# Placement Stability and Number of Children in a Foster Home

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**Abstract**

This report updates a 2004 analysis of the relationship between placement stability and the number of foster children in the home. Our re-analysis extends the observation period an additional three years: FY2004-2006. The trend line shows that the concentration of children in the same foster home has continued to diminish during this time period. In FY 2006, approximately 2.3% of unrelated foster children were placed in foster homes with three or more children compared to 4.1% in FY2003 and 16.0% in FY1990. This reduction bodes well for placement stability because the data suggest that the risk of non-permanency moves increases significantly with each additional unrelated child who is resident in the home. Our reanalysis reconfirms the association of non-permanency moves with the number of unrelated children in the home. Compared to a foster child who entered care between 2001 and 2003 and is the only foster child looked after in the home, the risk of replacement is 43% higher if another unrelated foster child is present and 101% higher if five or more unrelated foster children are present. A similar pattern holds when children's first years in care are excluded from the analysis and when placements less than 31 days are excluded.

The reanalysis also reconfirms that the risk of instability is still invariant with respect to the number of siblings in the home. In fact, there is compelling evidence that having at least one sibling in the home may be a protective factor against running away. Placement with relatives continues to exhibit lower rates of non-permanency moves and runaways compared to traditional foster homes, independent of the ages of the child and numbers of children in the home. Specialized foster care also appears to lower the risk of instability in homes with three or more unrelated children.

The overall pattern of instability looks nearly identical to the associations observed in our previous study among children who entered care between 1998 and 2000. Although the constancy of the pattern across the two cohorts indicates that not much has happened to reduce the underlying risk of instability for children placed in homes with many unrelated children, the overall reduction in the proportion placed in "crowded" homes has resulted in a modest decrease in placement instability in the aggregate. In the future, it will be instructive to evaluate whether changes in policies and practices since 2004 have significantly altered the underlying pattern of risk among recently entered cohorts of children. An update of this analysis for the 2004 to 2007 cohort could feasibly be conducted when DCFS administrative data through June 2008 becomes available.

## Background

In early 2004, the Illinois Department of Children and Family Services (IDCFS) and B.H. Plaintiffs' attorneys asked the Children and Family Research Center (CFRC) to analyze the degree of correlation between a foster placement's stability and the number of children placed in the same foster home. The analyses completed for that report tracked the placement experiences of children placed or replaced in foster family and kinship care during calendar years 1998 to 2000 through June 30, 2003. The results indicated that the risk of changing placements increases significantly with each additional unrelated child who resides in the home.

A new request from the B.H. Plaintiff attorneys to update these analyses using current DCFS administrative data resulted in the current report, which includes the same analyses for a second cohort of children that entered or re-entered substitute care during calendar years 2001 to 2003 and tracks their placement experiences through June 30, 2006. For comparison purposes, the placement experiences of a cohort of children that entered care between 1998 and 2000 (inclusive) are reanalyzed with a randomly selected sample of placements of children who entered care during that time. The predictive relationship between the number of children in the home (total number, number of siblings, and number of unrelated children), age of the child, and placement type (kinship versus other types of foster homes) and the rate of replacement into a non-permanent setting was examined for both cohorts of children.[1]

The robustness of the relationship between number of children in the foster home and replacement was examined by conducting additional analyses that attempted to control for the effects of certain DCFS policies on placement moves. Previous CFRC research[2] has revealed that a portion of placement moves are a by-product of practice and policy, such as the use of emergency homes or replacement into homes that better match children's needs. Since most of this policy-related replacement occurs during the first year

[1] In this paper, the term replacement characterizes moves into settings other than the homes of parents, adoptive parents, legal guardians and independent living situations. Moves into respite care, defined as a placement lasting less than 31 days that results in the child returning to the same placement from which they came, are not counted as replacements. Placement in hospitals, inpatient mental health treatment facilities, emergency shelters, detention centers, and other similar settings were also excluded from the eligible population of foster care placements.

[2] Hartnett, M.A., Falconnier, L., Leathers, S., & Testa, M. (1999). Placement Stability Study. Urbana, IL: Children and Family Research Center.

in care, the statistical analyses were rerun for both cohorts *after excluding children in substitute care less than one year.* In addition, children may be placed into emergency homes when they first enter substitute care (e.g., within the first 30 days of their stay). Emergency placements are intentionally short-term, and a correlation between number of children and emergency care would lead to a spurious association between size of home and instability. To eliminate this possible bias, the statistical models were also rerun for both cohorts *after excluding placements lasting less than 31 days*.

