

A Comparison of Foster Care Reentry After Adoption in Two Large U.S. States

Research on Social Work Practice
2019, Vol. 29(2) 153-164
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DOI: 10.1177/1049731518783857
journals.sagepub.com/home/rsw



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Abstract

Purpose: This study examines foster care reentry after adoption, in Illinois and New Jersey. The provision of services and supports to adoptive families have garnered recent attention due to concern about the long-term stability of adoptive homes. **Method:** This study used administrative data to examine the pre-adoption characteristics associated with post-adoption foster care reentry. Children were tracked longitudinally, using administrative data, for five to fifteen years (depending on their date of adoption), or the age of majority. **Results:** Results indicated that most (95%) children did not reenter foster care after adoption. Findings from survival models suggested key covariates that may help to identify children most at risk for post-adoption reentry: child race, age at adoption, number of placement moves in foster care, and time spent in foster care prior to adoption. **Conclusion:** Study findings may help identify families most at-risk for post-adoption difficulties in order to develop preventative adoption service.

Keywords

adoption, field of practice, postadoption, foster care reentry, survival analysis, postpermanency discontinuity, foster care, child welfare, quantitative, methodological article

The U.S. child welfare system has three essential goals for children who enter foster care: safety, permanence, and well-being. Among the three goals, permanence refers to the achievement of a legal, permanent family living arrangement for a child in foster care (U.S. Department of Health and Human Services [USDHHS], 2005). There are multiple pathways to permanence, including reunification with the child's family of origin, placement with relatives, adoption, or guardianship (USDHHS, 2005). Reunification with biological parents or other caregivers is the preferred permanency arrangement in child welfare policy and practice. However, only approximately half of foster care children typically return home (Child Welfare Information Gateway, 2011) and close to 30% of those youth end up reentering foster care after reunification (Wulczyn, 2004). For the other half of children in foster care, adoption and guardianship are the preferred permanency options. Prior to adoption, however, parental rights must be terminated, and the adoptive parents are given full legal custody of the child. In comparison, guardianship refers to the transfer of legal custody of a child to a permanent caretaker (often a relative), and the termination of parental rights is not required.

For decades, U.S. federal policies have prioritized permanency planning over long-term foster care. The Adoption Assistance and Child Welfare Act (1980) was the first federal policy to embrace the concept of permanency planning. It

emphasized the importance of returning children home and also focused on adoption whether children could not be reunified with their birth parents. This law also proposed an adoption subsidy, reimbursed by the federal government for special needs children. After that, the passage of the Adoption and Safe Families Act (1997; ASFA) further stressed the priorities of permanent placements for children in foster care. It mandated that states initiate a termination of parental rights procedure for children who were placed in foster care for 15 of the preceding 22 months. Subsequently, the Fostering Connections to Success and Increasing Adoptions Act (2008) allowed states the option to use federal funds (Title IV-E funds) to subsidize legal guardianship for children previously in licensed kinship foster care. The above federal policies all have substantially increased the number of children who have been placed in adoptive homes (Merritt & Festinger, 2013; Reilly & Platz,

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2004; Rolock & White, 2016). Between 2000 and 2016, the number of children adopted from public child welfare agencies grew by 23%, from approximately 46,600 to over 56,500 children (USDHHS, 2000, 2017). During the same time period, the number of children in foster care decreased by 21%, from 556,000 in 2000 to 437,000 in 2016, a result of both the increased number of children exiting foster care and a decrease in the number of children entering foster care (USDHHS, 2000, 2017).

The move to further prioritize and incentivize the increase in adoption and guardianship was supported by the premise that they represented important pathways to a permanent family setting. There remains concern, however, that the stability of permanence may not be guaranteed and, at the very least, may be more precarious for certain groups than others. The concern over stability for children who have exited foster care through adoption or guardianship may be in part because the adoption process has occurred more quickly than in prior years, and caseworkers have worked to place children who have historically been challenging to place in adoptive homes (Festinger, 2002). Based on previous studies, the estimated overall rate of discontinuity for children who have been adopted or exited through guardianship in the United States is between 2% and 15% (Child Welfare Gateway, 2012a; White, 2016). In this study, discontinuity refers to temporary or permanent changes of adoption or guardianship placement after legal finalization (Rolock, 2015; Rolock & White, 2016; Testa, Snyder, Wu, Rolock, & Liao, 2015; White, 2016). Discontinuity (also referred to as postpermanency instability) is different from disruption and dissolution, although the terms are often used interchangeably in the literature. Disruption typically refers to the placement of foster children that ends before the legal court order granting adoption or guardianship (Barth, Gibbs, & Siebenaler, 2001; Coakley & Berrick, 2008; Festinger, 2002; Smith, Howard, Garnier, & Ryan, 2006). Dissolution is similar to discontinuity and is defined as the formal, legal, and permanent termination of an adoptive placement that has already been legally established (Smith, Howard, & Monroe, 1998). In this article, we focus on foster care reentry after an adoption has been legally established.

