First Placement/Best Placement Evaluation

Final Conclusions

From Initial Demonstration Counties
(January 1 1998 - October 31, 2001)

February 01, 2003

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Executive Summary

This paper focuses on the evaluation of the First Placement/Best Placement (FP/BP) program, particularly the goals "…to ensure appropriate placement, provide stability and expedite permanency." The premise behind the goals is whether or not a child receives the placement type recommended (i.e. the preferred placement) by the multi-disciplinary team after a complete assessment. Our assumption is that receiving the preferred placement initially influences placement stability and length of stay in care. The results were drawn from data gathered for the FP/BP program between January 1, 1998 and October 31, 2001. It includes the February 2002 descriptive statistics report and the multivariate analyses completed in January 2003.

1. Almost three-quarters (74%) of all the children received their preferred placement initially, yet there was a high degree of variance across counties. The percent receiving their preferred placement range from 42.5% in Clayton Count to 99.2% in Colquitt County. This variance may be due to differences in practice and reporting.

2. The data indicate a need for MATCH and specialized foster care placements based on the percent of children who did not receive those preferred placements; only 22.0% of recommended MATCH and 36.4% of recommended specialized foster placements were fulfilled initially.

3. We suspect the number of changes may be underreported because of differing definitions and practices across the counties. Analysis revealed that a poor match on the initial placement caused placements to be less stable.

4. Almost 45% of the children in the six counties analyzed were discharged with 12 months of removal.

5. Overall, children receiving their preferred placement had approximately 20% better stability at one year.

6. No association was found between length of stay and whether the children received their preferred placement.

7. Many of the variables in this analysis confound the results, making it difficult to "tease out" some conclusions. Additionally, practices, reporting, and definition variations across counties make it difficult to draw sound conclusions for some measures. Nevertheless, we found that the 74% of children receiving their preferred placement had much more stable placements than the 26% of children who did not receive their preferred placement.

Introduction

<div align="center">**Purpose**</div>

The purpose of the First Placement/Best Placement project (FP/BP) is "To improve services for children and families; to ensure appropriate placement, provide stability and expedite permanency for children in care; to promote parental involvement and responsibility; and to increase foster home capacity." (www.gahsc.org/fpbp/fpbpguidingprinciples.html). This paper focuses on the evaluation of the FP/BP program, particularly the goals "…to ensure appropriate placement, provide stability and expedite permanency." The premise behind the goals is whether or not a child receives the placement type recommended (i.e. the preferred placement) by the multi-disciplinary team after a complete assessment. Our assumption is that receiving the preferred placement initially influences placement stability and length of stay in care.

In this document, we will describe the FP/BP population and examine two main questions:

1. Does receipt of a preferred placement initially increase the stability of a child's placement, compared to those who did not receive their preferred placement initially?
2. Does receipt of a preferred placement initially decrease the length of time in custody, compared to those who did not receive their preferred placement initially?

<div align="center">**Background**</div>

Data collection and analysis for FP/BP has been a priority since the implementation of the program in 1998. A great deal of time and effort have been exerted to collect data, reduce database errors, and assure completeness so the data reflect the activities of the program as accurately as possible.

In an effort to make the database as clean as possible, we presented the results of an initial review of the data to program staff from all participating counties in the summer of 2001. Of particular concern was the number of change in placement records; it was lower than expected. Since program staff agreed the numbers seemed low, we provided counties with client lists indicating the number of reported changes. The counties reviewed the records, corrected (as required) the data, and submitted corrections.

In February 2002, descriptive statistics were completed to assess the following primary program evaluation measures.