Foster parents in specialized (or treatment) foster homes receive specialized training that enables them to provide care for a wider variety of children and adolescents, usually those with significant emotional or behavioral problems. These parents also receive a higher level of supervision and services than those in traditional or kinship foster homes. Although previous research has not demonstrated a link between specialized foster care and placement stability, it is possible that the higher level of training and services associated with specialized foster care may moderate the effects of number of children in a foster home on replacement rates. To explore this possibility, an additional regression model was included in the analyses that included a test for the interaction effect between number of children in the home (unrelated and siblings) and specialized foster care placement.

Running away from a foster home is a special type of placement disruption that is instigated by the foster child him/herself rather than policy, practice, caseworker, or foster parent request. In order to examine the effects on child-initiated disruptions, a final set of analyses was completed to assess the impact of number of children in the home, child age, and placement type on the risk of running away from a foster home.

To summarize, the analyses and results presented in this report address the following questions:

1) What are the trends over time with respect to the number of children placed in a single foster home?
2) What is the relationship between the number of children in a foster home and the proportion of placements that end in a non-permanency move?

3) How does the number of children in a foster home affect the rate of replacement, after controlling for other factors known to be related to placement change (i.e., child age and kinship placement)?
4) Does the relationship between number of children in a foster home and replacement stability change after controlling for the effects of policy and/or practice-related placement moves?
5) Does specialized (treatment) foster care moderate the impact of number of children in the home on risk of replacement?
6) How does the number of children in a foster home affect the risk for running away from placement, after controlling for other factors such as child age and placement type?

## Method

Samples

The unit of analysis for this study was the placement rather than the child. Random samples of placements were selected from the placement histories of two cohorts of children. The first cohort consisted of children who entered or re-entered substitute care during calendar years 1998 to 2000 with their eligible placements up to June 30, 2003. From this population of placements, two random samples of placements were selected: One sample of 25,000 placements (corresponding to 17,306 children) and one sample of 50,000 placements (corresponding to 26,295 children). The second cohort was comprised of children who entered or re-entered substitute care during calendar years 2001 to 2003 along with their eligible placements up to June 30, 2006. From this population of eligible placements, two random samples of placements were drawn: One sample of 25,000 placements (corresponding to 16,812 children) and one sample of 50,000 placements (corresponding to 25,325 children).

Placements eligible to be selected into the sample included those categorized as traditional (family) foster care, specialized foster care, or relative (kinship) foster care. Respite care placements, defined in the current study as a placement lasting less than 31 days and ending with the child returning to the same home from which they were temporarily removed, were excluded. In addition, placement in hospitals, inpatient mental

health treatment facilities, emergency shelters, and detention centers were also excluded from the population of eligible foster care placements.

## Measures

Number of children in the home. For each placement in the sample, the total number of wards in the home on the end date was computed by counting the number of other children placed with that substitute care provider as indicated by their placement start dates and end dates. The number of siblings was computed by counting the number of children with a common case id number in the home at the end of the placement for a given placement using the start dates and end dates as reference points. The number of unrelated foster children was computed by subtracting the number of siblings from the total number of wards in the home at the end of the placement.

Child age was computed by subtracting the birth date from the placement start date.

The placement types included for this study were categorized as traditional (family) foster care, specialized foster care (including treatment foster care), and relative (kinship) foster care.

## Analytic Approach

The analyses begin with an examination of the total number of wards, non-related wards, and siblings in a single foster home for the population of children in care for fiscal years 1990 to 2006. This trend analysis was limited to children placed in traditional (family), specialized, and relative (kinship) foster care placement and examines the first placement setting for each child each fiscal year. The same child may start more than one placement in a given year, but only the first placement for each year is included in this analysis. This analysis provides an indication of the overall trend in placement "crowding" over time.

The next analysis examines the bivariate relationship between number of children in a foster placement and the portion of these placements that ended in a non-permanency move or replacement. Replacements are examined by total number of children in the home, number of unrelated children, and number of siblings.

The final set of analyses utilized the random samples of placements from the two cohorts to examine the multivariate relationship between the number of other children in the home at the end of a given placement and the likelihood of the index child being replaced into a non-permanent foster home. Cox's Proportional Hazard Regression was used, which allows the examination of multiple covariates to predict the likelihood of replacement. Several sets of analyses were run to control for the effects of policy and practice-related placement moves. A separate regression model was run to predict the risk of running away from a foster home.