This study examines foster care reentry after adoption for two states in the United States, New Jersey and Illinois. For children in foster care who cannot be reunified with their families of origin, they can exit foster care to permanence through adoption or guardianship. However, guardianship is defined and used differently in these two states, making the inclusion of guardianship beyond the scope of this article. While other papers in this special issue use the term adoption breakdown to refer to the ending of an adoptive placement that occur prior to (Barbosa-Ducharme & Marinho, this issue), after finalization (Selwyn, this issue), or both (Paniagua, Palacios, Jiménez-Morago, & Rivera, this issue), this article focuses more narrowly on the reentry into foster care for children whose adoption had been previously granted by the court (in the United States, this is referred to as an adoption finalization). Finally, extant research has shown that the variation in the experiences of children while in foster care

may be associated with variation in their postadoption experiences and rates of reentry. The primary research question for this study is: What are the preadoption characteristics associated with postadoption reentry into foster care for children adopted through public child welfare agencies in Illinois and New Jersey? Through an understanding of the preadoption characteristics associated with postfinalization instability, this study will illuminate potential risk factors that can be used for prevention efforts targeted at increasing stability rates for children living with adoptive parents.

Literature Review

This study is guided by a theoretical framework that employs components of transactional models of development and agency theory. Transactional models explore the bidirectional effects of interactions and relationships that change over time (see, e.g., Sameroff & MacKenzie, 2003). Specifically, it is critical that we understand not only the impact of individual characteristics but also the experiences of the individual within a social context. In the context of this study, we are specifically interested in understanding how the experiences of a child in foster care are related to their experiences after they have been adopted. Our second framework, agency theory, has been utilized to understand the relationships between agents (in this case adoptive parents) and principals (in this case children or youth; e.g., Testa, 2010, 2013). Used in sociology, law, and other fields, agency theory posits that in relationships, one party (the agent) acts on behalf of another (the principal; Shapiro, 2005). In this study, agency theory is used to explore how an agent assumes responsibility when they adopt a child previously in foster care. While acknowledging that we do not have all the elements to fully understand these relationships, these theories help us understand that characteristics like a child's age, prior experiences, or race may impact how a child's relationships and caregiving dynamics change over time.

Many studies have examined the risk factors related to disruption and dissolution (Barth, Berry, Yoshikami, & Carson, 1988; Berry & Barth, 1990; Coakley & Berrick, 2008; Jones & LaLiberte, 2010; Palacios, Rolock, Selwyn, & Barbosa-Ducharme, this issue; Rosenthal, 1993; Rosenthal, Schmidt, & Conner, 1988; Smith & Howard, 1991; Smith et al., 2006; Tucker & MacKenzie, 2012), yet few studies have investigated the risk factors that result in reentry into foster care after an adoption has been finalized (Wijedasa & Selwyn, 2017). Previous reviews of the literature have found that child factors, adoptive or guardianship family factors, and agency factors are all associated with postadoption instability (see, for instance, Coakley, & Berrick, 2008; Palacios et al., this issue; White, 2016). It is important to note, however, that all of these risk factors previously examined in the literature rarely operate in isolation, so these may be more carefully thought of as general risk factors for the parent-child relationship (Sameroff & MacKenzie, 2003).

Table 1. National Data Comparing Rates of Child Involvement in Illinois and New Jersey.

Federal Fiscal Year	2011	2012	2013	2014	2015
Illinois					
Children entered substitute care during the year ^a	4,342	4,617	4,647	4,893	4,929
Rate per 10K ^b	14.0	15.1	15.4	16.4	16.7
Children in substitute care on 9/30 ^a	17,189	16,772	16,894	17,049	16,654
Rate per 10K ^b	55.6	54.9	55.9	57.0	56.3
Median length of stay in care (in months) ^a	27.7	27.1	26.2	25.2	24.4
IV-E subsidized adoption assistance ^c	23,907	22,145	20,725	19,520	18,783
Rate per 10K ^b	77.3	72.4	68.6	65.3	63.5
New Jersey					
Children entered substitute care during the year ^a	4,534	5,252	5,361	5,056	4,594
Rate per 10K ^b	22.1	25.8	26.5	25.1	23.0
Children in substitute care on 9/30 ^a	6,440	6,847	6,946	7,138	6,874
Rate per 10K ^b	31.4	33.7	34.4	35.5	34.4
Median length of stay in care (in months) ^a	13.4	12.1	12.6	12.8	14.2
IV-E subsidized adoption assistance ^c	7,566	7,966	8,319	8,676	8,858
Rate per 10K ^b	36.9	39.2	41.1	43.1	44.3

Data sources: ^aU.S. Department of Health and Human Services, Adoption and Foster Care Analysis and Reporting System (AFCARS) data. ^bRate calculations were based on estimates from the U.S. Census Bureau (<https://www.census.gov/data/datasets/2016/demo/popest/nation-detail.html>). ^cU.S. Department of Health and Human Services, Administration for Children and Families compiled data from states' Title IV-E Programs Quarterly Financial Reports, Forms CB-496 (see Rolock, Pérez, White, & Fong, 2017).

Illinois and New Jersey Policies on Postpermanence

Most studies to date have analyzed postadoption outcomes in one state, and most have tracked children for a relatively short period of time. This study addressed these concerns: Two large U.S. states were used and children were tracked longitudinally, through administrative data, until they reached the age of majority, or they reentered care, or until the observation period ended. State policies may contribute to observed differences in outcomes collected over an extended period of time. Therefore, although this study did not specifically examine the effects of state policy on reentry into foster care after adoption, it is important to acknowledge the policy differences between Illinois and New Jersey. In particular, both states have addressed the differing policies related to permanency with relatives through adoption or guardianship over the past 20 years and also implemented federal policies aimed at ending long-term foster care and addressing the overall stability of permanency in the post-ASFA era.

