA's enactment, and then leveled off.(12) In 2008, roughly 55,000 were adopted, representing just 31% of the children eligible for adoption.(13) A multivariate analysis of the Multistate Foster Care Data Archive found no significant decrease in mean time to complete adoption since ASFA's enactment.(14) Clearly, unmet need remains.(15)

In response, ZERO TO THREE: National Center for Infants, Toddlers, and Families (ZTT) has developed the Court Teams for Maltreated Infants and Toddlers project. The goal is to minimize "time to permanency" for young child welfare participants. In the Court Teams model, a locally based family court judge works with a community coordinator to convene a team of local child welfare, legal, and service provider representatives. The court team designs a local plan and monitors implementation. The eight core elements of the Court Teams model are woven into the local planning process. Three ZTT Court Teams projects began in 2005. A total of 12 projects have been federally funded to date. Previous evaluations of the project have not included a comparison group. Without an appropriate comparison, it is not possible to determine if participant outcomes are in fact due to the program. This problem is one of causal inference.

To best understand the effect of the ZTT Court Teams program, ideally one would observe participant outcomes in the program and then the same children if they did not experience the program. The difference between their outcomes would be due to the program since all other factors would be held constant. Of course, a child cannot simultaneously participate in the treatment and comparison groups. Instead, randomization is viewed as the best approach to equalize both observed and unobserved differences between the groups. Rarely, though, is randomization an option in child welfare research. Researchers must therefore rely on statistical methods to balance the groups for comparison. Regression, the most common approach, controls for a variety of differences between the groups. Once these differences are accounted for, the researcher then assumes that any unobserved confounding can be ignored. Statisticians have long held that traditional regression techniques are not adequate to understand the true program effect.(16)

This dissertation seeks to address these issues of causal inference using a mixed methods approach. Study aims include the following:

Aim 1: Determine the effect of the ZTT Court Teams project on time to permanency.

Hypothesis 1: Children in the ZTT Court Teams initiative exit foster care at the same rate as other children in the child welfare system.

Hypothesis 2: Children in the ZTT Court Teams project move into what ultimately becomes their permanent at the same rate as other similar children.

Hypothesis 3: Time to permanency does not vary across project sites.

Aim 2: Assess the influence of the ZTT Court Teams program on how children exit the foster care system.

Hypothesis 4: Children in the ZTT Court Teams project experience a similar pattern of exits from foster care as other young children in the child welfare system.

Hypothesis 5: Children in the ZTT Court Teams initiative do not vary in the proportion

exiting the foster care system for reunification, adoption, relative

custodianship, and non-relative guardianship.

Aim 3: Examine successful and unsuccessful cases to understand how program components and/or client characteristics contribute to time to permanency.

This study addresses design flaws in previous evaluation work, providing much stronger insight into the program's effect on time to permanency and key factors influencing this outcome. Mixed methods are used, beginning with secondary analysis of quantitative data and following up with primary qualitative data. Mixed methods provide insights that could not be gained solely from one method.(17) Using mixed methods can also work to reduce bias (18) as the limitations of one method are offset by the strengths of the other.(17)

This evaluation targets the initial four Court Teams sites.[1] The outcomes analysis compares ZTT Court Teams participants with similar cases identified from the National Study of Child and Adolescent Well-Being (NSCAW). Effects of the ZTT Court Teams program on time to permanency and types of exits from foster care are analyzed using propensity score analysis and survival analysis techniques. The propensity score represents an alternative approach for adjusting between-group comparisons for differences in observed characteristics and have several advantages over typical regression.(19)

The qualitative analysis is based on interviews conducted with the ZTT community coordinators in each of the four sites to understand how program components and key client characteristics influence to time to permanency. A "unique case orientation" approach is used to highlight programmatic differences for children who reached permanency the quickest compared to those who took the longest. Data collection and analysis for this dissertation was approved by the IRB at the University of North Carolina at Chapel Hill.

---

[1] The other sites are omitted as they started later and had very few cases, if any, to reach permanency by 12/31/2009.

The researcher has worked in program evaluation of services for children and families for nearly 20 years. Most recently, she served as the internal evaluator for the Court Teams Project for Maltreated Infants and Toddlers at ZERO TO THREE in Washington, DC. This involved working with child welfare systems and family court judges in five communities across the country. While there, she developed data collection tools including system-wide surveys and a web-based management information system to track data in each site. This dissertation is an outgrowth of that work.

II. Background

II.1 Infants enter the child welfare system each year at a much higher rate than older children; toddlers experience the second highest rate.

Over 187,000 children under age three entered the child welfare system in 2009. According to Child Maltreatment 2009, the most recent U.S. Department of Health and Human Services (HHS) annual report, infants up to age one experienced the highest rate of reported victimization (20.6 per 1000). Toddler ages one (11.9 per 1000) and two (11.3 per 1000) had the next highest rates. Over a quarter (27%) of all new cases in 2009 were children under age three. Neglect was the leading reason for referral to child welfare for all children. Nearly four-fifths (78.3%) of victims all ages were referred for neglect and 17.8% were referred for physical abuse.(1) These age-related trends have persisted over time and are evident in other studies of the child welfare population.(5, 20-22)

During the 1980's, the proportion of infants in foster care rose dramatically. In 1986, children under the age of one represented approximately 15% of the caseloads in Illinois, Michigan, New York, and Texas. In just three years, infants accounted for 25% of these same caseloads.(5) Researchers explain part of this influx due to increases in maternal alcohol and drug abuse during pregnancy.[2](5, 20) For instance, the U.S. General Accounting Office reported an increase in prenatal drug exposure from 29% to 62% between 1986 and 1991 among children under age three in foster care.(23) Other studies have found a similar trend of significant increase in prenatal drug exposure over time.(5) This growth in drug exposure is likely linked to an early removal of the newborn.(24)

---

[2] These authors appear to assume that the increase represents a true increase in substance abuse rather than an improvement in the ability to detect the substance abuse during pregnancy. In reality, the increase may represent both actual change in substance use during pregnancy as well as improved techniques to detect it, including medical providers who are simply more aware and ask about it.

Increases in reports of child abuse, the impact of welfare reform during the 1990's, and the effect of poverty on reunification may also contribute to the increase in young children in the child welfare system.(20)

II.2 The developmental needs of young children are time sensitive.

In 2000, *From Neurons to Neighborhoods: The Science of Early Childhood Development* triggered a sharp focus on brain development in young children. The book reflected the efforts of many scientists brought together by the National Research Council to review empirical studies in the field. The result was a paradigm shift. They concluded that both nature and nurture are key in shaping development in young children. Infants come into the world ready to learn and interact with others (nature) and as such are highly affected by their environments (nurture).(2)

Young children experience a natural progression through developmental stages.(25) Children generally enter each stage at certain ages. Scientists view these transition points as developmental windows that are open for only certain periods of time.(2) Success with one stage lays the foundation for the following stage.(25) Missed opportunities to address developmental needs during those periods represent a loss that can take much caring and support to overcome at a later time.(2)   Developing competence in a stage depends on both the child and his or her environment.(25) Bandura's social cognitive theory, evolving from earlier work in social learning theory, has long argued that the parent is the key factor in the child's environment.(3) Evidence of the child's attachment with a caregiver is manifest before the first birthday.(5)

II.3 Infants and toddlers in child welfare face acute challenges to their development.

Infants are more likely than older children to be placed in foster care and to experience longer time in out of home placement.(5) Long stays in foster care and multiple

placements have been found to have a negative effect on children's mental health.(7) For young children, this manifests as heightened risk of failing to develop a secure attachment with a primary caregiver.(5) Removal from their primary caregiver occurs at a key developmental window. Lack of a stable caregiver at the stage when young children naturally develop attachment can lead to anxious or disorganized attachment. Anxious attachment results in clingy and overly dependent behavior that the child often continues to display throughout the primary school years. Disorganized attachment is related to difficulty coping with social situations. Both forms of insecure attachment have been associated with child neglect.(26) The absence of a secure attachment can ultimately lead to a formal diagnosis of disorders of nonattachment as outlined in the DSM-IV. Such a diagnosis is evidenced by emotional withdrawal and/or indiscriminate sociability, where the child does not display an appropriate fear of strangers. These can later result in behavioral issues with self-regulation and self-preservation.(4)

Research also indicates that exposure to stressful living environments in early childhood can have a biological impact. The body normally develops the ability to regulate itself in times of stress during infancy. This regulation ability can be damaged when the child experiences repeated stressful situations.(6) It is likely that many young children in the child welfare system have been exposed to these recurring stressors.

II.4 ASFA seeks to expedite the time to reach a permanent, stable home for children in child welfare.

In 1997, the U.S. Congress passed the Adoption and Safe Families Act (ASFA). ASFA was intended to address concerns with the Adoption Assistance and Child Welfare Act of 1980 and its singular emphasis on reunification. ASFA's primary aims were to ensure the safety of children and prevent foster care drift as evidenced by children moving through

8

multiple foster care placements over an extended period of time. The legislation was designed to accomplish this through a series of changes including(8):

- Requiring states to terminate parental rights (TPR) when the child has been in out of home placement for 15 of the previous 22 months (though children in kinship care are exempt)(9)

- Allowing states to forego pursuit of reunification for extreme cases of abuse

- Mandating child welfare workers to develop concurrent or back up plans early on to expedite a permanent placement if case reunification is not achieved

- Allowing adoption across state and county lines

- Requiring that a permanency hearing be held within 12 months of the child's initial placement(10)

In addition to state requirements, ASFA included other provisions to decrease the time to permanency for children and increase adoptions. States would receive an economic incentive for each child placed in an adoptive home. These incentives were further supported in additional legislation including the Adoption Promotion Act of 2003.(8) The U.S. Department of Health and Human Services was also charged with working with the states to develop benchmarks for child welfare outcomes to monitor duration in foster care, number of placements, and number of adoptions.(27-28)

II.5 A permanent home may include family reunification, traditional adoption, placement with a relative custodian, or placement with a non-relative legal guardian.

Foster care is intended as a temporary intervention. The goal for the child is to be placed in a permanent home. Reunification with the birth parent is the most common permanency goal. Given the breadth of issues parents present including substance abuse and mental health issues, reunification is not possible for all children. The U.S. Department of Health and Human Services (HHS) has employed multiple definitions of permanency.

One view includes a stable living environment that preserves the family relationship and culture.(27) Such a definition leans toward supporting family reunification and kinship care. More recently, HHS employed a broader definition, indicating that a child has reached permanency when he or she leaves foster care and is either 1) reunified with the parent, 2) living with other relatives, 3) legally adopted, or 4) living with a legal guardian.(7)

II.6 More children appear to be reaching permanency since ASFA's enactment, though the need is still great.

One goal of ASFA was to increase the number of adoptions. State reports to HHS in the annual Adoption and Foster Care Analysis and Reporting System (AFCARS) indicate that adoptions rose 64.5% in the three years following ASFA's enactment, from 31,030 adoptions nationwide in 1997 to 51,050 in 2000. Despite the increases, unmet need persists. The number of adoptions quickly leveled off, varying between approximately 50,000 and 52,000 from 2001 to 2004.(12) This represents only 28% of children eligible for adoption during these years. In 2008, roughly 55,000 were adopted, representing just 31% of the children eligible for adoption.(13) Moreover, it is difficult to determine to what degree these improvements are due to ASFA. Several states moved toward increasing adoption before ASFA began. There is also a lack of comparable longitudinal data necessary to understand ASFA's role.(11, 14) This is largely due to the fact that ASFA itself mandated the development of a uniform data reporting system, with none existing before the law's enactment.(8)

The impact of ASFA on reunification is even less clear. The U.S. General Accounting Office asserts that lack of comparable longitudinal data makes it more challenging to determine ASFA's impact on reunification.(11) Review of AFCARS data indicate a slight decrease in reunifications from 59% of foster children in 1999 to 57% in 2001.(8)

II.7 Despite ASFA, time to permanency remains a concern.

In addition to increasing the number of adoptions, ASFA was designed to lessen the time in foster care. AFCARS data indicate that children who exited foster care in 1998 stayed an average of 11 months. This increased to a mean of 12 months by 2000. However, the median time in foster care for adopted children decreased from 43 months in 1998 to 39 months in 2000.(11) Only a few have conducted more sophisticated analyses to determine the effect of ASFA on time in foster care. One study used the Multistate Foster Care Data Archive. While these data are not nationally representative, they do included administrative data on entrances and exits to foster care for many of the largest states, representing approximately half of all children in foster care.(5) Using cohort analysis with discrete time hazards models, this study revealed no significant decrease in mean time to complete adoption.(14) While this analysis controlled for age of entry into foster care, it did not test for age related differences in time to permanency.

Another assessment using NSCAW, a longitudinal study of a nationally representative sample of child welfare participants beginning in 1999, did consider time to permanency solely for infants. This study showed that by the five year follow up of those who had entered foster care as infants and were deemed eligible for adoption, 61% had been adopted. Of those who had been adopted, 85% were placed in their adoptive home within the first 12 months of life.(29) It is not clear if these results represent a change in length of stay in foster care since NSCAW data were only collected well after ASFA's implementation. Moreover, the results only reflect those adopted, not those still waiting for adoption after five years, nor time to permanency for those reunified with their family or placed with a legal guardian. While evidence is limited, it is clear that ASFA has not brought about improvements for the children in foster care to the degree intended.(15)

II.8 Research indicates several key predictors of time to permanency

   Studies on time to permanency exhibit methodological challenges.(30) Many are not nationally representative, relying on data from just one state or a group of states. They also differ in the length of time cases are followed. The move toward use of advanced statistical methods such as survival analysis, however, has begun to address some of these issues. Based on current research, duration of time in foster care has been consistently linked to several key predictors. The following indicators are commonly shown (to varying degrees) to be linked to time to permanency, even after for controlling for other variables.

Child's Age

   The child's age is a primary predictor of time to permanency. Infants are more likely to stay in out of home placement longer than older children.(5, 20, 31-32) Analysis of data from the Multistate Foster Care Data Archive found that infants (under age one) stayed a median of 27 months in out of home placements. This compares to a median of 17 to 18 months for one to three year olds and a median of less than 12 months for four to seventeen year olds.(5) While these data are not nationally representative, they do provide a longitudinal view of nearly half the national child welfare cases. In another study of California children placed in non-relative foster care, children age seven to twelve were 44% (p<.01) more likely to reach permanency in 3.5 years compared to infants under age one, and those age four to six were 55% (p<.05) more likely.(30)

Child's Race/Ethnicity

   Child's race is also a major predictor of time to permanency. African-American children have persistently been found to stay in foster care longer, even after controlling for other variables related to permanency.(15, 33-34) While not all studies control for SES indicators, those that have controlled for variables such as poverty status or Medicaid

enrollment find that the race effect remains.(15, 35) Analysis of the AFCARS found that Caucasian children were more likely to be adopted while African-American and Latino children were more likely to remain in foster care.(36) A California study found that 33% of African-American children were still in out of home placement six years after initial placement in traditional foster care. This compares to 11% of Caucasian children.(31) Another analysis of California cases found African Americans were over 40% less likely to reach permanency within 3.5 years.(30) A study of Florida cases found that non-white children were 26% less likely (p<.001) to reach permanency within 12 months of initial placement compared to white children.(15) One longitudinal multi-state cohort study using survival analysis found that the effect of race has shrunk over time.(34) Research sheds less light on why racial differences persist. Some suggest they are due to life circumstances and the child welfare system (34), yet little work has been published further developing and testing these theories.

Placement Type

      A growing body of literature is concerned with the effects of kinship care compared to non-relative care.(37-38) Many studies indicate that children placed in kinship care remain in out-of-home placement for longer than children placed in non-relative care.(27, 39-40) In a study of a large California county, children stayed in kinship care an average of 10 months compared to two months for those in non-kinship care before exiting foster care.(27) Likewise, a major meta-analysis found an overall effect size of OR=2.24 (p<.001), indicating that children in kinship care were significantly more likely to still be in care at the end of the study period compared to children in non-relative care.(38) However, one study using more advanced techniques to control for selection into kinship care found that significant differences in permanency outcomes between those in kinship care and non-kinship care disappeared with propensity score matching.(41)

<u>Reasons for Removal</u>

Type of maltreatment appears to play a lesser role in predicting time to permanency. An analysis of AFCARS data revealed that neglect was positively related to the likelihood of adoption over time while physical abuse was more predictive of remaining in foster care. While these differences are statistically significant, the authors caution that this is due to the very large sample size and point to their small effect sizes.(36) Similarly, a study of over 8000 children entering the California child welfare system found that neglect increased the likelihood of reunification when controlling for other predictors while physical abuse decreased the probability of adoption.(35) Yet when the same researchers stratified children on placement type in a different study, only sexual abuse was significantly predictive of reunification (risk ratio = 1.930 relative to neglect, p<.05). This relationship was limited to children placed in a non-kin foster home. Children experiencing physical abuse also spent more time on average in foster care compared to those whom had been neglected, but this was not statistically significant.(30) All studies appear to rely on measures of maltreatment type provided by the child welfare system, without discussion of measurement error or verification processes.

<u>Parental Factors</u>

Parental characteristics such as substance abuse, mental illness, and domestic violence are often predictive of child maltreatment.(23, 42-49) Multivariate analyses indicates that substance abuse, in particular, is linked to several of the variables related to time to permanency. For instance, children of parents with substance abuse issues are more likely to experience neglect, to be younger and to placed in kinship care.(44) Other studies using logistic regression have also found parental substance abuse is associated with a placement in kinship foster care.(50) Literature on parental mental illness and domestic violence largely documents their negative effects on child behavior, with less

discussion of time to permanency.(46-47) Research does indicate that parents with mental illness have been more likely to have their parental rights terminated since the passage of ASFA.(47, 51)

Number of Placements

Placement instability is commonly referred to in the literature as linked to longer time in care.(52-53) Yet, very few studies have actually tested the effect of the number of placements on length of time in foster care. In a study of 200 children entering child welfare in Australia in the 1980's, children with more than two placements were found to wait 5.8 times as long for permanency compared to those with one or two placements.(54) A more recent study with nationally representative AFCARS data found only a weak effect for number of placements.(36)

Type of Permanency Outcome

Studies find that adoption generally requires more time in care than reunification.(34) Time to adoption placement is traditionally longer than time to reunification, requiring the time to reach the verdict terminating parental rights. These studies typically use the date the adoption is finalized rather than the date the child initially moves in with the adoptive parent. Type of permanency outcome is also related to age, race, and type of placement. Infants are more likely to be placed in an adoptive home than older children.(5, 33, 35) Similarly, white children are more likely to have adoption as their permanency outcome.(31, 36) A meta-analysis found that children placed in traditional, non-kinship, foster care were 2.5 times as likely (p<.001) to have adoption as their permanency outcome than children in kinship care.(38)

<u>Other Factors</u>

Poverty may also play a role in time to permanency. Welfare eligibility has been found to be related to a 15% to 30% decrease in the probability of reaching permanency within 3.5 years.(30, 35) Similarly, other research found that those already enrolled in Medicaid prior to foster care were significantly less likely to have a successful exit within 12 months.(15) Studies have also indicated a link between urban locations and longer time in foster care.(15, 34) Children with developmental disabilities have been shown to stay in foster care longer in several multivariate analyses.(15, 33, 35) In addition, preliminary research shows that concurrent planning is linked with reaching permanency within 12 months as well as shorter foster care duration in general.(55-56) In this case, a second plan is developed at the same time as the permanency plan to serve as a back-up in case the initial permanency plan falls through. Case workers are to be working toward both plans simultaneously.(56) Child's gender, on the other hand, is not a significant predictor of time to permanency across studies.(33)

II.9 The ZERO TO THREE Court Teams project is designed to expedite permanency for young children in the child welfare system.

ZERO TO THREE: National Center for Infants, Toddlers, and Families (ZTT) has designed and implemented the Court Teams for Maltreated Infants and Toddlers project to address the needs of young child welfare participants. The intervention is community-based, targeting infants and toddlers under the age of three entering the local child welfare system. The core of the Court Teams model consists of a family or juvenile court judge, community coordinator, and the local court team. The judge and community coordinator work together to convene local child protective services (CPS) staff, legal representatives, and service providers to form the team. This court team is charged with identifying the needs of young children in the local child welfare system and developing a plan for

addressing these needs. This plan incorporates components of the Court Teams model including monthly case reviews, referral to child-focused services, mental health intervention (i.e., child-parent psychotherapy), evidence-based parenting education,[3] and ZTT national office activities (i.e., training and technical assistance, resource materials, and program monitoring and assessment).(57-58) Much of the training emphasizes early childhood development and the use of kinship care and increased visitation to maintain the parent-child bond. The local court team meets regularly to review progress.

The local court team also determines how children will be selected to participate in the program. Across the sites, nearly all cases assigned to the Court Teams judges have entered into the program. Assignment to judges is based on age (e.g., all infants and toddlers are assigned to the Court Teams judge in a site) or random assignment, depending on the site. In one project, a temporary hold on taking new cases was issued at one point due to community coordinator overload. Only one case is known to have refused participation.

ZTT works closely with the National Council of Juvenile and Family Court Judges to identify those interested in bringing a court team to their community. Three ZTT Court Teams projects began in 2005.(57-58) A total of 12 projects have been funded to date. Four of these projects have cases that reached permanency by end of 2009. Nearly all ZTT Court Teams projects have been funded with federal grants. ZTT has worked closely with Congress to introduce the Safe Babies Act. If passed, this law will establish a funding stream for Court Teams projects and a National Court Teams Resource Center to provide them technical assistance.(59)

---

[3]ZTT encourages court teams projects to work with local providers to implement parent education EBP's listed in the National Registry of Evidence Based Programs and Practices located on the Substance Abuse and Mental Health Services Administration (SAMSHA) website. The child-parent psychotherapy component is based on research lead by Dr. Joy Osofsky at Lousiana State University School of Medicine. Dr. Osofsky's research in turn adds to the body of knowledge initiated by Dr. Selma Fraiberg and many other early childhood researchers.

II.10 The ZTT Court Teams program addresses each level of the Social Ecological Model.

       Bronfenbrenner's social ecological framework is commonly used to understand public health problems. In the social ecological model, the individual is viewed in relation to his or her environment. The environment includes the relationships with those close to the individual or "micro" level; the systems with which the individual commonly interacts or the "meso" system; the social norms and standards of the community, called the "exo" system; and lastly, the larger cultural context represents the "macro" system.(60) Child maltreatment is often understood within Bronfenbrenner's ecological model. The U.S. Centers for Disease Control and Prevention (CDC) has used the ecological model for illuminating the role that different systems play in the causes of child maltreatment. The CDC simplifies the model to three levels surrounding the individual including the relationship, community, and societal levels.(61)

       Applying the social ecological model to the ZTT Court Teams initiative illustrates the various systems the program engages to support child development and reduce time to permanency. Court Teams activities are reflected in each level of the model. Figure 1 below illustrates the systems that ZTT targets. The blue circles represent the micro or relationship level with respect to the young child. The temporary caregiver, primary parent, and in many cases, other relatives are all engaged with the child to varying degrees. To impact this level, ZTT supports increased visitation beyond the typical once per week as well as the use of kinship foster care and/or placement in a foster home willing to adopt the child. The community level, represented as the green circle, depicts the various systems involved with the child. ZTT works to educate judges and the local court team about early childhood development. It also encourages representatives from various systems who work with the child to meet monthly to review case progress and engage in concurrent planning. ZTT's work at the societal level is best represented by its role in the Safe Babies Act. With

activities aimed at all levels of the ecological model, the ZTT Court Teams program may be more likely to achieve its desired outcomes.[4]

Figure 1: ZTT Court Teams Activities Related to Social Ecological Model

II.11 Prior evaluation of ZTT Court Teams activities have yielded positive results, but the methods have been quite limited.

ZTT has included a project monitoring and data collection component since the inception of the project. While internal evaluation activities have provided information about program implementation and client status, they have not included a comparison group.(58) Without an appropriate comparison, it is not possible to conclude that participant outcomes are actually due to the program itself. This is a problem of causal inference.(62) In 2006 James Bell Associates (JBA) was awarded a grant from the U.S. Department of Justice, Office of Juvenile Justice and Delinquency Prevention (OJJDP), to evaluate the ZTT Court Teams program more extensively. JBA studied closed cases in the three original sites

---

[4] Figure 1 applies the CDC version of the ecological model to the ZTT Court Teams initiative. Using the original levels from Bronfenbrenner's approach, the three relationship circles (in blue) correspond to the micro level. The systems level (in green) represents the meso level. And, the societal level (in yellow) represents both the exo and macro levels. Note that ZTT's work focuses less on the exo and macro levels and more on the levels closest to the child.

through 2008. They found that 95% of the closed cases had achieved permanency. JBA calculated time to permanency based on ZTT's own definition, that is, the length of time until the child moves into what ultimately becomes the permanent home. Of the nearly half who were reunified, 59% moved home within 12 months of the initial court date and another 37% were reunited within 18 months. Reunification was linked to the longest time to permanency. Children who were reunified were in foster care a median of 173 days before moving into what ultimately became the permanent home. Those who had a permanent placement with a fit and willing relative were in foster care a median of 90 days before first moving in with that relative. Initial placement in a home that eventually became an adoptive home only required a median of 47 days.(57) This may reflect ZTT's efforts to place children with foster parents who express willingness to adopt the child if reunification is not possible.

JBA also proposed to collect data on a comparison group of young children who entered the court system prior to the project in the initial ZTT sites. Efforts to collect these data were difficult, yielding comparison data on only a small number of children.(57) Without an adequate number of matched comparison cases, issues of causal inference remain.

II.12 Objectives of Current Study

This study builds on previous evaluation efforts, using data and statistical techniques to address the issues of causal inference. In particular, this dissertation 1) assesses time to permanency for the ZTT Court Team intervention using propensity score analysis with a nationally representative comparison group, 2) compares the types of exits from foster care for the ZTT children and the comparison group, and 3) identifies key program components and client traits which affect time to permanency based on interviews with community coordinators.

II.13 ZTT Court Teams Program Logic Model

The logic model is a widely used tool in program evaluation.(63) It provides the program theory, a realistic illustration of how the program is designed to achieve its objectives.(64) In particular, the logic model shows the theorized links between the key program components and their intended outcomes. Designing a logic model is a common first step in evaluating a program.(65-66) Figure 2 is a logic model for the ZTT Court Teams program. The logic model illustrates the theory of change, how case-centered activities, local court team decisions, and technical assistance from the national office are intended to bring about three long term outcomes, namely decreasing time to permanency, reducing recurrence of maltreatment, and improving child well-being.

The current evaluation focuses on time to permanency measured in two ways. The first is the length of time until the child is officially discharged from the child welfare system, referred to here as time to "official" permanency. The second is the time until the child moves into what ultimately becomes the permanent home, called "move in" permanency in this research.[5] The program goal is to minimize this "time to permanency," regardless of whether the permanent placement is with the biological parent, a relative, or an adoptive home. This shortens the window in which the child is in flux, increasing the likelihood that he or she can foster a positive attachment with a caregiver. Longer term outcomes involving improved child well-being and reduction in maltreatment recurrence are beyond the scope of this study. While data are available on recurrence, a much longer follow up period is necessary to understand recurrence throughout childhood. Data are not currently available on changes in child well-being.

---

[5] Studies on time to permanency often consider the time required before an adoption becomes final. In most cases, the child has been living with the would be adoptive parent(s) long before the judge finalizes the adoption. ZERO TO THREE posits that children are more aware of the actual move into the home (and change of caregivers) than the official adoption date. Therefore, the program focuses on the date the child moves into what eventually becomes the permanent home.

**Figure 2: ZTT Court Teams Project for Maltreated Infants and Toddlers
Logic Model**

RESOURCES

Judge:
- To provide local leadership

ZTT Community Coordinator:
- To work with judge
- To staff project

Community Organizations:
- Judicial system
- Child welfare
- Early intervention (Part C)
- Private social service providers
- Mental health
- Substance Abuse
- CASA
- Healthcare
- etc.

ZTT National Staff:
- Project Director
- Assistant Director
- Writer
- Administrative Assistant
- Evaluator

National Advisory Committee and Expert Work Group

Federal funding:
- OJJDP grants

PLANNING ACTIVITIES

Systems Coordination:
- Court team (CT) formed.
- CT meets monthly.
- Project conducts community needs assessment
- CT assesses community capacity to provide early childhood mental health services
- CT sets goals for system change and coordination

Individual Cases:
- Court team develops plan to expedite services and outcomes for individual cases
- Case plan to include child services

Provider Education:
- Court team plans community-wide training on impact of maltreatment on early development
- ZTT plans continuing training and TA activities

National Activities:
- ZTT plans national court team gatherings
- ZTT determines design of resource materials
- ZTT develops evaluation plans
- ZTT seeks funding for projects

IMPLEMENTATION ACTIVITIES

Case Monitoring
- Community Coordinator assists in identifying and coordinating available services, facilitating communication and tracking data
- Key providers participate in monthly case review to monitor case status by:
  - identifying and overcoming barriers to service delivery
  - promoting coordination of services
  - promoting frequent visitation
  - increasing stability of placement
  - ensuring concurrent planning
  - referring child for Part C services
  - referring child for comprehensive health care assessment
- Clients meeting criteria in protocol are referred for child-parent psychotherapy

Court Team Activities
- Court team continues to meet monthly
- Monitors implementation of plans for expediting services to clients
- Discuss ways to operationalize opportunities through systems change
- Identify and share information about funding, services, service gaps, etc.
- Community Coordinator disseminates CT activities to appropriate audiences

ZTT manages logistics and provides national experts for:
- community-wide training day
- additional training topics such as visitation, etc.
- training for mental health clinicians

ZTT organizes all-site meetings and other opportunities for sites to gain and share new information, etc.

ZTT develops video & guide, website, and policy briefs

ZTT implements evaluation

Child-parent psychotherapy is offered to a subset of clients
- ZTT trained mental health professionals provide therapy
- Intervention evaluated by outside experts

Clients referred to other services that support the parent-child relationship such as Early Head Start

SHORT-TERM OUTCOMES

Increased access to health services for children

Increased access to early intervention (Part C) services

Reduction in number of placements per child

Increase in concurrent planning

Increase in frequency of visitation

Increase in informal collaboration among participating agencies

Judges and other professionals increase knowledge and skills in:
- effects of maltreatment on early development
- strategies to improve child well-being
- approaches to fostering court and community collaboration
- local resources and available funding
- etc.

INTERMEDIATE OUTCOMES

Increase in % with up-to-date immunizations

Decrease in number of unmet health needs

Through increased use of Part C services and other activities, children's developmental needs will begin to be addressed

Improved parenting skills and commitment to child's needs

Improvement in parent-child relationship

Increase in more formal collaboration activities

Professionals apply knowledge in their work; Courts and providers make appropriate decisions for young children

Professionals share knowledge with colleagues beyond the court team

Professionals seek more knowledge

More efficient system; better use of resources to serve infants, toddlers, and their families

LONG-TERM OUTCOMES

Improved well-being of children age 0-3 in child welfare

Reduction in recurrence of substantiated reports of abuse or neglect in families

Decrease in time to permanency

II.14 Significance

This research has direct implications for the ZTT Court Teams program as well as broader insights for other interventions, nonprofit managers, and funders. First, this study provides considerably greater insight into the effectiveness of the ZTT Court Teams program. By creating a comparison group from the NSCAW study and using quasi-experimental methods, this analysis yields results that better isolate the program effect. In essence, it addresses the issue of causal inference. Results based on rigorous methods should inform future funding efforts. Findings will emerge at a key time, providing evidence to Congress on the program's degree of effectiveness as it considers the Safe Babies Act, designed to write Court Teams into law. In addition, the qualitative work will yield details about program and systems operations that are not evident in the quantitative data. ZTT may use these results to modify the model or address specific site level issues.

Along with the programmatic results, this study will suggest new evaluation and quality improvement methods for nonprofit managers, evaluators, and funders. The use of a nationally representative comparison group may serve as a model for others to seek out secondary data as appropriate comparison groups for their projects. This may be an especially important opportunity for funders who do not traditionally fund costly third party evaluation (e.g., United Ways, many smaller foundations). The methods used in the qualitative case studies can also serve as an innovative approach to quality improvement.

III. Manuscript 1: The Effect of the ZERO TO THREE Court Teams Initiative on Time to Permanency – A Propensity Score Time-to-Event Analysis

III.1 Introduction

Children under age three are the largest group entering the U.S. child welfare system each year. Nearly 200,000 infants and toddlers were victims of maltreatment in 2009, representing over a quarter (27%) of all new cases. According to the U.S. Department of Health and Human Services, infants up to age one experienced the highest rate of substantiated victimization reported to child welfare (20.6 per 1000), followed by one year olds (11.9 per 1000) and two year olds (11.3 per 1000) with the next highest rates. Four out of five of victimized children were referred for neglect.(1)

This disrupted caregiving occurs at a critical period of development for infants and toddlers. Children experience more rapid development during the first year of life than at any other point.(2) As the parent or caregiver is the most significant factor in the child's environment,(3) lack of a stable caregiver can result in poor attachment, linked to emotional withdrawal and ultimately, behavioral issues such as poor self-regulation.(4-5) Repeated exposure to stressful environments beginning in infancy also can harm physical health, including stress regulation and premature aging.(6) Despite these risks, infants are likely to experience longer time in foster care than older children.(5)

In response, ZERO TO THREE: National Center for Infants, Toddlers, and Families (ZTT) has designed and implemented the Court Teams for Maltreated Infants and Toddlers project to address the needs of young child welfare participants. One goal is to reduce "time to permanency". In the Court Teams model, a locally based family court judge works with a community coordinator to convene a team of local child welfare, legal, and service provider

representatives. The court team designs a local plan and monitors implementation. The eight core elements of the Court Teams model are woven into the local planning process. ZTT works closely with the National Council of Juvenile and Family Court Judges to identify those interested in bringing a court team to their community. Three ZTT Court Teams projects began in 2005.(57-58) A total of 12 projects have been federally funded to date. Four of these projects have cases that reached permanency by end of 2009.