## Results

Trend Analysis – Number of Foster Children in a Home

Table 1 displays the frequency distribution of children placed or replaced into foster homes by the number of children in the home at the time of their first placement for fiscal years 1990 to 2006. The results indicate that foster home crowding has diminished over time. For example, agencies placed 27% of children into homes with three or more children in FY90, by FY06 this percentage decreased to 12%.

Some of the children placed together in foster homes are siblings. As can be seen in Table 1, the distribution of children placed with siblings has remained roughly constant over the time period. Thus, most of the decline in the total number of children placed together in a single home is the result of a decline in the number of non-related children. For example, the proportion of children placed in homes with three or more other unrelated children has declined from 16% in FY90 to 2.3% in FY06. During this same period, the proportion placed into homes with three or more siblings stayed the same at 7%.

**Table 1. Total children, non-related children and siblings in the home on date of placement**

| | Total Other Children in Home | | | | | | |
|---|---|---|---|---|---|---|---|
| Fiscal Year | None | One | Two | Three | Four | Five or more | Placements |
| FY1990 | 27.9 | 25.9 | 18.9 | 13.2 | 7.3 | 6.8 | 13,284 |
| FY1991 | 26.9 | 25.1 | 19.2 | 12.3 | 8.3 | 8.2 | 14,301 |
| FY1992 | 26.1 | 24.9 | 20.0 | 13.1 | 7.7 | 8.2 | 17,348 |
| FY1993 | 26.4 | 25.1 | 19.9 | 13.3 | 8.1 | 7.3 | 16,869 |
| FY1994 | 24.9 | 24.8 | 19.3 | 13.1 | 8.3 | 9.5 | 20,415 |
| FY1995 | 25.4 | 25.4 | 19.3 | 13.2 | 7.9 | 8.7 | 23,181 |
| FY1996 | 26.0 | 25.2 | 19.6 | 13.2 | 8.0 | 8.1 | 20,208 |
| FY1997 | 26.7 | 25.8 | 18.8 | 13.1 | 7.4 | 8.1 | 19,445 |
| FY1998 | 27.9 | 26.4 | 19.3 | 13.1 | 7.3 | 6.1 | 17,731 |
| FY1999 | 29.7 | 28.4 | 20.2 | 12.4 | 5.3 | 4.0 | 15,882 |
| FY2000 | 34.0 | 31.1 | 18.5 | 10.1 | 4.3 | 1.9 | 13,464 |
| FY2001 | 35.9 | 31.0 | 17.8 | 9.3 | 4.2 | 1.8 | 12,426 |
| FY2002 | 36.1 | 30.1 | 19.1 | 9.6 | 4.0 | 1.2 | 11,590 |
| FY2003 | 37.0 | 31.2 | 18.0 | 8.9 | 3.8 | 1.1 | 10,713 |
| FY2004 | 36.2 | 32.3 | 18.0 | 8.6 | 3.6 | 1.2 | 9,922 |