1) Whether or not children receive the placement recommended by the multi-disciplinary team after the assessment
2) The stability of placements (i.e. the number of changes in placement)
3) The length of time children spend "in care" (i.e. time from removal to discharge)

Also in the summer of 2001, the evaluators attempted to collect data for a comparison group of children in an attempt to provide a cohort of non-FP/BP children. The number of abstracted cases was not sufficient to draw conclusions between the FP/BP population and the non-FP/BP population. Differences in the racial composition of the two populations were of concern. Without CAFAS scores in the non-FP/BP population, no comparisons could be made between the two populations on this outcome. The differences in the data collection processes were also a concern. The data for the non-FP/BP counties were abstracted from case records by non-DFCS workers at least two years after the children were in custody; the FP/BP data were submitted by case workers at the time the children were in custody. The lack of standardization in the data collection across DFCS offices could have injected systematic bias in the data. Therefore, the discussion of the comparison group is not included in this report.

This document draws on data gathered for the FP/BP program between January 1, 1998 and October 31, 2001. It includes the February 2002 descriptive statistics report and the multivariate analyses completed in January 2003. The multivariate analyses support and clarify the interpretations of the descriptive statistics. Descriptive statistics are most often univariate in nature, indicating that only one or two variables are considered in the analysis at a time. Although useful, descriptive statistics must be interpreted carefully on their own because other variables not considered in the analyses may confound (i.e. influence or distort) the conclusions made from univariate analyses alone. Regression techniques are multivariate in nature, and can be designed to minimize the effects of confounding.

In the second part of the report, a technique called "survival analysis" was also used. Survival analysis takes into account the amount of time that children spend in care, accounting for this in such a way that comparisons between children who have been in care for differing lengths of time are possible. For example, a child that spends 12 months in care is far more likely to have a change in placement than a child in care for two months. If the time spent in care (the time during which the child can have a placement change) is accounted for (adjusted for) in the analysis, then a valid comparison of the number of placement changes between these two children can be made. In summary, various statistical techniques were combined in this report to provide statistically sound, definitive conclusions from the data in the FP/BP database.

As can be seen in Table 1, there is a large variation in the number of children enrolled in FP/BP in Henry, Monroe, Rockdale, Screven, and Spalding counties compared to Bibb, Clayton, Cobb, Colquitt, Dekalb, and Whitfield counties. Little can be inferred from the counties with very small numbers, so most analysis below was limited to the 6 counties with 100 or more participants. When a subset of the counties is used, it is noted in the text and on the corresponding tables and figures.

Definitions

The following are definitions for terms used throughout this document. The definitions may differ from "standard" definitions (such as AFCARS definitions), but they are the evaluators' understanding of how people implementing the FP/BP program define them. Because these definitions may differ, the numbers cited in this report may not be comparable to AFCARS or other datasets.

Change in Placement

A change in placement is any change after the initial placement (see below for definition of initial placement). We do not consider the emergency placement after removal, the placement for assessment, and the initial placement to be changes in placement, although technically they could be. Because the assumption of the FP/BP program is that a child will most likely have fewer changes in placement if the initial placement is the preferred (or recommended) placement based on the assessment, the focus is on how many changes occur *after* that assessment.

Discharge

A discharge date is considered date of discharge from DFCS custody or date of court approved permanency decision, whichever comes first.

Initial Placement

The first placement after FP/BP assessment.

Mean

The average. Means can be skewed by extreme values. For example, if, out of 100 children, 99 are discharged in 1 month, while 1 child is discharged after 101 months, the mean (or average) length of stay of these 100 children is two months, even though 99% of them were discharged in 1 month.

Median

The center point of a distribution of data, i.e. half of the values are smaller, and half are larger. There are equal amounts of data on either side of the median. The median length of stay for the children used in the example above is 1 month. The median is less sensitive to extreme values than a mean; therefore it is less skewed and often more representative of the data.

Preferred Placement

An initial placement is considered preferred if the child receives the recommended placement after assessment, based on the conclusion of the multi-disciplinary team.

<u>Prior Removal</u>

A child is considered to have a prior removal (before or during the FP/BP program) if he/she was removed from their home and returned to their home, and then subsequently came into custody again.

<u>Placement Stability</u>

Placement stability has two components – the number of placement changes and the number of days to the second change in placement. For the purposes of this paper, a placement is considered stable if a child has zero or one change(s) in placement.