ZTT has included a project monitoring and data collection component since its inception. While internal evaluation activities have provided information about program implementation and client status, they have not included a comparison group.(58) In 2006 the U.S. Department of Justice, Office of Juvenile Justice and Delinquency Prevention (OJJDP) awarded a grant to a third-party evaluator to assess the ZTT Court Teams program more extensively. This evaluation of the project found promising results but was limited in scope. It focused solely on closed cases (n=88) through 2008 in the three original sites. Over half of the closed cases moved into a permanent home within 12 months of case opening. Another 40% reached permanency within 18 months.(57) Evaluators were challenged to locate an adequate number of court records in each site to form a comparison group of children in the system before the program was implemented. Without an appropriate comparison, it is not possible to determine if participant outcomes are in fact due to the program. This problem is one of causal inference.

This study addresses design limitations in previous evaluation work, providing much stronger insight into the program's effect on time to permanency. A propensity score analysis is used to compare ZTT Court Teams participants with similar cases identified from the National Survey of Child and Adolescent Well-Being (NSCAW). In particular, propensity score weights are applied to a time-to-event analysis to determine program effect on time to permanency. This process presents an innovative approach for other program evaluators

who rely on observational data. This paper is the first in a series assessing the effect of the ZTT Court Teams project on time to permanency.[6]

This paper begins with an overview of the ZTT Court Teams program. It then describes study methods including a description of both data sets as well as a discussion of propensity score analysis. Results from the descriptive analysis and the time-to-event analysis are shared. The paper concludes with a discussion of study findings and limitations.

III.2 Program Background

III. 2.1 ZTT Court Teams for Maltreated Infants and Toddlers Program Overview

The ZTT Court Teams program is community-based , targeting infants and toddlers under age three entering the child welfare system. The core of the Court Teams model consists of a family or juvenile court judge, community coordinator, and the local court team. The judge and community coordinator work together to convene local child protective services (CPS) staff, legal representatives, and service providers to form the team. This court team is charged with identifying the needs of young children in the local child welfare system and developing a plan for addressing these needs. This plan incorporates components of the Court Teams model including monthly case reviews, referral to child-focused services, mental health intervention (i.e., child-parent psychotherapy), evidence-based parenting education, and ZTT national office activities (i.e., training and technical assistance, resource materials, and program monitoring and assessment).(57-58) The court team meets regularly to review progress.

The local court team also determines how children will be selected to participate in the program. Across the sites, nearly all cases assigned to the Court Teams judges have entered into the program. Assignment to judges is based on age (e.g., all infants and

---

[6] Approval has been given by the IRB at the University of North Carolina at Chapel Hill.

toddlers are assigned to the Court Teams judge in a county) or random assignment, depending on the site. Most sites work to maintain an active caseload of 20 to 25 cases at any time, though only one site is known to have actively put a temporary hold on taking new cases at one point due to community coordinator overload. Only one case in the original sites is known to have refused participation.

III.2.2 Definition of "permanency"

The U.S. Department of Health and Human Services (HHS) considers a child to have reached permanency when he or she is released from foster care and reunified with a parent or caregiver, legally adopted, placed with a relative who becomes the legal custodian, or living with another type of legal guardian.(28)   The ZTT Court Teams program seeks to decrease the time required before the child is officially discharged from foster care. In addition to this time to "official" permanency, ZTT considers permanency from the child's perspective. The young child may be unaware of the official determination date, but quite sensitive to a change in caregiver and the physical environment. Thus, the program also considers permanency in terms of how much time passes before the child moves into what ultimately becomes the permanent home. The emphasis is on seeking an early foster care placement in a home that could eventually become a permanent home (such as with a relative or a foster adopt home) if reunification with parents is not possible. This focus on placement in a potential permanent home is meant to increase the child's stability and encourage a positive attachment with a long-term caregiver.

III.3 Methods

III.3.1 Data Sources

This study utilizes two key data sources. The ZTT Court Teams management information system (MIS) supplies information on program participants (the treatment

group). The National Survey of Child and Adolescent Well-being (NSCAW) provides data for the comparison group.

III.3.1.1 ZTT Court Teams Management Information System (MIS)

The ZTT community coordinators routinely collect and enter client level data using a secure, web-based system. Community coordinators gather the data from the CPS family service plan or other child welfare documents, information shared at monthly case review meetings for each family, court hearings, other discussions they have with service providers and child welfare workers. De-identified data are available on child background, service needs and usage, visitation, placements, and time to permanency. The current study involves 298 ZTT cases, including all children in the initial four sites who entered the project by 12/31/2009. It includes data collected through September 2010, representing a follow up period of one year or more for 94% of ZTT cases.

III.3.1.2 National Survey of Child and Adolescent Well-Being (NSCAW)

A comparison group is drawn from NSCAW, a nationally representative, longitudinal study of children involved in the child welfare system. The data are a probability-based sample of both open and unopened cases that entered the child welfare system from October 1999 to December 2000.(67) NSCAW has collected five waves of longitudinal data, primarily using trained interviewers to administer a uniform computer assisted personal interview (CAPI). Data are extensive, covering family risks, child living environments, services needed and received, child behavior, and child development, among other topics. During most waves, data were collected from the child welfare worker, parent/caregiver, and the child.(68) This current analysis uses the child welfare worker data in order to most closely reflect ZTT's own reliance on data collected from CPS/professional sources. The comparison group for this study is selected based on the criteria used for ZTT enrollment,

28

namely, experience of a child welfare supervised out of home placement before the age of three. A total of 511 NSCAW cases meet the criteria for the comparison group.

III.3.2 Measures

The ZTT MIS and NSCAW both contain a variety of measures on the children and their families. The analysis is limited to measures available in both datasets.
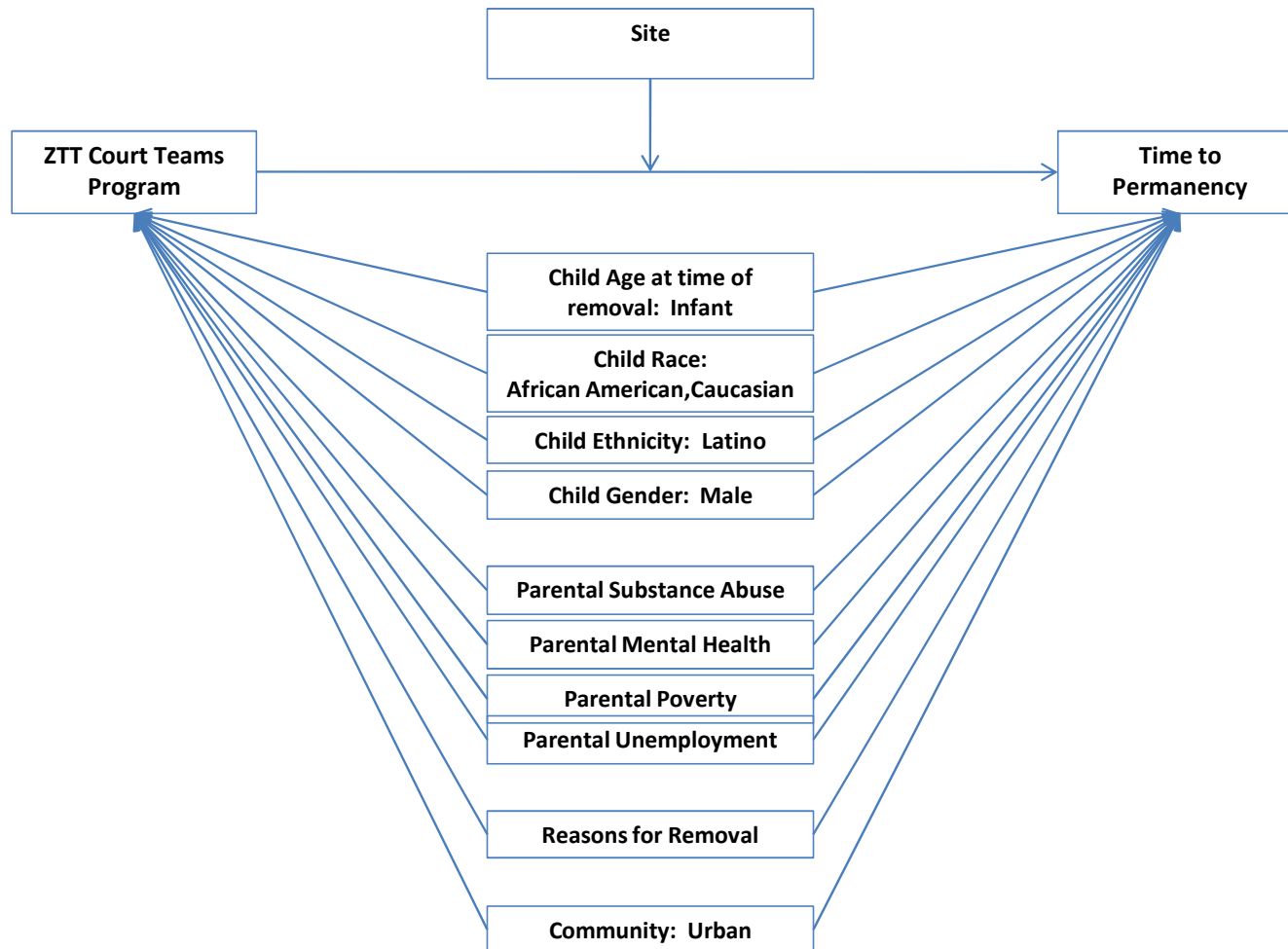
III.3.2.1 <u>Conceptual Model</u>

A conceptual model is useful for identifying key variables for inclusion in the statistical analysis and illustrating the theorized relationship among those variables. Figure 3 provides a conceptual model for this study. The line between ZTT Court Teams program (key independent variable) and time to permanency (dependent variable) represents the core relationship this analysis seeks to understand. Items below this line reflect variables the literature finds are linked to both time to permanency as well as participation in the ZTT Court Teams program. These variables may differ between the ZTT and NSCAW samples, representing potential confounders.

III.3.2.2 <u>Dependent Variables: Time to Permanency</u>

This study considers two time to permanency outcomes. The first is the time elapsed before the child is officially discharged from foster care, referred to here as "official" permanency. It is measured as the number of days between the date the child was placed in child welfare supervised out of home care and the date when he or she was released from foster care due to reunification, adoption, relative custodianship, or non-relative legal guardianship. The second outcome variable captures the amount of time between the date the child was removed from the home and the date when the child first moved into what

Figure 3: Conceptual Model

	Site	
ZTT Court Teams Program		Time to Permanency

Child Age at time of removal: Infant

Child Race:
African American, Caucasian

Child Ethnicity: Latino

Child Gender: Male

Parental Substance Abuse

Parental Mental Health

Parental Poverty

Parental Unemployment

Reasons for Removal

Community: Urban

ultimately became the permanent home. This is known here as "move in" permanency. The

ZTT Court Teams MIS collects these dates in multiple sections. This study compared the

entries for consensus and requested clarification from ZTT on a few cases in question.

NSCAW also collects these dates from child care workers and caregivers across the waves.

This analysis primarily uses the dates from the child welfare worker since this is the same

source ZTT uses. However, when dates were missing or inconsistent across the waves of

CPS worker data, dates from the caregiver interview were consulted to either fill in missing

dates or corroborate inconsistent dates.

III.3.2.3 <u>Key Independent Variable: Participation in ZTT Court Teams Program</u>

The primary purpose of this analysis is to evaluate the effect of the ZTT Court Teams

for Maltreated Infants and Toddlers program on time to permanency. Therefore, the key

independent variable is participation in the Court Teams program. This variable is coded as

an indicator (dummy) variable, where 1 = participation in program (e.g. member of Court

Teams treatment group) and 0 = not in program (e.g. in the NSCAW comparison group).

III.3.2.4 <u>Moderator Variables: ZTT Court Teams Site</u>

Site differences may exist for a variety of reasons. While each site is charged with

implementing the same program model, the local environments are quite different. Previous

evaluation work suggests these differences may include quality of relationship between the

project and the local department of social services, location of the community coordinator's

office, number of participants in monthly court team meetings and so on.(57-58) There also

may be differences across the sites in the degree of implementation of the Court Teams

model. Indicator variables are typically used to create separate variables denoting site

location, with one site remaining as the reference category. However, with multiple groups

(e.g. the four ZTT sites plus the NSCAW sample), the intercept and the estimated effect

would be difficult to interpret in the typical approach. This analysis uses effects coding to address this issue.(69) Effects coding is discussed more in the results section.

III.3.2.5 Potential Confounders

      The covariates were selected based on previous literature findings of predictors of time to permanency. Review of descriptive data from both the ZTT Court Teams project and NSCAW generally suggests differences between the two samples on these variables as well. The control variables fall into four groups, summarized in Table 1. Citations refer to studies that found each variable to be related to time to permanency or to factors predicting it.

Table 1: Potential Confounders

Child Characteristics	Parent Characteristics	Community Characteristics	Reasons for Removal
• Age: Infant – under age 1 year at time of removal • Gender: Male • Race: African American, Caucasian • Ethnicity: Latino	• Substance abuse issues • Severe mental health issues • Poverty • Need help finding a job	• USDA Economic Research Service Rural-Urban continuum	• Abandonment • Neglect/ Medical neglect • Physical abuse • Psychological maltreatment • Sexual abuse

      Child characteristics represent a series of dichotomous variables including being under age one at the time the child was first removed from the parental home (5, 20, 31-32), child gender as male, and child race (15, 30-31, 33-36) and ethnicity (36) captured in three indicator variables including African American, Caucasian, and Latino. All child characteristic measures come from child protective services (CPS) records for ZTT Court Teams cases and from interviews with CPS workers for NSCAW cases.

      Parent characteristics are also dichotomous. Having substance abuse issues (44, 50) is measured as alcohol or drugs being a contributing factor in the child's removal for ZTT Court Teams cases based on community coordinator's review of the CPS records. It is measured as the parent needing substance abuse services within the year prior to the

32

child's removal for NSCAW cases. Severe mental health needs (47, 51) are measured in a similar fashion for ZTT and NSCAW. Poverty (15, 30, 35) is a very broad measure, coded as yes for anyone who qualified for legal aid, needed income assistance, needed help finding a place to live, or was unemployed at or near the time of the child's removal (ZTT) or in the year before the child's removal (NSCAW). Needing employment assistance is a more singular measure of poverty and refers to the case workers' assessment at or near the time of removal for ZTT and within the year prior to removal for NSCAW. The USDA Economic Research Service Rural-Urban continuum is a seven point scale of urbanicity (15, 34) measured at the county level.

Lastly, reasons for removal (30, 36, 70) reflect categories states are required to report annually to the US Department of Health and Human Services in the Adoption and Foster Care Analysis and Reporting System (AFCARS). These data are based on CPS reports for both ZTT and NSCAW. Children may have more than one reason for removal.

III.3.3 Analytical Methods

This analysis combines propensity score weights with time-to-event analysis. Significant data preparation was completed first to make the data sets compatible for analysis.

III.3.3.1 Data preparation

Before analysis, each dataset was reviewed for missing data. ZTT staff provided updates to missing data as requested. NSCAW cases were missing data on several variables. Multiple imputation was run in IVEware on a SAS platform to address the omissions, using regression to infer the missing data based on multiple draws from the posterior distribution of the missing data.(71) Twenty imputations were run to balance the information gained from imputation with the effect on the standard error.(72) All analyses were conducted in Stata 10.0 which uses Rubin's rules to consolidate the results over the

33

imputations. Once data were imputed, variables from the ZTT Court Teams MIS and

NSCAW were transformed into similar formats and appended into one dataset. Given that

NSCAW is a nationally representative sample of children in the child welfare system, survey

weights, psu's, and strata were included in each analysis. ZTT cases each received a

sampling weight of 1 since they represented the universe of clients in these programs during

the study period. They were also included in their own unique stratum and each ZTT site

was established as a separate psu.[7]

III.3.3.2 <u>Issue of the Counterfactual</u>

Research often aims to understand the effect of the exposure (X) on the outcome

(Y). Isolating the effect requires a comparison. Ideally, one needs to measure how an

individual responds to the exposure and compare this to the same individual's outcome

without the exposure. The difference in level of outcome is the treatment effect.(73) Of

course, the same individual cannot be simultaneously exposed and not exposed to the

treatment. This is the paradox of the counterfactual. Researchers rely on methodology to

approximate this counterfactual. Experimental design employing a randomized control

group is commonly viewed as the gold standard. This approach is not often used in

evaluation of social service programs due to cost and ethical concerns.

Since children were not randomly assigned to participate in the ZTT Court Teams

program, there may be natural differences between those in the Court Teams initiative and

the NSCAW comparison group. Without randomized assignment of treatment and control

groups, it is difficult to determine if an outcome is due to the program.(16, 74) Instead,

observational studies commonly use standard regression techniques to control for

---

[7]Geographic indicators are not provided in the NSCAW dataset in order to minimize the possibility of deductive disclosure. Without this information, it is not known if NSCAW subjects resided in the Court Teams sites. Since NSCAW recruitment occurred well before the Court Teams projects began, none of the children would have been eligible for both sampling frames.

differences between the treatment and comparison group. Statisticians have long argued that this approach is not sufficient to adjust for differences in covariates between the groups, especially when the mean differences are large.(16, 75)   Rubin outlines three conditions that must to be met in order for regression results to be considered trustworthy. Once the probability of treatment assignment is determined after regression adjusts for the covariates, regression results are acceptable if 1) the differences in these probabilities of treatment assignment are small 2) the variance in these probabilities are nearly equal, and 3) the variances of the residuals of the covariates are also nearly equal.(16, 41) In other words, if the confounding is large, regression estimates are poor. Prior research on time to permanency found that traditional regression techniques failed each of these criterion.(41) Differences between the groups for this current study also fall short on these requirements.

III.3.3.3 <u>Propensity Score Analysis</u>

The propensity score represents an alternative means for adjusting between-group comparisons for differences in observed characteristics. The propensity score signifies the probability of treatment assignment, given a particular set of covariates.(73) Propensity scores have several advantages over typical regression. The score encompasses the entire range of covariates into just one value, facilitating matching. Standard regression estimates do not consider whether cases in each group have appropriate counterparts, instead extrapolating to form estimates when there are cases not on the common support. Analyzing differences in propensity scores by subgroups can easily highlight the support problem, facilitating the decision to either drop the cases not on the common support, or weight them in a way that significantly decreases their influence on the estimated effect. In addition, propensity scores can be used to calculate a variety of treatment effects that are not attainable with regression. The average treatment effect (ATE) represents the weighted sum of the treatment effect for both the treatment group and the comparison group. The

average effect of treatment on the treated (ATT) and average treatment effect on the untreated (ATU) can be separately calculated with propensity score weights.(19) Only very recent studies in child welfare have begun to apply these more advanced techniques to address issues of causal inference.(41, 76)

Propensity scores can be used for matching cases, developing subgroups, or as weights.(16) Matching is the most common application. One consideration, though, is that treatment cases without a good match (e.g. are not on the common support), are dropped from the analysis. See Winokur 2008 (77) and Barth 2006 (78) for examples. This is an issue when there are many cases not on the common support since dropping cases may compromise statistical power. Moreover, the estimated program effect is only for those with a match rather than for all in treatment. Weighting was chosen for this analysis to retain all treatment cases[8] and to facilitate the calculation of the ATE, ATT, and ATU.

These weights work to make the data representative of a hypothetical population where there is no confounding. The weight essentially is the inverse probability of treatment.[9] There are many cases among the ZTT Court Teams group that have a high propensity for being in the treatment group. As the propensity score approaches 1, nearly everyone with a combination of key characteristics related to program participation is in the treatment group. These cases are highly representative of the treatment group without any adjustment, so their weight is one. Likewise, there are a large number of NSCAW cases that have a low probability for participating in the treatment group. However, there are some exceptional cases in each group who defy expectations. Those NSCAW cases with high propensity for being in the treatment group (even though they are in the comparison group) should receive a high weight. There are few of them to compare to a lot of treatment cases. To make that group representative of the population, their experiences need to be inflated.

---

[8] Weighting also has an effect on statistical power, though all cases are still retained in the analysis.

[9] The weight is 1/propensity score for the treatment group and 1/(1 - propensity score) for the comparison group.

Likewise, Court Teams cases with low propensity scores (even though they are in the treatment group) should receive more weight. The following formula generates the propensity score weight for the average treatment effect (ATE):

ATE P-score weight = [Court Teams]*[1/Pscore] + [1- Court Teams]*[1/(1-Pscore)]   [1]

Average treatment effect represents the difference in the mean outcomes between the treatment group and the comparison group. Propensity scores were also transformed to calculate the average treatment effect for the treated (ATT) and average treatment effect for the untreated (ATU) using the following formulas(19):

ATT P-score weight = Court Teams + [1- Court Teams]*[Pscore/(1-Pscore)]   [2]

ATU P-score weight = [Court Teams *(1-Pscore)]/Pscore + [1- Court Teams]   [3]

III.3.3.4 Propensity Score Model

Pearl argues that the propensity score is only useful when it appropriately models selection into the treatment group. When key variables are omitted or the wrong variables included, then the differences between the treatment and comparison groups cannot be ignored, and bias remains. Thus, the process for selecting appropriate covariates is critical. The selection of variables is aided by developing a directed acyclic graph (DAG).(79) A DAG actually represents a process or series of steps to systematically assess and address opportunities for unobserved confounding. When the DAG process is complete, it is assumed that there will be no unobserved confounding if the analysis solely includes the covariates in the model.(80) The conceptual model serves as the final DAG for this analysis.

Based on Figure 3, the initial model for selection into the ZTT Court Teams program is represented as:

$$CT_i = \beta_0 + \beta_1[CC_i] + \beta_2[PC_i] + \beta_3[U_{ij}] + \beta_4[RR_i] + \varepsilon_i$$ [4]

where CT_i indicates participation in the ZTT Court Teams program. CC_i signifies a vector of covariates representing child characteristics discussed earlier and PC_i is a similar vector of

parent characteristics. U_{ij} denotes the county's rank on the urban-rural continuum. Lastly,

RR_i represents the reasons removed from the home. Specific measures for these

covariates are those described in section 3.2.5. This model was run in probit to generate a

propensity score for each case.

A key characteristic of the true propensity score is that it balances the covariates for

the treatment and comparison groups. In other words, once the propensity weights are

applied, each covariate should no longer be related to treatment assignment. Since this is

an estimate of the true propensity score, balance cannot be assumed. Balance was checked

and achieved after adjustments to the propensity score model.[10,11] Table 2 displays the final

variables in the propensity score model as well as the measure of their relationship with ZTT

Court Teams participation once balance was achieved. Note that no covariates are

significant, indicating balance. When these differences in covariates between the groups are

"balanced", then the differences in their outcomes are inferred to be due to the intervention

rather than confounding variables.(16) Once balance was achieved, the p-score weights

were multiplied by the sampling weights to yield three new sets of weights. Each weight

was used in separate runs of the analyses to determine the ATE, ATT, and ATU. Control

variables were no longer needed since they were represented in the adjusted weights.

III.3.3.5 Time-to-Event Analysis

Evaluating time to permanency lends itself to time-to-event (or survival) analysis. A

growing body of research is applying this statistical approach to better understand time to

---

[10] Once the propensity scores were generated, the ATE weights were applied to simple logistic regressions, using treatment assignment to predict each covariate one at a time. Significant estimates indicated the groups were not balanced. The propensity score model was adjusted by adding interactions between male and each covariate, interactions between psychological maltreatment and several key covariates, and interactions of the rural-urban continuum and race/ethnicity. Note that no new confounders were added. The covariates are still reflective of those identified in the DAG.

[11] Balance was checked first with just the propensity score weights and second with the propensity score weights combined with the analytical weights (the ATE weights). Covariates were balanced under both approaches.

Table 2: Balance of Covariates Using Propensity Score Weights:
Results from Single Covariate Models Regressed on ZTT Court Teams Participation

Covariate	OR	P value
Child Characteristics		
Infant	1.05	.846
Male	1.15	.606
African American	.817	.468
Caucasian	1.27	.431
Latino	1.14	.785
Parent Characteristics		
Substance Abuse	.934	.839
Severe Mental Health Needs	1.39	.395
General Poverty	1.02	.969
Need assistance finding employment	1.22	.496
Qualify for legal aid	.950	.874
Reasons for Removal		
Abandonment	.478	.058
Neglect	1.28	.330
Physical abuse	.979	.942
Psychological maltreatment	.410	.167
Sexual abuse	.306	.178
Community Characteristics		
USDA Rural-Urban continuum	.455	.125
Interactions		
Male * Infant	1.12	.710
Male * African American	.994	.988
Male * Caucasian	1.33	.447
Male * Latino	.993	.988
Male * Parent substance abuse	1.05	.874
Male * Parent mental health	1.70	..300
Male * Poverty	.990	.970
Male * Need employment assistance	1.28	.522
Male * Legal aid	.963	.878
Male * Abandonment	.446	.137
Male * Neglect	1.25	.446
Male * Physical abuse	1.16	.720
Male * Psychological maltreatment	.564	.534
Male * Sexual abuse	.238	.230
Psychological maltreatment * Poverty	.570	.385
Psychological maltreatment * Physical abuse	.472	.486
Rural-urban * African American	.817	.468
Rural-urban * Caucasian	1.27	.431
Rural-urban * Latino	1.14	.785

* Includes medical neglect; combined due to small prevalence
N = 809 including 298 from ZTT Court Teams and 511 from the NSCAW comparison sample

permanency for the child welfare population.(15, 33-35, 41, 52, 54) Time-to-event analysis

allows for the inclusion of censored data.(41) Censored data occur when some of the study

participants have yet to reach the event of interest (i.e., a permanent home) before the end

of the study period. Standard statistical approaches would typically delete these cases from

the analysis. Omitting censored cases represents a loss of important information, as those

with censored data may have a different survival time and program effect from those whom

have reached permanency. In time-to-event analysis, their data are included in the analysis

up to the time period that data are available on them.(81)

In addition to cases that were still open at the end of the study period, other cases

were intentionally censored to create a more even study period for the treatment and

comparison groups. Since more follow up data was generally available for the NSCAW

cases than for most ZTT cases, NSCAW cases were censored at the longest known point of

time to official permanency for ZTT cases. This served to equalize the follow up timeframes

to some degree. Under this approach, the NSCAW cases running past the point of

censoring (53 months or about 4.5 years) were coded as not yet having reached

permanency as of that time. Data past this point were excluded from the analyses.

First, nonparametric descriptive analyses were conducted to explore crude

differences between the ZTT Court Teams group and the NSCAW comparison group. The

Kaplan-Meier estimator was plotted for each group, reflecting the time in foster care before

reaching permanency, unadjusted for confounding variables. The Cox regression-based

test for the equality of survival curves[12] was also conducted to assess differences in survival

functions between the ZTT treatment group and the comparison group for both time to move

in permanency and time to official permanency. Next, the hazard functions, indicating the

probability or risk of experiencing an event (i.e., entrance into a permanent home) at some

point in time were generated for each group. Proportional hazards were tested with a plot of

---

[12] Like the log-rank test but allows for the use of survey weights.

the log-cumulative hazard against the log of the survival time for each group as well as with a test of Schoenfeld's residuals.(81-82) The link test was used to assess model fit. Ultimately, parametric survival models were used for both dependent variables. A variety of distributions were tested to select the best fit for the parametric model. Discrete time hazards models (DTH) also were run for time to official permanency to allow for greater flexibility in describing the hazard model.

Propensity score weights were applied and run with the following parametric survival models:

$$h_i(t) = \exp(\beta_1 CT_i)h_0(t) \tag{5}$$

$$h_i(t) = \exp(\beta_1 CT_i + \underline{\alpha}[S_j])h_0(t) \tag{6}$$

The event for each was set as whether or not the child reached permanency. Model 5 estimates the effect of the ZTT Court Teams program on time to permanency, while model 6 adds the ZTT Court Teams sites to understand site effects. Note that the other covariates are captured in the propensity score weights and not shown in the model. Models were run for both measures of time to permanency.

Propensity score weights were also applied to several discrete time hazard models to explore the effect of the program on time to official permanency as well as to determine how that effect may change at different points in time (to relax the proportional hazards assumption). In this case, the time unit was converted to weeks, the data were collapsed into one observation for each week the child was still in foster care, and the outcome remained whether or not the child reached permanency. The following DTH models were run with logistic regression:

$$\text{Perm} = \beta_0 + \beta_1 CT_i + \beta_2 Wk_j \tag{7}$$

$$\text{Perm} = \beta_0 + \beta_1 CT_i + \beta_2 Wk_j + \beta_3 Wk_j^2 + \beta_4 Wk_j^3 \tag{8}$$

$$\text{Perm} = \beta_0 + \beta_1 CT_i + \beta_2 Q2_j + \beta_3 Q3_j + \beta_4 Q4_j + \beta_5 Q2_j{}^*CT_i + \beta_6 Q3_j{}^*CT_i + \beta_7 Q4_j{}^*CT_i \tag{9}$$

41

Perm signifies whether or not the child reached permanency, CT refers to participation in the ZTT Court Team program, Wk represents week, and Q standards for quartile based on weeks in foster care. In the last model, the weeks elapsed since the child was removed from the home are divided into quartiles and the program effect is allowed to vary within each. A similar set of models was then run again adding the ZTT Court Teams site indicator variables.

III.4 Results

III.4.1 Descriptive analysis

III.4.1.1 <u>Characteristics of Children in the Study</u>

Children in the ZTT Court Teams sample are somewhat different from those in the NSCAW comparison group. Table 3 summarizes the characteristics of study participants, showing NSCAW results for both pre-imputed and imputed data. The imputed data includes estimates for the missing data, representing the software's calculation of what the missing data would be based on the patterns in the available covariates. Both pre-imputed and imputed data are presented to illustrate the effect of missing data. Imputed results are discussed below. Percentages reflect the NSCAW sampling weights but do not include the propensity score weights.

ZTT cases tend to be younger than the NSCAW group. Two thirds (67%) of ZTT cases were under the age of one at the time they were first removed from the home, compared to 57% of NSCAW children. African Americans were the most common racial category for ZTT (37% ZTT v. 24% NSCAW), while Caucasians were the most common in the comparison group (29% ZTT v. 41% NSCAW). The groups also exhibit pronounced differences on parental characteristics. ZTT parents were more likely to experience substance abuse issues (72% ZTT v. 59% NSCAW) and general poverty (95% ZTT v. 81% NSCAW). NSCAW parents, on the other hand, were more likely to need employment

42

Table 3: Characteristics of ZTT Court Teams Families and NSCAW Comparison Families

Variable	ZTT	NSCAW[a] *No imputation*	NSCAW[a] *20 Imputations*
	(n=298)	(n=511)	(n=511)
Child Characteristics			
Age of child at first out of home placement			
Mean (months)	9.3 (1.0)	11.0 (1.0)	11.0 (.99)[c]
Infant	67% (.04)	57% (.04)	57% (.04)
Missing	0%	0%	0%
Child gender			
Male	50% (.02)	46% (.04)	46% (.04)
Missing	0%	0%	0%
Race/Ethnicity			
African American	37% (.10)	24% (.04)	24% (.04)
Caucasian	29% (.10)	41% (.05)	41% (.05)
Latino/a	14% (.10)	18% (.05)	18% (.05)
Missing	0%	0%	0%
Parent Characteristics			
Substance Abuse			
Treatment needed at time of child's removal	72% (.06)	52% (.05)	59% (.05)
Missing	0%	15%	0%
Severe Mental Health Needs			
Treatment needed at time of child's removal	17% (.03)	13% (.04)	21% (.04)
Missing	0%	33%	0%
Poverty			
Met at least one poverty indicator at time of removal[d]	95% (.02)	76% (.04)	81% (.03)
Missing	0%	15%	0%
Lack of Employment			
Needed help finding a job at time of child's removal	35% (.15)	44% (.06)	47% (.05)
Missing	5%	12%	0%
Reasons for Removal			
Abandonment	4% (.01)	6% (.01)	13% (.03)
Neglect	69% (.11)	54% (.05)	72% (.04)
Physical abuse	32% (.18)	17% (.03)	30% (.04)
Psychological maltreatment	2% (.02)	5% (.01)	21% (.05)
Sexual abuse	1% (<.01)	2% (.01)	19% (.05)
Missing	0%	34%	0%
Community Characteristics			
USDA Economic Research Service Rural-Urban continuum			
1 (*most urban*)	50% (.32)	52% (.08)	52% (.08)
2	24% (.25)	29% (.09)	29% (.09)
3	26% (.26)	6% (.03)	6% (.03)
4	0%	2% (.01)	2% (.01)
5	0%	1% (.01)	1% (.01)
6	0%	7% (.04)	7% (.04)
7 (*most rural*)	0%	2% (.02)	2% (.02)

[a]NSCAW computed with sampling weights but not with propensity score weights
[b]Standard errors in parentheses.
[c]Standard errors for the NSCAW 20 imputations reflect those for the first imputation only.
[d]Includes needing income assistance, help finding a place to live, qualifying for legal aid, or being unemployed.

assistance alone (37% ZTT[13] v. 47% NSCAW) and have severe mental health needs (17% ZTT v. 21% NSCAW). The most common reasons for removal, neglect and physical abuse, were similar for each group after imputation, though NSCAW cases registered higher levels of other reasons for removal. The two groups were quite similar in the percentage to have reached permanency. During the course of the study, 81% of ZTT cases were discharged from foster care, compared to 80% of NSCAW cases by the censor point. Note that even with the censored timeframe, a greater proportion of NSCAW cases were followed for longer than most ZTT cases, suggesting the need for hazard modeling. Overall, the ZTT children tend to have more characteristics the literature suggests are linked to longer time to permanency including younger age at removal and being African American, indicating potential confounding.