Adoption supports in Illinois. Illinois has a history of providing postadoption and postguardianship supports and services, going back to the early 1990s (Smith, 2006). The Illinois Family Preservation Act of 1988 (congress.gov, 2017) included explicit language regarding the strengthening and preservation of adoptive families and requiring services to families at risk of adoption dissolution (Smith, 2006). In 2005, the Illinois House of Representatives passed a resolution that called for an in-depth study of postpermanency services, to gather more information about the effect of the state's permanency initiatives. Through this study, the postadoption service and support needs of families were examined. Key among these findings was that the majority (85%) of families reported doing well with the

supports and services currently in place and 15% reported needed additional services (Fuller et al., 2006). The majority (92%) of families reported that the adoption or guardianship had a positive impact on their family life.

Adoption supports in New Jersey. New Jersey also has a long-standing history of providing pre- and postadoption supports and services, including counseling services to families prior to and after adoption and the provision of subsidy payments to adoptive families. New Jersey has experienced sweeping changes to its child welfare system since the settlement of a class action lawsuit, *Charlie and Nadine H. v. Corzine* (1999), which may have influenced adoption practice during the time period of this study. Prior to the settlement, specialized adoption practice was handled by the Adoption Resource Centers, which were disbanded in 2004. Many experienced adoption staff resigned as a result and the local offices were not fully prepared to assume the work (New Jersey Department of Human Services, 2006). In addition, foster parent recruitment, training, and management were reorganized, disrupting practice for at least 2 years and resulting in fewer finalized adoptions than prior to the reform (New Jersey Department of Human Services, 2006). However, also in response to the class action settlement, New Jersey expanded the foster care board rate provided to licensed foster parents and promoted foster parent licensing of relatives during this time (New Jersey Department of Human Services, 2006). In 2006, the state renegotiated the settlement to “focus on the fundamentals” and identified the challenges in permanency achievement among the key goals to address. In 2008, the child welfare agency adopted a “first placement-best placement” approach, whereby willingness to adopt is assessed of all kin considered for placement (New Jersey Department of Children and Families, 2010).

While it is unclear how these challenges may have affected the long-term stability of adoptions, it is clear that practice has changed over the course of the years observed in this study.

Understanding the Context: Comparisons Between Illinois and New Jersey

To understand the differences in child welfare policies that relate to the foster care population and exit to adoption and guardianship in the two states, recent national data were examined (see Table 1). These data revealed that a smaller proportion, per capita, of children entered foster care in Illinois than New Jersey (e.g., in 2015, 16.7 per 10K in Illinois compared to 23.0 per 10K in New Jersey), yet there were higher rates of children in foster care in Illinois than in New Jersey during the period of observation used in this study (e.g., in 2015, there were 56.3 per 10K in Illinois compared to 34.4 per 10K in New Jersey). This is related to the fact that children tend to spend longer periods of time in care in Illinois than New Jersey (e.g., in 2015, 24.4 months in Illinois compared to 14.2 months in New Jersey). Finally, the proportion of children receiving IV-E subsidized adoption assistance is larger in Illinois than in New Jersey (e.g., in 2015, 63.5 and 44.3 per 10K, respectively).

Method

Data

Data were provided by the two states from their administrative data records systems. Institutional review boards at the author's institutions approved access to these data for this study. The time frame and variables selected for this article were based on comparable information available from both states. In other words, when there was additional information available in one state and not the other, it was omitted from the analysis. Data from both states represented all children adopted through the foster care system in either state between January 1, 2000, and December 31, 2010, whose adoption was finalized at the age of 16 or younger. These age and time period restrictions were used to establish a substantial follow-up period for all children. If a child was adopted, and then reentered foster care and was adopted a second time, only the first adoption was included. Children were tracked through November 1, 2015, or until the child reached the age of majority, whichever came first. While the age of majority is 18 years of age, we used age 17.5 to account for the data anomalies associated with the end of the subsidy period at age 18.

Illinois. The Illinois Integrated Database (IDB) is a longitudinal relational database with child records across Illinois Department of Children and Family Services (IDCFS) administrative data systems. Data are collected for all children involved with the Illinois child welfare system and compiled and maintained by Chapin Hall. Children adopted through IDCFS may have had their names and identifying information changed during the transition from state custody to adoption. IDCFS maintains

a file that links pre- and postadoption case identification numbers and this file is not part of the IDB. For this study, the link file was cleaned and linked to the IDB.

The Illinois data were the population of children who had been adopted through IDCFS between January 1, 2000, and December 31, 2010, inclusive, where the child was aged 16 or younger at the time of adoption ($N = 26,887$). Of those cases, 688 records (3%) were removed from the analytical data set because there was inadequate information to link their adoption record to their foster care record. The final Illinois data set contained records for 26,199 children. Longitudinal outcomes were tracked through November 1, 2015, or until the child was the age of majority, whichever came first, using IDCFS administrative data.

New Jersey. New Jersey's Department of Children and Families prepared data for this analysis. These data came from the New Jersey Spirit data system and included data on all children adopted in the state since 2000, a link between the adoption and foster care records, and information on the pre- and post-adoption experiences of all children who had exited foster care through adoption in the state. The state has a multiyear global data sharing agreement with the Rutgers University Child Welfare and Well-Being Research Unit to serve as the data partner that allowed for the sharing of data used in this study. A total of 12,898 children were adopted in New Jersey between January 1, 2000, and December 31, 2010, inclusive, where the child was aged 16 or younger at the time of adoption. Of these cases, 668 (5%) were removed from the population data because they were lacking links to the foster care records or had incomplete data on the foster care record. Thus, a total of 12,230 children were included in the final data set from New Jersey.