Results

Descriptive Statistics

Enrollments

As of October 31, 2001, 1,603 children were served through the FP/BP program, with 624 of those children still in custody. Of the children served, 207 received Early Intervention services, and 28 (13.5%) of those 207 children were eventually removed from their home. The 1,424 children who were removed from their home and received an assessment are the focus of this report. Table 1 presents the number of FP/BP clients by county, with a corresponding bar graph (Figure 1).

Table 1. Number of Children Removed by County

County	Frequency	Percent
Bibb	301	21.1
Clayton	168	11.8
Cobb	252	17.7
Colquitt	164	11.5
Dekalb	321	22.5
Henry	22	1.5
Monroe	1	0.1
Rockdale	3	0.2
Screven	42	2.9
Spalding	16	1.1
Whitfield	134	9.4
Total	1424	100.0

**Figure 1. Number of Children Removed by County**
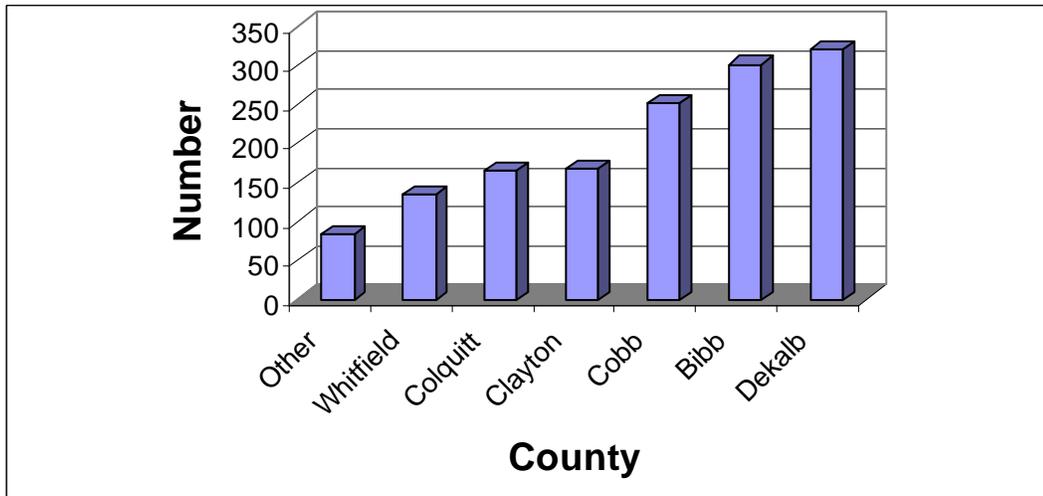
Just over 60.0% (853 out of 1,418) of the children in FP/BP were African-American (Table 2), while 43.9% of the population less than 18 years of age in the FP/BP counties is African-American.

Table 2. Distribution of Race
(does not include 6 with missing race information)

| Race	Frequency	Percent
African-American	853	60.2
Asian/Pacific Islander	3	0.2
Caucasian	447	31.5
Native American	3	0.2
Other	112	7.9
Total	1418	100.0

Figure 2. Distribution of Race
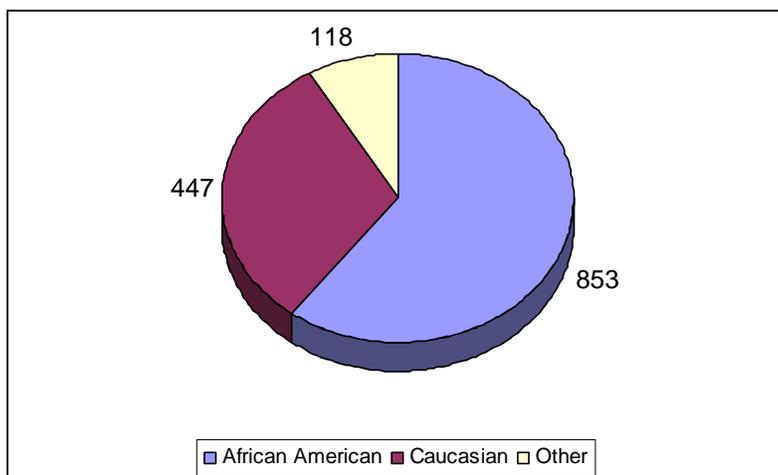
Removals were evenly distributed in age when all counties were analyzed together. When compared across counties, some differences emerge. These differences fall into three groups (Figure 3). First, in Colquitt and Cobb counties, the age group (at removal/enrollment) with the largest number of children is 1 – 5 years. Second, in Clayton, Dekalb, and Bibb counties, the age group with the largest number of children is 11 – 15 years. Third, Whitfield County has a bi-modal distribution, with peaks in the 1 – 5 year old and 11 – 15 year age groups. None of the data collected points to a reason for these patterns; state and County DFCS employees may be able to provide further insight.