III.4.1.2 Descriptive Analysis: Time to Move in Permanency

Descriptive analysis suggests that children in the ZTT Court Teams program were likely to be placed sooner in what ultimately became a permanent home; however, the association was not strong. Table 4 displays the results for the ZTT Court Teams group and the NSCAW sample. ZTT children moved into their permanent homes in a median of 168 days (CI 151,198). The imputations for NSCAW suggest a range of 210 to 250 median days to move in permanency for the comparison group.[14,15]

The median is commonly used in descriptive survival analysis due to the right skew of the data.(82) In contrast, a mean of 343 days (CI 280, 406) passed before ZTT children

---

[13] Imputed for ZTT as well.

[14] When considering the non-imputed data, the NSCAW group moved in at a median of 283 days (CI 216, 348). Results across the imputations indicate that those with missing data were likely to have moved in sooner, suggesting the data are not missing completely at random (MCAR).

[15] Note that summary statistics are calculated using the Kaplan-Meier method to address issues of censoring. Stata 10 does not allow the use of p weights in this approach. As a result, means and medians are for the unadjusted NSCAW sample and do not reflect sampling weights. Results with the Kaplan-Meier method are very similar to calculations of the traditional median with survey weights applied but not accounting for censoring. See Table 4 for more information.

Table 4: Summary of Time to Permanency

(n=809)

Permanency		ZTT	NSCAW Imputations				
			Low	*25th Percentile*	*50th Percentile*	*75th Percentile*	*High*
Move In	Median (SE)	168 (10.5)	210 (25.6)	214 (25.5)	223 (24.8)	229 (25.7)	250 (25.3)
	Mean (SE)	343 (32.1)	398 (23.4)	400 (23.7)	402 (23.4)	404 (23.4)	408 (23.4)
Official	Median (SE)	383 (10.8)	762 (26.8)	767 (27.0)	777 (28.7)	798 (25.7)	816 (26.0)
	Mean (SE)	466 (20.5)	825 (18.5)	832 (18.6)	837 (18.2)	840 (17.9)	858 (17.9)

Note:

n=298 ZTT and 511 NSCAW

No imputations were needed for ZTT Court Teams outcome data

Summary statistics computed using Kaplan-Meier method to incorporate censoring which does not allow the use of survey weights. The traditional median calculated with survey weights but not allowing for censoring yields a similar range of medians across the imputations: move in permanency (223 days to 255 days) and official permanency (762 days to 816 days), the same as for the Kaplan-Meier method. Medians and standard error were also bootstrapped for comparison. Bootstrapping did not allow for the use of survey weights or account for censoring. Medians and standard errors determined with the bootstrapping method across the imputations ranged from 203 days (se 21.8) to 235 days (se 29.0) for move in permanency and 726 days (se 22.7) to 767 (se 31.1) for the NSCAW sample.

moved into what became their permanent home. Imputed means for the NSCAW sample are closer to 400 days. This suggests that ZTT children moved into their permanent homes an average of 2 months sooner than the comparison group. Note that the means reported here are considered to be "restricted" due to the censoring in the data.(82) Actual mean time to move in permanency will be greater once the permanent placement is established for all children.

Figure 4 displays the Kaplan Meier survival function for the ZTT Court Teams children and the comparison group for time to move in permanency. The graph shows the probability of continuing to remain in a non-permanent home at each point in time. A separate Cox regression-based test for the equality of survival curves[16] was conducted between the ZTT group and each NSCAW imputation to establish whether the two groups have equal survival functions. Survey weights were applied to the test, but not propensity score weights at this point. Statistically significant χ^2 results would indicate different survival functions. The majority of tests (80%) were significant at the .05 level. The remaining were significant at the .1 level. Findings indicate that the ZTT Court Teams cases and the NSCAW comparison group likely do experience time to move in permanency at different rates when other variables are not taken into account.
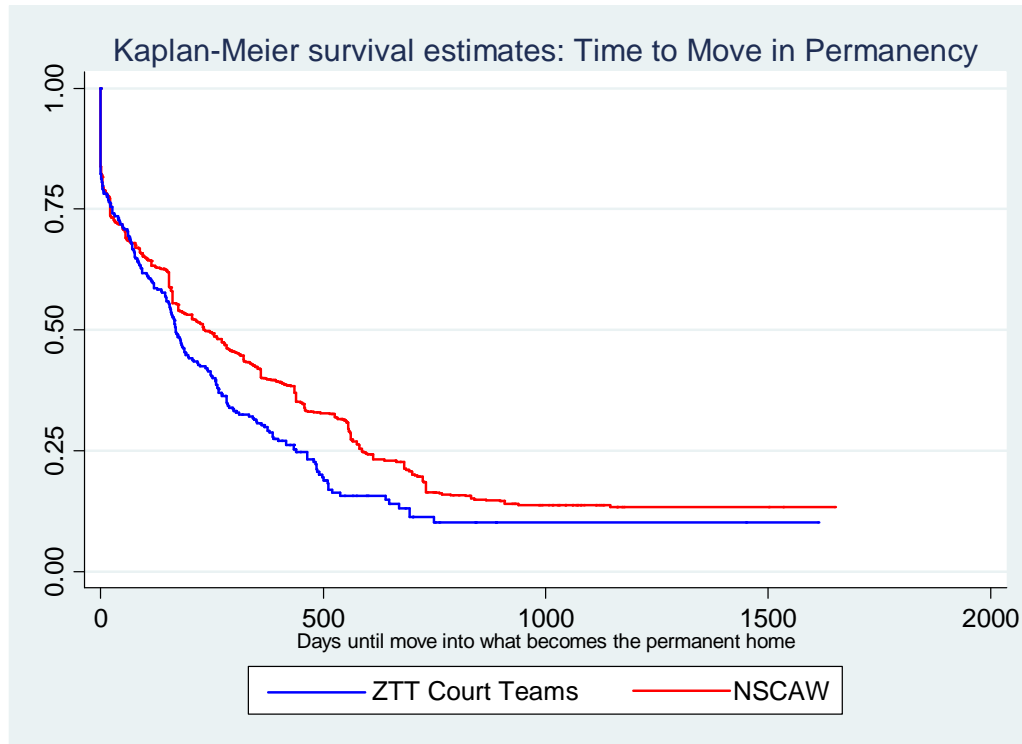
III.4.1.3 Descriptive Analysis: Time to official permanency

Differences between the treatment and comparison groups are more pronounced when considering time elapsed before the child officially reached permanency. ZTT cases reached official permanency in a median of 383 days (CI 366, 407) and mean of 466 days (CI 426, 506). The NSCAW sample ranges from 762 to 816 for the median and 825 to 858

---

[16] This test is similar to the log-rank test but allows the use of survey weights.

Figure 4: Kaplan Meier Survivor Functions of Time to Move In Permanency: ZTT Court Teams Cases vs. NSCAW Comparison Cases

First Imputation with Sampling Weights

Kaplan-Meier survival estimates: Time to Move in Permanency

ZTT Court Teams — NSCAW

(n=809)

for the mean time to official permanency across the imputations as noted in Table 4.[17]

Results indicate the ZTT children exited the foster care system about one year sooner than

the comparison group.

Exploratory analysis prior to applying the propensity score weights found that the

ZTT Court Teams children indeed have a different survival trajectory for exiting the system

into an official permanent home compared to other young children in the child welfare

system. Figure 5 displays the Kaplan Meier survival functions for ZTT Court Teams cases

and the NSCAW comparison group for time to official permanency. The Cox regression-

based test of equality of survival curves found that the ZTT cases and NSCAW cases

exhibited statistically significant differences in their survival functions reflecting time to

officially recognized permanency (p = .000 for all imputations).

III.4.2 Time-to-event analysis

The descriptive analysis indicates that the ZTT treatment group and the NSCAW

comparison group showed some differences in their time to permanency. The analysis also

finds distinctions between the two groups on several potential confounders that may explain

some of the differences in outcome. Time-to-event analysis with propensity score weights

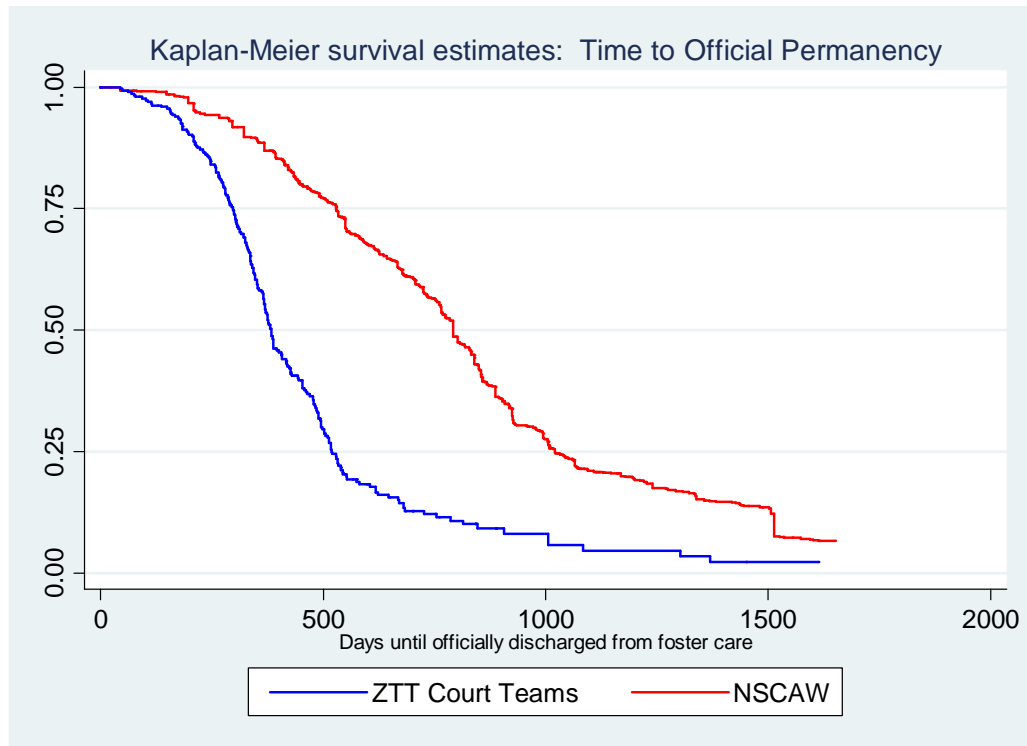addresses this concern.

III.4.2.1 Diagnostics

Proportional hazards were assessed separately for both measures of time to

permanency. The graph of the log-cumulative hazard against the log of the survival time for

move in permanency suggested somewhat proportional hazards. The Schoenfeld residuals

test, however, indicated the proportional hazards assumption did not hold for time to move

---

[17] This compares to a nonimputed median of 814 days (CI 736, 855) and nonimputed mean of 864 days (CI 826, 903) for the NSCAW children. Again, the missing data on time to official permanency also appears not to be MCAR.

Figure 5: Kaplan Meier Survivor Functions of Time to Official Permanency:

ZTT Court Teams Cases vs. NSCAW Comparison Cases

First Imputation with Sampling Weights

Kaplan-Meier survival estimates: Time to Official Permanency

(n=809)

in permanency (p=.000 for all imputations). Appendix A shows a graph of the hazard functions for the ZTT Court Teams cases and the NSCAW sample on time to move in permanency. Appendix A plots the log-cumulative hazard against the log of survival time for each group.

Measures of the official time to permanency also violated the proportional hazards assumption assessed with the Schoenfeld test (p= .000 across all imputations). Appendix A contains a plot of the hazard functions for the treatment and comparison groups for time to official permanency. Appendix A also shows the log-cumulative hazard against the log of survival time for the samples.

The link test was conducted to determine if the variables used in the propensity score model were also predictors of the time to permanency outcome measures. A non-significant value on the hat square parameter would indicate that they are good predictors.(82) For time to move in permanency, the hat square parameter was not significant for any imputations. Results for time to official permanency also indicate that covariates are appropriate predictors, with a nonsignificant hat square for 95% of imputations.

III.4.2.2 <u>Time-to-Event Analysis: Time to Move in Permanency</u>

Since diagnostic tests rejected the proportional hazards assumption, a parametric hazard model was used to estimate the effect of the ZTT Court Teams program on time to move in permanency. A distribution for the baseline data must be selected for the parametric model. A variety of distributions were tested.[18] The Gompertz distribution appeared to best describe the data and was used in the analysis. Results indicate that the

---

[18] Each distribution was tested separately in a parametric hazard model. Results for the ZTT parameter were compared to the same parameter produced by a Cox hazard model. The distribution producing results closest to the Cox model was considered to be the best fit. The Cox comparison was used as this approach requires no distribution to be named.(82) Distributions tested include exponential, Weibull. Gompertz, log-normal, log-logistic, and gamma.

ZTT Court Teams intervention slightly accelerated time to move in permanency, but that the impact could have been due to chance. This is evidenced by a hazard ratio for ZTT participation of 1.06 (CI .67, 1.65) and p=.81. Note that a hazard ratio of 1.00 indicates no effect. Those in the ZTT intervention were likely to move into what eventually became a permanent home an average of 6% faster than the NSCAW sample. This finding is not statistically significant. Analysis of the average treatment effect for the treated (ATT) and the untreated (ATU) yielded similar findings to the overall average treatment effect (HR 1.10, CI .72, 1.67, p=.66 for ATT and HR 1.05, CI .57, 1.93, p=.89 for ATU). As a result, the modest effects suggested in the descriptive analysis do not hold up once the confounding variables are included as propensity score weights.

III.4.2.3 Time to Event Analysis: Time to Official Permanency

A parametric continuous-time hazard model was first used to assess the program effect on time to official permanency. A variety of distributions were tested to determine the best fit to describe the hazard function in the parametric model. The Weibull yielded the best fit for time to official permanency. Running the parametric hazard model with the Weibull distribution and propensity score weights resulted in a hazard ratio of 2.67 (CI 1.65, 4.31). This indicates that ZTT children were reaching official permanency at a significantly faster rate than the NSCAW comparison (p=.000).

A Weibull distribution best describes data that have a smoothly increasing or decreasing hazard rate.(82-83) While the Weibull distribution appeared to have the best fit, the hazard plot itself suggested the distribution was more complex and perhaps different for the ZTT treatment and comparison groups. To address this issue, data were next run in a discrete time hazard (DTH) model. The DTH is quite flexible, allowing the hazard distribution to vary across time.(84) The DTH was run with three different models to allow for a change in the hazard function over time. Table 5 displays these results. As the model

Table 5: Continuous and Discrete Time Hazard Models with Propensity Score Weights:
Results for Time to Official Permanency
(n=809)

Covariate	Parametric Model			DTH Model 1			DTH Model 2			DTH Model 3		
	HR	se	p	OR	se	p	OR	se	p	OR	se	p
ZTT Court Teams	2.67	.648	.000	2.33	.942	.040	2.76	1.45	.057	3.41	3.92	.298
Week				1.01	.002	.000	1.08	.024	.002			
Week^2							.999	.000	.024			
Week^3							1.00	.000	.078			
Week Q2 (quartile 2)										10.5	12.4	.059
Week Q3 (quartile 3)										20.6	21.9	.013
Week Q4 (quartile 4)										29.4	40.0	.006
Week Q2 * ZTT										.801	.998	.860
Week Q3 * ZTT										.918	.1.07	.942
Week Q4 * ZTT										.411	.464	.442

becomes more sophisticated, the program effect appears to increase. The standard errors also increase. This is to be expected since more assumptions are relaxed with each model, removing information from the process. As a result, the treatment effect looses statistical significance.

In the last model, weeks were divided into quartiles and the model varies within each. The ZTT interaction with each quartile suggests the program's effect slightly decreased over time relative to the first quartile, with a drop off in the fourth quartile (starting around 100 weeks after the child was removed from the home). This program effect in each quartile, however, is not statistically significant. A Wald test was also performed on the group of ZTT interactions with each quartile. Findings indicate the program effect was not significantly different over time (F=1.02, p=.382).

While the DTH allows for a flexible hazard model, it does not inform the correct description of the hazard function. Regardless of the model chosen, however, the results across the parametric and DTH analyses consistently indicate that ZTT Court Teams children reached official permanency about 2 to 3 times as fast compared to similar children in the NSCAW sample.

The effect of the ZTT Court Teams initiative on the treated (ATT) was estimated as slightly less than the overall average effect (HR 2.43 CI 1.48, 3.98, p=.000). On the other hand, the effect on the untreated (ATU) suggests that those in the comparison group might expect to experience even slightly greater gains if they were to enter the Court Teams program than those who were actually in the program (HR 2.99 CI 1.57, 5.72, p=.001).

III.4.2.4 Site Effects on Time to Permanency

Analysis does indicate significant differences in time to permanency across the ZTT Court Teams sites. Table 6 displays the mean and median differences across the sites. ZTT sites range from a median of 64 days to 283 days before a child is placed in what

Table 6: Time to Permanency in ZTT Court Teams Sites

Site	n	Time to Move in Permanency					Time to Official Permanency				
		Median	95% CI	Mean[a]	95% CI	HR[b]	Median	95% CI	Mean[a]	95% CI	HR[b]
ZTT	298	168	(151,198)	343	(280, 406)	1.30	383*	(366, 407)	466*	(426, 506)	3.22***
ZTT Site 1	71	164*	(61,170)	167*	(130, 203)	1.65**	315*	(280, 366)	311*	(281, 341)	6.50***
ZTT Site 2	28	64*	(16, 145)	138*	(78, 198)	2.23**	419*	(288, 543)	433*	(350, 517)	3.08***
ZTT Site 3	77	283	(173, 694)	638*	(473, 803)	.590	582	(470, 754)	723	(607, 840)	1.23
ZTT Site 4	122	182	(119, 248)	241*	(203, 280)	1.32	371*	(340, 427)	391*	(368, 414)	4.39***
NSCAW[c]	511	223	(174, 275)	402	(357, 448)	-	777	(724, 841)	837	(802, 873)	-

[a]Means are restricted and therefore underestimated due to censored data for cases whom had not reached permanency by the end of the study period.(82) P values are on the means and medians are relative to NSCAW's 50th percentile of the imputation distribution.

[b] The hazard ratio represents site's overall rate compared to the NSCAW imputed sample based on the continuous-time parametric models. The hazard ratios for each site are calculated by adding the coefficient for the site variable to that for the overall program and then exponentiating. Site 4 was the reference site in the effects coding and was calculated by subtracting the coefficients for the other site variables from the coefficient for the overall ZTT program. These results mirror those when stratifying on site and running each model just for cases in one ZTT site compared to the NSCAW cases. The p values on the hazard ratios represent whether the site's effect is significantly different from NSCAW, based on the stratification by site analysis.

[c]NSCAW data depict the results from the 50th percentile of the imputation distribution.

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

ultimately becomes the permanent home. Time-to-event analysis confirms these

differences. Site effects coding was used to understand the differential effect for each ZTT

Court Teams site.[19] All sites are significantly different from NSCAW in the mean time to

move in permanency. All but site 3 have a significantly shorter mean time to move in

permanency. A review of the outliers in site 3 finds that much of the difference between this

site and the others is the far right tail. In site 3, 10% of cases took over 18 months to move

into what would become a permanent home.   This compares to 0% of cases in sites 1 and

2 and only 2% of cases in site 4. The mean differences are subject to the effect of

confounders. Once the propensity scores (and therefore the confounders) are included in

the analysis with the hazard ratios, two ZTT sites (1 and 2) are significantly faster than the

NSCAW sample on the rate of time to move in permanency and no sites are significantly

slower. The hazard ratios indicate that children in ZTT site 1 first moved into what became

their permanent homes 65% faster than the NSCAW sample (p<.01), while ZTT site 2

moved in 123% faster (or over 2 times as fast) (p<.01). Appendix A illustrates the hazard

functions for time to move in permanency for each ZTT site.

Time to official permanency is substantially shorter than the NSCAW comparison

group in all four ZTT sites, ranging from nearly 4 months average difference for site 3

relative to NSCAW to a 17 month average difference in site 1. Site 1 yielded the quickest

results, officially moving out of the child welfare system 6.5 times as fast (or 5.5 times faster)

than the NSCAW comparison. Site 3 again took the longest, but still reached permanency

1.23 times as fast (or 23% faster) than children in the NSCAW comparison group. All but

---

[19] Standard practice would be to include three site dummies and one indicator of intervention status. The
NSCAW data would be coded as 0 for all four of these variables. In this approach, the estimate of the main
effect of treatment is actually the effect for the reference site, which is arbitrary. To fix this problem, effects
coding was used for the site indicators. For each site variable, the site of note was coded as 1, the reference
ZTT site was coded as -1, and all other sites and NSCAW were coded as 0. As a result, the main effect of
treatment is now the average across the sites. The interpretation of each site dummy is now the difference not
from the reference category but from the grand mean (for the intervention group). The effect for the reference
site was calculated by subtracting each of the coefficients for the other site indicators from the overall average
treatment effect (coefficient on the ZTT participation variable) and then exponentiating the result. This approach
yields the same coefficients running the model separately for each site relative to NSCAW.

site 3 were significantly quicker in reaching official permanency than the NSCAW sample.

Appendix A shows the hazard functions for time to official permanency by site. Note the

estimated overall program effect on time to official permanency increases to over 3 times as

fast (or over 2 times quicker) when sites are included in the model (HR = 3.22, p<.001).

III.5 Discussion

This study uses a comparison group and propensity score analysis to advance

previous evaluation efforts of the ZTT Court Teams program. Findings show that the ZTT

Court Teams program has a substantial effect on reducing the length of time before a child

is discharged from the child welfare system. The more involved final DTH model suggests

the average program effect decreases slightly over time, until the case has been opened for

about two years (quartile 4), though this finding is not statistically significant. The program's

overall effect on the time before a child moves into what eventually becomes the permanent

home is weaker, although half the sites have shown significant ability to reduce this time.

The modest program impact on reducing time to move in permanency may reflect a fairly

universal desire among all child welfare agencies to situate children in a stable placement

as early as possible.

While this study uses advanced techniques to address issues of causal inference,

results still must be viewed with care. First, the analysis is only as strong as the propensity

score's ability to accurately depict participation in the ZTT Court Teams program. The

covariates used appear to be related to both program participation and time to permanency

based on review of the descriptive data and on previous research. However, there could be

an unobserved variable, such as judicial disposition or other community characteristics,

whose omission could bias results. For instance, one factor in whether or not a site

participates in the project is having a judge who would like to bring the initiative to his or her

56

court.[20] These judges may already have been more proactive in moving cases through the system before the project. While this measure could have been obtained from the four ZTT sites, it was not available in the NSCAW dataset. Omission of this variable could impact the propensity score's ability to truly reflect program participation. Or, it may not have any effect. Given the strength of the findings, particularly regarding the program's effect on time to official permanency, it is unlikely that unobserved confounding would have affected the results to such a degree that the program effect found here would disappear.

Another limitation is the fact that this study only looks at the child's first episode in foster care. Certainly, some children who were deemed to have reached permanency and discharged from the child welfare system were eventually removed from the home again and placed in foster care. In fact, it is possible that "permanency" which comes too quickly may be linked to higher rates of recidivism. The current rates of return to foster care are much too small in the ZTT Court Teams projects to warrant a statistical analysis. This topic would be well suited for future studies using a large, longitudinal dataset such as NSCAW.

Differences across the ZTT sites also require consideration. To what extent is the program model implemented in each of these four sites? Are they similar enough to be considered as one program, or are they actually different programs?   A study of fidelity to the model requires multiple researchers to observe and rate the sites as well as substantial funding for site visits.(85) Such an assessment is beyond the scope of this current study. Review of the initial third party process evaluation suggests that each component of the Court Teams model was implemented in these four sites, with the exception of child-parent psychotherapy.(57) A qualitative analysis that is a companion to this current study explores environmental and client differences largely outside of the program model that may explain some if not all of the site differences. See the third in this series of papers for details.

---

[20] Leveraging funds is also a key factor in site participation, though ability to secure funding is less likely to have been linked in to time to permanency on its own.

Lastly, this paper has not considered the various ways of exiting the child welfare system. Adoption, reunification, and legal guardianship each require different lengths of time. A companion paper examines these types of exits among ZTT Court Teams and NSCAW comparison families to further explain the program's effect on time to permanency.

Issues of causal inference have long challenged the field of program evaluation. Rarely are circumstances supportive of randomized studies. Observational research can provide rich description of the program participants and activities, but without an appropriate comparison group it is not clear if any results are actually due to the program. This study demonstrates an economical approach for future evaluations to consider in crafting a comparison group from a large secondary dataset and using propensity score analysis to address issues of causal inference.

IV. Manuscript 2: The Effect of the ZERO TO THREE Court Teams Initiative on Types of Exits from the Foster Care System – A Competing Risks Analysis

IV.1. Introduction

Foster care should provide a safe, temporary haven for abused or maltreated children. While the children stay in foster care, the parents have an opportunity to seek services and to demonstrate their ability to provide an appropriate home for the child. If this cannot be done, then the child welfare worker seeks a suitable, alternative home. The U.S. Department of Health and Human Services recognizes four ways a young child can officially exit the child welfare system: reunification with a parent or caregiver, adoption, placement with a relative custodian, or placement with a non-relative legal guardian.(28) Each way of exiting foster care typically requires different lengths of time. On average, reunification has been found to occur quickest while adoption involves the most time.(34, 70)

Reunification is the most common permanency goal. When parents show some progress on achieving their service plans, then reunification remains a possibility. However, when parents show only minimal progress, or once parental rights are terminated and no appropriate permanent home exists, children can linger in the child welfare system. This phenomenon is known as foster care drift.(8)

The Adoption and Safe Families Act (ASFA) was enacted in 1997 to shorten the time children stay in foster care. Among its mandates, ASFA compels states to terminate parental rights (TPR) when the child has been in out of home placement for 15 of the previous 22 months (though children in kinship care are exempt)(9); hold a permanency hearing within 12 months of the child's initial placement,(10), and to have child welfare workers engage in concurrent planning to identify a suitable back up permanency plan.(8) In the three years

following ASFA's enactment the mean time to exit foster care increased slightly (from 11 months to 12 months) and the median time fell (from 43 months to 39 months).(11)

ASFA also provides states an economic incentive to place children in adoptive homes. Adoptions rose 64.5% in the three years following ASFA's enactment, and then leveled off.(12) In 2008, roughly 55,000 were adopted, representing just 31% of the children eligible for adoption.(13) A multivariate analysis of the Multistate Foster Care Data Archive found no significant decrease in mean time to complete adoption since ASFA's enactment.(14) Clearly, unmet need remains.(15)

In response, the ZERO TO THREE: National Center for Infants, Toddlers, and Families (ZTT) has developed the Court Teams for Maltreated Infants and Toddlers initiative to accelerate the time to permanency for young children in the child welfare system. The Court Teams model is implemented at the local level. The initiative links a judge with a project coordinator to bring together a group of local stakeholders including the department of social services, legal representatives, court appointed special advocates (CASA), service providers, and so on (i.e. the court team) to develop a plan for the local community. This plan incorporates other key components of the model including monthly case reviews, as well as child-parent psychotherapy, evidence-based parenting services, early intervention screening and services, and support from the ZTT national office including training, technical assistance, resource materials, and program monitoring. The local court team also ensures that ASFA requirements are met in a timely manner. There have been 12 federally funded projects to date. Four have children who reached permanency by the end of 2009.

ZTT Court Teams focus on reducing time to permanency, regardless of how the child exits foster care. The program does not specifically advocate for reunification, adoption, relative custodianship, or non-relative guardianship. Instead, it works to 1) reduce the time the child is in flux, and 2) facilitate a positive bond between the caregiver and the child. A companion paper to this current study finds that on average, children in the ZTT Court

Teams program exit the child welfare system nearly 3 times as fast as a group of similar children from the National Survey of Child and Adolescent Wellbeing (NSCAW), a nationally representative sample of children in the child welfare system (p<.01). Given that reunification and adoption are known to require different lengths of time, it could be that the program effect is largely explained by shifting how children exit the system rather than by truly accelerating the process, regardless of type of exit.

This current paper considers how the ZTT children exit the child welfare system. ZTT Court Teams children are compared to a group of similar cases from NSCAW. Propensity score analysis is combined with a competing risks analysis to isolate program effect on types of foster care exits. Any differences may help explain how the program actively reduces time to permanency. This paper first reviews the child welfare literature predicting ways of exiting foster care. It then discusses the study methods including a description of both datasets and statistical approaches. A presentation of the results follows, concluding with a discussion of the findings, implications, and limitations. This is the second in a series of papers evaluating the effect of the Court Teams initiative on time to permanency.

IV.2. Previous Research

IV.2.1 <u>Types of Exits from Foster Care and Time to Permanency</u>

Just over 700,000 children were in the U.S. foster care system in FY 2009. Nearly 40% of those children exited the system that year. Of those who exited, half (51%) were reunified with a parent or caregiver, 20% were adopted, 8% lived with a relative custodian, 7% had a legal guardian, and the remainder were either emancipated or lost to follow up. Those who exited were in foster care a mean of 22 months and a median of 13.7 months.(86) Data on those who exit, however, is biased downward as it disregards challenging cases that continue to remain open for long periods of time.

61

Studies using time-to-event analysis, which takes censored data into account, find that adoption generally requires much more time in care than any other type of exit.(34, 70) Studies suggest that adoption takes at least twice as long as reunification, often longer. An analysis of the Multistate Foster Care Data Archive found that the median time in foster care was over 35 months for adopted children, compared to less than 10 months for those who were reunified or placed with a guardian.(34) Another more recent study using administrative records from a midwestern state found a similar pattern though markedly different times in foster care. Those exiting to adoption were in care a median of 737 days (about 24 months), while those who returned to their parents or caregivers were in child welfare a median of 366 days (or 12 months), and those exiting to guardianship were in foster care a median of 474 days (nearly 16 months).(70)

IV.2.2 Key Characteristics Related to Type of Exit

A wealth of literature reports risk factors associated with each category of exit from the child welfare system. Type of permanency outcome has been found to be related to several child and parent characteristics. Child age is a factor across studies. Infants are consistently more likely to be adopted while older children are more likely to be reunified.(31, 33-36, 38, 70) Other types of exits are analyzed less often. One study found that older children were more likely to leave foster care for legal guardianship than infants.(70) Another showed that older children were also more likely to exit to a relative custodian.(34) Unlike age, child's gender is generally not a significant predictor of time to permanency across studies.(33)

Race and to a lesser extent, ethnicity, also play a key role predicting type of foster care exit. Many studies have found that African-American children are less likely to experience reunification (31, 33-35, 70) or adoption (31, 34-36, 70). Again, other types of exits are rarely studied, though one longitudinal multi-state cohort study found that African

Americans were more likely to exit to relative care. The same analysis found that the effect of race has shrunk over time.(34) Fewer studies yielded significant findings for Latinos, though several consistently found that as with African Americans, Latino children were also less likely to be adopted.(34-36)

A child's health status has also been found to predict exit type, though studies tend to use a variety of definitions. Several found that some form of disability, either physical or emotional, was linked to less likelihood of reunification.(33, 35, 70) Findings are less consistent about the effect of disability on adoption. Most found it makes adoption less likely (33, 35-36) though one showed disability linked to a greater likelihood of adoption. The same study found that emotional problems, however, were related to lower rates of adoption.(70)

There is less evidence on the relationship between parental or community factors and type of foster care exits. Some research suggests that children with parental substance abuse are less likely to reunify,(87-88) or to be adopted.(36) Research also indicates that parents with mental illness have been more likely to have their parental rights terminated since the passage of ASFA.(47, 51) In addition, family poverty may affect how a child is discharged from foster care. Welfare eligibility has been linked with lower rates of reunification or adoption.(30, 35) Some studies indicated that being from a single parent family was related to lower prospect of reunification.(30, 35, 87) Urbanicity is the only significant community level factor found in studies reviewed. Across the handful of studies testing urbanicity, children in the most urban areas of each study were less likely to be adopted.(34-35)

Lastly, several placement characteristics may be key predictors of how a child exits the foster care system. While many studies found reasons for removal to be significant, results across these studies are somewhat inconsistent, likely due to differences in definitions.(70) Physical maltreatment has been shown to be related to higher rates of

reunification, one of the more consistent findings.(35, 70) Sexual abuse also appears to be significant, though the direction of its effect is unclear. A study of children in non-kin foster care found sexual abuse to have a positive association with reunification.(30) Another study found sexual abuse to be associated with lower likelihood of experiencing any type of exit from the child welfare system.(33) In addition, placement with a relative has been consistently linked to lower rates of reunification (33-35) and adoption (34-35, 38), though higher rates of discharge to a relative or guardian.(34, 38)

IV.3. Methods

IV.3.1 Data Sources

This study uses two sources of data to assess the effect of the ZTT Court Teams program on type of foster care exit. The ZTT management information system provides data on the sample of children in the program. The comparison group is derived from the National Survey of Child and Adolescent Well-Being (NSCAW).