| FY2005 | 36.5 | 31.3 | 18.3 | 9.1 | 3.8 | 1.0 | 9,754 |
| FY2006 | 35.8 | 33.5 | 18.4 | 8.3 | 2.6 | 1.4 | 8,785 |
| **Other Non-Related Children in Home** | | | | | | | |
| FY1990 | 59.7 | 14.2 | 10.2 | 7.6 | 4.5 | 3.9 | 13,284 |
| FY1991 | 61.3 | 13.3 | 9.3 | 7.0 | 4.5 | 4.6 | 14,301 |
| FY1992 | 65.6 | 11.4 | 8.8 | 6.0 | 4.0 | 4.2 | 17,348 |
| FY1993 | 65.1 | 12.4 | 8.9 | 6.2 | 4.0 | 3.4 | 16,869 |
| FY1994 | 65.8 | 11.0 | 8.5 | 6.4 | 3.9 | 4.4 | 20,415 |
| FY1995 | 68.0 | 11.1 | 8.4 | 5.6 | 3.2 | 3.8 | 23,181 |
| FY1996 | 64.4 | 12.6 | 9.8 | 6.2 | 3.5 | 3.5 | 20,208 |
| FY1997 | 63.4 | 13.4 | 10.0 | 6.3 | 3.6 | 3.3 | 19,445 |
| FY1998 | 65.4 | 14.2 | 9.5 | 5.8 | 3.1 | 2.1 | 17,731 |
| FY1999 | 66.3 | 15.4 | 10.3 | 5.0 | 2.0 | 1.1 | 15,882 |
| FY2000 | 68.6 | 16.4 | 8.8 | 4.2 | 1.5 | 0.5 | 13,464 |
| FY2001 | 71.3 | 15.8 | 7.9 | 3.6 | 1.1 | 0.3 | 12,426 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| FY2002 | 72.3 | 15.8 | 7.7 | 3.2 | 0.8 | 0.3 | 11,590 |
| FY2003 | 73.1 | 15.3 | 7.5 | 2.9 | 0.9 | 0.3 | 10,713 |
| FY2004 | 74.3 | 15.7 | 6.2 | 2.7 | 0.9 | 0.2 | 9,922 |
| FY2005 | 75.6 | 14.4 | 7.3 | 2.1 | 0.6 | 0.1 | 9,754 |
| FY2006 | 75.7 | 14.6 | 7.3 | 1.9 | 0.4 | 0.0 | 8,785 |
| **Other Siblings in Home** | | | | | | | |
| FY1990 | 55.2 | 26.6 | 11.1 | 4.4 | 1.7 | 1.0 | 13,284 |
| FY1991 | 52.5 | 26.2 | 11.9 | 5.1 | 2.8 | 1.5 | 14,301 |
| FY1992 | 47.9 | 26.7 | 14.4 | 5.9 | 3.2 | 1.9 | 17,348 |
| FY1993 | 47.9 | 27.0 | 14.1 | 6.5 | 2.9 | 1.5 | 16,869 |
| FY1994 | 46.2 | 27.3 | 13.7 | 7.0 | 3.3 | 2.6 | 20,415 |
| FY1995 | 44.6 | 27.8 | 14.4 | 6.9 | 3.5 | 2.8 | 23,181 |
| FY1996 | 46.9 | 28.1 | 13.9 | 6.2 | 2.9 | 2.1 | 20,208 |
| FY1997 | 48.0 | 28.5 | 12.9 | 5.8 | 2.7 | 2.1 | 19,445 |
| FY1998 | 48.6 | 27.1 | 13.6 | 6.5 | 2.4 | 1.7 | 17,731 |
| FY1999 | 50.8 | 27.4 | 13.0 | 5.7 | 1.8 | 1.2 | 15,882 |
| FY2000 | 54.7 | 28.3 | 11.1 | 4.1 | 1.1 | 0.6 | 13,464 |
| FY2001 | 55.5 | 27.2 | 10.8 | 4.2 | 1.6 | 0.8 | 12,426 |
| FY2002 | 54.8 | 26.0 | 12.5 | 4.5 | 1.5 | 0.6 | 11,590 |
| FY2003 | 55.0 | 27.2 | 11.9 | 4.1 | 1.5 | 0.2 | 10,713 |
| FY2004 | 53.5 | 28.5 | 11.4 | 4.4 | 1.7 | 0.5 | 9,922 |
| FY2005 | 52.7 | 27.2 | 12.8 | 5.1 | 1.7 | 0.6 | 9,754 |
| FY2006 | 52.6 | 28.8 | 11.8 | 4.6 | 1.4 | 0.8 | 8,785 |