Figure 3. Age Distribution (at Enrollment) by County*

* Does not include counties with < 100 children enrolled
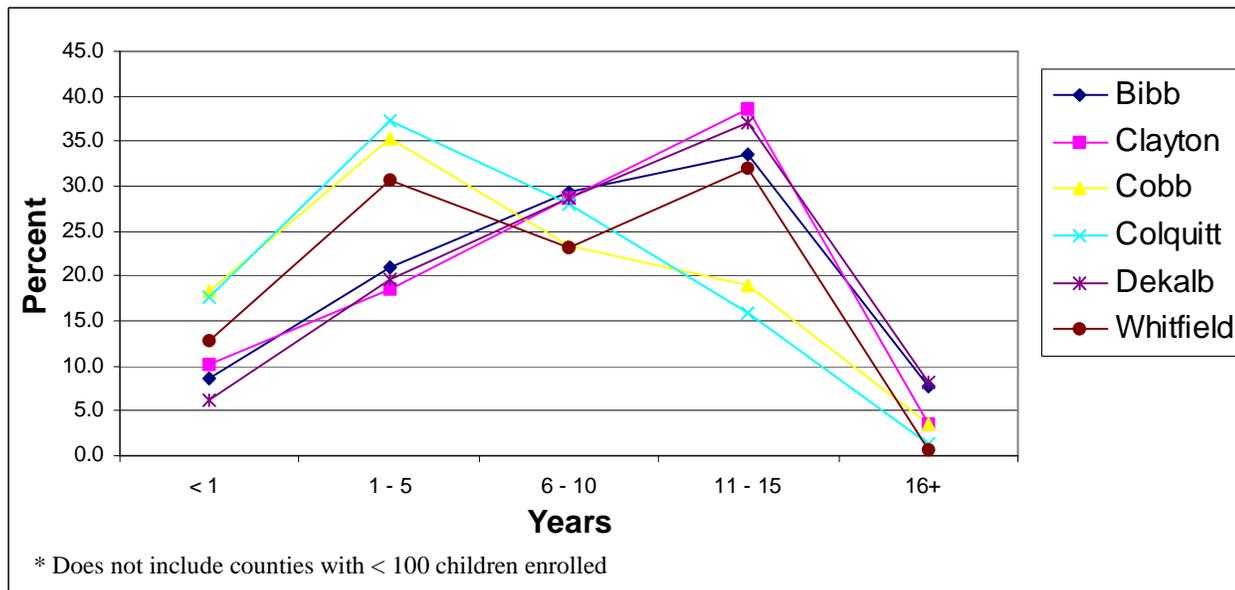
The pattern that emerges in the median age at removal by county (Figure 4) reflects the patterns found in the distribution of age groups in Figure 3. Bibb, Clayton, and Dekalb clearly have older children than Cobb, Colquitt, and Whitefield counties.