IV.3.1.1 <u>ZTT Court Teams Management Information System (MIS)</u>

The ZTT community coordinators routinely collect and enter client level data using a secure, web-based system. Community coordinators gather the data from the child protective services (CPS) family case plan or other child welfare documents, information shared at monthly case review meetings for each family, court hearings, other discussions they have with service providers and child welfare workers. De-identified data are available on child background, service needs and usage, visitation, placements, and time to permanency.

The ZTT sampling frame encompasses 12 ZTT Court Teams sites scattered throughout the country, including the east coast, south, central midwest, and far west coast. Most are in midsize cities, though several are based in very large metropolitan areas and at

least one is located in a much smaller city. This current study focuses on the original four

sites as they had been open long enough (4 to 5 years) to have accumulated cases that had

exited the foster care system by the end of 2010. The four sites used in this study are more

concentrated in the south and midwest. They represent two larger metropolitan areas, a

midsize city, and smaller city. The four sites also differ in racial demographics with one in a

predominately African American location, another situated in a county with a mix of African

Americans and Caucasians, a third in a racially mixed area also including a large Latino

population, and the fourth in a largely Caucasian county.   Across the sites, nearly all

children under age three assigned to the Court Teams judges have entered into the

program. Assignment to judges is based on age (e.g., all infants and toddlers are assigned

to the Court Teams judge in a site) or random assignment, depending on the site. Only one

case is known to have refused participation.

The current study includes 298 ZTT cases, including all children in the initial four

sites who entered the project by 12/31/2009. This study uses data collected through

September 2010, representing a follow up period of one year or more for 94% of ZTT cases.

IV.3.1.2 <u>National Survey of Child and Adolescent Well-Being (NSCAW)</u>

A comparison group is drawn from NSCAW, a nationally representative, longitudinal

study of children involved in the child welfare system. The data are a probability-based

sample of both open and unopened cases that entered the child welfare system from

October 1999 to December 2000.(67) Children age birth to 14 were eligible to participate.

The study team oversampled for infants, children experiencing sexual abuse, and those

receiving services after the investigation to insure adequate statistical power.(68)

NSCAW has collected five waves of longitudinal data, primarily using trained

interviewers to administer a uniform computer assisted personal interview (CAPI). Data are

extensive, covering family risks, child living environments, services needed and received,

child behavior, and child development, among other topics. During most waves, data were collected from the child welfare worker, parent/caregiver, and the child.(68) This analysis will use the child welfare worker data in order to most closely reflect ZTT's own reliance on data collected from CPS/professional sources.

The comparison group for this study was selected based on the criteria used for enrollment in all of the ZTT Court Teams projects, namely, experience of a child welfare supervised out of home placement before the age of three. While location was also a selection criterion for ZTT cases in this study, geographic location is not available in NSCAW to prevent deductive disclosure. Therefore, it was not possible to use location as a selection requirement for the NSCAW comparison group. A total of 511 NSCAW cases were eligible for the comparison group.

IV.3.2 Measures

IV.3.2.1 <u>Dependent and Key Independent Variables</u>

The dependent variable in this study is type of exit from the child welfare system. It is a nominal measure, with categories including reunification with parent or caregiver, adoption, relative custodianship, non-relative legal guardianship, or not yet discharged from foster care. The key independent variable is participation in the ZTT Court Teams program, a dichotomous indicator variable.

IV.3.2.2 <u>Covariates</u>

Based on the sampling frames and ZTT sample selection process, the ZTT children and NSCAW children are likely to be different on a variety of characteristics. These characteristics associated with a child's experience in foster care may account for some differences in outcomes between the groups. Fifteen covariates have been carefully
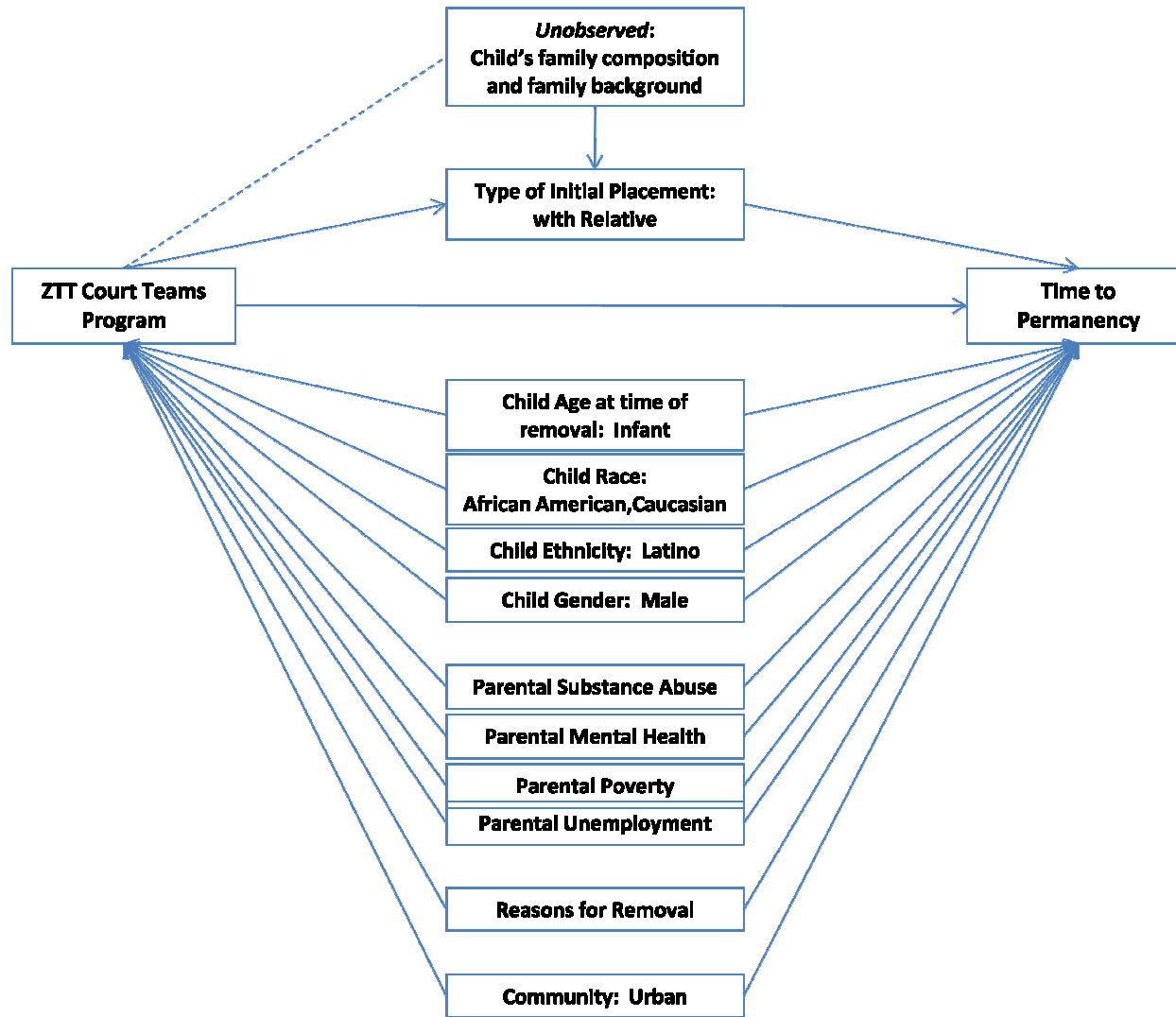
selected to balance the differences between the ZTT and NSCAW children. These covariates have been chosen largely based on a review of the literature.

Child characteristics are measured as a series of dichotomous variables, including infant status at the time of first removal from the home, African American, Caucasian, Latino, and male gender.[21] Parent characteristics are measured as four indicator variables regarding substance abuse issues, severe mental health problems, general poverty, and needing employment assistance. The parent variables were each measured at or near the time that the child was removed from the home for the ZTT Court Teams families. NSCAW measures represent parent needs within the year or so before the child was taken into child welfare custody. Urbanicity is measured using the USDA Economic Research Service Rural-Urban continuum, a seven point scale. Reasons for removal are based on child welfare records and reflect the official categories states are required to report in the Adoption and Foster Care Analysis Reporting System (AFCARS). Dichotomous variables in this study include abandonment, neglect (including medical neglect), physical abuse, psychological maltreatment, and sexual abuse.

Note that the literature review found that placement characteristics that occur after a child enters foster care, such as placement with a relative, are related to type of foster care exit. However, these types of measures are considered to be on the causal pathway (a mediator) between participation in the ZTT Court Teams program and the permanency outcome. As illustrated in Figure 6, the mediator becomes a collider due to unobserved confounding. In this case, placement with a relative is dependent on having an appropriate relative available and willing to care for the child. The larger the family, the greater the possibility for relative placement. Similarly, family background including a history of child welfare involvement or substance abuse decreases the likelihood of finding an appropriate

---

[21] The literature also finds that child disability/emotional issues are linked to time to permanency. Given the age of the sample (two thirds of ZTT cases were infants at the time of entry into the child welfare system), disability and behavior issues largely have not surfaced at this stage and are not available in the data.

Figure 6: Conceptual Model and Biasing Effect of Placement Characteristics Mediator

relative placement. The ZTT Court Team program also argues for relative placement in order to best maintain the parent, child, and family relationship. Any variables that both cause another variable become conditionally associated, even if there was no association between them before. This is represented by the dotted line between ZTT Court Teams participation and family characteristics. Since they are both causes of placement type, if we know if one is not present, then we know that the other must be present (or at least the likelihood of the other being present increases).(80) This would bias the estimate of overall program effect on type of foster care exit, the central question of the study. As a result, placement characteristics occurring after enrollment are excluded from the analysis.

IV.3.3 Analytical Methods

IV.3.3.1 <u>Data management</u>

Variables from the ZTT Court Teams and NSCAW were transformed to similar formats and then appended to make one dataset. Like all longitudinal studies, data collected suffered from loss to follow up and item missingness. Data on all ZTT cases are available through the course of their time in the project; no ZTT cases suffered from attrition. NSCAW cases did experience some degree of loss to follow up. Given the longitudinal nature of the survey, however, data for a child whose case worker missed a round of interviews was generally collected during the following wave. Attrition is most evident in the fifth wave of NSCAW. Of the children known to still be in foster care at the end of the study period, only 15% have a wave 5 survey. These cases are treated as censored at the date of their last completed survey.

In terms of item missingness, ZTT data were nearly complete, though NSCAW contained missing data, particularly in reasons for removal. The companion article contains more information on missing data. Multiple imputation is widely regarded as an appropriate approach to missing data, using data for known variables to estimate likely answers for the

missing data through several rounds of Monte Carlo simulations.(71) While statisticians have traditionally viewed five imputations as sufficient, more recently experts indicate that 20 imputations are optimal.(72) Twenty rounds of multiple imputation were conducted in SAS using IVEware. All other statistical analyses were conducted in Stata 10. As NSCAW uses a sophisticated sampling design, the svyset command was utilized to account for psu's, strata, and sampling weights. ZTT sites were coded as a separate stratum and each ZTT site was assigned its own psu. ZTT cases were each given a sampling weight of 1 since they represent the universe of cases in these sites.

IV.3.3.2 <u>Propensity Score Analysis</u>

To best understand the effect of the ZTT Court Teams program, ideally one would observe participant outcomes in the program and then when they did not experience the program. The difference between their outcomes would be due to the program since all other factors would be held constant. Of course, a child cannot simultaneously participate in the treatment and comparison groups. Instead, randomization is viewed as the best approach to equalize both observed and unobserved differences between the groups.

Rarely, though, is randomization an option in child welfare research. Researchers must therefore rely on statistical methods to balance the groups for comparison. Regression, the most common approach, controls for a variety of differences between the groups. Once these differences are accounted for, the researcher then assumes that any unobserved confounding can be ignored. According to Rubin, regression is satisfactory when the mean difference in likelihood of program participation between the groups is fairly small, the variance in these probabilities is nearly the same, and the variance in the residuals of the covariates is also very similar.(16) Researchers rarely compare their groups on these factors. Moreover, estimates from regression can be skewed if there are a fair number of cases that are not on the common support. That is, regression does a poor job of

70

estimating program effect for cases in the program that do not have good comparisons. It extends the linear model based on known data to calculate an effect difference for those without a good match. The resulting estimate of the treatment effect can be quite sensitive to the functional form of the model.(19)

A propensity score analysis can better identify issues involving the common support.(19, 89) The propensity score is the probability of the child being in "treatment" or in this case, participating in a program or intervention, given a particular set of covariates.(73) The challenge is selecting the covariates on which to predict program participation. Leaving out relevant covariates can produce bias as can including inappropriate ones.

A directed acyclic graph (DAG) is a useful diagramming tool to identify key covariates.(19, 79) As the DAG in Figure 6 indicates, some covariates can actually bias results. Like regression, the end result is to assume that any differences between the treatment and comparison groups are ignorable with careful covariate selection. Covariates used to predict the propensity score in this analysis were described earlier.

The propensity score can be used for matching cases in the two groups, analyzing subgroups with similar propensity scores such as by quartile, or forming probability weights. This analysis uses propensity scores as weights. The weights are formed as one over the probability of the treatment status experienced. For ZTT cases, the weight is one over the propensity score; for the other cases, the weight is one over one minus the propensity score. As a result, ZTT or "treatment" cases with high propensity scores receive a very low weight since there are likely many cases like this, while comparison cases with high propensity scores receive a very high weight since they are underrepresented in the comparison group.(19)

The propensity score weights were applied and bivariate logistic regressions were then run (with program participation used to predict each covariate one at a time) to check for balance between the two groups on each of the covariates. The covariates are assumed

71

to be balanced between the ZTT Court Teams group and NSCAW comparison sample when there are no significant relationships between the covariates and program participation once the propensity score weights are applied. The propensity score model needed to be adjusted to achieve balance. Balance was accomplished by adding interactions between key covariates. The final propensity score model used to predict participation in the ZTT Court Teams program is below:

$$CT_i = \beta_0 + \beta_1[CC_i] + \beta_2[PC_i] + \beta_3[U_{ij}] + \beta_4[RR_i] + \beta_5[M_i{}^*Cov_i] + \beta_5[PM_i{}^*Cov_i] + \beta_6[U_{ij}{}^*Cov_i] + \varepsilon_i \quad [1]$$

where CT represents participation in the ZTT Court Teams initiative. CC indicates the vector of child characteristics and PC is a similar vector of parent characteristics. U denotes the county's rank on the urban-rural continuum. RR signifies the reasons for removal. M*Cov represents a vector of interactions between male and each of the other covariates. PM*Cov symbolizes interactions between psychological maltreatment and 1) poverty, and 2) physical abuse. Lastly, U*Cov stands for interactions between the rural-urban continuum and each race/ethnicity variable. Measures for each of these covariates were presented in section IV.3.2.2. Once balance was achieved, the p score weights were multiplied by the survey weights to generate a new weight used in the analysis.[22]

IV.3.3.3 <u>Competing Risks Analysis</u>

There are multiple ways to exit the foster care system. Analysis of durations that can end in one of several possibilities is well suited to a competing risks analysis. One way to estimate such a model involves a discrete-time hazard (DTH). An advantage of this approach is that estimation can incorporate a multinomial logit (MNL). At each time point, the outcome has several possible categories: remaining in foster care, reunification, adoption, relative custodianship, or legal guardianship. One estimates a MNL for each time

---

[22] Balance was also tested with these new weights (propensity score weights multiplied by the sampling weights). Balance was evident with these weights as well.

point, and in effect, the estimates are pooled across time points. This pooling occurs by reorganizing the data such that individuals have one record for each period at which the child is "at risk" of leaving foster care. For this analysis, each time period represents one week in foster care. DTH is also very flexible, allowing for models that test if and how the hazard model varies over time.(84)

The following model was used to test the ZTT Court Teams effect on duration in foster care by type of foster care exit using DTH with MNL:

$$\text{FC exit}_i = \beta_0 + \beta_1 CT_i + \beta_2 Wk_j \tag{2}$$

FC exit signifies the type of exit from the child welfare system, CT refers to participation in the ZTT Court Teams program, and Wk represents week. The propensity score based weights (propensity score weight multiplied by the survey sampling weight) were applied in the analysis as probability weights. The covariates are captured in the propensity score weights and do not explicitly appear in the model. These weights effectively created a pseudo-population in which the treatment condition was not confounded by the covariates used to estimate the propensity score. Remaining in foster care served as the reference exit category for the MNL. Results indicate the conditional probability that those in the ZTT Court Teams program would experience each type of exit relative to continuing in foster care.

Model 2 is a linear approach, estimating a constant program effect over time. In reality, the program effect may vary with time. The following models were used to assess whether the effect of time was nonlinear.

$$\text{FC exit}_i = \beta_0 + \beta_1 CT_i + \beta_2 Wk_j + \beta_3 Wk_j^2 + \beta_4 Wk_j^3 \tag{3}$$

$$\text{FC exit}_i = \beta_0 + \beta_1 CT_i + \beta_2 Q2_j + \beta_3 Q3_j + \beta_4 Q4_j + \beta_5 Q2_j{}^*CT_i + \beta_6 Q3_j{}^*CT_i + \beta_7 Q4_j{}^*CT_i \tag{4}$$

Model 3 still estimates a constant program effect within an exponential model of time. In Model 4 the weeks elapsed since the child was removed from the home are divided into

73

quartiles (Q) and the program effect is allowed to vary within each quartile. The propensity score based weights were applied to these models as well.

Since NSCAW included five waves of data collection, the comparison group generally had a longer follow up time period than the ZTT Court Teams cases. This feature of the data is easily handled by hazard modeling. NSCAW cases were censored at the longest known point of time to permanency for ZTT cases. This served to equalize the follow up timeframes to some degree. Under this approach, the NSCAW cases running past the censoring point (53 months or about 4.5 years) were coded as not yet having reached permanency as of that time. Data past this point were excluded from the analyses.

IV.4. Results

IV.4.1 Descriptive Analysis

Given the different sampling frames, it is to be expected that the ZTT Court Teams sample differs to some degree from the children in the NSCAW comparison group.[23] Two-thirds (67%) of the ZTT children were infants at the time they were removed from the home, compared to 57% of the NSCAW sample. African Americans were the largest racial group among the ZTT children (37% ZTT v. 24% NSCAW) while Caucasians were the predominant category in the comparison group (29% ZTT v. 41% NSCAW). Differences were also pronounced in terms of parent characteristics. The ZTT Court Teams group was more likely to experience substance abuse (72% ZTT v. 59% NSCAW) and general poverty (95% ZTT v. 81% NSCAW). The NSCAW comparison group alternatively registered higher need for employment services (35% ZTT v. 47% NSCAW) and severe mental health issues (17% ZTT v. 21% NSCAW). Both samples had high rates of reported neglect (69% ZTT v.

---

[23]NSCAW sampling weights only were used to calculate frequencies. Frequencies do not reflect propensity score weights. Note that summary statistics are calculated using the Kaplan-Meier method to address issues of censoring. Stata 10 does not allow the use of survey weights in this approach. Traditional medians were also calculated with survey weights, but not adjusted for censoring. Trends in results are similar to those from the Kaplan Meier method. See table 8 for comparisons.

72% NSCAW), though the NSCAW group experienced higher rates of other reasons for removal such as abandonment, psychological maltreatment, and sexual abuse. See the first companion paper for more description of study participants.

The ZTT and NSCAW groups also differed markedly in how the children exited the foster care system (Table 7). Reunification was the most common form of exit for the ZTT children (38% ZTT vs. 29% NSCAW), while the majority of NSCAW children exited through adoption (15% ZTT vs. 41% NSCAW). The groups also differed greatly in the proportion exiting to relative custody, with the ZTT Court Teams children experiencing this nearly three times as often as the comparison sample (25% ZTT vs. 8% NSCAW). Few in either group exited to non-relative guardianship, though ZTT cases were about twice as likely to do so.

ZTT Court Teams children experienced significantly shorter time in the child welfare system than the NSCAW group across all types of exits. Table 8 displays summary statistics for the ZTT group and the NSCAW imputations. Quartiles across the imputations are shown to illustrate that these data are estimated. Using just one imputation would underestimate the overall uncertainty in the model by treating these estimates as a piece of real data. The ZTT means are significantly shorter than the NSCAW comparison group for all types of exits from foster care across 95% or more of the imputations. These are statistically significant at the .05 level. In addition, ZTT medians for time to reunification and adoption are both significantly shorter than the medians for all NSCAW imputations (p<.05). Median time to relative custodianship is significantly shorter for ZTT children compared to 75% of the NSCAW imputations (p<.05). Time to exit for non-relative guardianship is significant for ZTT compared to only 40% of the NSCAW imputations, perhaps partially explained by the small sample size (n=18).

Children in the ZTT Court Teams program exited to reunification after median of 309 days (CI 280, 342) or about 10 months, compared to a lower bound average of 547 days (CI

Table 7: Experience of Exits from the Child Welfare System

Type of Foster Care Exit	ZTT Court Teams (n=298)		NSCAW sample** (n=511)	
	pct	se	pct	se
Reunification	37.6%	(.047)	29.3%	(.042)
Adoption	15.4%	(.059)	40.7%	(.045)
Relative custodian	24.8%	(.085)	8.4%	(.033)
Non-relative guardian	3.0%	(.017)	1.6%	(.007)
Still in foster care at end of study period*	19.1%	(.068)	20.1%	(.036)

* Study periods are not identical across or within samples. The ZTT group includes all cases that entered from the time the project started in 2005 until the end of 2009. Cases entered the program throughout this time period. Follow up data on ZTT children are available through September 2010. The NSCAW sample includes all children in the survey who entered child welfare supervised out of home placement before the age of three. Most cases qualified during the first wave, though children first met the criteria throughout the five NSCAW waves. Data on NSCAW cases were censored at the point that the longest ZTT case is known to have taken to reach permanency.

**Percentages calculated with sampling weights but not propensity score weights and reflect the results across all imputations. Standard errors based on first imputation only.

Table 8: Length of Time (in Days) to Foster Care Exits:
Summary Across the Imputations
(n=809)

Type of Exit from Foster Care		ZTT	NSCAW Imputations				
			Low	*25th Percentile*	*50th Percentile*	*75th Percentile*	*High*
Reunification	Median (se)	309 (17.6)	547 (26.9)	581 (25.3)	583 (24.5)	596 (35.5)	635 (34.8)
	Mean (se)	340 (17.9)	587 (30.5)	638 (30.6)	649 (29.7)	670 (32.5)	699 (32.7)
Adoption	Median (se)	464 (16.4)	764 (38.6)	777 (33.7)	798 (32.2)	812 (32.2)	818 (31.5)
	Mean (se)	496 (33.5)	800 (22.2)	824 (22.3)	829 (21.5)	835 (21.5)	846 (22.0)
Relative custodian	Median (se)	351 (13.9)	450 (66.5)	471 (29.3)	541 (61.8)	598 (114.3)	747 (43.7)
	Mean (se)	363 (13.7)	487 (57.1)	565 (60.3)	636 (58.1)	666 (71.3)	822 (69.4)
Non-relative guardian	Median (se)	481 (146)	878 (120.6)	958 (40.2)	1010 (78.0)	1030 (107.3)	1200 (317.3)
	Mean (se)	467 (33.3)	780 (126.5)	983 (105.3)	1059 (117.3)	1075 (75.1)	1185 (95.0)

Note:

No imputations were needed for ZTT Court Teams outcome data.

Summary statistics computed using Kaplan-Meier method to incorporate censoring which does not allow the use of survey weights. The traditional median calculated with survey weights but not allowing for censoring yields a similar range of medians across the NSCAW imputations: reunification (494 days to 681 days), adoption (764 days to 783 days), relative custodian (494 days to 792 days), and non-relative guardian (878 days to 1240 days).

501, 589) or about 18 months for the NSCAW children. This indicates that of children who were reunified, ZTT cases exited foster care typically 8 months sooner (as a lower bound across the imputations) than the NSCAW comparison group.[24] Similarly, ZTT cases typically exited at least 10 months faster among those who were adopted, a minimum of 3 months sooner for children who exited to relative custodianship, and at least 13 months faster on average for those who exited to non-relative guardianship.

IV.4.2 Competing Risks Analysis

The log rank test was conducted to determine the need for a competing risks analysis. Significant χ^2 results for all cases across the imputations indicate different survival functions for each type of exit from foster care (range p=.000 to p=.027 across the imputations). Similar findings resulted when tested just among the ZTT treatment cases (p=.000) and solely for the comparison group (range p=.000 to .029 across the imputations). Therefore, a competing risks analysis to consider the ZTT program effect within each type of exit was warranted.(70)

Table 9 shows results from the discrete time hazards model with multinomial logistic regression. The results for each type of exit are relative to remaining in foster care. Findings represent the effect of the ZTT Court Teams program as well as the passage of time on the likelihood of achieving each type of exit. Compared to NSCAW cases, children in the ZTT Court Teams program are significantly more likely to experience reunification, relative custodianship, or non-relative guardianship rather than remaining in foster care over time. As described previously, reunification was the most common type of exit for ZTT children. Results for the main DTH model find that ZTT children experienced an increased "risk" of 2.31 (relative to NSCAW) of reunification rather than remaining in foster care over the

---

[24] Based on comparing the ZTT median to the NSCAW median of the imputation with the lowest median number of days in foster care for those who were reunied. Comparing ZTT to the highest imputation yields an upper bound of ZTT children exiting to reunification nearly 11 months sooner.

Table 9: Multinomial Logit Discrete Time Hazard Models with Propensity Score Weights: Types of Exits from Foster Care

(n=809)

Type of Foster Care Exit	Covariate	MAIN DTH MODEL Model 2 RRR	se	p	SENSITIVITY ANALYSES Model 3 RRR	se	p	Model 4 RRR	se	p
Remaining in foster care (*reference*)										
Reunification	ZTT Court Teams	2.31	.896	.035	2.72	1.30	.041	1.83	1.69	.516
	Week	1.01	.003	.043	1.07	.034	.041			
	Week^2				1.00	.000	.177			
	Week^3				1.00	.000	.370			
	Week Q2 (quartile 2)							3.20	2.43	.131
	Week Q3 (quartile 3)							7.14	5.34	.010
	Week Q4 (quartile 4)							8.75	5.85	.002
	Week Q2*ZTT							1.91	1.72	.472
	Week Q3*ZTT							1.12	1.25	.918
	Week Q4*ZTT							.750	.665	.746
Adoption	ZTT Court Teams	.929	.474	.886	1.13	.685	.841	2.76	3.63	.443
	Week	1.01	.002	.000	1.10	.031	.002			
	Week^2				.999	.000	.006			
	Week^3				1.00	.000	.018			
	Week Q2 (quartile 2)							67.8	66.4	.000
	Week Q3 (quartile 3)							120	82.3	.000
	Week Q4 (quartile 4)							227	151	.000
	Week Q2*ZTT							.175	.282	.283
	Week Q3*ZTT							.660	.847	.747
	Week Q4*ZTT							.530	.632	.596
Relative	ZTT Court Teams	7.66	6.27	.016	9.77	9.69	.025	2.66	3.51	.461
	Week	1.01	.006	.374	1.06	.112	.616			
	Week^2				1.00	.001	.910			
	Week^3				1.00	.000	.898			
	Week Q2 (quartile 2)							9.24	11.3	.073
	Week Q3 (quartile 3)							6.67	7.22	.084
	Week Q4 (quartile 4)							12.17	14.85	.044
	Week Q2*ZTT							1.50	.1.94	.754
	Week Q3*ZTT							7.54	9.01	.096
	Week Q4*ZTT							.382	.479	.445
Guardian	ZTT Court Teams	8.42	6.21	.007	12.5	10.7	.006	1.00	.512	.998
	Week	1.02	.007	.002	.979	.206	.919			
	Week^2				1.00	.002	.643			
	Week^3				1.00	.000	.537			
	Week Q2 (quartile 2)							1.01	.	.
	Week Q3 (quartile 3)							8.5e+10	1.2e+11	.000
	Week Q4 (quartile 4)							1.2e+12	1.1e+12	.000
	Week Q2*ZTT							2.2e+11	.	.
	Week Q3*ZTT							39.8	44.4	.001
	Week Q4*ZTT							1.87	.	.

course of the study period (p<.05). Similarly, ZTT cases had a greater risk than NSCAW

children of exiting foster care for relative custodianship (RRR=7.66, p<.05) and for non-

relative guardianship (RRR=8.42, p<.01) compared to remaining in foster care over time.

While a greater proportion of NSCAW children experience adoption than those in ZTT, there

was not a significant difference in the relative risk of either group exiting to adoption

compared to staying in foster care.

IV.4.3 Sensitivity Analysis

The main model assumes a constant program effect over time. Two models were

run to assess the influence of time on the program effect. Table 9 shows these results for

comparison to the main model. When time is treated exponentially and the program effect

remains constant over time (model 3), the program effect increases to some extent for each

type of exit from foster care. ZTT children have an increased risk of exiting foster care for all

reasons compared to NSCAW children in this model, though adoption is not statistically

significant. Therefore, the significant program effects in the main model are robust when

time is handled exponentially. The main model does not appear to overestimate program

results and may actually underestimate them somewhat.

The final model (model 4) allows the program effect to vary across time. This model

suggests the differential program effect within each time quartile changes for each type of

exit (relative to the first quartile, representing about 6 months since the child was removed

from the home). Results indicate the constant program effect decreases for all but adoption.

None of the constant program effects are significant at this point. Since more assumptions

are relaxed with each model, less information is available to calculate the estimates and

standard errors increase. The program effects are now largely captured in the interactions

between ZTT participation and the time periods. By the last quartile, the program effect

drops off for each type of foster care exit. However, the change in program effect over time

80

is rarely statistically significant compared to the first quartile. A separate series of Wald tests were conducted to assess whether the set of ZTT program interactions with each quartile was equal to zero for each type of foster care exit. Insignificant results for reunification (F =.22, p =.882), adoption (F =1.16, p =.328), and relative custodianship (F =.38, p =.766) indicate that there is no statistically significant difference in program effect over time.[25] Based on these results, we fail to reject the proportional hazards assumption. Therefore, the main model is sufficient without allowing the program effect to vary over time.

IV.4.4 <u>Site Differences</u>

Exit patterns differ markedly across the ZTT Court Teams sites. Table 10 illustrates experience of each type of exit from foster care within each program location. Clearly, site 1 pursues reunification much more frequently than the other sites which more closely resemble the NSCAW comparison group on this outcome. Site 2 strives for adoption to a greater extent than the other projects. Site 3 uses more non-relative guardianship than other sites, but more children here are likely still to be in foster care as well. Site 4 equally emphasizes relative custodianship and reunification. Appendix B depicts the mean and median time to permanency for each type of exit within ZTT sites. Table 11 shows the relative risk ratios comparing ZTT sites to NSCAW in risk of experiencing each type of exit from the foster care system relative to remaining in foster care. Trends in risk mirror the percentages reporting each type of exit in Table 10. Note that a site level analysis is quite limited by the small number of children who experience each type of exit within a site.

---

[25] The Wald test for non-relative guardianship suggested the program effect was significantly different over time for this type of foster care exit. Since there is such a small number of children who exited to non-relative guardianship in both groups (total n=18), these results are not sufficient to warrant a separate model capturing non-proportional hazards for this group alone.

Table 10: Experience of Exits from Foster Care across ZTT Court Teams Sites

Type of Exit	Site 1 (n=71)	Site 2 (n=28)	Site 3 (n=77)	Site 4 (n=122)	NSCAW (n=511)
Reunification	52.1%	32.1%	31.2%	34.4%	29.3%
Adoption	9.9%	57.1%	16.9%	8.2%	40.7%
Relative custodian	32.4%	3.6%	6.5%	36.9%	8.4%
Non-relative guardian	0%	0%	7.8%	2.5%	1.6%
Still in foster care 10/1/2010*	5.6%	7.2%	37.7%	18.0%	20.1%

*Still in foster care at end of study period for NSCAW

Table 11: Relative Risk of Experiencing Each Type of Foster Care Exit:

Comparing Each ZTT Site to NSCAW

(n=809)

	Reunification	Adoption	Relative Custodian	Non-Relative Guardian
Overall ZTT	2.41	1.18	4.13	0.00
Site 1	5.00**	0.96*	16.95**	0.00**
Site 2	1.77	4.37	0.95	0.00**
Site 3	1.49	0.56	1.09**	9.50**
Site 4	2.57	0.81	16.58	10.67

Based on adding site variables to the DTH main model

MNL reference category: Remaining in foster care

The relative risk ratios for each site are calculated by adding the coefficient for the site variable to that for the overall program and then exponentiating. Effects coding was used for site variables. For each site variable, the site of note was coded as 1, the reference ZTT site was coded as -1, and all other sites and NSCAW were coded as 0. As a result, the main effect of treatment is the average across the sites. The interpretation of each site dummy is the difference not from the reference category but from the grand mean (for the intervention group). The effect for the reference site (site 4) was calculated by subtracting each of the coefficients for the other site indicators from the overall average treatment effect (coefficient on the ZTT participation variable) and then exponentiating the result. This approach yields the same coefficients running the model separately for each site relative to NSCAW. P values represent any differences between the site and the overall ZTT average. As a result, there are no p values for the reference site (site 4).

IV.5. Discussion

The companion paper to this study found that children in the ZTT Court Teams program exit the child welfare system significantly faster than a group of similar children in the National Survey of Child and Adolescent Wellbeing. The descriptive analysis in this paper suggests that ZTT children are less likely to exit child welfare through adoption, and more likely to experience reunification, placement with a relative custodian, or non-relative guardianship than the NSCAW sample. Prior research finds that adoption requires much more time than other forms of permanency. It is possible that this difference in how children exit the foster care system explains much of the difference in time to permanency between the ZTT Court Teams cases and the comparison group.