Combined data set. Data from Illinois and New Jersey were combined to create one data set with 38,429 records. This study examines these data for both states together and then separately. Examined together, they provided an estimation of the extent of postadoption foster care reentry that can be used to inform estimates in other jurisdictions. Examined as separate states, these data provide information on differences within each jurisdiction.

Variables of Interest

Outcome variable. For children who exited foster care through adoption, reentry into foster care was the outcome of interest. The tracking and coding of this variable involved linking pre- and postadoption records, based on a specific linking file obtained by each state. While prior research has focused on the broader concept of postpermanency discontinuity (see Rolock, 2015, for a detailed description), this study focused on a narrower definition. Children whose records indicated a reentry into foster care were coded as 1; otherwise coded as 0. We employed survival analysis to examine the time from the date of adoption to the outcome of interest (in this case, reentry into foster care, majority age, or the date of the last observation, which was the censor date).

Control variables. Several demographic and other child characteristics were used as control variables in the statistical models used in this study. All variables were derived from the administrative data. They were selected based on findings from extant literature and limited to those available in both states' data systems. Preadoption characteristics used as control variables included child placement in an institutional or group home (IGH) while in foster care, child placement with a kin adoptive parent, the length of time the child spent in foster care prior to adoption, the number of placements while in foster care, and the child's age at the time of adoption. The child's race and gender were also included as control variables. Race was entered as a dichotomous variable, with African American race compared to all other races or ethnicities (non-African American race was the reference category). Gender was coded as a categorical variable, with male as the reference category.

Placed in IGH care while in foster care. Children who were ever placed in IGH while in foster care, and prior to adoption, were coded as 1; children who were never placed in IGH care were coded as 0.

Placed with a relative adoptive parent. The vast majority (see Table 1) of children are adopted by parents who have a prior relationship with them. These parents are either related biologically (e.g., grandparents adopt their grandchild) or the child's former foster parents (e.g., the child lived with a foster family who then became their adoptive family). Children who were adopted by a relative were coded as 1 and nonrelative adoptions were coded as 0.

Three or more years in foster care. A variable was created that counted the time a child spent in foster care (i.e., from the date of initial foster care case opening to date of adoption finalization). This was dichotomized into two categories: Children who spent 3 or more years in foster care were coded as 1 and children who spent less than 3 years in care were coded as 0. This dichotomization reflects long-term foster care (3 or more years) compared to shorter stays in foster care.

Child aged 3 or older at the time of adoption. Prior research has found that children adopted as very young children experience a lower risk of instability after permanence (Rolock & White, 2016). However, if age is used as a continuous variable, this nuance is lost. Therefore, to test the impact of a child's age at the time of adoption, a dichotomized variable was created, and children whose adoption was finalized at 3 years of age or older were coded as 1, and under 3 as 0. The age of 3 was selected because prior studies found that children adopted as infants were less likely to experience instability than children adopted at an older age (Rolock & White, 2016; Wijedasa & Selwyn, 2017).

Number of placements while in foster care. Placement moves in foster care contribute to behavior issues and less secure attachments (Lieberman, 2003). Based on federal guidelines (Adoption and Foster Care Analysis and Reporting System), the following types of placement settings were excluded from the

count of placements: temporary stays in hospitals, camps, respite care, runaway episodes, and institutional placements. However, any of the following were considered to be distinct placements: shelter care, foster care, kinship care, treatment foster care, group homes, residential treatment, and independent living placements. The number of placements in foster care was coded as a continuous variable.

Analysis Plan

Descriptive analyses were first conducted to analyze the distribution of covariates and the survival functions for both the New Jersey and Illinois adoptive subsamples. These descriptive statistics were also estimated for the overall sample. Bivariate statistical tests were performed to examine differences between the New Jersey and Illinois subsamples, including independent group *t* tests for continuous variables and χ^2 tests for categorical variables (Howell, 2002). This study used multivariate survival analysis to estimate the hazard of foster care reentry for adopted foster youth over time. Also, the hazards for foster care reentry were compared for adopted children from the Illinois and New Jersey samples. Specifically, three Cox proportional hazards regression models (Cox, 1972) were estimated to indicate the hazard of foster care reentry over the observation period, controlling for the selected covariates. One model was estimated with children from both Illinois and New Jersey ($N = 38,429$), and two state-specific models were also estimated for each of the samples from Illinois ($N = 26,199$) and New Jersey ($N = 12,230$).