Relationship Between Replacement and Number of Children in a Foster Home

Table 2 displays the total number of placements experienced by children in the 1998-2000 and 2001-2003 cohorts and the proportion of these placements that ended in replacement as a function of the number of other children in the home at the end of the placement. The first sub-table in Table 2 displays the proportion of placements that ended in replacement as a function of the total number of other children in the same home. The remaining sub-tables subdivide this total number of children in the home into non-related children and siblings.

The results in Table 2 reveal that most placements end in a non-permanency move, regardless of the number of children in the home; the overall replacement rate for the 1998-2000 cohort was approximately 79% and 73.5% for the 2001-2003 cohort. For both cohorts, the lowest percentage of replacements occurred in foster homes with no other children in the home; approximately 70-73% of these placements ended in a move. When one examines the percentage of replacements as a function of the number of total children in the home, it becomes clear that this percentage increases as the total number of children in the home increases. However, if the total number of children in the home is divided into the number of unrelated children and number of siblings, an interest pattern is uncovered: placement movement increases as the number of unrelated children in the home increases, but there is no such pattern for the number of siblings in the home. The percentage of placements that end in a non-permanency move is fairly constant regardless of the number of siblings in the home. This pattern is quite similar for both cohorts.

**Table 2. Proportion of placements that end in non-permanency move**

| | 1998-2000 Cohort | | 2001-2003 Cohort | |
|---|---|---|---|---|
| | **Number of Placements** | **% Moved** | **Number of placements** | **% Moved** |
| | 153,258 | 78.93 | 150,593 | 73.49 |
| | | | | |

| **Total number of other children** | | | | |
|---|---|---|---|---|
| | **Number of Placements** | **% Moved** | **Number of placements** | **% Moved** |
| No other | 51,781 | 73.02 | 55,095 | 70.43 |
| One other | 39,869 | 78.89 | 40,671 | 73.22 |
| Two other | 27,933 | 81.34 | 26,897 | 74.70 |
| Three other | 17,587 | 84.06 | 15,495 | 77.46 |
| Four other | 8,925 | 86.88 | 7,329 | 77.81 |
| Five or more other | 7,163 | 89.95 | 5,106 | 84.02 |
| **Number of other unrelated children** | | | | |
| | **Number of Placements** | **% Moved** | **Number of placements** | **% Moved** |
| No other | 100,798 | 74.24 | 102,407 | 69.49 |

| | | | | |
|---|---|---|---|---|
| One other | 21,450 | 85.03 | 21,460 | 80.16 |
| Two other | 14,742 | 87.74 | 13,754 | 81.52 |
| Three other | 8,668 | 90.61 | 7,384 | 84.03 |
| Four other | 4,294 | 92.36 | 3,270 | 86.15 |
| Five or more other | 3,306 | 94.86 | 2,318 | 89.47 |
| **Number of Siblings** | | | | |
| | **Number of Placements** | **% Moved** | **Number of placements** | **% Moved** |
| No other | 85,402 | 78.93 | 86,934 | 75.21 |
| One other | 40,569 | 80.15 | 39,147 | 72.11 |
| Two other | 16,725 | 77.57 | 15,606 | 70.05 |
| Three other | 6,668 | 75.52 | 5,780 | 68.46 |
| Four other | 2,484 | 77.70 | 2,127 | 67.80 |
| Five or more other | 1,410 | 77.87 | 999 | 73.27 |

Number of Children in a Foster Home and Risk of Replacement

To refine the estimates of the effects of foster home size on the probability of a change in placement, recurrent event models that take into account the amount of time that elapses since initial case opening were computed. Previous studies have identified age of the child and placement with kin as important predictors of placement instability; these variables were therefore also included in the regression models. These analyses assume that the risk of movement varies with the total length of time the child has spent in foster care.

The results presented in Table 3 indicate that foster home placements are more likely to result in re-placement the greater the number of foster children who are present in the home at the end of the placement. The percentage differences listed in the last column for each cohort illustrate those risk factors that heighten the risk of replacement (those with positive percentages) and those protective factors that promote stability (negative percentages). Difference rates close to zero indicate that the factor is neither a risk factor nor a protective factor; these groups are statistically indistinguishable from the comparison group. For example, in the 1998-2000 cohort, children placed in a foster home with five or more other children are moved to a different placement at a rate that is approximately 59.5% higher than children placed with no other children in the home (comparison group), controlling for the child's age at placement and type of foster home.

Similar to past research, placement stability was also significantly affected by both child age and placement type. The risk of replacement increases with child age. For example, children between 12 and 14 years old at the time of placement are moved to a different placement at a rate that is about 70% higher than children who are 6 to 8 years old at the time of placement (comparison group). Children placed with relative (kin) are 52.3% less likely to move than children placed in non-relative foster homes. The overall pattern of results for the 1998-2000 cohort and the 2001-2003 cohort are quite similar. Although DCFS policy has reduced the number of unrelated children placed together (see Table 1), the underlying impact of number of children in the home, child age, and placement type on replacement movement has not diminished over time (cohort 1 versus cohort 2).

**Table 3. Effect of number of other children in home, child age, and kinship placement on the risk of replacement**

| | 1998-2000 Cohort (N=25,000 placements) | | 2001-2003 Cohort (N=25,000 placements) | |
|---|---|---|---|---|
| Variable | Coeff. | % Difference in rates** | Coeff. | % Difference in rates** |
| Number of other children in home | | | | |
| None (comparison) | - | - | - | - |
| One | .206* | 22.8 | .209* | 23.2 |
| Two | .233* | 26.3 | .223* | 25 |
| Three | .299* | 34.9 | .301* | 35.1 |
| Four | .266* | 30.4 | .275* | 31.7 |
| Five or more | .467* | 59.5 | .448* | 56.6 |
| Age of child at placement | | | | |
| Under 3 years old | -.320* | -27.4 | -.423* | -34.5 |
| 3 to 5 years old | -.097 | -9.3 | -.148* | -13.8 |
| 6 to 8 years old (comparison) | - | - | - | - |
| 9 to 11 years old | .170* | 18.5 | .225* | 25.2 |
| 12 to 14 years old | .529* | 69.7 | .569* | 76.7 |
| 15 years old and older | .695* | 100.3 | .879* | 140.9 |
| Home of relative | -.741* | -52.3 | -.776* | -54 |