However, the descriptive analysis presented here finds that ZTT children in fact reach permanency earlier within each type of exit from foster care. A discrete time hazards analysis was used with a multinomial logit and propensity score weights to assess the competing risks of the types of exits from foster care relative to remaining in foster care. In this analysis, the program effect was significant for reunification, relative custodianship, and non-relative legal guardianship. At any point in time, the ZTT children had a significantly greater risk of exiting the system to one of these types of exits rather than continuing in foster care. This implies they exited the system faster than the NSCAW comparison group for these types of exits. The competing risk analysis found that the risk of adoption among ZTT children was not significantly different from that of the NSCAW comparison group. This analysis suggests that the differences in the distribution of types of foster care exits between the ZTT and NSCAW groups explains some of the overall program effect in time to permanency. However, ZTT children clearly exited significantly faster for three of the four types of exits.

Reunification warrants special consideration in this discussion. The ZTT Court Teams program purposefully does not frame itself as a "reunification" program. This is

somewhat unusual compared to other child welfare related efforts such as the Family Reunification Program or drug court that often do focus on reunification. ZTT considers a shorter time to permanency to be in the child's best interest, generally regardless of how permanency is achieved. Given this, it is somewhat ironic that reunification was the most common means of exiting the child welfare system among ZTT Court Teams children (38%).

The overall findings here are promising, but require some consideration. First, the propensity score analysis helps to address issues of causal inference, but it is not a foolproof method. The propensity score reflects probability of program participation given a particular set of covariates. The variables used to generate the propensity scores were selected based on findings from the literature as well as a review of descriptive statistics suggesting characteristics on which the ZTT Court Teams cases and the NSCAW sample appeared to differ. These variables were put into a conceptual model to help identify unobserved confounding. Since they are all related to both program participation and the outcome variable as well (exiting from the child welfare system) they are true confounders and indeed should be in the model. There may be another variable, however, that would be appropriate for predicting program participation that was not used such as state child welfare laws or judicial willingness to participate in the ZTT Court Teams program. Inclusion of other variables was limited to what was available and measured fairly consistently in both the ZTT Court Teams MIS and NSCAW. However, the program effect on different types of exits relative to remaining in foster care (see Table 9) was so large that it is unlikely that including a key omitted variable would negate or even reverse the program effect.

Another limitation is that this paper only considers the child's first episode in the child welfare system. It could be that some children experience additional maltreatment and re-enter foster care. It is not clear how the program may affect these rates of re-entering the system.

Moreover, each site operates in a different context. As shown in the Appendix B, ZTT Court Teams sites differ in the proportion of children who experience each type of foster care exit. Exploring these site differences is limited by the small sample sizes across the sites. As more children enter the program over time, it would be insightful to further consider the contribution of each site to the overall program effect within each type of foster care exit. A formal fidelity to the model assessment is beyond the scope of this analysis, but would be a valuable next step.

Just as children exit the child welfare system in various ways, they may also experience different long term outcomes depending on their type of exit. This study treats each type of exit equally, without favoring one type of exit over another. Future evaluations should further explore the separate longer term effects of reunification, adoption, relative custodianship, and non-relative guardianship on a host of child outcomes including re-entry into the child welfare system as well as behavior, health, and overall child wellbeing. Findings could ultimately inform program design for the ZTT Court Teams initiative as well as other family-oriented child maltreatment interventions.

V. Manuscript 3: An Exploration of How the ZERO TO THREE Court Teams Initiative Works to Reduce Time to Permanency – A Unique Case Qualitative Analysis

V.1 Introduction

More infants and toddlers enter foster care each year than any other age group.(5, 21-22) In 2008, foster care was home to nearly 200,000 children under age three, representing over a quarter (26%) of all new cases.(22) These young children live in unstable homes at a critical point of their development.(2) A stable, nurturing caregiver is the foundation for promoting secure attachment in infants and toddlers. Insecure attachment can lead to emotional withdrawal and eventually, behavior issues such as poor self-regulation.(4-5) Young children's experience of prolonged trauma or anxiety also can affect physical health, including their ability to regulate stress.(6) Despite these risks, infants typically stay in foster care for longer periods than older children.(5)

The Court Teams for Maltreated Infants and Toddlers project is a systems change initiative to address the needs of young children in foster care. ZERO TO THREE: National Center for Infants, Toddlers, and Families (ZTT) developed the project and oversees implementation at the local court level. One goal is to reduce "time to permanency." In the Court Teams model, a locally based family court judge works with a community coordinator to convene a team of local child welfare, legal, and service provider representatives. The local court team designs a plan to improve the permanency process for abused and neglected young children in their community. The local plan includes eight core elements of the Court Teams model . The initiative began in 2005.(57-58) Twelve projects have been funded to date. Four of these projects have cases that reached permanency by end of 2009.

This article is the final in a series, contributing to a mixed methods evaluation of the ZTT Court Teams program. Use of mixed methods has become standard practice in the field of program evaluation.(64, 90) The quantitative component provides a statistical summary of client outcomes based on a substantial sample of subjects. The qualitative portion offers much more detail to understand a smaller number of cases, helping to identify reasons for individual differences in their experiences. Qualitative research is generally exploratory in nature. This methodology is commonly used as an inductive, theory building tool without predetermined hypotheses.(18)

The companion pieces to this study involve quantitative analyses. They each compare ZTT children to a nationally representative sample of young children in foster care drawn from the National Survey of Child and Adolescent Well-Being (NSCAW). Analyses combine propensity score weights with survival analysis. The first article finds that the ZTT Court Teams project significantly reduced the time children spent in foster care before being discharged from the child welfare system. Overall, however, the program did not influence how quickly children were placed in what ultimately became the permanent home.[26] The second paper determines that children in the ZTT Court Teams program were more likely to exit the foster care system for reunification and guardianship than the NSCAW comparison group and to do so at a faster rate.

This final article in the evaluation uses qualitative data from semi-structured interviews with program coordinators to explore how the ZTT Court Teams program components affect time to permanency. It uses a "unique case orientation" approach in which select groups of successes and failures are identified for further study. Specifically, program experiences for cases that took the longest time to reach permanency are compared to those for families who reached permanency the quickest. The approach is designed to show how to improve a program, especially when the researcher is interested in

---

[26] The differences between "official" permanency and "move in" permanency are discussed in the next section.

differences in experiences across multiple program sites.(18) This article begins with an overview of the ZTT Court Teams program. It then describes the methods, analytical framework for this analysis, and findings. This paper concludes with a discussion of the implications and limitations of the study.

V.2 ZTT Court Teams for Maltreated Infants and Toddlers

V.2.1 <u>Program Overview</u>

The ZTT Court Teams program is community-based, targeting infants and toddlers under age three entering the child welfare system. The project has three main goals:

- Reduce the time until children are in a permanent home, i.e. decrease time to permanency

- Improve the well-being of young children in foster care, including meeting developmental needs, fostering a secure caregiver relationship, and encouraging family involvement with the child

- Reduce the recurrence of substantiated reports of abuse and neglect

In conjunction with their Court Teams advisory committee, the ZTT national office has developed a Court Teams model for implementation at the local level designed to meet these goals. Initially inspired by early childhood focused activities in the Miami-Dade courts, the model eventually evolved into a broader approach that was more easily implemented in a variety of environments and which includes evidence based practices related to parent education and child-parent psychotherapy.(57-58)

The model is defined by a series of major program components. Judicial leadership is the first component. ZTT works closely with the National Council of Juvenile and Family Court Judges to identify judges interested in bringing a court team to their community. Once funding is secured for a local site (typically through the Office of Juvenile Justice and Delinquency Prevention at the U.S. Department of Justice), then the ZTT national office

works with the judge to hire a community coordinator, the second program component. The coordinator fulfills many roles, including forging a supportive working relationship with local professionals involved in the child welfare system such as the county Department of Social Services or child protective services (CPS) case workers and supervisors, attorneys, court ordered special advocates (CASA), and so on. The coordinator also learns about a variety of services for children and parents in the community. The judge and the coordinator work together to recruit child welfare representatives and service providers to participate in the local court team (the third program component). This court team is charged with identifying the needs of young children in the local child welfare system and developing a plan for addressing these needs.(57-58)

The local plan incorporates the remaining components of the Court Teams model. Local court teams spend a great deal of effort deciding how they will implement a key piece of the model, monthly case reviews. ZTT requires that sites have a process for discussing cases each month to ensure each case is active and progress is continual. Reviews may take the form of court hearings, family team meetings, professional staffings, and so on. The plan also incorporates the remaining components of the Court Teams model including referral to child-focused services, mental health intervention (i.e., child-parent psychotherapy), evidence-based parenting education, and ZTT national office activities (i.e., training and technical assistance, resource materials, and program monitoring and assessment). The court team meets regularly to review progress.(57-58)

The local court team also determines how children will be selected to participate in the program. Across the sites, nearly all child welfare cases of children under the age of three assigned to the Court Teams judges have entered into the program. Assignment to judges is based on age (e.g., all infants and toddlers are assigned to the Court Teams judge in a county) or random assignment, depending on the site. Most sites work to maintain an active caseload of 20 to 25 cases at any time, though only one site is known to have actively

put a temporary hold on taking new cases at one point due to community coordinator overload. Only one case in the original sites is known to have refused participation.

V.2.2 <u>Time to Permanency Outcome</u>

The U.S. Department of Health and Human Services (HHS) considers a child to have reached permanency when he or she is released from foster care and reunified with a parent or caregiver, legally adopted, placed with a relative who becomes the legal custodian, or living with another type of legal guardian.(28) The ZTT Court Teams program seeks to decrease the time required before the child is officially discharged from foster care. In addition to this time to "official" permanency, ZTT considers permanency from the child's perspective. The young child may be unaware of the official determination date, but quite sensitive to a change in caregiver and the physical environment. Thus, the program also considers permanency in terms of how much time passes before the child moves into what ultimately becomes the permanent home. This is referred to as "move in permanency" in this evaluation. The emphasis is on seeking an early foster care placement in a home that could eventually become a permanent home (such as with a relative or a foster adopt home) if reunification with parents is not possible. This focus on placement in a potential permanent home shortens the window in which the child is in flux, thereby increasing the likelihood that he or she can foster a positive attachment with the long term caregiver.

V.3 Methods

V.3.1 Data

V.3.1.1 <u>Sample and Data Collection Procedures</u>

This evaluation focuses on the four initial Court Teams sites. These sites have been in operation long enough for the majority of their cases to have reached permanency by the

end of the study period.[27] For this paper, one-on-one, open-ended phone interviews were conducted with the community coordinator in each of these four sites. Each interview focused on how key actors in the program (the judge and the community coordinator) responded to a series of cases and how other program components (such as the monthly case reviews) were implemented for these families.

To identify cases for discussion, children in each site were sorted by number of days in out-of-home placement before the child moved into what ultimately became the permanent home ("move in" permanency).[28] The top decile reaching permanency quickest (i.e., the most "successful" cases) and the bottom decile requiring the most time (i.e., the least "successful" cases) were selected for each site. Note that sorting first by site ensured that each location was represented proportionally in the interviews.

Community coordinators were sent a packet of information prior to the interviews. The packet included two lists of the child ID's corresponding to the cases selected for review in her site.   Community coordinators were not told the difference between the lists to prevent biasing their views.[29] The packet also included a consent form for coordinators as well as interview instructions detailing the need for them to use a secure room during the interview.

Each coordinator participated in two one-on-one interviews. Coordinators were told that neither family names nor case ID's would be shared during the interviews. At the first interview, they were requested to randomly select a family from List A (the top decile) and answer questions about the program experience for this case. (They did not share the ID of

---

[27] The quantitative analyses in papers 1 and 2 are based on 298 ZTT cases, including all children in the initial four sites who entered the project by the end of 2009. They include data collected through September 2010, representing a follow up period of one year or more for 94% of ZTT cases.

[28] Cases were sorted by move in permanency rather than official permanency as ZTT originally focused strictly on move in permanency.

[29] Coordinators were asked at the end of the interview process if they could tell how the lists were sorted. None recognized the fast/slow distinction between the groups.

the case selected.) Coordinators were encouraged to consult their client records in order to reduce recall error. The interview continued with discussing the program experience for the other cases on List A. Nearly all interviews lasted 1½ hours. Questions were stopped at that time point to minimize the burden and fatigue for community coordinators. The process was repeated during the second interview for the bottom decile. A total of 46 cases were discussed across the sites, evenly split between "fast" and "slow" cases. Interviews were conducted over landline phones, recorded, and transcribed. The IRB at the University of North Carolina at Chapel Hill approved the data collection procedures.

V.3.1.2 Validation Interviews

Community coordinators naturally will carry biases in their perceptions of the program, their own role, and the role of the family. Multiple sources of data are commonly used to both corroborate the initial source as well as to suggest any limitations or biases in relying on the original source. Triangulation of data yields stronger evidence that the results are accurate.(18, 91) A full round of interviewing with CPS case workers, court appointed special advocates (CASA), and other child welfare system representatives was beyond the time and resources available for this study. Instead, an interview was conducted with one other representative from each Court Teams site. The Court Teams project director and community coordinator jointly chose a representative to contact for each site. They sent a letter requesting their participation. Those wishing to participate in the interview contacted the researcher. A case worker was interviewed in one site, a CASA supervisor was interviewed in another, and the community coordinator supervisor was interviewed for two sites. Each participated in a one-on-one phone interview that lasted approximately 45 minutes. Questions focused on trends in implementation of the key components of the ZTT Court Teams model in their site.

V.3.2 Measures

Open-ended questions were designed to reveal the role of the ZTT Court Teams program in time to permanency. Primary measures involve the community coordinator's perception of how each component of the program model operated for the cases. Table 12 illustrates how key program model components are linked to each qualitative measure, designed to ascertain how that component was implemented for each family. Interview questions were shared with the ZTT Court Teams director and assistant director for comment before use. The full interview protocol is available in Appendix C.

This interviewing strategy combines an interview guide approach with a standardized open-ended approach.(18) The protocol was meant to guide the interview, providing a core set of information on each case. Interviews followed the protocol questions but moved around to cover the topics as they naturally arose in the discussion. Responsive interviewing was conducted in tandem with the protocol. This involved the use of unique follow up questions on a case by case basis in response to what the community coordinator shared, much like a conversation.(92-93)

V.3.3 Analytical Methods

V.3.3.1 Coding and Analysis

The qualitative analysis proceeded in steps, starting broad to gain a general understanding of the data and eventually generating specific findings. The initial analytical approach was inductive, exploring the data for themes and patterns.(18) The researcher read all of the interview transcripts several times to gain a general sense of the data.(94) Notes were kept on recurring themes and potential perspectives to consider. Along with the interview protocol, these repeated concepts and patterns formed the basis for an initial coding structure.(18) Interviews were then sorted into a variety of groups including fastest

Table 12. ZTT Court Team Program Components Addressed in Qualitative Measures

ZTT Court Team Component	Qualitative Measure
Judicial leadership	How did the judge communicate in the court room? What kind of tone did the judge set during hearings for this particular case? (*Probe*: Sometimes judges are very directive and other times they are more laid back. How did the judge act in this case?)
	What kind of things did the judge ask about in the court room for this case? Can you give me an example?
	How does this compare to the way this judge typically communicates in court for most other cases?
	Did the judge order anything for this family? If yes: What kinds of things were ordered?
Community coordinator	I realize the community coordinator is not a case manager. But, sometimes the coordinator gets involved with cases in this way. Other times the community coordinator does more behind the scenes work for a case. What kinds of things did you do for this particular family?
	How did your work with this family compare to your work with other Court Teams families? (*probe*: Take more time? Less time? More involved? Less involved? Worked differently with the case worker?)
Monthly case reviews	How often did this child have a case review?
	If once a month: Was it regularly every month? Were some months missed?
	Who typically participated?
	What kinds of things were discussed at the reviews for this case? (*probe for following if not mentioned*: Service needs and usage?
	Contact with parent? How the child was doing? Permanent placement?)
	Looking back, what purpose did the case reviews serve for this particular case?
Services	Completing the service plan is often a requirement for parents to get their kids back. Were there certain services that the family did not receive or had a hard time receiving?
	If yes: What services? What kinds of barriers were there to getting these services?
	Based on your observations in court, how would you describe the parent's attitude toward:
	a. Working on their service plan? (*probe*: Willing or reluctant to get services?)
	b. Working with the Court Teams project? (*probe*: Willing or reluctant to join the project?)
	c. Seeking custody of the child?
Placement in kinship care	Where was this child first placed when he/she was removed from the home? (*probes*: with a relative, with a foster parent)
	How was it decided to place the child here? (*probes*: Who was involved in the decision?)
Concurrent Planning	Was there ever a need to change the primary permanency goal for this child?
	If yes: How was the new permanency plan developed? (*probe*: Who was involved ? Did you have to start from scratch? Was there a concurrent plan?)
	About how long did it take to develop the new plan? (*probe*: A matter of days or months?)
Overall	In hindsight, what do you think were the most important factors that helped this child reach permanency? How did these factors contribute?
	What were the most important factors in delaying the time it took this child to reach permanency? How did these factors hinder?

cases, slowest cases, and by site. These perspectives were used to fine-tune the coding structure. The codes were then applied to a sample of interviews. Slight modifications were made before coding all interviews.(92) Atlas.ti was used to code and analyze the data.

Analysis of the data initially focused on key components of the Court Teams model. Code queries, a process to generate a list of quotes linked to a particular code, were run for each program component including judicial approach, community coordinator activities, and monthly case reviews. First, quotes for the fastest cases were reviewed within a program component. Then a similar query was run for the slowest cases. This approach quickly illuminated any key differences in program approach for the two groups. It also showed when there were no differences. Codes related to the general themes were run for the quick group and the slow group as well as by site. This process ultimately generated a framework for organizing the data and describing the results.

V.3.3.2 <u>Steps to Reduce Bias and Strengthen Interpretation</u>

The interviewer serves as the instrument in qualitative research. His or her biases also can affect the framing and interpretation of questions. Patton suggests that qualitative researchers can remain neutral in their analysis while still engaging with the subjects. In fact, this engagement is necessary for greater understanding of the interview data.(18) This researcher's pre-existing relationship with the ZTT staff offers both opportunity and caution. These relationships allow easy access to staff and little concern about garnering their participation. Moreover, the researcher has a frame of reference for how the projects have developed since she was with ZTT when the projects initiated planning activities. She also has been exposed to the ZTT culture, which values scientific evidence. On the other hand, the pre-existing relationship may bias the researcher's interpretation of the findings. To minimize researcher bias in qualitative research, Maxwell suggests the first step is to acknowledge that possible bias exists.(95)

This study uses several techniques to gauge the degree to which study findings are robust. First, the researcher actively looked for cases that were exceptions to the findings. This effort is sometimes referred to as negative case analysis.(96) When few of these exist, then findings are more likely to be accurate.(18) Similarly, the analysis considered alternative hypotheses. What else besides the program does the data suggest is linked to time to permanency? When few alternatives exist or remain after consideration, then the original conclusions are considered strengthened.(91) Alternatives actually surfaced early on and were incorporated into the coding structure and analytical framework. Lastly, triangulation techniques were used to strengthen the findings. When data from multiple sources and perspectives converge, then the study findings are considered to be validated to some degree.(17-18, 91, 97) This analysis used within method and across method triangulation as well as investigator triangulation.

V.4 Results: The Child Welfare Permanency Process – An Analytical Framework Emerges

To understand the effect of the ZTT Court Teams program on time to permanency, one must consider the child welfare process it seeks to improve. This section describes the key decision makers in that process and identifies influences on their decisions. These influences are pivotal in shaping the direction of the case outcome. The fundamental components of the child welfare permanency process described in this section form the basis of the analytical framework to assess how the ZTT Court Teams initiative attempts to influence time to permanency in the following section.

V.4.1 A Key Decision Maker: The Parent

Will the child be reunified with the parent? Or, will the child be placed for adoption or legal guardianship? The judge is by definition the final, official decision-maker. He or she

presides over hearings and issues orders as needed. Representatives from CPS[30] work with the families, make recommendations, and in some cases, file motions and petitions regarding parental rights and how the case should progress. While they operate as the de jure decision-makers, the judge and CPS are reacting to the person who has much influence on the case: the parent. Are the parents going to the services outlined for them in the service plan? What are the service providers saying about their participation? Are parents attending visitation sessions the judge ordered? Are their ongoing drug tests clean? Has the mom chosen to leave a "toxic" and violent relationship with the dad? Ultimately the question is: can the parents provide a safe and stable home for the child? In essence, the parent is the de facto decision maker.

When CPS assumes temporary custody of the child, one of the first steps is to develop a service plan (also called the service agreement, case plan, or family plan of service in the ZTT sites)[31]. The case worker typically meets with the parents to understand their service needs and barriers to creating a safe home for the child. The service plan reflects these needs, clearly outlining the interventions parents are required to participate in. Most service plans first require a psychological evaluation. The plans also state that parents must participate in services recommended by the psychological evaluation, often counseling or therapy. Parent education and mandated visitation with the child are also universally outlined in the service plans. Much of the remainder of the plan is tailored to the parents' individual needs. Substance abuse is the overwhelming single issue among Court Teams parents. Service plans include substance abuse treatment (possibly both inpatient and outpatient) and ongoing drug tests for parents with substance abuse issues. Similarly, mental health and domestic violence services are included as needed. Issues of self-

---

[30] The name of the agency or department responsible for managing the foster care system varies across the sites (e.g. Department of Human Services, Department of Social Services, etc.). This department is referred to as CPS in this paper across the sites to prevent disclosure of project locations.

[31] This plan is commonly referred to as the service plan in this paper to prevent location disclosure.

sufficiency such as holding a job for six months and finding a suitable home for the children may be reflected in the plan as well.

Whether parents comply with the services ordered in the service plan is at the center of the permanency process. Their decision to comply with the service plan ultimately influences the direction of the case and the final case outcome. As one community coordinator put it:

> *The case closes when CPS says the parents have completed the service plan, they've done everything we've asked them to do. We have a place for the children, a permanent place for the children, the case is closed….. it is like a contract with CPS and the parent. You do what you are supposed to do; you get your children back.*

V.4.1.1 <u>The Link between Parents' Approach to Compliance and Time to Permanency</u>

In the vast majority of cases, the time required for the case to come to closure and the child to reach permanency hinges on the parents' decision to comply with the service plan. The data collection framework for this study has focused on "move in permanency", that is the time it takes for the child to move into what ultimately becomes the permanent home. Community coordinators described the program response for a group of cases that reached move in permanency quickly and again for another group that reached it quite slowly. Comparing the two groups of cases illuminates patterns in how compliance affects time to move in permanency.

In fact, the parents' approach to the service plan requirements has a somewhat counter-intuitive relationship with time to move in permanency. Parents who comply with the service plan generally regain custody of their children. These children remain in a temporary care-giving arrangement for quite some time before moving back home while their parents are engaging in services. They are delayed in their move in permanency until the judge and CPS agree that the parent can provide a safe home for the child.

On the other hand, many children whose parents do not comply with the service plan actually experience shorter times to move in permanency. Court Teams children are commonly placed early on in a foster adopt home or with a relative. These initial out-of-home placements are often specifically selected to serve as a potential permanent home if reunification is not possible. As one community coordinator said, the goal is "to make the first placement the last." As a result, children may have moved into what could become the permanent home the same day they were removed from the parents. Thus, for children whose parents do not meet the requirements in the service plan, the next deciding factor for time to move in permanency is type of placement. Children whose parents do not comply and who are not placed in a potential permanent home early on experience longer time to move in permanency.

Parents who are ambivalent about complying with the service plan appear to draw out the length of the case. This leads to an even longer time to move in permanency for those who are ultimately reunified. It may not affect the time to move in permanency for those who eventually experience termination of parental rights (TPR) if the case worker has been able to place the child with a temporary caregiver who can ultimately provide a permanent home.

V.4.1.2 <u>Examples of Parents' Approach to Compliance</u>

Community coordinators in each site described examples of parents who earnestly complied with the service plan and others who clearly did not comply. The parental approach to the service plan is quite evident in these examples. Other parents were more ambivalent, with stops and starts in working on their service plans. This latter group required more intervention from the judge and CPS. Examples of each of these approaches are described below.

V.4.1.2.1 Parental Compliance with Service Plan

If the parents clearly comply with the service plan, then in nearly all cases, children will be returned to them. These are straightforward cases for the judge and CPS. The parents clearly have made a choice. For instance,

> *The reason for their success I think was they were really devastated that their children were taken from them. And so they were really the ones who decided we need to do it because we need to get our children back. And that was something they just talked about all the time.*

Other parents also demonstrate their determination to get their children back despite personal obstacles:

> *[The mother]is absolutely amazing that, what is she, 20 years old, she had two children with special needs that really require a lot of doctors visits. So she was able to show all the professionals in the system that she was able to follow through with all of these things that these children had. And at the same time, she was dealing with her own victimization issues and poor relationship choices. And the guilt that's involved knowing that your children were hurt by the hand of the father of the children and you didn't stop it or you couldn't stop it. …..The children were [ultimately] reunified with the mother.*

There are, of course, exceptions to this notion that compliance with the service plan automatically leads to reunification. For instance, one mother was accessing the services in her service plan, but "the CPS attorney decided that this mom had a couple of termination of parental rights in her past, that they would file a termination of parental rights with this baby." Such exceptions were rare, however, and discussion of the role of the service plan in case outcome permeated the dialogue regarding almost all other cases.[32]

V.4.1.2.2 Parental Non-compliance with Service Plan

If the parents clearly do not comply, then their rights are terminated (or the parents willingly surrender their rights) and the children are free for adoption or guardianship. The

---

[32]Cases with little chance for reunification may not qualify for some specialty family courts. The ZTT Court Teams approach, however, is decidedly child-focused. It links the child with early intervention services and seeks timely permanent placement for the child, not necessarily reunification. Therefore, participation requirements are largely based on the child's age without consideration of prospects for reunification.

parental choice is clear in these cases as well as the following examples show:

> *We kind of knew where the case was going not long after it came in. Maybe … a month or so after it came in we kind of had a feeling what would happen because mom just kind of just dropped out……there was no progress on her part, at all….. and the child was placed with that relative who eventually adopted the child.*

> *The mother would come into court every time positive for cocaine, refused to get any help….. She didn't approach it [the service plan]. She just didn't do anything….This child was only placed in one foster home… [who] adopted the child.*

> *Mom is refusing to take advantage of particular services that would assist her in that area. And now dad is incarcerated and so he can't take advantage. He wasn't taking advantage of services at first, then he decided he would start, and now he can't cause he's incarcerated… termination of parental rights petition has been filed…because there's really not been a lot of progress made. So that's what we're waiting on. And… yes, yes, yes this foster parent wants to adopt this child.*

Such cases are generally straightforward for the judge and CPS. Community coordinators across the sites noted that the CPS case workers have concurrent plans in place to facilitate a smooth transition to the new permanency goal of adoption or relative guardianship for cases like these.

V.4.1.2.3 Partial Parental Compliance with Service Plan

In most cases, parents are more ambivalent about their decision to comply with the service plan. These cases are characterized by parents who do not have a consistent approach to the service plan. They may ignore the plan at the beginning and then later comply, as in the following case:

> *Throughout the case it was always back and forth. The child moved one two three four, it looks like the child moved with the last time being back with the parent. But there was just so much going on with the parents not doing their service plan. …..You didn't know until almost to the end what would happen in this case…..[And then ultimately]… the mom was [making progress on the service plan]. The dad ended up incarcerated so he was not able to do anything on his service plan as the jail did not offer any of the services that he needed.*

Other parents may complete some services but not others. Many cases fit this description.

The judge and CPS must closely monitor the parents to figure out where the case is

heading. In the end, a parent's ambivalence can still lead to reunification:

> *An inpatient drug treatment program was recommended for her. She went to one and she completed it. And then when she came out of course they recommended outpatient care and AA meetings and so forth. She started taking those and then slacked off. So that was a discussion in every hearing. Was she or was she not in compliance with the aftercare recommendation.… the mom [eventually] completed her court ordered services. She did everything, the parenting, whatever else was in the service plan. She didn't have a home but she was allowed to remain in the home with her [relative]…..the judge agreed to close the case and return the children to the mom.*

Or, the parent's indifference may result in termination of parental rights:

> *As far as the mother reaching the goals of the service plan … Sometimes she was. Sometimes she wasn't. The mother was supposed to have gotten a job. I don't think the mother ever…it was kind of on and off. The mother was supposed to have secured housing. She never did…There were more times that she wasn't [working her service plan]. There were, there were periods when you might have a drug screen that came back clean, or might be a period when she might have been working for a very short period of time….CPS determined that they needed to go on with TPR, to terminate the rights.*

Others may start off accessing services, only to later slip back into the destructive behavior

that the services were meant to address:

> *We just updated the court on her progress. She was staying clean, she had a job. She was doing fine. She was meeting her visitation. They went from supervised visits at CPS to supervised visits at the relative's house. And the mother, well when I knew it was going downhill, we had to start back having visits at the office because…the relative started having money missing after the visits and items in the home that were missing which you know. But then after that some of the tests started coming back positive.*

Even when a parent displays ambivalence, the examples above show it is still the parents'

behavior that dictates the direction of the case outcome. It just may take longer for the court

and case worker to figure out what that direction is.

V.4.2 Influences on the Parents' Decision to Comply with the Service Plan

A variety of factors influence the parents' behavior in complying with the service plan. Analysis of the qualitative data yields three main influences on the parents' approach to compliance. Figure 7 illustrates these central factors that affect the parents' decision and capacity to comply, namely their own parental attributes, the availability of social support, and the child welfare system.
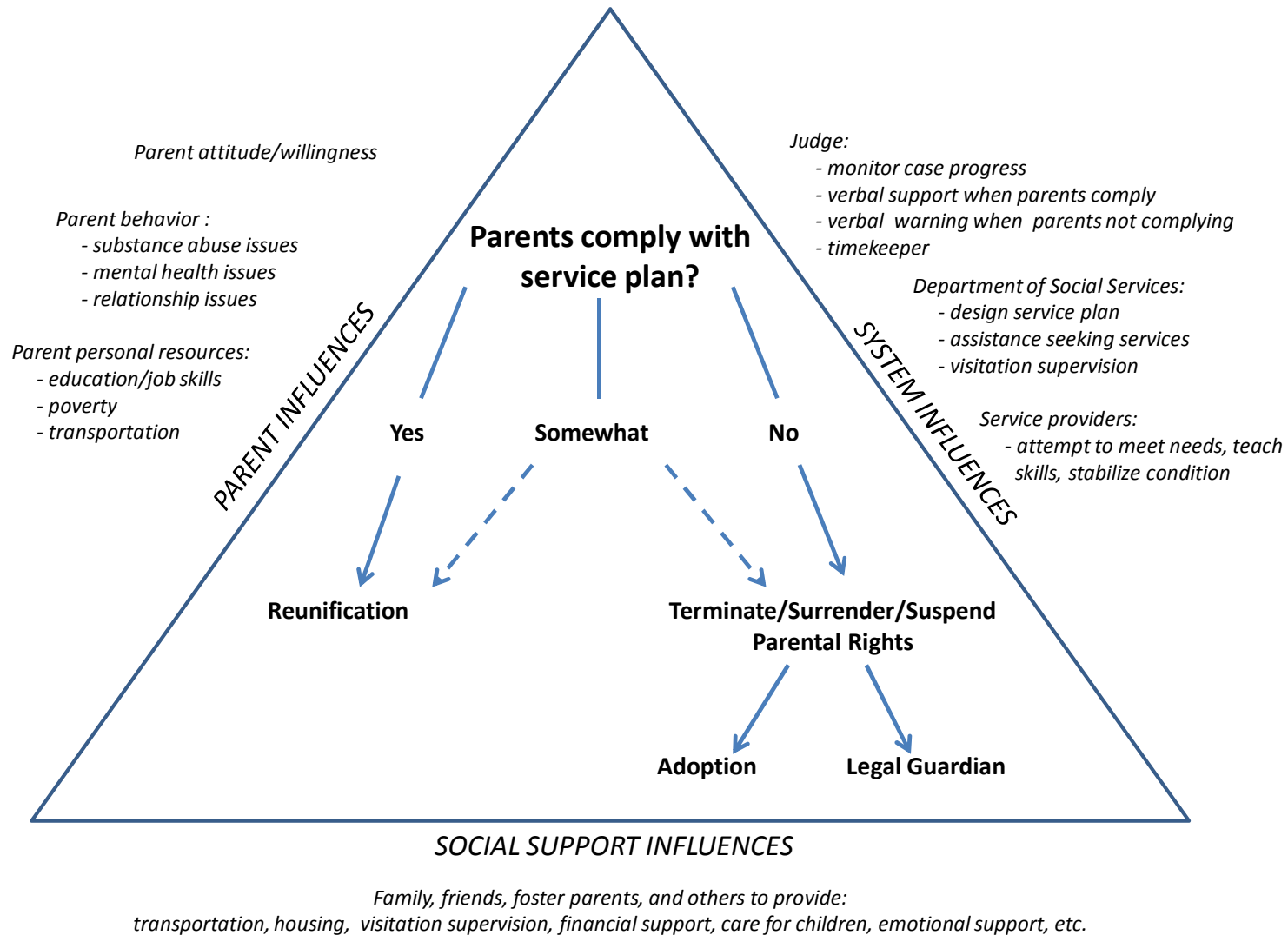
V.4.2.1 Parental Attributes as Influences

The parents' own attitude, ability, and resources factor into their approach to complying with the service plan. Sheer determination to get their children back is a factor for some parents like this one: "Mom was really, really working her case plan to get this particular child back. So because mom was so committed, we knew this child would be going back to mom."