Survival analysis is a sophisticated analytical method used to estimate the instantaneous probability (or hazard) that an event of interest occurs at any small interval of time. In this study, a day is the interval of time. The approach takes into account cases where the event of interest does not occur by the end of the observation period (i.e., cases for which the event is "right-hand censored"; Allison, 2010; Guo, 2010). Cox proportional hazards regression is a semiparametric method, in that, no assumptions are required regarding the form of the underlying hazard rate, but an assumption is made that the hazards for individual participants are proportional across time (i.e., there is no interaction between covariate variables and time), although the literature is not clear regarding the impact of specific violations of this assumption on model results (Allison, 2010; Cox, 1972; Guo, 2010). Also, similar to other regression-type methods, in Cox regression, it is assumed that individual observations are independent or not grouped (Guo, 2010). In this study, the multivariate Cox regression models provided not only an overall estimation of the underlying hazard rate for foster care reentry at various durations of time but also an indication of how each of the covariates elevates or depresses the hazard rate for foster care reentry while controlling for each of the other covariates. Tests (χ^2) of the proportional hazards assumption using Schoenfeld residuals were performed to examine the assumption of proportional hazards for all three Cox regression models (Allison, 2010; StataCorp, 2015). In addition, log-log (survival) plots were examined for all categorical variables to visually

Table 2. Child Demographic and Placement Characteristics.

Variable ^a	Both States (N = 38,429)		Illinois (N = 26,199)		New Jersey (N = 12,230)		Effect Size ^b
	N	%	N	%	N	%	
Reentered foster care							
Reentered foster care	2,032	5	1,500	6	532	4	.03
Did not reenter foster care	36,397	95	24,699	94	11,698	96	
Race or ethnicity							
African American	25,297	66	17,552	67	7,745	63	.09
Hispanic	2,221	6	1,231	5	990	8	
Other	702	2	605	2	97	1	
White	10,209	27	6,811	26	3,398	28	
Gender							
Female	18,924	49	12,970	50	5,954	49	N/A
Male	19,505	51	13,229	50	6,276	51	
Placed in institutional or group home (IGH) while in foster care							
IGH placement	6,211	16	5,464	21	747	6	.19
No IGH placement	32,218	84	20,735	79	11,483	94	
Placement with kin in adoptive home							
Kin	12,840	33	10,913	42	1,927	16	.26
Nonkin	25,589	67	15,286	58	10,303	84	
Time spent in foster care							
Less than 3 years	12,196	32	7,235	28	4,961	41	.13
Three or more years	26,233	68	18,964	72	7,269	59	
Child's age at the time of adoption							
Under 3 years old	7,195	19	3,989	15	3,206	26	.13
Age 3 or older	31,234	81	22,210	85	9,024	74	
	M	SD	M	SD	M	SD	
Number of placements in foster care	2.15	2.29	1.86	2.27	2.77	2.20	-.38

Note. N/A = not applicable.

^aIndependent group *t* tests for continuous variables and χ^2 tests for categorical variables were used to examine differences between New Jersey and Illinois. All variables, with the exception of gender, were statistically significant at the $p < .0001$ level except for gender ($p = .13$). ^b ϕ calculated for 2×2 χ^2 tests, Cramer's *V* for other χ^2 tests, and Cohen's *d* for *t* tests.

assess the proportional hazards assumptions (Guo, 2010). A limitation of our analysis approach was that we did not conduct any adjustments for multiple tests, so 5% of tests (bivariate and regression model tests) would be expected to be statistically significant by chance alone. In this study, the population sizes were large, and it is important to note that statistically significant differences can be found even with very small differences if the sample size is large enough; statistical significance itself doesn't imply that results have practical consequence (Kaplan, Chambers, Phil, & Glasgow, 2014; Pedhazur & Schmelkin, 1991; Ziliak & McCloskey, 2008). Thus, the results below are also evaluated in regard to practical, or theoretical significance. In other words, are differences between groups big enough to have real meaning? All analyses in this study were performed with Stata 14 (StataCorp, 2015).

Results

Descriptive and Bivariate Results

Sample with both states combined. As detailed in Table 2, in the model with both states, 5% of children reentered foster care during the observation period. The proportion was higher in Illinois (6%) than in New Jersey (4%). The descriptive results

and the findings from bivariate statistical tests are summarized in Table 2. For the overall sample that included data from both states, the majority of the children (66%) were identified as African American, with much smaller proportions identified as White (27%), Hispanic (6%), or other race (2%). There were approximately equal percentages of female and male children (49% and 51%, respectively). The vast majority of children (84%) had not spent any time in IGH care while they were placed in foster care, and only about a third of children (33%) had been adopted by kin. A majority of the children (68%) had spent more than 3 years in foster care prior to adoption, and most (81%) were adopted at age 3 or older. Finally, children experienced, on average, two placements ($M = 2.15$, $SD = 2.29$), while in foster care.

Subsamples for individual states. Bivariate statistical tests indicated significant differences for most covariates between the Illinois and New Jersey subsamples. With regard to child race, New Jersey had almost double the proportion of Hispanic children as was found in Illinois (8% vs. 5%) and slightly more White children than Illinois (28% vs. 26%). In addition, children in Illinois were much more likely to be placed for adoption with kin than those in New Jersey (42% and 16%, respectively). In regard to foster care experiences, children in Illinois as

Table 3. Length of Time Children Were Tracked Postadoption.