*p. < .001
**100 x [EXP(Coeff)-1]

Table 4 presents the same regression model with the number of children subdivided by whether they are unrelated to or siblings of the index child. The results indicate that the entire effect of foster home size on replacement rates is limited to the number of *unrelated* children in the home. Children placed in foster homes with five or more other unrelated children experience placement moves at a rate that is approximately 92% higher for the 1998-2000 cohort and 101% higher for the 2001-2003 cohort than children placed with no other unrelated children in the home (comparison group). The lack of statistical significance for all sizes of sibling groups indicates that placement change is unrelated to the number of siblings in the home. The effects of age at placement and type of foster home retain their statistical significance for both cohorts.

**Table 4. Effect of number of unrelated children, number of siblings, age, and kinship placement on the risk of replacement**

| | 1998-2000 Cohort (N=25,000 placements) | | 2001-2003 Cohort (N=25,000 placements) | |
|---|---|---|---|---|
| Variable | Coeff. | % Difference in rates** | Coeff. | % Difference in rates** |
| Number of non-related children in home | | | | |
| None (comparison) | - | - | - | - |
| One | .335* | 39.8 | .358* | 43 |
| Two | .355* | 42.7 | .372* | 45 |
| Three | .433* | 54.2 | .433* | 54.1 |
| Four | .507* | 66.1 | .430* | 53.7 |
| Five or more | .652* | 91.8 | .699* | 101.1 |
| Number of siblings in home | | | | |
| None (comparison) | - | - | - | - |
| One | .036 | 3.7 | .003 | 0.3 |
| Two | .020 | 2 | .053 | 5.4 |
| Three | -.060 | -5.9 | -.015 | -1.5 |
| Four | .025 | 2.6 | -.145 | -13.5 |
| Five or more | -.126 | -11.8 | -.150 | -13.9 |
| Age of child at placement | | | | |
| Under 3 years old | -.341* | -28.9 | -.438* | -35.5 |
| 3 to 5 years old | -.094 | -8.9 | -.136* | -12.7 |
| 6 to 8 years old (comparison) | - | - | - | - |
| 9 to 11 years old | .151* | 16.3 | .211* | 23.5 |
| 12 to 14 years old | .469* | 59.9 | .514* | 67.1 |
| 15 years old and older | .621* | 86.1 | .804* | 123.4 |
| Home of relative | -.594* | -44.8 | -.650* | -47.8 |

*p. < .001
**100 x [EXP(Coeff)-1]

An additional regression analysis was conducted (not shown in this report) that explored the possibility of a "cohort effect" by combining all the placements from the two cohorts into one large sample and adding a predictor variable in the regression model that categorized each placement into cohort 1 or 2. The results of this regression analysis revealed a small, but significant cohort effect; placements in the 1998-2000 cohort were about 8% more likely to end in a non-permanency move than those in the 2001-2003 cohort.

Controlling for the Effects of Policy-Related Placement Moves

Limiting the analysis to children in care longer than one year did not appreciably change the pattern of results (see Table 5), although the magnitude of the effect of unrelated foster children in home was slightly diminished when compared to the full sample (see Table 4). In addition, the effect of child age on the likelihood of placement change was slightly stronger when the results are compared the full sample.

**Table 5. Effect of number of unrelated children, number of siblings, child age, and kinship placement on the risk of replacement for children in substitute care longer than one year**

| | 1998-2000 Cohort (N=18,480) | | 2001-2003 Cohort (N=18,396) | |
|---|---|---|---|---|
| Variable | Coeff. | % Difference in rates** | Coeff. | % Difference in rates** |
| Number of non-related children in home | | | | |
| None (comparison) | - | - | - | - |
| One | .285* | 32.91 | .339* | 40.38 |
| Two | .295* | 34.31 | .321* | 37.90 |
| Three | .389* | 47.52 | .391* | 47.79 |
| Four | .480* | 61.62 | .406* | 50.10 |
| Five or more | .627* | 87.24 | .652* | 91.90 |
| Number of siblings in home | | | | |
| None (comparison) | - | - | - | - |
| One | .016 | 1.60 | -.0002 | -.02 |
| Two | -.006 | -0.55 | .055 | 5.62 |
| Three | -.041 | -3.96 | .027 | 2.70 |
| Four | .017 | 1.66 | -.105 | -9.94 |
| Five or more | -.045 | -4.39 | -.200 | -18.09 |
| Age of child at placement | | | | |
| Under 3 years old | -.470* | -37.47 | -.559* | -42.79 |
| 3 to 5 years old | -.137* | -12.76 | -.160 | -14.76 |
| 6 to 8 years old (comparison) | - | - | - | - |
| 9 to 11 years old | .193* | 21.32 | .253* | 28.75 |
| 12 to 14 years old | .544* | 72.34 | .576* | 77.82 |
| 15 years old and older | .679* | 97.13 | .872* | 139.13 |
| Home of relative | -.502* | -39.44 | -.560* | -42.90 |