But most parents experience many personal obstacles that impair their ability to comply with the service plan. Parental substance abuse, mental instability, and poor relationship choices are often an integral part of the reason the child was removed. The service plan invariably includes screening and services to address these behaviors. Substance abuse is by far the major personal obstacle for Court Teams parents, affecting nearly three fourths of the cases in these four sites. Community coordinators shared countless examples of how drug and alcohol addiction can derail a parent's ability to comply with the service plan. Even among parents who are willing to comply, many ultimately succumbed to their addictions. For instance:

> *They made the environmental changes that they needed; they stopped associating with their using friends. I think they both had jobs…They were actively involved in the treatment process. They said the right things. They had the right plans in place. And then it seems like it was one night of really poor decisions just spiraled them downward…… It's hard to say if one influenced the other into relapse. Because as soon as one of them relapsed, the other one did…Soon after that, we just lost our grasp on them. They got arrested and they just disappeared after they got out.*

103

Figure 7: Key Influences on Parents' Approach to Complying with the Service Plan

Parent attitude/willingness

Parent behavior :
- substance abuse issues
- mental health issues
- relationship issues

Parent personal resources:
- education/job skills
- poverty
- transportation

PARENT INFLUENCES

Judge:
- monitor case progress
- verbal support when parents comply
- verbal warning when parents not complying
- timekeeper

Department of Social Services:
- design service plan
- assistance seeking services
- visitation supervision

Service providers:
- attempt to meet needs, teach skills, stabilize condition

SYSTEM INFLUENCES

Parents comply with service plan?

Yes   **Somewhat**   **No**

Reunification

Terminate/Surrender/Suspend Parental Rights

Adoption   **Legal Guardian**

SOCIAL SUPPORT INFLUENCES

Family, friends, foster parents, and others to provide:
transportation, housing, visitation supervision, financial support, care for children, emotional support, etc.

Some lie to the court, pretending to comply:

> *She was in rehab with the baby and functioning very well. Or well enough to be discharged ... and she came home with the baby and was missing for like a week or so. And we didn't know, where is she, where is she, where is she? ... Finally found the mom, gave her a drug test. Her numbers were off the charts. And the hair follicle went back 90 days. And since she had only been out of rehab for a couple of weeks, you know those 90 days include the time that she was in rehab. And the numbers were off the charts. And then they discovered that she was buying urine from people and using the urine for her urine tests because the urine tests all came back negative! She'd leave campus....came back, had a drug test, negative, every time. Negative, negative, negative. So nobody knew anything. She was high as a kite the whole time she was there! Based on the numbers from the hair follicle test.*

And others are so completely absorbed in their addictions that they do not even make an effort to comply:

> *Every time she came to court she had a positive drug screen. The judge was pretty clear that she had to get off of these drugs. And then she had another baby about a year later. And this baby was born positive for cocaine also.*

In addition to challenging behaviors, the parents' personal resources can influence their ability to comply with the service plan. Lack of employment and general poverty played a role in several cases. It often manifested itself as inability to secure adequate housing for the parent and child. It was also an issue for several in their ability to pay for services such as drug screening. Lack of personal transportation clearly impeded the parents' ability to participate in services in one site in particular. For instance:

> *[The mom] was on housing, food stamps, AFDC, and all the other welfare services that people can get.....So she had a car, she was using her dad's car, her dad's truck. At some point during the case, her dad died. And the truck was repossessed, so there went her transportation. Then her boyfriend was driving her back and forth from where they lived on the outskirts of the county, all the way in to access services. He was involved in a really really bad accident. He was in the hospital for a while and then the rehab hospital. So there again went her transportation. But she had a lot of trouble trying to access her services, so when we went to court, the issue was always that the mother was not in compliance with the service plan, and she wasn't in compliance because she didn't have transportation.*

These personal parental attributes had a mixed effect on time to move in permanency. Parents with an attitude of determination to get their children back generally

experienced reunification. As a result, these parents tended to be among the cases that took the longest for the child to move into what ultimately became the permanent home. On the other hand, many parents were not able to overcome their destructive behaviors. The majority (though not all) of drug abuse cases were in the quick time to move in permanency group, ultimately ending with TPR. Case worker diligence in finding a suitable potential permanent home as an early placement meant that many children of parents with addiction found stability fairly early on. Poverty did not have a clear relationship with case outcome and time to move in permanency.

V.4.2.2 <u>Social Support Influences</u>

Parents can be overwhelmed in trying to comply with the service plan on their own. Help from family, friends, and even foster parents can affect the outcome of the case. As one community coordinator stated:

> *The relatives make a <u>big</u> difference, having the relatives there to help out. Because these ...you can't do all of these services by yourself. CPS requirements are too much. You have to have help. You have to have transportation … So sometimes it is just almost impossible for the parents to think about completing the services. But the ones who have family members who want to help. Sometimes they have some family members that they have burned so many bridges that the family members don't want to do anything for them, but if they can find a family member who wants to help and does help, they can be successful. Otherwise it's just too much.*

Relative involvement in the case and as a source of social support varies across the sites. Relatives were the main type of initial placement for the children in half of the sites. They typically offered their homes as a place for supervised visitation between the parent and the child. They routinely offered "emotional support and encouragement" to the parents. At times some relatives even allowed the parent to move into their homes.

The child's father is often a special case. Community coordinators sometimes view the father as a "relative" caretaker for the children when the parents were not a couple. The role of the father in the mom's compliance with the service plan and the outcome of the case

106

was quite unpredictable. At times he offered a positive support for the mom and/or became the eventual primary permanent caregiver for the child. For other moms, an emotionally abusive or violent relationship with the dad was a central factor in her involvement with the child welfare system in the first place. Regardless, one of the consistent benefits of having a dad identified and involved in the case is that it greatly expands the potential social network for the mother and child. Paternal relatives became the temporary caregivers for many of the children. In some cases, the dad's family offered emotional support for the mom as she tried to comply with the service plan such as in this instance:

> *And amazingly enough the father of the child, he was actually in prison, but [his] mother became a great support person for [the child's mother]. She didn't have any family members that were able to support her. So this paternal grandmother, they weren't married, but this paternal grandmother really stepped up to the plate. She became kind of a mother figure for this mother.*

Foster parents at times provide social support when family members and friends are not available. Several cases featured temporary caregivers who offered emotional support to the biological parents. They also routinely made sure the children received necessary services as well as visitation with the parents and siblings. In some instances, the foster parent evolved into the surrogate family. The following example involves a teenage mother who was in foster care herself. The baby was placed with her in the same foster home.

> *[The foster mother] helped the mother get a job. Helped with transportation … The CPS worker helped her get into a low income apartment and the foster mother actually assisted with that… Even after the children were returned to this mother, [the foster mother] was such a good support system, even to this day. It was like the children's grandmother.*

Lastly, isolated examples emerged of friends and acquaintances who stepped in to provide emotional support for the mother or food and diapers to meet the child's primary needs. In one case, church members helped to develop a plan for back up emergency child care that a father needed for the court in order to obtain custody of his children.

107

The findings here suggest that having social support can aid a parent in complying with the service plan. Yet, relative involvement, in particular, has a complex association with time to move in permanency. Cases in which the child moved into the permanent home quickly were split on relative involvement. Some had involved relatives while others did not. Typically in these cases, the parents did not comply with the service plan but the child was already living in what would become the permanent home – either with relatives involved with the case from the start or in a foster adopt home. Clearly, relative involvement or foster parent support was not enough to overcome the parents' own personal issues in these cases. On the other hand, all cases that were among the slowest to reach move in permanency appeared to have some sort of relative engagement. In many of these cases, the parents ultimately regained their rights and the child was reunified. The examples suggest that social support from the relatives may have contributed to these parents' ability to ultimately comply with the service plan, though findings are not conclusive.

V.4.2.3 <u>System Influences</u>

The child welfare system can also influence the parents in their approach to complying with the service plan. The judge and CPS together appear to offer a variety of incentives, disincentives, and supports for the parents. The most obvious incentive includes the possibility of the child returning to parental custody. The judges appear to be directive with parents across the sites, telling the parents they need to get the services in the plan and make a change in their behavior in order to get their children back.[33] Judges and CPS may also offer visitation and increased contact with the child to motivate parents toward the goal of reunification. When the case opens, visitation is generally in a controlled, supervised

---

[33] The judge is both a part of the child welfare system as well as a component of the ZTT Court Teams model. Since the interviews with the community coordinators were conducted after the projects were established in each site, this analysis contains little insight into how the ZTT Court Teams judges operated in the court room prior the program. As a result, discussion of the judge's influence on parental compliance and time to permanency is mainly reserved until the next section on the ZTT Court Teams influence.

environment. Parents who show progress on their plan and improved nurturing parenting behavior eventually earn unsupervised visitation.

Judges and CPS also use disincentives to prompt the parents to change their behavior. For instance, circumstances around visitation may tighten when parents are not complying with the service plan. The amount of court ordered visitation may decrease. And, as evidenced in an earlier example, supervision may revert from unsupervised status back to CPS-supervised visitation. A larger disincentive is the threat of CPS either making a recommendation to the judge for termination of parental rights (TPR), or as in some sites, the CPS attorney filing a petition on behalf of the child welfare department to actually pursue TPR.

In addition to the series of carrots and sticks the child welfare system uses to motivate the parents to comply, CPS also provides extensive support for the parents in the form of the case worker. CPS case workers are generally the architect of the service plan. They work with the parents to determine what should be in the plan. They communicate to the parents what the child welfare agency expects of them as part of developing the service plan. At the same time, the case worker supplies referrals to a variety of service providers to help parents obtain the services in the plan. Community coordinators were universal in their acknowledgement of the "good social work" the case workers provide.[34] This often takes the form of helping families overcome barriers to accessing services, such as in the following case:

> *[The children] were seeing a lot of specialists. The medical folks recognized that this was difficult and [the case worker] actually brought them all together at a clinic…So that the mom wasn't running all over the place….And when you have a gatekeeper that's really in touch with the case like our CPS worker who is a phenomenal worker and communicates with folks and she pulls those people together. It was her doing.*

---

[34] While coordinators were each made positive statements about the case workers, the validation inter views revealed that case workers were not necessarily consistent within a site. Some do not always follow through on their duties to the judge's satisfaction. The validation interviews are not included in the analysis, however, as they are quite limited in their scope and do not represent a comprehensive view of the child welfare system across the sites.

Case workers also offer emotional support to the parents such as for this family:

> *The parents were able to just call the worker any time and the worker was just there to provide what they needed. And just be a support for them. Be a boost for them when they felt like they were down.*

For other parents, the case worker may actually fill in gaps in the social support network, serving as an "extended family" such as for this mom:

> *She developed a really good rapport with the CPS worker. And to this day…she sends pictures of the little boy to the worker when she gets pictures taken and she stays in contact with the CPS worker. Which I think helps maintain her sobriety as well.*

Families may also receive help accessing services in the plan from other organizations in the child welfare system. In sites with court ordered special advocates (CASA) for the children, some CASA volunteers have provided transportation for parents to obtain services. All service providers report to the court on how the parent is progressing in meeting the service requirements.

The effects of the system influences on the parent decision to comply are fairly predictable at this point. Those cases that reached move in permanency quickly are generally parents who did not comply with the service plan and eventually lost their parental rights. In these cases, the judge and CPS started with incentives and then moved to disincentives. Neither carrots nor sticks were strong enough to persuade parents to overcome their personal issues and eventually comply with the service plan. On the other hand, cases that were slow to reach move in permanency were those that tended to respond to the case worker interventions on their behalf, ultimately comply with the service plan, and eventually have their children returned. While there are exceptions to these trends, these patterns are quite apparent in the data.

V.5 Results: ZTT Court Teams Influence on Time to Permanency

What mechanisms does the ZTT Court Teams project use to influence time to permanency? The parents' approach to complying with the service plan and major influences on the parent described in the prior section form the analytical framework to answer this question. In other words, the outline in Figure 7 guides the approach for this analysis. It suggests that the ZTT Court Teams program could decrease time to permanency by directly influencing the parents' decision to comply with the service plan. Figure 7 also indicates that the program has the potential to indirectly influence the parents' decision to comply through their social support network and through the case workers and service providers.

As illustrated in the previous section, there was clearly an established process for working with and monitoring child welfare cases in each site before the ZTT Court Teams project began. The ZTT initiative wraps around that pre-existing process. The local court team works together to develop a plan to help young children reach permanency quicker as well as to foster their developmental needs. The local plans each incorporate the core components of the Court Teams model. Those components best positioned to affect time to permanency include judicial leadership, the community coordinator, and monthly case reviews.[35]

As noted, parents' approach to complying with the service plan is at the center of the permanency process. ZTT's efforts to accelerate time to permanency are aimed at motivating both the parent and the key influences on the parent. Table 13 summarizes the direct and indirect mechanisms these court team components use to foster a quicker resolution for the case.

---

[35] The court team itself plays a role in developing a plan for decreasing time to permanency. The decision to focus the interviews on the program response at the case level, however, naturally precluded questions on systems level activities and changes. Since the monthly case review process is the key piece of the court team's plan in each site, it is likely that most court team efforts are covered under this component.

Table 13: Effect of ZTT Court Teams Program on Key Influences Affecting Parental Compliance with Service Plan

Key ZTT Court Teams Component	Parental Influences	Social Support Influences	Systems Influences
Judicial leadership	Motivate parents to act/continued encouragement Order additional services or activities and/or facilitate getting needs met Point out how relatives, case workers and providers have helped; may ask them for more effort in helping the parent get services Model for the parents the importance of child wellbeing* Order increased visitation* Increased focus on the timeline	Thank temporary caregivers Ask how they are doing caring for the child; what needs they have Give family members opportunity to comment in court on what they have observed between the parent and the child since the last court hearing Increased focus on the timeline	Point out all the case worker and providers have done for the parent and the child; encourage professionals to continue Order additional services or activities as needed; may require case worker or service provider to do a specific task on behalf of parent or child Motivate case worker to act if they have not Increased focus on the timeline
Community Coordinator	Emotional support for parents; encourage parents Offer an objective, third party perspective for the parent Assist in locating services if barriers exist Point out effect of parent behavior on child; motivate them to improve for the child's well-being*	Emotional support for caregivers and relatives ; encourage caregivers May assist caregiver in locating services for child if barriers exist**	Work with case worker; team approach May facilitate family team meetings and/or case staffing Remind professionals of focus on child well-being and child development**
Monthly Case Reviews	Very frequent and regular opportunity for judge to hold parents accountable May motivate parents to comply more quickly to avoid warning from judge at next fast-approaching hearing	Opportunity for temporary caregivers, visitation supervisors, and family members to communicate their needs and have them met quickly, often due to judicial intervention	Keep all on task Requires key actors to respond faster; do not procrastinate Illuminate case direction and likely outcome more quickly

* May not be directly related to parental compliance, but may help remind parents of benefits of complying   ** May not be directly related to parental compliance, but keeping focus on the child may 1) motivate temporary caregivers, case workers, and providers to continue with the case as parents address the service plan, and/or 2) help keep the focus on the timeline

V.5.1 ZTT Court Teams Influence on Permanency Process: Judicial Leadership

The judges in the four Court Teams sites use different approaches in the courtroom. Some mainly react to the information shared during the hearing. Others ask many questions about parental compliance, the child's well-being, and the overall progress of the case. Regardless of the style, each judge uses his or her authority to directly encourage the parent to comply. They also try to support and motivate key influences on the parents' compliance, namely the temporary caregiver and family (social support influences), and the case worker and service providers (systems influences).

V.5.1.1 Judicial Interaction with the Parents

Much of the judges' attention in the courtroom appears to be centered directly on the parents. All judges exhibit both encouragement and firmness toward the parents as warranted. When the parents are complying with the service plan and appear to be taking steps to change their behaviors, the judge can be very encouraging to the parent. There were many examples of judicial support shown to the parents, including:

> *[The judge] was very supportive and really wanted the children with their mother. And you know basically would encourage her and would actually praise her and tell her she was doing a good job and tell her to keep it up…assuring her we were going in the right direction… [The judge] is very good about praising when you've made progress on your service plan and you're doing what you're supposed to do.*

And on another occasion:

> *[The judge] mentioned that in court…[that the judge] was very proud of [the dad]. 'You know I saw you in Chuck E Cheese and I was having a time managing my one grandson but you just did an outstanding job working with all three of yours. You had three babies and you were working with them hands on.'*

There are many other parents who show little sign of overcoming their addictions and destructive behaviors. Judges often refer to the passing time to encourage the parents to act. "We're running out of time" was a consistent comment from the bench across the

113

sites.[36] Additionally, when the CPS worker and service providers share in court that the

parents are not complying, the judge may be much more directive as in the following case:

> *So the judge was pointing this out to this mother, that 'You know, all of this stuff is in place, and anytime that somebody set something up for you and gets you what you need, it gets sabotaged by this volatile relationship that you have [with the dad]. It circumferences everything that everybody is trying to do. And you don't take advantage of it. And you have to make a decision for yourself if you're going to choose this relationship or if you're going to choose your children.' And the end result is that she chose the relationship.*

Other judges had the following discourses:

> *[The judge] told the mother that she was gonna have to get some help. The window was closing. The window of opportunity was closing and if she repeatedly came back to court [without complying], she was going to lose her child. The mother would say that she was going to get help, but she never did get the help.*

> *[The judge] became increasingly frustrated… and really confronted the mom on how the professionals were working harder than she was and her inability to take ownership for her part that she played in this. And confronting mom on not understanding the impact it had on the children.*

Or, the judge may take a softer approach to motivating the parent:

> *[The judge] gives credit where credit is due…and pulls on their heart strings. There's 'You know we know the best place for these children to be is with you. We cannot put them with you until we know that you can safely parent them. We know that you have the ability to be a parent. But the problem is that you need to overcome this addiction in order for your children to be safely returned to you.'*

No matter the approach, in all cases, the judges appear to be quite consistent and clear.

The recurrent message to the parent is that they need to change their behavior and comply

with the service plan to get their children back….time is ticking.

V.5.1.2 <u>Judicial Interaction with Social Support Network</u>

While much of the judges' focus is on the parents and how they are complying with

the service plan, the judges also direct some of their attention to the other key influences on

the parents' decision to comply, namely their social support network and the professionals

---

[36] Judges do differ somewhat in how they enforce the deadlines. This is discussed in a later section.

involved in the case (as illustrated in Figure 7). Judges routinely carve out time for the relatives and foster parents (often one in the same) to speak about the case. In addition to informing the judge how the child's needs are being met, giving the caregiver the floor may help the judge highlight for the parent the importance of the child's well-being. For instance:

> *In every court hearing after [the judge] either gives the parents the kudos that they need or scolds the parents or confronts the parents, [the judge] will turn to the people who are the primary caretakers of the children. I think [the judge] does it afterwards on purpose, especially when the parents aren't doing what they are supposed to do. And [the judge] will thank the caretaker for providing a safe nurturing environment for the children while they are going through this crisis. At that point [the judge] will ask if the primary caretakers have any needs for themselves and if the children have any needs. And then thank them once again and make sure that whatever needs that were brought up are taken care of before the court hearing close.*

The judicial approach to the relatives may also influence how the relatives communicate in court and participate in the case:

> *Whenever there is a foster parent or relative placement there [the judge] always provides them time in court to speak what they would like to speak…with this particular case [the judge] did a great job of panning the room. And there were a lot of family members from the paternal side that came to court. Sometimes there were five or six family members that came. Cousins, uncles, brothers, sisters, and [the judge] always acknowledged them. And that made a big difference because they were used to having a system that was actually working against them. I think it shed new light on how to approach the child welfare system. They were much less guarded after a few court hearings, realizing how the judge approached them.*

While judges routinely interact with the relatives, it is not clear if their intent is necessarily to recruit the extended family to encourage the parents to comply. The examples here suggest the judge's engagement with the family may fundamentally arise from a keen interest in the child's well-being and/or to encourage the family and caregivers to continue with the case.

V.5.1.3 Judicial Interaction with Case Workers and Service Providers

A major role of the judge is to assess whether each person involved in the case is fulfilling his or her role. As one community coordinator reflects:

As always [the judge was] trying to make sure that everybody's doing what they're supposed to be doing. Not just the parents but the service providers, the CPS attorneys, and if people are not doing it, why, and we need to get it done.

The case worker is the primary professional involved in the case, informing the judge on the case progress. They routinely testify in court on whether the parents are receiving services, the child's need for and access to early intervention screening and services, visitation, and other unique aspects of each case. Community coordinators noted that the case workers were often well prepared for court, anticipating the judge's interests and addressing those in their testimony.

Some community coordinators remarked that in general, all case workers (not just those in the Court Teams project) were motivated to do their job to avoid upsetting the judge. There was only one example in the interviews where a Court Teams judge expressed anger with CPS. This incident was not directed at the case worker for lack of follow through in her duties. Instead, it was due to a policy error on the CPS's part that affected the child's permanent placement. This example is the exception. In many cases, the judges praise the professionals on the case during the hearings and often point out to the parents just how much the case worker and service providers are "doing for them."

Court Teams judges seem to appreciate the effect they can have on the professionals involved in the case. Examples suggest the judges respond in an encouraging way to professionals involved in the case even when it becomes clear they may not have done all they can or there is more for them to do on behalf of the parent. One in particular employs a conciliatory approach:

[The judge] was genuinely wanting to help this mom walk through a process in order to find out how she could be more successful in applying for jobs. And then the judge would turn to everyone else in the courtroom and say, now who can help this mom do this? And instead of pointing to CPS and saying why haven't you helped this mother, it was who can help this mother do this. Those kind of conversations within the courtroom just change the entire environment altogether.

Others may use an encouraging style while still ordering a professional to act. For instance:

Sometimes these people will just be on the edge of compliance, but [the judge] is like well there's a chance that they might be good, let's just keep working with them. And [the judge] thanks everybody for doing a good job and keep up the good work...And you come back in the month and ... where is the mom? Well we haven't seen her in a month. Well then [the judge] charges the attorneys, go find your client...and and bring them into court, tell her I want to see her. The attorneys go out, they go to these places (laugh) these motels and crack houses looking for these people and it's crazy.

Judges also appear to be the timekeepers on a case, setting expectations for the case worker and service team to guide the case to permanency within a certain time period. Three of the community coordinators specifically mentioned the role of the one year deadline for permanency laid out in federal legislation in pushing cases along.[37] Judges appear to vary in how they fulfill this timekeeper role. In the site with the quickest time to official permanency (based on a companion paper to this study), the community coordinator noted that the judge sets clear expectations for the case worker to present recommendations on a permanent placement by the six month mark. The following example illustrates the pressure felt by the service team to meet this goal for a challenging family when they were just five months into the case:

We're looking at where we're at a month from permanency, and so a decision had to be made in order to go back to court and say okay this is what our plan is. The judge expects all of us to come back and have a plan in place for these children so that permanency is established when it's supposed to.

The coordinator from the site with the longest average time to official permanency also mentioned the 12 month ASFA requirement. She noted: "There have been some cases where they've had to go on and move toward TPR for no more reasons than that because of that guideline." The federal law also allows for a six month extension in certain cases. Interviews did not cover the degree to which the extension was exercised, though use of the extension may explain the longer time to permanency in this site.

---

[37] Note: The Adoption and Safe Families Act (ASFA) actually calls for a permanency hearing (not actual permanency) within 12 months of the child's initial placement.

V.5.2 ZTT Court Team Influence on Permanency Process: Community Coordinator

Community coordinators clearly tried to influence the parents and, to a lesser extent, the parents' social support networks. While these efforts sometimes occurred as one-on-one interactions between the community coordinator and the parent or family, most often they occurred as part of a coordinated effort with the case worker.

V.5.2.1 Community Coordinator Interaction with the Parents

All coordinators make contact with families at the beginning of the case. Some restrict these interactions to the court, often while waiting to be called into the courtroom. Others branch out, visiting the families at their home, calling the family, or even observing visitation. One coordinator described the importance of the initial contact and the potential of her role:

> *[The parents] are already in court and they already feel like they're bad parents. And then when the system comes in and points fingers at them, they automatically get on the defensive. And when someone is on the defensive, it's really hard to break down those walls in order to help them understand we all have the same goal in mind. So if someone is there at the beginning, such as a coordinator, who can walk them through and help them understand that we all have the same goal in mind, even though, you might hear things you don't want to hear, that helps move the case along.*

As the above example suggests, the coordinators often found themselves stepping in to provide parents "moral" or "emotional" support. Community coordinators described an array of examples of the encouragement they provided parents throughout the course of the case. For instance:

> *[The mom] would call and ask about her children. She knew her children were with the grandmother… She always called and wanted me to help her move to another [residential treatment program]…and of course I would just tell her she needed to stay. She had to stay. She needed to complete the program. Her children were safe…If she wanted reunification from this court, she was on the right track to doing that….Mostly in this case I just gave a lot of moral support to the mom and this grandmother.*

Some coordinators noted the benefits of their "third party" role. They perceived that some parents viewed them as "neutral" and not representing any side in the case. As a result, some parents used the coordinator to give them an objective or trusted view on the case. For instance,

> *I get a great opportunity to engage with the parents because I am a neutral party. I am not accountable to the court system. I'm not accountable to CPS. I have no investment in whether one agency is successful or not. Just the fact that I don't make decisions on whether they get their child back or not, makes them feel comfortable with approaching me and just being frank and honest with me about things that they don't understand.*

Similarly, coordinators can step in to reframe the information shared by the case worker to help motivate the parent to act:

> *I guess because I don't work with CPS, they don't see me as the bad guy…So a lot of times they will request to see me….She would tell me things that maybe she felt like the case worker wasn't helping her. And you know I would ask her, why did she feel that way. And ten times out of ten, I could explain it to her that the case worker was trying to help her…. and she knew that I was sincere, I wasn't just gonna side with the case worker. But sometimes an outside party can step in and sort of show you the same thing in a different light.*

In addition to talking with and encouraging the parents, the coordinators also spoke about making sure the parents had access to the services they needed. One coordinator described tracking down free inpatient substance abuse treatment when the parent insisted she could not afford the service on her own. Another described providing transportation to make absolutely sure the parent participated in a substance use evaluation. Still another discussed tracking down a variety of services in another county to enable a young mother to relocate with relatives in the new location. They also noted that just because the parent had access did not mean they actually engaged in using the service.

V.5.2.2 Community Coordinator Interaction with the Social Support Network

Like the judges, the community coordinators spent less time interacting with the parents' personal support network. All coordinators spoke with the temporary caregivers and

119

other family members in attendance at court before or after the hearings. Most conversations with the temporary caregivers focused on the child such as how they were coping, were their needs met, and so on. Coordinators also spoke with family members who were not the caregivers but to a lesser extent.

A couple of coordinators did have more interaction with the parents' extended support network often during family team meetings. In two of the sites, parents and relatives involved in the case gathered with the community coordinator, case worker, and other service providers to discuss the direction of the case during these meetings. These gatherings sometimes involved the full range of relatives from both the maternal and paternal families.

Family team meetings can provide an opportunity for the extended family to support the parent in a professionally supervised setting. The following example suggests the benefits of the team meetings in this capacity:

> *The practice of using family team meetings...helped us give the mom the support and the resources that she needed in order to successfully disengage from the relationship that she had. And to realize that she needed to value herself more as an individual and as a parent and that her two children really really needed her to do it at this critical juncture in her life. And she got it. And the support, what helped her get it was the support she had from her family... As professionals we can sit and say it all the time, but because she had that family support behind her, that really helped.*

Along with encouraging the parents to make a change and comply with the service plan, the family team meeting provides an outlet outside of court for family members to be heard. In the following case, the family team meetings served to address and diffuse strong emotions among the families:

> *We had so many family team meetings because you had two different families you were working with and you wanted everyone's role clearly defined...It started off the father's family was bitter because no one could tell what happened to the child... Then the mother's family became bitter because the child was being placed with the paternal family. So it was a lot of sorting out and working with and working through, trying to convey to everyone, all parties involved, that we were working in the best interests of the child. We eventually got there. It was a bumpy road initially.*

120

The frequency of family team meetings varied in these two sites. One site held family team meetings as needed, depending on the parents' circumstances and role of their kin in the case. The other site usually held family team meetings for all cases on a monthly basis. As a result, the community coordinators' interaction with the parents' social support network varied across the sites, ranging from fairly limited to quite involved.

V.5.2.3 Community Coordinator Interaction with the Case Workers and Service Providers

Nearly all of the community coordinators' work on behalf of a case is largely intertwined with the efforts of the case worker. There was evidence in all sites of the coordinators working with the CPS on behalf of the family. Community coordinator contact with the case workers typically fell into two categories: helping to access services and offering support in coordinating the case.

All of the coordinators described regularly touching base with the case worker to see if the family was receiving services. And, if they were not, "if something was needed, if it was something I could locate." Coordinators provided examples of helping the case worker find substance abuse treatment, transportation, and domestic violence services among others. One coordinator described her efforts with the case worker to locate services for one case as:

> *We worked with transportation issues in this case. We worked with trying to find alternatives, family members to transport, if I recall, because the mom was in a drug rehab in [one city], and the child was in [another] area. So we were trying to help find people to transport for visitation. We also had problems with early childhood [screening]. And we worked with trying to get that scheduled....I think although this is one of the cases that we were trying to get a parent-child assessment done. That was never done but we certainly tried.*

Coordinators also discussed supporting the case workers in managing the case. Most described making regular phone calls to the case workers to check in on the case progression. Some also hold "one-on-one staffings" with the case worker to share opinions and make suggestions. One coordinator described her partnership with the case worker as:

Instead of the caseworker always having to be the one to follow through when it feels like something is not being completed, we can work together and I can take on the role of following through with phone calls or checking in with providers making sure that things are in place...You become a partner to that case worker. But it's always important to know that they are the gatekeeper of this case, and never take that role away from them.

Community coordinators also have some contact with service providers. This often occurs at court and during family team meetings described earlier. Several described a team approach between the case worker, service providers, and themselves.

V.5.3 ZTT Court Teams Influence on Permanency Process: Monthly Case Reviews

Each court team project reviews the progress of the case on a monthly basis. The intent of the monthly reviews is to help move the case along. The ZTT program model does not specify exactly what this process should include in each site. Instead, the local court team must develop a plan for the monthly reviews appropriate for their environment. Three of the four sites meet this requirement by holding formal monthly hearings. The fourth site holds hearings about every six weeks, with family team meetings in between each hearing. Prior to the court teams project, community coordinators noted that hearings were only held about every three months across the sites.

Hearings involve nearly all of the key players in the case. The judge and other court employees, community coordinator, child welfare system professionals, the family, and the temporary caregiver participate in the hearings. Child welfare system professionals include the case worker, case worker supervisor, attorneys, and if available in the site, Guardian *ad Litem* and CASA volunteers. Service providers typically submit a report to the court on the parents' participation in service, although sometimes the providers are called to testify in court. The child may or may not attend the hearing, depending on whether the temporary caregiver brings the child to court. As one coordinator noted, "the judge likes to see the child at least once at the beginning of the case."

122

The court hearing is the only contact that judges have with the families. *Ex parte* communication generally precludes the judge from participating in discussions about the case outside of court. Therefore, the monthly hearings are the mechanism the judge uses to influence the parent, the social network, and the systems professionals.

Community coordinators were quite consistent in their description of the role of the monthly hearings. Across the sites, the monthly case reviews were described as filling two main roles, including 1) helping to keep the parents and professionals "on task" and 2) showing the judge and CPS if and how the parents are complying with the service plan.

V.5.3.1 <u>Role of Monthly Case Reviews in Keeping Parents and Professionals on Task</u>

The heightened frequency of the court hearings appears to motivate those charged with following through on a task for the case. Community coordinators spoke about this most commonly in regards to the case workers on the case. For instance:

> *Everybody stayed on task because they knew we were gonna be staffing and we were going to be in court. So there was no room for making, for example, making a referral a week before we go to court because we were always going to court. So everybody was pretty much able to stay on task because we were going so much... We all can be procrastinators, but if you know you'll be in court every month and you'll be staffing every month, you're gonna do what you're supposed to do because that question will be asked every month.*

Some of the community coordinators noted the influence of the monthly court hearings on the parents as well. As this coordinator reflects:

> *So we're looking at three hearings for a year [before Court Teams started] versus 12 hearings for a year [now with Court Teams]. And that really in my experience ... if you go in a courtroom and you're gonna come back in six months, you're gonna be, I mean you got six months to do this or that. And even with the parent, well she's gonna walk out there and they say I need housing, well I got six months to get housing. Versus if you go in the courtroom and you're gonna meet in 30 days, you're gonna walk out of that courtroom not only the case worker, as well as the parent, and start working on what they need to do...It's just a matter of helping you get to permanency faster.*

Another similarly noted:

Well one thing it does is it keeps the parent more on their toes to use that expression. Because usually CPS cases, the hearings are every 90 days. But with this, the parents know that they have to be in court every month. It gets them motivated to get on the ball so they don't have to go to the judge in 30 days to explain to the judge why they haven't done what they are supposed to have done 30 days prior. So maybe it just kind of keeps them motivated to complete the service plan.

V.5.3.2 <u>Role of Monthly Case Reviews in Monitoring Parental Compliance</u>

All community coordinators indicated that progress with the service plan was discussed at every monthly case review or hearing. One described the purpose of the monthly hearings as:

The purpose was basically to keep a handle on the progress or lack of progress in the case. And what progress was being made and if there was no progress being made, why. And who was responsible. And if there's anything that needed to be done to move the case along.