Observation Period End Reason	Both States		Illinois		New Jersey	
	N	%	N	%	N	%
Years tracked	8.8	3.3	9.0	3.3	8.5	3.1
Tracking ended because						
Youth reached age of majority	17,226	45	13,379	51	3,847	31
Censored on November 1, 2015	19,171	50	11,320	43	7,851	64
Reentered foster care	2,032	5	1,500	6	532	4

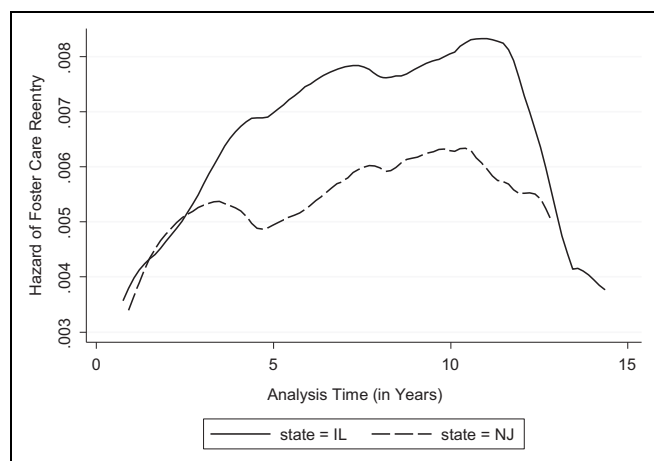


Figure 1. Estimated hazard functions by state.

compared to children in New Jersey were more likely to have been placed in IGH care (21% and 6%, respectively), were more likely to spend 3 or more years in foster care (72% and 59%, respectively), and experienced almost one less placement in foster care, on average (1.86 and 2.77 placements, respectively). Children in Illinois were less likely to be adopted before the age of 3 as compared to children in New Jersey (15% and 26%, respectively). The only covariate that was not statistically different between states was gender, with males and females approximately evenly split in both Illinois and New Jersey, $\chi^2(1) = 2.25, p = .13$.

Children were tracked until they reached majority age, the end of the observation period, or until they reentered foster care (see Table 3). For 45% of children, they reached the age of majority before the end of the observation period, 50% were still minors by the end of the observation period, and 5% reentered foster care prior to the end of the observation period. In Illinois, a larger proportion of children reached the age of majority (51%) than in New Jersey (31%). Overall, children were tracked for a mean 8.8 years ($SD = 3.3$); in Illinois, children were tracked for 9.0 ($SD = 3.3$), and in New Jersey, 8.5 years ($SD = 3.1$). As displayed in Figure 1, the hazard function trend lines for hazard of reentry in each state were similar; the difference in the occurrence of reentry in the two states is shown in the estimated hazard rates. Examining Figure 1, the risk of reentry is highest around 7 and 11 years after

adoption in Illinois, where the risk is about 0.8%, or 8 per 1,000 children would reenter care at those time points. In New Jersey, the risk of reentry is highest about 4 and 10 years postfinalization. Specifically, at 4 years of postadoption, about 5 in 1,000 would be expected to reenter care, and at 10 years, 6 in 1,000 children would be expected to reenter care.

Multivariate Results

Table 4 displays the results of the three multivariate Cox regression models estimated to assess the hazard of foster care reentry while holding the effects of selected covariates constant. Likelihood ratio χ^2 tests for all three models were statistically significant at the $p < .0001$ level, $\chi^2(8) = 525.72, \chi^2(7) = 368.13,$ and $\chi^2(7) = 147.53,$ and for the model with both states (Model 1), Illinois only (Model 2), and New Jersey only (Model 3), respectively, indicating that one or more of the coefficients in each model were not equal to zero (Guo, 2010). Further, χ^2 tests of the proportional hazards assumption using Schoenfeld residuals (Allison, 2010; StataCorp, 2015) supported the proportional hazards assumption, finding independence between residuals and time. In other words, the null hypothesis of proportional hazards was not rejected for any of the three models (StataCorp, 2014); none of the three models were statistically significant at the .05 level, $\chi^2(8) = 8.43, \chi^2(7) = 6.52,$ and $\chi^2(7) = 4.66,$ for the model with both states, Illinois only, and New Jersey only, respectively. Also, log-log (survival) plots for categorical variables showed reasonably parallel curves for each covariate (Guo, 2010).

The results for individual models below are reported in terms of hazard ratios (*HRs*). An *HR* of 1.0 indicates that a covariate (e.g., kinship adoption) was not associated with reentry into foster care after adoption. In contrast, an *HR* of less than one shows that a covariate was associated with a lower hazard of reentry, and an *HR* of greater than one means that a covariate was associated with a higher hazard of reentry. Confidence intervals (*CI*s) inclusive of 1 are evidence of a lack of association between the variable of interest and the outcome of interest (reentry).

Sample with both states combined. Results from the model with both states combined (Model 1) were consistent with the bivariate findings above. The state variable confirms that the hazard for reentry for children in New Jersey was lower than in Illinois. Children in New Jersey had about a 25% lower risk of

Table 4. Multivariate Model Results.

Variable	Model 1: Both States (N = 38,429)		Model 2: Illinois (N = 26,199)			Model 3: New Jersey (N = 12,230)	
	HR	95% CI	HR	95% CI	HR	95% CI	
New Jersey (Illinois)	0.75	[0.67, 0.83]					
African American (non-African American)	1.30	[1.18, 1.44]	1.39	1.23	1.56	1.12	[0.93, 1.35]
Female (male)	1.00	[0.92, 1.10]	0.98	0.89	1.09	1.07	[0.90, 1.27]
IGH care (non-IGH care)	0.91	[0.81, 1.02]	0.90	0.79	1.02	1.00	[0.72, 1.39]
Kinship adoption (nonkinship adoption)	0.99	[0.89, 1.09]	0.97	0.87	1.08	0.99	[0.74, 1.34]
Three or more years in foster care (less than 3 years in foster care)	1.00	[0.87, 1.14]	0.93	0.79	1.09	1.19	[0.90, 1.57]
Adopted at age 3 or older (adopted at younger than 3)	2.28	[1.88, 2.76]	2.59	2.04	3.28	1.76	[1.25, 2.48]
Number of foster care placements	1.15	[1.13, 1.17]	1.15	1.13	1.18	1.16	[1.12, 1.19]