*p. < .001

**100 x [EXP(Coeff)-1]

The general pattern of results obtained for the full sample (Table 4) remains reasonably stable after excluding placements less than 31 days from the regression analysis (Table 6), although the effect of the number of unrelated children on the risk of replacement is slightly diminished. In addition, the effect of child age was slightly smaller than that found in the full sample.

**Table 6. Effect of number of unrelated children, number of siblings, child age, and kinship placement on the risk of replacement for placements longer than 30 days**

| | 1998-2000 Cohort (N=20,058) | | 2001-2003 Cohort (N=19,863) | |
|---|---|---|---|---|
| Variable | Coeff. | % Difference in rates** | Coeff. | % Difference in rates** |
| Number of other non-related children in home | | | | |
| None (comparison) | - | - | - | - |
| One | .266* | 30.45 | .274* | 31.56 |
| Two | .284* | 32.78 | .307* | 35.99 |
| Three | .337* | 40.00 | .347* | 41.51 |
| Four | .460* | 58.40 | .389* | 47.62 |
| Five or more | .537* | 71.03 | .613* | 84.51 |
| Number of siblings in home | | | | |
| None (comparison) | - | - | - | - |
| One | .051 | 5.21 | .037 | 3.76 |
| Two | .014 | 1.47 | .093 | 9.75 |
| Three | -.040 | -3.96 | .002 | 0.17 |
| Four | .046 | 4.68 | -.094 | -8.98 |
| Five or more | -.135 | -12.64 | -.123 | -11.57 |
| Age of child at placement | | | | |
| Under 3 years old | -.287* | -24.98 | -.374* | -31.21 |
| 3 to 5 years old | -.048 | -4.69 | -.096 | -9.18 |
| 6 to 8 years old (comparison) | - | - | - | - |
| 9 to 11 years old | .150* | 16.19 | .226* | 25.29 |
| 12 to 14 years old | .419* | 52.04 | .480* | 61.63 |
| 15 years old and older | .539* | 71.43 | .745* | 110.73 |
| Home of relative | -.436* | -35.36 | -.489* | -38.67 |

*p. < .001
**100 x [EXP(Coeff)-1]

Specialized Foster Care and Risk of Placement Movement

Previous regression analyses examined the effects of placement type by comparing relative (kinship) care to all other types of foster homes combined, which may obscure the

unique impact of specialized foster homes on risk of replacement. To examine whether specialized foster care moderates the effects of "crowding," tests for interactions between number of children and placement type were performed on a larger sample of placements (N = 50,000). The results displayed in Table 7 show that specialized foster care appears to moderate or reduce the effects of number of children on replacement rates in homes with three or more unrelated children for the 2001-2003 cohort. Although there appears to be a similar pattern the earlier cohort and for large sibling groups, the lack of statistical significance reduces confidence in this inference.

**Table 7. Interaction of specialized foster care with number of unrelated children and number of siblings on the risk of replacement**

| | **1998-2000 Cohort (N=50,000 placements)** | | **2001-2003 Cohort (N=50,000 placements)** | |
|---|---|---|---|---|
| Variable | Coeff. | % Difference in rates** | Coeff. | % Difference in rates** |
| **MAIN EFFECTS** | | | | |
| Number of non-related children in home | | | | |
| None (comparison) | - | - | - | - |
| One | .324* | 38.3 | .347* | 41.4 |
| Two | .396* | 48.5 | .390* | 47.7 |
| Three | .414* | 51.3 | .498* | 64.5 |
| Four | .484* | 62.3 | .555* | 74.2 |
| Five or more | .719* | 105.2 | .766* | 115.1 |
| Number of siblings in home | | | | |
| None (comparison) | - | - | - | - |
| One | .047 | 4.8 | .047 | 4.8 |
| Two | .017 | 1.8 | .009 | 0.9 |
| Three | -.106 | -10 | -.052 | -5 |
| Four | -.022 | -2.2 | -.060 | -5.8 |
| Five or more | -.015 | -1.5 | -.046 | -4.5 |
| Age of child at placement | | | | |
| Under 3 years old | -.336* | -28.5 | -.443* | -35.8 |
| 3 to 5 years old | -.054 | -5.3 | -.096* | -9.2 |
| 6 to 8 years old (comparison) | - | - | - | - |
| 9 to 11 years old | .178* | 19.5 | .214* | 23.9 |
| 12 to 14 years old | .473* | 60.4 | .541* | 71.8 |
| 15 years old and older | .657* | 92.8 | .784* | 119.1 |
| Home of relative | -.637* | -47.1 | -.643* | -47.4 |
| Specialized foster care (SPC) | -.086 | -8.3 | .021 | 2.1 |