The monthly case reviews allowed the judge and CPS to more quickly deduce the parents' intent. Are they going to comply with the service plan? Are they going to change their behavior so they could provide a safe and stable home for the child? As one coordinator noted:

The case reviews can help in one of two ways. In this particular case it helped CPS determine that they needed to go on with TPR, to terminate the rights because you're coming in every month and you're showing no progress, no progress, no progress. So it helped in that sense. It could have been just reversed. You know she could have been complying with the service agreement. We come in next month, and…you're complying, and you get unsupervised visits, and it leads up to the baby going home. Either it's gonna help get home faster or help CPS determine where we need to go on with the concurrent plan, termination of parental rights.

In other cases, the monthly hearings provided information "the judge needed to assure [the judge] that [the mom] would be capable of taking care of her children."

V.5.4 ZTT Court Teams Program Differences for Quick Cases and Slow Cases

The ZTT Court Teams initiative seems to operate fairly consistently regardless of the type of case. Comparing the cases that reached move in permanency quickly to those that took longer indicates that program dosage is largely uniform within a site. There is not a marked pattern between the frequency of hearings and case outcome. All sites had a mechanism to hold monthly reviews for every case. One example was shared in a site that decided to hold reviews less frequently for one case because the mother stopped coming to court, but that was an exception even in this site. Hearings are the only mechanism that judges have to influence parents. Judges vary in their tone and comments based on parental compliance with the service plan (as discussed), but the amount of contact with judges is largely the same across cases.

Community coordinator efforts do vary across cases, but their level of involvement is typically linked to helping parents access services as needed. Even when the barriers are overcome, parental compliance is not guaranteed. Cases that required the most attention were often those with parents showing great needs. Some of these cases ended in reunification and therefore a longer time to move in permanency. Others still ended in termination of parental rights. These children were commonly placed in a foster home that was well suited to become the permanent home and therefore experienced a shorter time to move in permanency. Across sites, the two projects with the most active coordinators represent both the fastest and slowest sites on average time to official permanency, based on results from a companion paper to this study. This suggests that the community coordinators may contribute to the program in other ways than strictly influencing time to permanency.

These findings imply the ZTT sites are balancing the need to make "reasonable efforts" for all families along with the goal of moving children to timely permanency. The consistent approach indicates that the components are in place and functioning reliably.

125

Supports are also working to help parents comply with the service plan. Program efforts try to encourage quicker compliance, but in the end, it is still up to the parents to follow the service plan. Variance in time to permanency is linked to how long it takes parents to decide to comply and complete the services. It is also related to how long the judge is willing to let the case remain open before issuing an official permanency decision. Judges balance adherence to timelines with handling families on a case by case basis.

V.5.5 Validity and Reliability

Qualitative research has long been subject to concerns of quality and credibility.(98) Methodologists argue that triangulation is necessary to strengthen the quality of research results.(99-100) There are various types of triangulation, including data triangulation (e.g. consistency of comments from one informant), investigator triangulation (e.g. multiple observers), theory triangulation (e.g. number of perspectives generating the theory), and methodological triangulation (e.g. multiple methods).(100)

This analysis relies on methodological and investigator triangulation to enhance the quality of findings. In particular, these efforts are used to determine validity, the degree to which the research actually measures what it was intended to measure. Multiple steps are also taken to assess reliability of measures, that is, ensuring a consistent answer to the same question from a respondent over time.(101)   Table 14 summarizes the efforts to establish validity and reliability of results for this study.

V.5.5.1 <u>Triangulation within Method: Interviews</u>

Interviews with the community coordinators form the basis for this analysis. Community coordinators serve as multiple interview sources to validate each other's perspective. Findings from these interviews have pointed out when all the community coordinators mentioned a certain activity or scenario. These consistent results are generally

Table 14: Efforts to Establish Validity and Reliability

Activity to Strengthen Results	Finding	Reliability	Validity
Within a Site			
Asked community coordinator same questions about the program approximately 5 to 6 times in one interview for the cases reaching permanency the fastest	Very consistent program approach across the quick cases	✓	
Asked community coordinator same questions about the program approximately 5 to 6 times in a second interview on a different day for the slowest cases	Very consistent program approach across the slow cases	✓	
Used same questions for fast and slow cases in these two interviews with the community coordinators	Data striking in consistency of program approach within a site regardless of type of case	✓	
Interview with one other professional familiar with the local court team activities in site	Generally agreed with coordinator on role of monthly case reviews and judge, but gave more credit to the coordinator than the coordinators themselves		✓
Negative case analysis to search for examples contrary to findings	Examples do exist, but they appear to be true outliers and special cases rather than challenge the findings on typical program approach		✓
Across Sites			
Asked same questions about program to all community coordinators across the sites a total of 46 times	Consistent themes and program activities apparent across sites though site differences exist as well	✓	
Compared findings to those from the James Bell Associates Court Teams evaluation	JBA report also highlights the role of the judge and monthly case reviews; discusses issue of parental compliance but not as the center of the permanency decision		✓
Mixed methods – quantitative analysis	Data indicate the Court Teams cases have substantially more court hearings than the comparison group; no tests of mediation due to unobserved confounding; no data on role of judges		✓

presented first in each section. There are also instances when some but not all of the

coordinators discussed an idea. These are noted as well in the findings. Overall, the

coordinators tend to agree on the main findings and diverge somewhat on the details of how

an activity might actually transpire in a site. Moreover, this analysis has pointed out several

instances when actual contradictions to the general findings exist. In each case, the

contradiction appears to be a true outlier reflecting unique aspects of a particular case.

However, a limitation of this analysis is that only one person coded the data. Additional

reviews might view these outliers as truly contradictory to findings.

Interviews were also conducted with another representative in each of the four sites

to gain a different perspective. Essentially, these "validation" interviews were designed to

illicit a sense of how typical the community coordinator's perspective might be within a site.

Interviews with these other representatives suggest agreement with the community

coordinators depiction of the structure of the monthly case reviews and the judge's approach

in each site. Some gave vivid descriptions of judicial proceedings for other cases they chose

to describe, further emphasizing the consistency of approach within the courtroom across

cases. Comments from the informants suggest, on the other hand, that the community

coordinators were not able to give a full perspective in their own role in the cases. Feedback

included the value of the coordinator and the importance of the role she played, while none

of the coordinators themselves made such statements.

V.5.5.2 <u>Triangulation across Methods: Mixed Methods</u>

The statistical analyses described in the companion papers to this study generally

answer different questions than this qualitative analysis. The statistical analyses find that the

ZTT Court Teams children exit foster care faster than a comparison group. This qualitative

study asks a complementary question of <u>how</u> the Court Teams program accelerates time to

permanency. To answer this question, the qualitative analysis has focused on three Court

Teams components: the judge, the community coordinator, and the monthly case reviews.

The quantitative data include no insight on either the judge's or the community

coordinator's role. However, data from the Court Teams management information system

and the National Survey of Child and Adolescent Well-being (NSCAW) do provide some

preliminary evidence about the court hearings. Data suggest that children in the ZTT Court

Teams projects do experience more court hearings than a similar group of children in the

NSCAW study. Court Teams children had a mean of .83 hearings per month in the first year

of the case[38] (or until the case closed if less than a year), compared to a mean of .35

hearings per month for the NSCAW sample[39]. Note that the comparison group's mean

multiplied over 12 months represents an average of 4 hearings per year, or once every 3

months. This mirrors the rate in the ZTT Court Teams sites before the introduction of the

Court Teams initiative.

In addition, very rudimentary analysis regressing the number of hearings per month

on ZTT Court Teams participation finds that program status significantly predicts the rate of

court hearings (p=.000). As described in a companion paper, the quantitative study stops

short of conducting the traditional mediation analysis (described in Baron and Kenny, 1986).

Statisticians have argued that testing for mediators in this way introduces unobserved

confounding and therefore biases the results.(80) Principal stratification would be a more

appropriate method for using the quantitative data to understand the impact of the frequency

of court hearings on time to permanency.(19) Such an analysis is beyond the scope of this

study.

---

[38] Court Teams sites: mean = .85 court hearings per month in first year, standard deviation = .34, range = .25 to 2.0

[39] NSCAW: mean = .35 court hearings per month in first year, standard deviation = .19, range = .08 to .83

V.5.5.3 <u>Triangulation across Investigators</u>

James Bell Associates (JBA) was awarded a contract from the U.S. Department of Justice to evaluate the ZTT Court Teams program in 2007. They conducted two rounds of site visits with the same four sites considered in this current study. JBA interviewed a wide variety of systems representatives in each site including the judge, community coordinator, child welfare worker staff, and service providers among others. They also observed court hearings with ZTT cases. JBA's findings are detailed in *Evaluation of the Court Teams for Maltreated Infants and Toddlers: Final Report* (2009). Their study describes the state of implementation of each of the Court Teams model components within each site.

JBA's process evaluation was quite comprehensive, describing program operations in light of both the child well-being goal as well as the time to permanency goal. Their main task was to synthesize and describe what they heard and observed during the site visits. They did not explicitly state which program components were linked to which goal. Review of their qualitative analysis indicates that all of the program components incorporate elements designed to either emphasize the importance of child well-being or actually try to enhance the child's development. However, the monthly case review was the only program component in which they mention the time to permanency goal. Their other comments about the monthly case reviews corroborate findings in this study as well. JBA indicated that progress on the service plans was typically discussed at the monthly case reviews and hearings. In addition, they reported that the monthly meetings served to keep stakeholders "on track."

JBA clearly described the judge as the "change agent", "leader", and one who sets the tone for emphasizing the child's well-being. JBA's summary of the judges' approach to encouraging parental compliance is remarkably similar to the findings in this current study. They describe a pattern of judicial "praise" for parents who "address their issues" and "admonishment" for those parents with little progress. JBA also indicates judicial influence

130

over professionals involved in the case, describing instances when the judge issued court-orders for the child welfare workers to implement within a certain period of time. There is little discussion, however, of the judges' interactions with the parents' extended family in the JBA report.

The JBA report portrays a much more comprehensive picture of the community coordinator's role than this current study provides. Their summary suggests that the coordinator is the heart of the daily operations of the program, bringing together professionals, providing resources on child development, building relationships with families, and supporting the child welfare staff. Their findings converge with the results here regarding the coordinator's partnership with the case worker and to a lesser extent, their role with the families.

V.6 Discussion

This analysis suggests the parents' decision to comply with the service plan sets the course for the case outcome. Addiction, mental health, poor relationship choices, and poverty can affect the parents' willingness and ability to comply. An active social support network, often including extended family, can encourage the parent by offering moral support as well as tangible assistance like transportation, housing, and visitation supervision. The child welfare system itself also seeks to influence the parents' compliance with the service plan. The judge may order services, the CPS case worker makes referrals to services, and the CASA volunteer or other providers may help with transportation and other needs. The ZTT Court Teams program wraps around this pre-existing permanency process. The initiative attempts to decrease time to permanency by directly influencing the parents' decision to comply and supporting the social support network and child welfare systems representatives who are key influences on the parent.

The monthly case reviews and the judicial leadership generally work together to influence time to permanency. As the monthly reviews are applied consistently across all types of cases, they may explain much of the average difference in time to permanency between ZTT Court Teams cases and other similar cases not in the program. However, it may be the judicial component that explains variation across the ZTT Court Teams cases themselves. Judges differ in how they enforce the ASFA guidelines. A more forgiving approach allowing the parents extra time to comply can lead to a longer time to permanency for some children.

The monthly case reviews appear to be the primary <u>new</u> mechanism the program adds to influence time to permanency. Validation interviews, preliminary statistical analysis of frequency of court hearings, and results from the JBA report all support the finding that the monthly case reviews are directly linked to reducing time in foster care. This study, however, does not address challenges to the system that the monthly case reviews introduce. For instance, case workers, attorneys, and providers must now spend more time in court or family team meetings. This gives them less time to complete their other job requirements, including working directly with clients. These hearings create financial cost (even publically supported attorneys are relatively expensive) not considered here. Further exploration of the burden introduced by the monthly case reviews would be beneficial for new sites contemplating a Court Teams project.

Certainly judges attempt to influence the parents, but judges were already part of the permanency process. Whether and how the ZTT Court Teams judges have changed their approach in the courtrooms is unclear. Moreover, this analysis is not able to discern the role of judicial self-selection to bring a Court Teams project to their community. Judges participating in Court Teams may have been predisposed to favoring child well-being before the program began. The analysis does suggest that judges use these monthly case reviews to make sure the case is progressing. Additionally, a judge who is more attentive to the

clock may help motivate all involved to act and force an earlier permanency decision. Further interviews would be necessary to better understand how the role of judge as timekeeper affects time to permanency for a case.

This study is limited by its reliance on the community coordinators as the sole perspective. While the validation interviews largely supported coordinator perceptions, they also pointed out that a richer understanding of the program would evolve from interviews with a broader array of systems representatives. Interviewing parents, extended family, and foster parents would also provide very different perspectives on program operations. Such interviews might also shed new light on the role the community coordinator plays in the overall program as well as, specifically, in decreasing time to permanency.

This study is somewhat defined by the choice to select cases based on move in permanency rather than official permanency. Move in permanency highlights the program emphasis on child well-being. Official permanency would have generated other cases for discussion. Different scenarios and nuances certainly would have emerged. It is likely, however, that the analytical framework and findings on program approach to affecting time to permanency would have mirrored those presented here. The program approach was very consistent regardless of whether the cases reached move in permanency quickly or slowly. Community coordinators universally discussed the role of parental compliance across all cases reviewed. It is unlikely that would change with a different set of cases. Sorting the cases based on move in permanency highlighted the role of parental addictions as well as social support network and the case worker efforts in whether or not the child was reunified. These influences were also mentioned across many of the cases and are likely strong enough forces to have emerged no matter how the cases were sorted.

This study operates from a site perspective to a lesser degree. All four sites appear to be implementing the judicial leadership, community coordinator, and monthly case review components. Each seems to partner with the local service system, especially involving CPS

and a wide array of providers. This study does find some differences in program operations across the four sites. A full understanding of site differences, however, is beyond the scope of these interviews.

Even with these the limitations, findings from this study are relevant for both child welfare program developers and researchers. The analytical framework illustrates the essence of the permanency decision-making process. It highlights where a program may influence the process. It also shows limits on a program's ability to encourage parents to comply with the service plan. Applying this framework to the ZTT Court Teams projects finds the sites are fairly consistent in implementation.

Recommendations also emerge based on these findings. Two main suggestions include the following:

- ***Institute special examination of long-term cases***   While the monthly case reviews are implemented consistently across cases, some cases have continued to linger. ZTT should consider working with local court teams to develop special reviews for cases that have been open for longer than the 18 month maximum for extended cases set by ASFA. These examinations might include discussing these cases (without identifying information) at the local court team meetings and/or reviewing them periodically at the ZTT national office. Involving professionals who do not participate in the monthly case review process may add a different perspective, pinpoint reasons for the delay, and raise questions that help reveal how to bring the case to closure.

- ***Encourage a conversation among judges on role as timekeeper***   Each judge takes a different approach to enforcing time limits on a case. They may also differ in how they interpret ASFA's allowance for a six month extension. Providing opportunities for judges to talk to one another about how they address the ASFA requirements may, at the very least, encourage all to more actively consider their role as timekeeper.

ZTT has shown promise in its ability to accelerate time to permanency for young children in the child welfare system. Both the monthly case reviews and the judge are key components influencing time to permanency. Implementing recommendations to fine-tune their roles could serve to further decrease time to permanency.

VI. Conclusion

This three part evaluation of the ZTT Court Teams initiative concludes with a summary of the findings, a discussion of study limitations, and directions for future research. Recommendations for ZTT are also discussed.

VI.1 Findings in Review

The ZERO TO THREE Court Teams for Maltreated Infants and Toddlers initiative appears to have a significant and robust effect on how quickly children exit the foster care system. ZTT children leave foster care nearly 3 times as fast as a nationally representative group of children from the NSCAW longitudinal survey. The program did not have a significant effect, however, on how quickly children are placed in what ultimately becomes the permanent home. ZTT sites do differ in their effect on time to permanency. While children in all sites exited the foster care system sooner on average than the NSCAW comparison group, the acceleration rates varied from 1.23 to 6.50 across the sites. Three of the four sites were significantly faster than NSCAW.

Reunification and adoption in particular have been found in previous studies to require very different lengths of time in foster care. To begin to understand how the program accelerates time to permanency, the study next considered the effect of the program on types of exits from the foster care system. The effect of the program on time to permanency is in fact explained to some degree by the distribution of the types of exits from foster care. Reunification was the most common type of exit for ZTT children while adoption was the most common for NSCAW. However, the descriptive analysis found that ZTT children spent much less time in foster care in general regardless of the type of exit. For

instance, the median time in foster care among ZTT children who were adopted was 464 days, compared to 798 days for NSCAW adoptees. The competing risks analysis found that ZTT children were significantly more likely to exit foster care for reunification, relative custodianship, and non-relative legal guardianship rather than stay in foster care. Both ZTT and NSCAW children were just as likely to remain in foster care as to be adopted, signifying no significant program effect (positive or negative) on experience of adoption over time. Again, ZTT sites differ in their distribution of types of exits from the foster care system.

The analytical framework that emerged from the qualitative analysis highlighted the main ways the ZTT Court Teams projects could most likely influence time to permanency. The framework suggested that parents' decision to comply with the CPS service plan is at the center of the permanency process. Their own motivation to get their kids back as well as their personal obstacles such as substance abuse, poor relationship choices, and poverty greatly influence their ability to comply with the service plan. Social support largely from extended family plays a role in influencing parents to comply. The child welfare system including the judge and CPS representatives such as case workers and attorneys also work to influence the parents in following through with the service plan. The ZTT Court Teams initiative wraps around the pre-existing permanency process. It works to accelerate time to permanency by directly influencing the parents' decision to comply with the service plan as well as supporting the social support network and encouraging the child welfare system to locate services for parents and children. The judge and the monthly case reviews appear to be the key program mechanisms for moving cases more swiftly through the permanency process.

The monthly case reviews generally take the form of court hearings across the sites, though some also include family team meetings in the case review process. Monthly case reviews provide a very frequent opportunity for the judge to keep track of how the case is progressing. Appearing in court often means that parents and case workers alike were

more likely to act quickly on finding services or following through on other court orders. Procrastination could lead to upsetting the judge. The monthly case reviews also serve to more quickly illuminate whether or not the parents are complying with the service plan and, therefore, the direction the case is heading. Community coordinators indicated this process leads to a quicker permanency decision.

All judges appear to be aware of ASFA, the federal legislation designed to decrease time children linger in foster care. Judges differ in their approach to enforcement of ASFA. The site with the quickest time to permanency has a judge who requires the service team to make a final recommendation on permanency by the six month mark. The site with the longest time to permanency has a judge who appears to be cautious in making sure the parents have every opportunity to comply before their rights are terminated. In other words, judges appear to differ across the sites in their role as timekeeper.

VI.2   Reflection on Methodological Approach

Causal inference has strong implications for evaluation of social programs. Funding and ethical concerns both limit the ability of evaluators to test program effectiveness through randomized control trials. Observational studies are often limited by the lack of an adequate comparison group. Those that do develop a comparison group tend to rely on traditional regression techniques that statisticians argue are not sufficient to address issues of causal inference.

This study models an innovative approach for program evaluations based on observational data. A nationally representative sample of children from a large secondary dataset was used as a comparison group. Given the differences in sampling frames for the program cases and comparison cases, statistical adjustments were necessary before comparing the groups on time to permanency. Propensity score analysis was used to address issues of causal inference. The propensity score model was fine-tuned to the point

138

that covariates used to predict the propensity score were shown to no longer be predictive of program participation. In other words, the ZTT Court Teams "treatment" group and the NSCAW comparison group were shown to be balanced on the array of covariates. When these differences in covariates between the groups are "balanced", then the differences in their outcomes are inferred to be due to the intervention rather than the confounding variables.

Just as regular regression is subject to omitted variable bias, however, so is the propensity score. The propensity score analysis is only as strong as the model for the propensity score. Covariates were carefully chosen for this analysis based on the literature and a review of descriptive statistics for the ZTT children and NSCAW children. The link test showed that the covariates used to predict the propensity score were also good predictors of the outcome, time to permanency. However, there may be an omitted variable that should have been used to help predict program participation. As a result the error term may still be associated with both the key independent variable, participating in the ZTT Court Teams program, and the dependent variable, time to permanency. This, of course, is a limiting feature of using two different data sets for the analysis. Potential study variables are restricted to those that are available and measured similarly in both datasets.

Several analyses were conducted to test the sensitivity of the findings. First, it was suggested that reasons the child was removed from the home may not be an appropriate covariate since they may not be measured consistently across child welfare agencies. On the other hand, the ZTT and NSCAW groups appeared to differ greatly on some reasons for removal. Child welfare researchers also consistently include them in their studies. To test the effect of reasons for removal, two propensity scores were developed, one with reasons for removal as a predictor or program participation and one without these reasons. Both resulted in a significant program effect on time to official permanency. However, the one

139

that included the reasons for removal was a more conservative estimate of effect. As a result, the propensity score including the reasons for removal was used.

Similarly, various discrete time hazard models were used to consider how the program effect holds up with different assumptions about the baseline hazard model. The effect remained until the program influence was allowed to vary over time. At that point, the program effect was no longer significant. This may reflect that as assumptions are relaxed, less information is available to determine statistical significance. This analysis also showed the program effect did not significantly vary over time.

This study is somewhat limited in externally validity. All ZTT Court Teams cases in the study were given a sample weight of 1 since they represented the universe of cases from those sites during the study period. The four ZTT Court Teams sites in the study, however, are not geographically representative of the other sites. It is not known how they compare to the remaining sites on child and parent demographics. Next steps may be to consider the possibility of developing a more sophisticated sample weight for the ZTT cases to better represent all current Court Teams sites. Generating a meaningful weight may not be possible given that neither the participating sites nor the children represent a probability sample. Some geographic locations are necessarily absent from the study.

This study suggests several next steps in evaluating the effect of the ZTT Court Teams program on time to permanency. First, site differences do exist. A fidelity to the model study would be useful for further pinpointing issues with the program design itself and/or concerns with implementing the model in each site. Moreover, this study lends no insight into the cost effectiveness of the ZTT Court Teams initiative. Given that this current study finds a program impact, the next step would be to conduct a cost effectiveness analysis to determine the societal cost for the outcomes. Local resources necessary to hold monthly case reviews may be significant and should be considered as costs in addition to federal outlays for the program.

Future research should also consider results from this time to permanency analysis in light of the other two program goals. It is obvious from the JBA evaluation that ZTT Court Teams initiative has a heavy focus in implementing activities that support the child well-being goal. It may be important to explore when activities related to one goal have a negative effect on another goal. For instance, ZTT supports placing children in kinship foster care to maintain familial relationships and promote more opportunities for visitation between the mother and the child. Prior research finds, however, that relative placement is linked to longer time to permanency. The third program goal of reducing recurrence of maltreatment should also be considered. This will be possible as more cases exit the ZTT Court Teams program.

Lastly, use of mixed methods in this study highlights the complementary nature of the quantitative and qualitative approaches. The statistical analysis reveals the program effect but provides no insight into how the program produces the result. The qualitative data provides a more focused lens on the program process. Both approaches are necessary for a more comprehensive understanding of the program effect.

VI.3 Recommendations for ZERO TO THREE

This evaluation answers questions about the effect the overall program on time to permanency. It also reveals site differences. Recommendations based on the findings here include:

- **Develop an intensive review process for prolonged cases** While, the monthly case reviews occur consistently across the sites, no site appears to have a special process for handling cases that have lingered in the child welfare system. Given the role of the monthly case reviews in moving most cases along, it might be useful to develop a parallel process for intensive consideration of cases that have been open for a certain length of time. That amount of time might reflect a certain number of months (e.g. 18

months), or given that sites vary in their time to permanency, a percentage might be more appropriate (e.g. top 10% of cases open the longest in each site). Since the monthly reviews themselves have not been able to move these lingering cases to permanency, the local court teams could consider what that review of prolonged cases might include. The court team itself may play an active role in reviewing those cases, understanding the circumstances, and raising questions. The ZTT national office could also consider using the Court Teams MIS database to conduct similar reviews themselves as part of a quality assurance process. A similar process may also be appropriate for closed Court Teams cases that re-enter the child welfare system.

- **Create a consistent approach for understanding fidelity to the model**
Understanding fidelity to the model is just as important for program management as it is for research and evaluation. As the ZTT Court Teams model is replicated across more and more sites, opportunity exists to better understand what shapes implementation. ZTT national office staff should consider consulting the literature to develop tools to assess fidelity to the model to use during their site visits to each location. This would provide a consistent approach to 1) identifying site differences, and 2) explaining site differences. Such information may help explain why sites have different outcomes even in this current evaluation. It may also be an opportunity to intervene and redirect the local program to more fully implement the model if concerns arise.

- **Reconsider time to move in permanency** This current study found no overall program effect on decreasing the time before a child moves into what ultimately becomes the permanent home. This may reflect wide growing practices across many child welfare agencies to place young children in foster adopt homes and with potential relative custodians. If ZTT remains committed to "making the first placement the last," it would be useful for the ZTT national office staff to look at differences in early placements

142

across the sites. Some individual sites do register effect on this outcome. Can successful approaches in one site be used to inform another site?

- **Encourage conversation among judges on role as timekeepers**   Judges differ in how they enforce the ASFA timelines. Many factors may influence how they approach their role as timekeepers. Some may view that as the top priority while others may not. Providing opportunities for judges to talk to one another about how they address the ASFA requirements may, at the very least, encourage all to more actively consider their role as timekeeper.

- **Begin tracking child well-being outcomes** This current evaluation is singularly focused on the time to permanency goal because the ZTT database provides data on this outcome. Sites currently do not track child-wellbeing measures. Given the positive results in this study, it would be useful to assess the role of the ZTT Court Teams initiative in improving child-wellbeing. It might involve working with local service providers to administer certain child assessments consistently across the sites. Such data could be included in the ZTT database or sent directly to a third party evaluator.

VI.4 Issue of Parents' Rights vs. Children's Rights

The different judicial approaches across the sites highlight the central question in determining a permanent home for the child, that is: How to balance the parents' rights to raise their children vs. the child's rights to have a safe and nurturing home? Society values family preservation. In fact, reunification is by far the most common initial permanency goal across the ZTT Court Teams sites. However, the philosophy of giving parents every reasonable opportunity to show they indeed can provide a safe home for the child contributes to the length of the case. When there is a glimmer of hope the parents might follow through, some of the Court Teams judges allow extra time for the case. Sometimes

143

this leads to reunification, but other times the drawn out case nevertheless results in termination of parental rights.

The question looks more complicated from the perspective of children's rights. Just as there is a universally accepted value that parents have the right to raise their own children, children have the reciprocal right to be raised by their parents. Children also have the right to grow up in a safe home, free of abuse and neglect. ZTT is committed to raising the issue from the children's perspective. ZTT asserts that children have the right not only to be safe, but to be nurtured as well. They argue that children need a supportive caregiver with whom to form a positive attachment. Such an attachment forms the basis for healthy development throughout childhood. Understanding the broader context of children's needs brings ZTT's urgency to move children to permanency more sharply into focus.

ZTT's urgency, though, raises the question: Is quicker permanency always better? The quantitative analysis in this study only focused on the first time a child entered and exited foster care, not considering cases of re-entry due to the small sample size. The qualitative analysis, on the other hand, yielded several cases that were reunited with parents, only to be brought back into the child welfare system several months later. The pressure to comply with the ASFA timeline for a permanency decision may rush the process too quickly for some cases. Sometimes permanent may not actually be permanent.

Certainly, judges and the child welfare system are under pressure to balance parents' rights and children's rights. Natural patterns of development in young children also highlight the need for children to be in a stable, permanent home. The ZTT Court Teams program offers a proven approach to accelerate and foster a permanent home for young children.
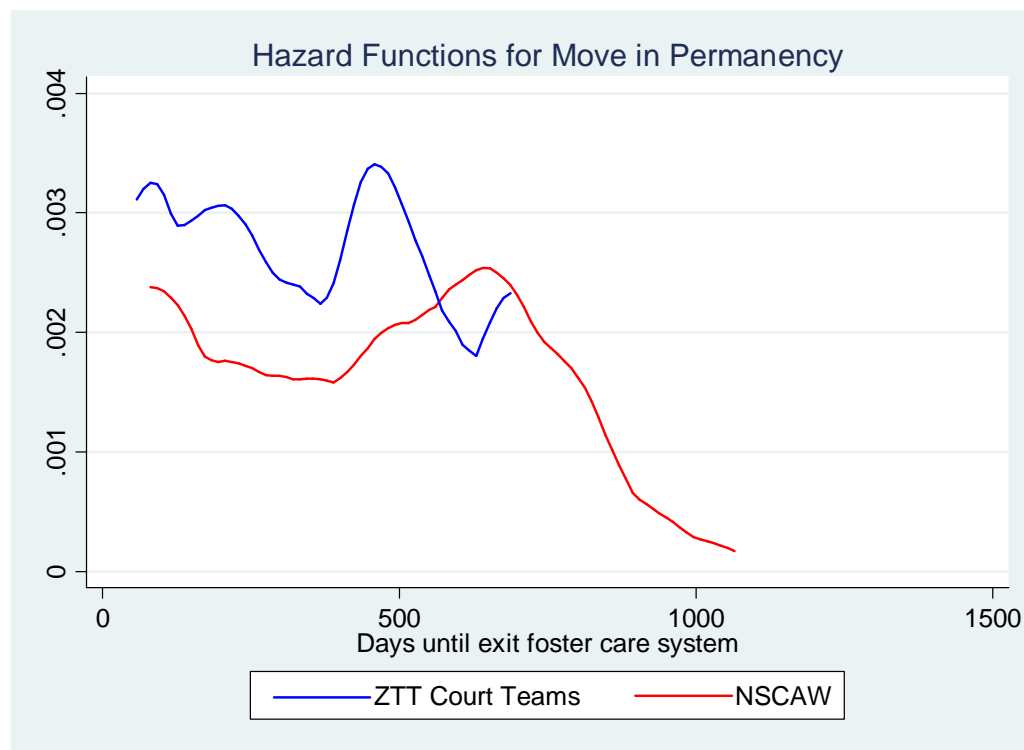
Supplements for Manuscript 1

Hazard Functions for Time to Move in Permanency:

ZTT Court Teams v. NSCAW Sample

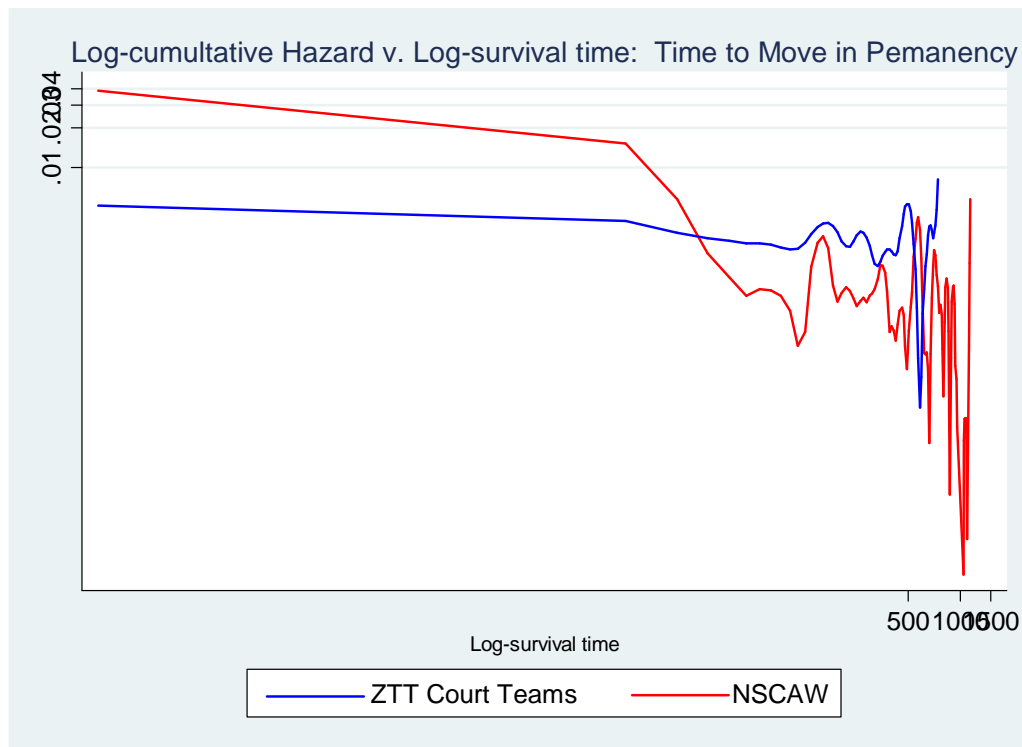*First Imputation with Sampling Weights*

(n=809)

Log-cumulative Hazard against the Log-Survival Time for Time to Move In Permanency:

ZTT Court Teams v. NSCAW Sample

First Imputation with Sampling Weights

(n=809)

Hazard Functions for Time to Official Permanency:

ZTT Court Teams v. NSCAW Sample

First Imputation with Sampling Weights

(n=809)

Hazard Functions for Reaching Official Permanency: ZTT v. NSCAW

Log-cumulative Hazard against the Log-Survival Time for Time to Official Permanency:

ZTT Court Teams v. NSCAW Sample
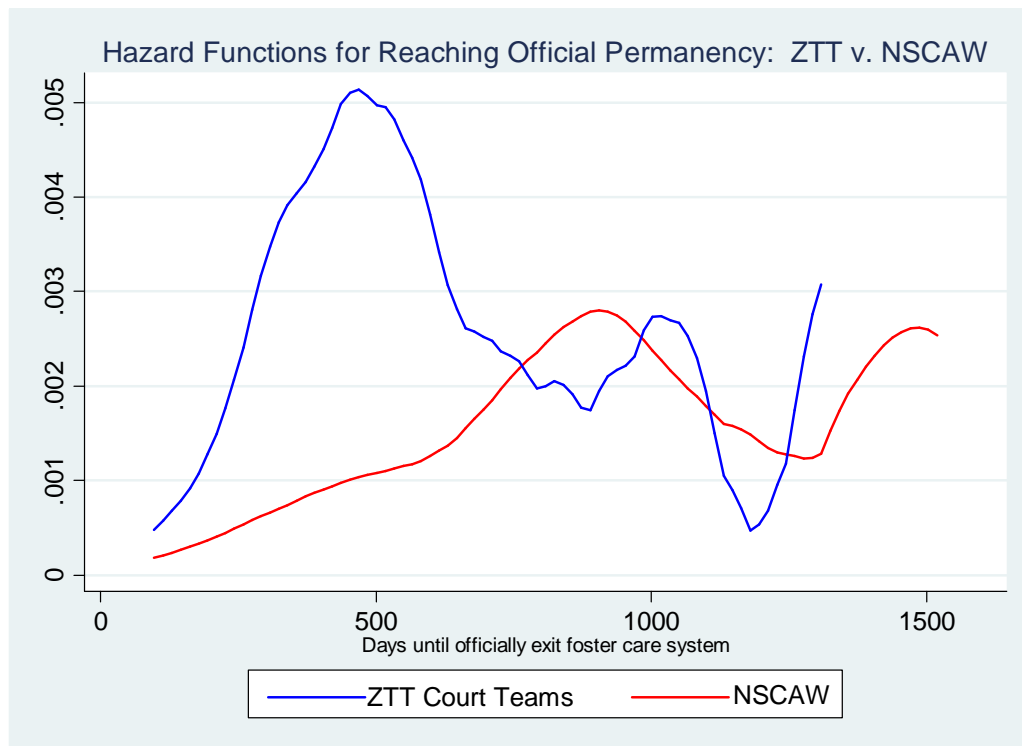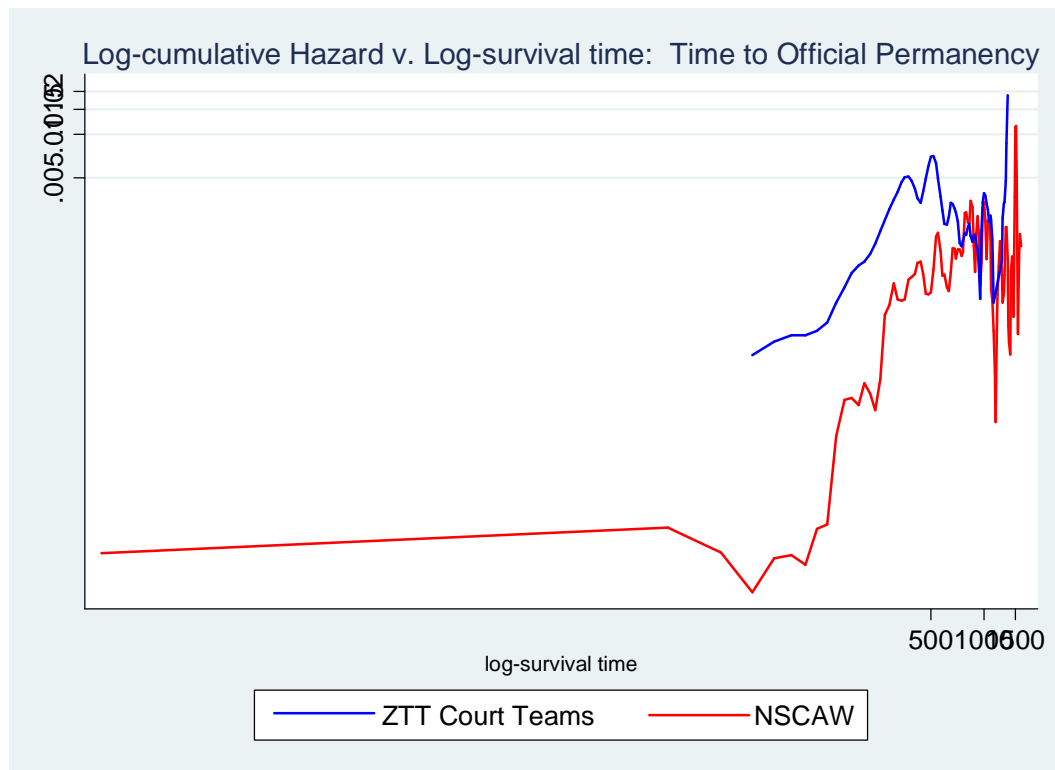
First Imputation with Sampling Weights

(n=809)

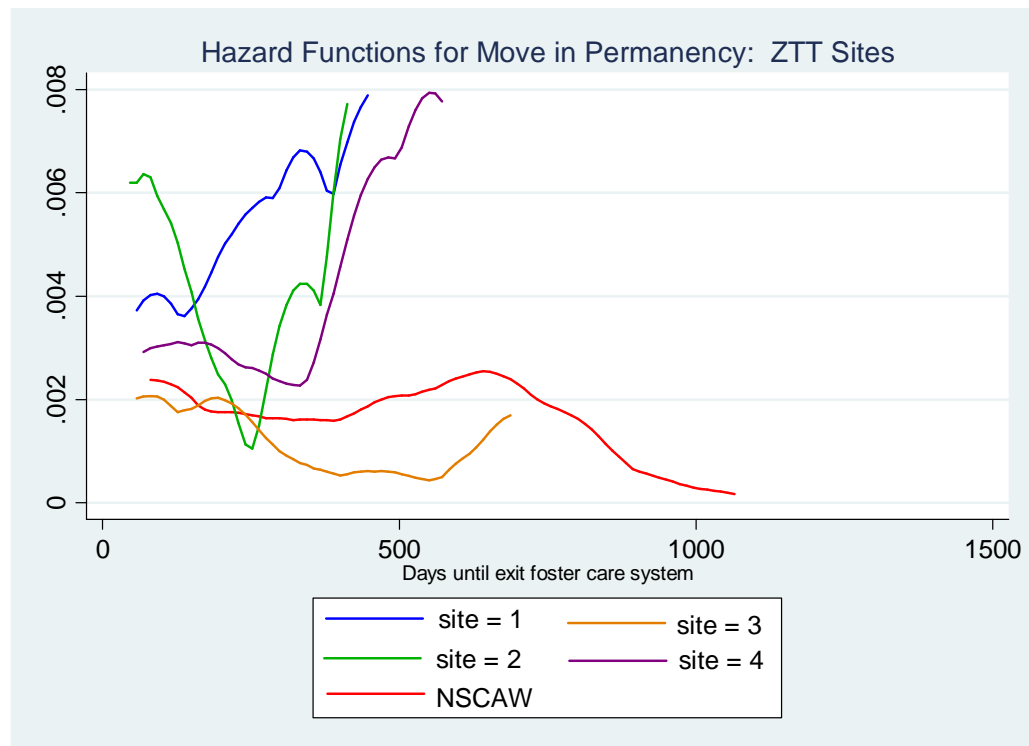Log-cumulative Hazard v. Log-survival time: Time to Official Permanency

Hazard Functions for Time to Move In Permanency

ZTT Court Teams Sites v. NSCAW Sample

First Imputation with Sampling Weights

(n=809)
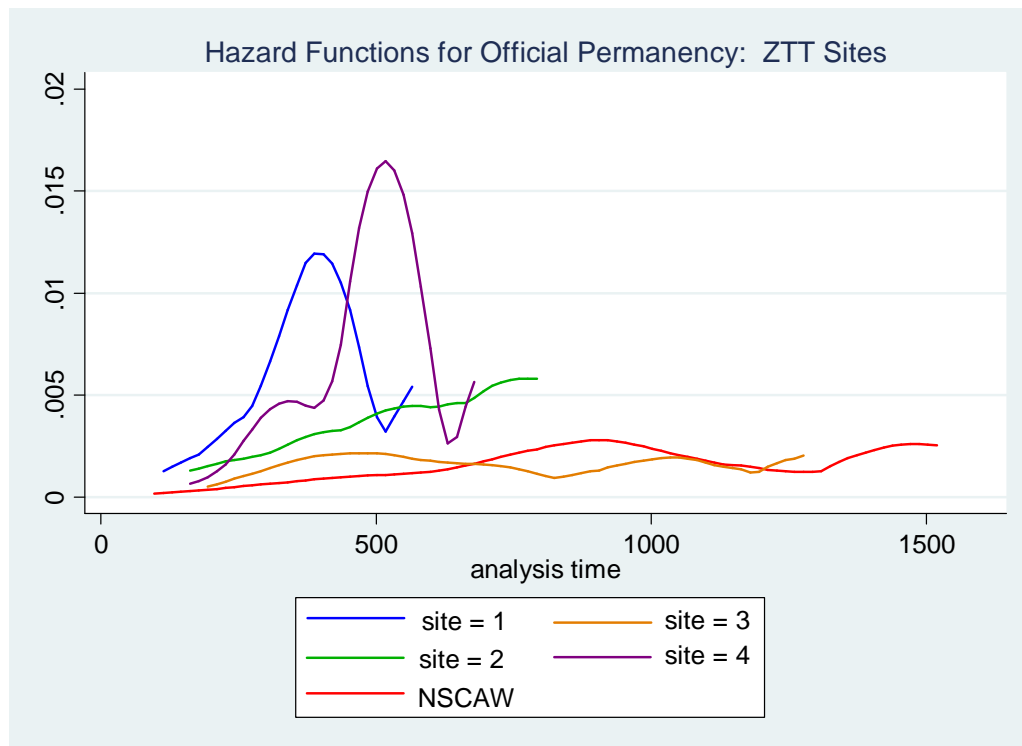

Hazard Functions for Move in Permanency: ZTT Sites

Hazard Functions for Time to Official Permanency

ZTT Court Teams Sites v. NSCAW Sample

First Imputation with Sampling Weights

(n=809)

Hazard Functions for Official Permanency: ZTT Sites

Appendix B

Supplements for Manuscript 2

Time to Permanency by Type of Foster Care Exit in ZTT Court Teams Sites

	n	Median (days)	se	95% CI	Mean[a] (days)	se	95% CI
Reunification							
Site 1	37	280	16.4	239, 315	265	17.6	230, 299
Site 2	9	245	20.9	42, .	301	74.9	154, 448
Site 3	24	365	25.6	264, 418	450	59.7	333, 567
Site 4	42	342	28.7	302, 386	352	17.8	317, 387
NSCAW[b]	113	583	24.5	547, 637	649	29.7	591, 708
Adoption							
Site 1	7	380	18.3	106, .	398	63.6	274, 523
Site 2	16	502	75.4	297, 552	490	48.7	395, 585
Site 3	13	493	45.5	464, 668	644	76.8	493, 794
Site 4	10	342	83.8	217, 457	384	31.6	322, 446
NSCAW	228	798	32.2	724, 841	829	21.5	786, 871
Relative Custodian							
Site 1	23	366	10.8	214, 376	322	18.5	285, 358
Site 2	1	.	.	.	.	.	.
Site 3	5	444	42.7	400, .	513	64.7	386, 640
Site 4	45	337	3.4	324, 352	366	17.1	333, 400
NSCAW	31	541	61.8	466, 733	636	58.1	522, 749
Non-relative Guardian							
Site 1	0	.	.	.	.	.	.
Site 2	0	.	.	.	.	.	.
Site 3	6	383	47.4	365, .	473	43.4	388, 558
Site 4	3	495	130	336, .	453	48.6	358, 548
NSCAW	9	1010	78.0	603, 1240	1059	117.3	829, 1289

[a]Means are restricted and therefore underestimated due to censored data for cases whom had not reached permanency by the end of the study period.
[b]NSCAW data depict the results from the 50th percentile of the imputation distribution.

Supplements for Manuscript 3

Community Coordinator Interview Guide

Purpose: To further understand role of the individual components of the Court Teams model in affecting time for permanency

Key Informants: ZTT Community Coordinators

Introduction
Thank you for speaking with me today. As you know, we are going to discuss your perception of how the Court Teams program worked for a few select cases. I am interested in learning how each piece of the program model responded to the cases. This information will be used to better understand and interpret results from the quantitative analysis I am also conducting on time to permanency. It will also be used to develop recommendations to ZTT and local court teams for improving or expanding key pieces of the program model and/or systems level responses.

Please note that I do not have access to the family names. We will refer to them by their case ID's. Moreover, neither you nor individual cases will be identified in the final analysis. Our discussion will last approximately fifteen to twenty minutes per case. There are ## families from your site whom we will discuss. You may wish to consult your case records for these families as needed.

Our interview will last about 1½ hours. Are you in a secure room in which no one else can overhear you? If not, you will need to move to a private room before we can continue.

I have received your signed form, consenting to your participation in this study. Thank you for sending it. *If agreed to taping in the consent form:* I will be taping our call today. The tapes only will be used to capture your responses. They will not be shared with anyone and will be destroyed at the end of this project.

Do you have any questions before we start?

Let's begin with List A. Please select a case at random from the list. Do not tell me the case number.

Tell me about when you realized this child was either in a permanent home or clearly on their way to having their case resolved. How did you know? What kinds of things were going on at that time?

Initial Placement
Where was this child first placed when he/she was removed from the home? (*probe*: with a relative, with a foster parent)

How was it decided to place the child here? (*probe*: Who was involved in the decision?)

Now I'm going to ask you about some of the special components of the Court Teams program and how they responded in this case.

Judge
How did the judge communicate in the court room? What kind of tone did the judge set during hearings for this particular case? (*probe*: Sometimes judges are very directive and other times they are more laid back. How did the judge act in this case?)

What kind of things did the judge ask about in the court room for this case? Can you give me an example?

How does this compare to the way this judge typically communicates in court for most other cases?
Did the judge order anything for this family? By this I mean an official court order.
        If yes: What kinds of things were ordered?

Concurrent Planning
Was there ever a need to change the primary permanency goal for this child?
        If yes: How was the new permanency plan developed? (*probe*: Who was involved ?
        Did you have to start from scratch? Was there a concurrent plan?)

        About how long did it take to develop the new plan? (*probe*: A matter of days or
        months?)

Monthly Case Reviews
How often did this child have a case review?
        If once a month: Was it regularly every month? Were some months missed?

Who typically participated?

What kinds of things were discussed at the reviews for this case? (*probe for following if not mentioned*: Service needs and usage? Contact with parent? How the child was doing? Permanent placement?)

Looking back, what purpose did the case reviews serve for this particular case?

<u>Community Coordinator</u>
I realize the community coordinator is not a case manager. But, sometimes the coordinator gets involved with cases in this way. Other times the community coordinator does more behind the scenes work for a case. What kinds of things did you do for this particular family? Can you give me some examples?

How did your work with this family compare to your work with other Court Teams families? (*probe*: Take more time? Less time? More involved? Less involved? Worked differently with the case worker?)

<u>Services</u>
Completing the service plan is often a requirement for parents to get their kids back. Were there certain services that the family did not receive or had a hard time receiving?
      If yes: What services? What kinds of barriers were there to getting these services?

Based on your observations in court, how would you describe the parent's attitude toward:
- Working on their service plan? (*probe*: Willing or reluctant to get services?)
- Working with the Court Teams project? (*probe*: Willing or reluctant to join the project?)
- Seeking custody of the child?

<u>Overall</u>
In hindsight, what do you think were the most important factors, if any that helped this child reach permanency? How did these factors contribute?

What were the most important factors, if any, in delaying the time it took this child to reach permanency? How did these factors hinder?

Repeat for rest of List A (i.e. those quick to reach permanency). When List A is complete, repeat process for List B (those slow to reach permanency). Schedule subsequent interviews as needed.

<div align="center">THANK YOU</div>

References

1.   US Department of Health and Human Services, Administration on Children, Youth and Families, Office of Planning, Research, and Evaluation. Child matreatment 2009. Washington, DC: US Government Printing Office; 2011. Available from: http://www.acf.hhs.gov/programs/cb/pubs/cm09/cm09.pdf.

2.   Shonkoff J, Phillips, D. From neurons to neighborhoods: the science of early childhood development. Washington, D.C.: National Academy Press; 2000.

3.   Goldhaber D. Chapter 6: Bandura's social cognitive theory. Theories on human development: integrative perspectives. Mountain View (CA): Mayfield Publishing Co; 2000.

4.   Zeanah C, Boris, N, Lieberman, A. Attachment disorders in infancy. In: Lewis M, Sameroff A, editors. Handbook of developmental psychopathology. New York: Basic Books; 2001.

5.   Wulczyn F, Hislop KB, Harden BJ. The placement of infants in foster care. Infant Ment Health J. 2002;23(5):454-75.

6.   Repetti RL, Taylor SE, Seeman TE. Risky families: family social environments and the mental and physical health of offspring. Psychol Bull. 2002;128(2):330-66.

7.   U.S. Department of Health and Human Services, Administration for Children and Families. A report to Congress on adoption and other permanency outcomes for children in foster care: focus on older children. Washington, DC: Children's Bureau; 2005 [cited 2010 February 16]; Available from: http://www.acf.hhs.gov/programs/cb/pubs/congress_adopt/congress_adopt.pdf.

8.   Barth R, Wulczyn F, Crea T. From anticipation to evidence: research on the Adoption and Safe Families Act. Va J Soc Pol'y & L. 2004;12:371-99.

9.   Lyons T. When reasonable efforts hurt victims of abuse: five years of the Adoption and Safe Families Act of 1997. Seton Hall Legis J. 2001;26:391-413.

10.   American Bar Association. Congress passes adoption/foster care reform law. 1997 [cited 2010 February 16]; Available from: http://www.abanet.org/child/adopt-reform.pdf.

11.   General Accounting Office. Foster care: recent legislation helps states focus on finding permanent homes for children, but long-standing barriers remain. Washington, DC: United States General Accounting Office; 2002 [cited 2010 February 18]; Available from: http://www.gao.gov/new.items/d02585.pdf.

12.   US Department of Health and Human Services, Administration on Children, Youth and Families, Children's Bureau. Adoptions of children with public child welfare agency involvement by state FY 1995-FY 2004. 2006 [cited 2010 Feb 16]; Available from: http://www.acf.hhs.gov/programs/cb/stats_research/afcars/adoptchild03b.htm.

13.   U.S. Department of Health and Human Services, Administration for Children and Families, Children's Bureau. Trends in foster care and adoption—FY 2002-FY 2008. 2009 [cited 2010 February 18]; Available from: http://www.acf.hhs.gov/programs/cb/stats_research/afcars/trends.htm.

14.   Wulczyn FH, Chen L, Hislop KB. Adoption dynamics and the Adoption and Safe Families Act. Soc Serv Rev. 2006;80(4):584-608.

15.   Becker M, Jordan N, Larsen R. Predictors of successful permanency planning and length of stay in foster care: the role of race, diagnosis and place of residence. Child Youth Serv Rev. 2007;29(8):1102-13.

16.   Rubin DB. Using propensity scores to help design observational studies: application to the tobacco litigation. Health Serv Outcomes Res Methodol. 2001;2(3):169-88.

17.   Axinn W, Pearce L. Mixed method data collection strategies. New York: Cambridge University Press; 2006.

18.   Patton M. Qualitative evaluation and research methods. 2 ed ed. Newbury Park, CA: Sage; 1990.

19.   Foster EM. Causal inference and developmental psychology. Dev Psychol. 2010;46(6):1454-80.

20.   Kemp S, Bodonyi J. Infants who stay in foster care: child characteristics and permanency outcomes of legally free children first placed as infants. Child and Family Social Work. 2000;5(2):95-106.

21.   US Department of Health and Human Services, Administration on Children, Youth and Families, Office of Planning, Research, and Evaluation. Child maltreatment 2006. Washington, DC; 2008.

22.   US Department of Health and Human Services, Administration on Children, Youth and Families, Office of Planning, Research, and Evaluation. Child maltreatment 2008. Washington, DC: US Government Printing Office; 2010.

23.   General Accounting Office. Foster care: parental drug abuse has alarming impact on young children. Washington, DC: United States General Accounting Office; 1994 [cited 2010 February 16]; Available from: http://archive.gao.gov/t2pbat3/151435.pdf.

24.   Klee L, Kronstadt D, Zlotnick C. Foster care's youngest: a preliminary report. Am J Orthopsychiatry. 1997;67(2):290-9.

25.   Sameroff A., Fiese B. Models of development and developmental risk. In: Zeanah CH, editor. Handbook of infant mental health, 2nd ed. New York: The Guilford Press; 2005.

26.   Miller-Perrin CL, Perrin, RD. Child maltreatment: an introduction. Thousand Oaks, CA: Sage Publications, Inc; 2006.

27.   Pabustan-Claar J. Achieving permanence in foster care for young children: a comparison of kinship and non-kinship placements. J Ethn Cult Divers Soc Work. 2007;16(1):61-94.

28.   U.S. Department of Health and Human Services, Administration on Children, Youth and Families, Children's Bureau. Child welfare outcomes 2002-2005: report to Congress prepared by the Children's Bureau (ACYF, ACF) of the U.S. Department of Health and Human Services. n.d. [cited 2010 February 16]; Available from: http://www.acf.hhs.gov/programs/cb/pubs/cwo05/index.htm.

29.   RTI International. From early involvement with child welfare services to school entry: a 5- to 6-year follow-up of infants in the national survey of child and adolescent well-being Research Triangle Park (NC): Author; 2008 [cited 2010 February 20]; Available from: http://www.acf.hhs.gov/programs/opre/abuse_neglect/nscaw/reports/early_involvement/early_involvement.pdf.

30.   Courtney M. Factors associated with the reunification of foster children with their families. Soc Serv Rev. 1994;68(1):81-108.

31.   Barth R. Effects of age and race on the odds of adoption versus remaining in long-term out-of-home care. Child Welfare. 1997;76:285-308.

32.   Wulczyn F. Status at birth and infant placements in New York City. Child Welfare Res Rev. 1994;1:146–84.

33.   Connell C, Katz K, Saunders L, Tebes J. Leaving foster care—the influence of child and case characteristics on foster care exit rates. Child Youth Serv Rev. 2006;28(7):780-98.

34.   Wulczyn F. Closing the gap: are changing exit patterns reducing the time African American children spend in foster care relative to Caucasian children? Child Youth Serv Rev. 2003;25(5-6):431-62.

35.   Courtney M, Wong Y. Comparing the timing of exits from substitute care. Child Youth Serv Rev. 1996;18(4-5):307-34.

36.   Snowden J, Leon S, Sieracki J. Predictors of children in foster care being adopted: a classification tree analysis. Child Youth Serv Rev. 2008;30(11):1318-27.

37.   Cuddeback G. Kinship family foster care: a methodological and substantive synthesis of research. Child Youth Serv Rev. 2004;26(7):623-39.

38.   Winokur M, Holtan A, Valentine D. Kinship care for the safety, permanency, and well-being of children removed. Campbell Systematic Reviews. 2009;1:1-171.

39.   Ehrle J, Geen R. Kin and non-kin foster care—findings from a national survey. Child Youth Serv Rev. 2002;24(1-2):15-35.

40.   Winokur M, Rozen D, Thompson S, Green S, Valentine D. Kinship care in the United States: a systematic review of evidence-based research. Social Work Research Centre, Colorado State University; 2005 [cited 2010 Feb 20]; Available from: http://epitchal.googlepages.com/WinokourColoradorpt.pdf.

41.   Koh E, Testa M. Propensity score matching of children in kinship and nonkinship foster care: do permanency outcomes still differ? Soc Work Res. 2008;32(2):105-16.

42.   Bogacki D, Weiss K. Termination of parental rights: focus on defendants. J Psychiatry & L. 2007;35:25.

43.   Green B, Rockhill A, Furrer C. Understanding patterns of substance abuse treatment for women involved with child welfare: the influence of the Adoption and Safe Families Act (ASFA). Am J Drug Alcohol Abuse. 2006;32(2):149-76.

44.   Walsh C, MacMillan HL, Jamieson E. The relationship between parental substance abuse and child maltreatment: findings from the Ontario Health Supplement. Child Abuse Negl. 2003;27(12):1409-25.

45.   McKay M. The link between domestic violence and child abuse: assessment and treatment considerations. Child Welfare. 1994;73(1):29-40.

46.   Lewin L, Abdrbo A, Burant C. Domestic violence in women with serious mental illness involved with child protective services. Issues Ment Health Nurs. 2010;31(2):128-36.

47.   Mullick M, Miller L, Jacobsen T. Insight into mental illness and child maltreatment risk among mothers with major psychiatric disorders. Psychiatr Serv. 2001;52(4):488-92.

48.   Chipungu S, Bent-Goodley T. Meeting the challenges of contemporary foster care. Future Child. 2004;14(1):74-94.

49.   Kelleher KJ, Hazen AL, Coben JH, Wang Y, McGeehan J, Kohl PL, et al. Self-reported disciplinary practices among women in the child welfare system: association with domestic violence victimization. Child Abuse Negl. 2008;32(8):811-8.

50.   Beeman S, Kim H, Bullerdick S. Factors affecting placement of children in kinship and nonkinship foster care. Child Youth Serv Rev. 2000;22(1):37-54.

51.   Ackerson B. Parents with serious and persistent mental illness: issues in assessment and services. Soc Work. 2003;48(2):187-95.

52.   Connell C, Vanderploeg J, Flaspohler P, Katz K, Saunders L, Tebes J. Changes in placement among children in foster care: a longitudinal study of child and case influences. Soc Serv Rev. 2006;80(3):398-418.

53.   Webster D, Barth RP, Needell B. Placement stability for children in out-of-home care: a longitudinal analysis. Child Welfare. 2000;79(5):614-32.

54.   Fernandez E. Pathways in substitute care: representation of placement careers of children using event history analysis. Child Youth Serv Rev. 1999;21(3):177-216.

55.   Kemp S, Bodonyi J. Beyond termination: length of stay and predictors of permanency for legally free children. Child Welfare. 2002;81(1):58-86.

56.   Katz L. Concurrent planning: benefits and pitfalls. Child Welfare. 1999;78(1):71-87.

57.   Hafford C, DeSantis D. Evaluation of the court teams for maltreated infants and toddlers project: final report. Office of Justice Grant No. 2006-MU-MU-0065. Arlington (VA): James Bell Associates; 2009.

58.   McCombs K. ZERO TO THREE court teams for maltreated infants and toddlers year 1 cross-site report: evaluation findings. Washington, DC: ZERO TO THREE; 2007.

59.   Press Office, Senator John Kerry. Senators Harkin, Franken, Kerry, Schumer, Landrieu and Martinez introduce the Safe Babies Act of 2009 Washington, DC2009 [cited 2010 February 21]; Available from: http://kerry.senate.gov/v3/cfm/record.cfm?id=316843&.

60.   Bronfenbrenner U. Toward an experimental ecology of human development. Am Psychol. 1977;32(7):513-31.

61.   Centers for Disease Control and Prevention, National Center for Injury Prevention and Control, Division of Violence Prevention. Violence prevention — the social-ecological model: a framework for prevention. 2009 [updated September 9; cited 2010 February 17]; Available from: http://www.cdc.gov/ViolencePrevention/overview/social-ecologicalmodel.html.

62.   Rubin DB. For objective causal inference, design trumps analysis. Annals Appl Stat. 2008;2:808-40.

63.   McLaughlin J, Jordan G. Logic models: a tool for telling your programs performance story. Eval Program Plann. 1999;22(1):65-72.

64.   Rossi PH, Lipsey MW, Freeman HE. Evaluation: a systematic approach: Sage Publications, Inc; 2004.

65.   Bickman L. The application of program theory to the evaluation of a managed mental health care system. Eval Program Plann. 1996;19(2):111-9.

66.   Bickman L. Using program theory in evaluation, new directions for program evaluation theory (no. 33). San Francisco: Jossey-Bass; 1987.

67.   US Department of Health and Human Services, Administration on Children, Youth and Families, Office of Planning, Research, and Evaluation. National Survey of Child and Adolescent Wellbeing (NSCAW) overview. 2009 [cited 2009 Oct 20]; Available from: http://www.acf.hhs.gov/programs/opre/abuse_neglect/nscaw/nscaw_overview.html#overview.

68.   Dowd K, Kinsey S, Wheeless S, Thissen R. National Survey of Child and Adolescent Well-Being (NSCAW), combined waves 1–5, data file user's manual, restricted release version Research Triangle Institute, University of North Carolina at Chapel Hill, Caliber Associates, and University of California at Berkeley; 2008.

69.   Bech M, Gyrd-Hansen D. Effects coding in discrete choice experiments. Health Econ 2005;14(10):1079-84.

70.   Akin BA. Predictors of foster care exits to permanency: a competing risks analysis of reunification, guardianship, and permanency. Child Youth Serv Rev. 2011; in press.

71.   Little R, Rubin D. Statistical analysis with missing data. Hoboken (NJ): Wiley-Interscience; 2002.

72.   StataCorp. Stata multiple imputation reference manual release 11. College Station, TX: StataCorp LP; 2009.

73.   Rosenbaum PR, Rubin DB. The central role of the propensity score in observational studies for causal effects. Biometrika. 1983;70(1):41.

74.   Rosenbaum PR. Design of observational studies. New York: Springer; 2009.

75.   Cochran W, Chambers S. The planning of observational studies of human populations. J R Stat Soc Ser A 1965:234-66.

76.   Guo S, Barth R, Gibbons C. Propensity score matching strategies for evaluating substance abuse services for child welfare clients. Child Youth Serv Rev. 2006;28(4):357-83.

77.   Winokur MA, Crawford GA, Longobardi RC, Valentine DP. Matched comparison of children in kinship care and foster care on child welfare outcomes. Fam Soc-J Contemp H. 2008;10:1044-3894.759.

78.   Barth RP, Gibbons C, Guo S. Substance abuse treatment and the recurrence of maltreatment among caregivers with children living at home: a propensity score analysis. J Subst Abuse Treat. 2006;30(2):93-104.

79.   Pearl J. Remarks on the method of propensity score. Stat Med. 2009;28(9):1415-24.

80.   Shrier I, Platt RW. Reducing bias through directed acyclic graphs. BMC Med Res Methodol. 2008;8(1):70.

81.   Collett D. Modelling survival data in medical research. Boca Raton (FL): CRC press; 2003.

82.   Cleves M, Gould W, Gutierrez R. An introduction to survival analysis using Stata: Stata Corp; 2008.

83.   Machin D, Cheung Y, Parmar M. Survival analysis. A practical approach 2nd ed. Chichester, UK: John Wiley & Sons; 2006.

84.   Allison P. Discrete-time methods for the analysis of event histories. Sociol Methodol. 1982;13(1982):61-98.

85.   McHugo GJ, Drake RE, Whitley R, Bond GR, Campbell K, Rapp CA, et al. Fidelity outcomes in the national implementing evidence-based practices project. Psychiatr Serv. 2007;58(10):1279.

86.   U.S. Department of Health and Human Services, Administration for Children and Families, Administration on Children, Youth and Families, Children's Bureau. The AFCARS report: preliminary estimates for FY 2009 as of July 2010 (17) 2010 [cited 2011 Februrary 23]; Available from: http://www.acf.hhs.gov/programs/cb/stats_research/afcars/tar/report17.htm.

87.   McDonald TP, Poertner J, Jennings MA. Permanency for children in foster care. J Soc Serv Res. 2007;33(4):45-56.

88.   Rosenberg SA, Robinson CC. Out-of-home placement for young children with developmental and medical conditions. Child Youth Serv Rev. 2004;26(8):711-23.

89.   Rosenbaum P. Design of observational studies. New York: Springer 2010.

90.   Hedrick TE, Bickman L, Rog DJ. Applied research design: a practical guide. Newbury Park, CA: Sage Publications; 1993.

91.   Yin R. Case study research: design and methods. 2 ed. Bickman L, Rog, D, editor. Thousand Oaks, CA: Sage Publications; 1994.

92.   Rubin H, Rubin, I. Qualitative interviewing: the art of hearing data. Thousand Oaks (CA): Sage Publications; 2005.

93.   Spradley J. The ethnographic interview. San Francisco, CA: Holt, Rinehart and Winston, Inc.; 1979.

94.   Corbin J, Strauss A. Basics of qualitative research: techniques and procedures for developing grounded theory. Thousand Oaks (CA): Sage Publications Ltd; 2007.

95.   Maxwell J. Qualitative research design: an interactive approach Bickman L, Rog, D, editor. Thousand Oaks, CA: Sage Publications; 1996.

96.   Barusch A, Gringeri C, George M. Rigor in qualitative social work research: a review of strategies used in published articles. Soc Work Res. 2011;35(1):11-9.

97.   Berg B. Qualitative research methods for the social sciences. Boston: Pearson Education; 2004.

98.   Patton MQ. Enhancing the quality and credibility of qualitative analysis. Health Serv Res. 1999;34(5 Pt 2):1189.

99.   Tashakkori A. Mixed methodology: Combining qualitative and quantitative approaches. Thousand Oaks, CA: Sage; 2006.

100.   Denzin N. The research act: a theoretical introduction to sociological methods. Piscataway, NJ: Transaction Publishers, Rutgers - The State University of New Jersey; 2009.

101.   Golafshani N. Understanding reliability and validity in qualitative research. The qualitative report. 2003;8(4):597-607.