Note. Reference categories for categorical variables shown in parentheses. Hazard ratios in boldface indicate an association between variable of interest and the outcome of interest (reentry). HR = hazard ratio; CI = confidence interval; IGH = institutional or group home.

reentry than children in Illinois ($HR = 0.75$, 95% CI [0.67, 0.83]). The risk of reentry for children adopted at the age of 3 or older was much higher (128%) than the risk of children adopted at a younger age ($HR = 2.28$, 95% CI [1.88, 2.76]). In addition, the risk of foster care reentry was about 30% higher for African American children as compared to non-African American children ($HR = 1.30$, 95% CI [1.18, 1.44]). Foster care experiences were associated with children's risk of reentry; specifically, each placement move while in foster care was associated with an approximate 15% increase in the hazard of foster care reentry ($HR = 1.15$, 95% CI [1.13, 1.17]). Notably, long-term foster care, gender, IGH care placement, and placed with kin were not associated with higher hazards of reentry.

Models for individual states. Consistent with Model 1, the strongest predictor of reentry into foster care for both states was the age of the child at the time of adoption. Specifically, children in New Jersey who were adopted at age 3 or older had a 76% higher risk of foster care reentry (Model 3) and children in Illinois adopted at age 3 or older had 159% higher risk of foster care reentry (Model 2). Also consistent with Model 1, African American children were more likely to experience reentry into foster care in Models 2 and 3. However, in Illinois, the risk of reentry was 39% ($HR = 1.35$, 95% CI [1.20, 1.53]), much higher than in New Jersey where the HR could not be distinguished from 1 and was not statically significant ($HR = 1.12$, 95% CI [0.93, 1.35]). Furthermore, the finding that additional placement moves were associated with increased likelihood of reentry in Model 1 held for both the Illinois and New Jersey models ($HR = 1.15$, 95% CI [1.13, 1.18] and $HR = 1.16$, 95% CI [1.12, 1.19], respectively). Also similar to the model with both states, having spent at least 3 years in foster care was not associated with increased risk of reentry in either Model 2 or Model 3 ($HR = 0.93$, 95% CI [0.79, 1.09] and $HR = 1.19$, 95% CI [0.90, 1.57]).

Discussion

This study expands prior research on outcomes for children who have been adopted through the child welfare system and

adds to the literature on foster care reentry. By including data from two large, diverse states, the current study provides information that can be helpful to policy makers and practitioners when determining preventive pre- and postadoptive services. This study found that, similar to other research, the incidence rate for reentry into foster care after an adoption is fairly low: 95% of children did not reenter foster care after an adoption. Children were tracked longitudinally, until the age of majority, or for a minimum of 5 years. These results should provide some confidence that those children who reenter foster care are a small subset of all children who have been adopted. It should also be noted that one limitation of this study is that it uses administrative data alone to examine this issue. We do not know, for instance, how many families may be struggling and in need of support or services, even if their children do not reenter foster care. For example, qualitative studies (e.g., Rolock & Pérez, 2016; Selwyn, this issue) have interviewed families who are struggling, yet their children have not reentered foster care.

This study also examined key covariates that may help to identify families most at risk of postadoption reentry. These findings can be helpful in the identification of at-risk families to target preventative postadoption services. Key among the covariates associated with predicting reentry into foster care was older age at adoption (children adopted at the age of 3 or older were 128% more likely to reenter foster care than children adopted at a younger age), and the number of placement moves experienced in foster care prior to adoption (each additional move was associated with a 15% increase in the risk of reentry). This study found that African American children in Illinois were 30% more likely to experience reentry than children of any other race, but this risk factor was not found in the New Jersey data. Notably, having spent 3 or more years in foster care, having spent time in IGH care, adoption by relatives, and a child's gender were not associated with increased risk of foster care reentry when examined in the data set with both states combined, or in either state individually.

Previous research has found that older children are more likely to experience discontinuity than younger children (e.g.,

Palacios et al., this issue; Rolock & White, 2016; Wijedasa & Selwyn, 2017). It is possible that children who are adopted before the age of 3 may be spared the level of trauma that older child may possibly experience when they are adopted at an older age. This suggestion is consistent with research with children removed from Romanian orphanages and placed in foster care, which has found that trauma is harder to ameliorate for children from orphanages who are placed in family foster care at older ages (Humphreys et al., 2015). In addition, the finding that each move a child experiences while in foster care is associated with increased risk of reentry may suggest that children who are adopted after several moves in foster care, may be good targets for selective prevention efforts, by offering additional supports and services at the time of finalization as well as after adoption, with particular focus on evidence-based, culturally supportive interventions.