| INTERACTION EFFECTS | | | | |
|---|---|---|---|---|
| SPC x Number of non-related children in home | | | | |
| None (comparison) | - | - | - | - |
| One | -.004 | -.4 | -.067 | -6.5 |
| Two | -.108 | -10.2 | -.089 | -8.5 |
| Three | -.088 | -8.5 | -.286* | -24.9 |
| Four | -.183 | -16.7 | -.277 | -24.2 |
| Five or more | -.376 | -31.3 | -.504* | -39.6 |
| SPC x Number of siblings in home | | | | |
| None (comparison) | - | - | - | - |
| One | -.067 | -6.5 | -.071 | -6.9 |
| Two | -.133 | -12.5 | -.127 | -11.9 |
| Three | .128 | 13.7 | -.224 | -20.0 |
| Four | -.336 | -28.5 | -.556 | -42.6 |
| Five or more | -1.098 | -66.7 | -.682 | -49.4 |

*p. < .001
**100 x [EXP(Coeff)-1]

Number of Children in the Home and Risk of Running Away

The recurrent events model used to estimate the probability of a placement move was also used to estimate the probability of a child running away from a foster home. The results, presented in Table 8, indicate that although a higher number of unrelated children in the home increases the risk of running away from a foster home, the relationship is not as linear as it is for placement moves. Conversely, placement with siblings, regardless of their numbers, seems to be a protective factor against running away. The strong main effect for child age suggests, as expected, that running away is mainly a problem among children aged 12 and older.

**Table 8. Effect of number of unrelated children, number of siblings, child age, and kinship placement on the risk of running away**

| | 1998-2000 Cohort (N=25,000 placements) | | 2001-2003 Cohort (N=25,000 placements) | |
|---|---|---|---|---|
| Variable | Coeff. | % Difference in rates** | Coeff. | % Difference in rates** |
| Number of non-related children in home | | | | |
| None (comparison) | - | - | - | - |
| One | .475* | 60.8 | .460* | 58.3 |
| Two | .391* | 47.9 | .429* | 53.5 |
| Three | .249 | 28.2 | .361 | 43.5 |
| Four | .651* | 91.8 | .490 | 63.3 |
| Five or more | .644* | 90.4 | .619 | 85.6 |
| Number of siblings in home | | | | |
| None (comparison) | - | - | - | - |
| One | -.381* | -31.7 | -.308* | -26.5 |
| Two | -.560* | -42.9 | -.427 | -34.7 |
| Three | -.720 | -51.3 | -.054 | -5.2 |
| Four | -.451 | -36.3 | -.037 | -3.6 |
| Five or more | -.589 | -44.5 | -.136 | -12.7 |
| Age of child at placement | | | | |
| Under 3 years old | -1.18 | -69.4 | -1.353 | -74.1 |
| 3 to 5 years old | -2.242* | -89.4 | -.739 | -52.2 |
| 6 to 8 years old (comparison) | - | - | - | - |
| 9 to 11 years old | .958* | 160.6 | 1.096* | 199.2 |
| 12 to 14 years old | 2.924* | 1761.1 | 2.976* | 1860.9 |
| 15 years old and older | 3.776* | 4263.5 | 4.034* | 5545.6 |
| Home of relative | .067 | 6.9 | -.123 | -11.5 |

*p. < .001
**100 x [EXP(Coeff)-1]

## Conclusion

Although definitive conclusions cannot be drawn from these observational data about the causal impact of the number of children in a foster home on the risks of replacement, the results of the current analysis are consistent with concerns that "crowding" of children into foster homes is compromising the ability of some foster families to deliver stable and adequate substitute care. The risks, if any, appear to be limited to unrelated children residing in the same foster home. Sibling groups display no differences in stability as family size increases. Children at high risk appear to be

adolescents over the age of 11 who are residing in regular foster homes with three or more other unrelated foster children.