Research indicates that African American children are more likely to be involved in the child welfare system and less likely to experience timely permanence (see, for instance, Fluke, Harden, Jenkins, & Ruehrdanz, 2010; Green, Belanger, McRoy, & Bullard, 2011; Putnam-Hornstein, Needell, King, & Johnson-Motoyama, 2013). Our finding regarding the increased risk of African American children in Illinois suggests that racial disparities persist into postpermanency situations. This finding raises the question, what postpermanency experiences may be elevating the risk of African American children, especially in Illinois? Additionally, racial match between the child and adoptive home is not available in this data set. While kinship care may be a proxy for racial match for some children, and kin adoptions are often more stable than nonkin adoptions (Festinger, 2002), it is uncertain how race interacts with caregiving decisions for kin and nonkin. Post hoc survival models that included an interaction between child African American race and kinship adoption was estimated in the current study and showed no significant interactive effects. It would be beneficial to explore the role of race in return-to-care decisions to understand how bias, cultural expectations, racial experiences, and racial socialization (or lack thereof) impact children's experiences in the adoptive family and their likelihood of reentry into care. These issues related to race reiterates the need to have culturally responsive practices and services while in foster care and after adoption.

Understanding how or why issues like race, age at adoption, or children with more complicated foster care histories might impact their capacity to form and maintain future relationships may have to do with the transactional nature of the parent-child relationship (Sameroff & MacKenzie, 2003) or the agency-relationship established between the child and adoptive parent (Shapiro, 2005). The lack of a significant finding regarding kinship suggests that the relationships between children and their parents, whether biologically related or not, may have more to do with the individual characteristics of who makes the decision to adopt children from foster care, and the experiences of the individuals within a social context. The reciprocal contributions of child and caregiver to the unfolding development of the child (Sameroff & MacKenzie, 2003), the nature of

these relationships, and what strengthens or weakens them, needs additional exploration.

Reentry into foster care is in an undesirable outcome. However, a move back into foster care may result in families obtaining services needed to ensure child or family well-being. In many jurisdictions across the United States, services are offered to families who have adopted, sometimes as part of the adoption agreement signed at the time of finalization. However, the availability, cost, and quality of such services vary widely (Child Welfare Information Gateway, 2012; Howard & Smith, 2003; Vandivere, Malm, & Radcliff, 2009). In both Illinois and New Jersey, child behavioral health services are available within and outside of the child welfare agency. Festinger and Maza (2009) found that some adoptive children return to foster care for a period of time, followed by a return to their adoptive homes. Thus, some children who reenter foster care may do so as a result of a joint decision of the family and the child welfare agency, with the anticipation of a return home once services are completed. Why is it required that adoptive parents relinquish custody in order to receive needed services? Closing off the possibility for reentry without addressing the underlying needs that place children and families at risk of postpermanency discontinuity is not the solution.

A unique aspect of this study was the ability to compare results from two states, with different policies and practices. While there were similarities in the findings from both states, there are some notable differences that require additional research to better understand the practice and policy implications. A key difference is in the rate of postadoption reentry into foster care: 4% in New Jersey and 6% in Illinois. While at first a 2% difference may seem like a small difference, in the context of an event that occurs rarely, this difference has greater meaning. Furthermore, the point estimate that the risk of discontinuity is 20% lower in New Jersey than Illinois when adjusting for compositional differences in preadoption characteristics suggests that there may be different factors at play in the two states.

This study focused on children who exited foster care through adoption and did not include children adopted through private or domestic channels. Expanding the focus to include all adopted children would provide a more comprehensive assessment of adoption in general. An additional limitation of this study was the use of administrative data from two child welfare systems. Therefore, statistical models were limited to what variables were available in the data systems. It is possible that there are unmeasured characteristics that account for differences beyond what has been measured. Specifically, there may be characteristics that place children adopted in Illinois at great risk of foster care reentry, particularly African American children in Illinois. Is it the array of services and supports available to families? Understanding how or why issues like race, age at adoption, or children with more complicated foster care histories might impact their capacity to form and maintain future relationships may have to do with the transactional nature of the parent-child relationship (Sameroff & MacKenzie, 2003) or the agency-relationship established between the

child and adoptive parent (Shapiro, 2005). This includes an understanding of the nature of child's experiences with her or his birth family, the extent of maltreatment and its impact on the child, and any positive experiences prior to foster care. We are also lacking an understanding of the development of parent-child relationships, and how they changed over time in the birth, foster, and adoptive settings. Future research should examine these complex relationships to provide a deeper understanding of the complex causes of breakdown and which are the most important targets for preventive intervention.

Another limitation of this study is that the analytical methods implemented in this study did not include age as a time-varying covariate. Rather, age at permanency was included in Cox regression models as a dichotomous variable (i.e., younger than age 3 vs. age 3 or older), and thus, there may be nuances in the relationship between child age and reentry that were not captured by this study. Further, it is often difficult in child welfare longitudinal research to untangle the effects of child age at foster care placement, child age at adoption case opening, and child age at adoption finalization, as well as child age at key study observation points. Therefore, exploring the differential effects of these related child age variables, which may be also affected by cohort or period effects (White & Wu, 2014) remains a critical task for future research in the field. Finally, this study indicates that children with certain characteristics are more likely to return to foster care. More research is needed to better understand the types of children and families that would benefit from additional outreach, services, or supports after adoption finalization to prevent reentry into foster care.

Acknowledgments

The authors would like to thank the New Jersey Department of Children and Families for their research partnership and the division of Adoption Operations for their assistance with understanding the data provided. They would also like to thank the Illinois Department of Children and Family Services for the sharing of data and a close long-term working relationship with the first author.


Declaration of Conflicting Interests

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The authors received no financial support for the research, authorship, and/or publication of this article.

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