Figure 4. Median Age at Removal by County*

* Does not include counties with < 100 children enrolled

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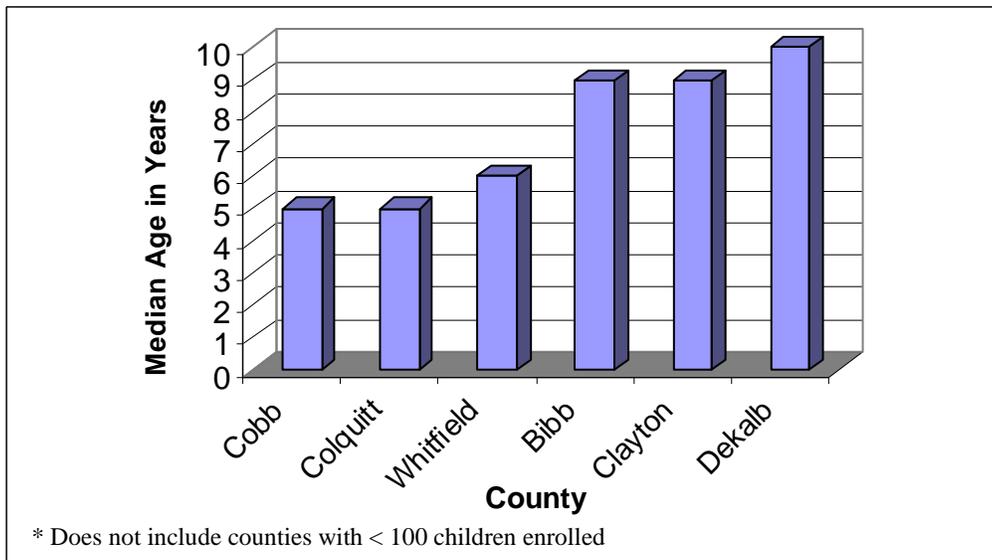
Placements

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Ensuring that children receive their preferred placement initially is a cornerstone of the FP/BP strategy. There are three questions that are critical to the evaluation of the FP/BP program's success in putting children into their preferred placements:
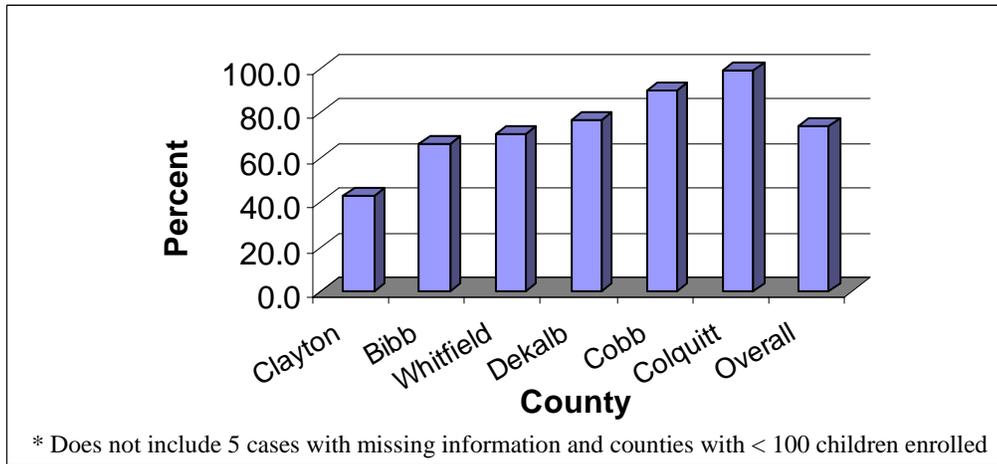
1) *How many children received their preferred placement initially?*
2) *What type of placement did children receive initially, and what was their preferred placement type?*
3) *Were children placed in their initial placements within 30 days of removal?*

In this section, these questions will be addressed for the FB/BP population as a whole, and then stratified by county and placement type.

How many children received their preferred placement initially?

The Initial Placement form asked whether the placement after assessment was the preferred (i.e. recommended) placement. Among the 1,245 children with information regarding their preferred placement, 923 (74.2%) received their preferred placement and 321 (25.8%) did not. Colquitt County placed children in their preferred placement 99.2% of the time, while Clayton County placed children in their preferred placement only 42.5% of the time. The county variations shown in Figure 5 may be due to definition and reporting differences across the counties, or they may be due to shortages of placement options in some counties.

Figure 5. Percent Receiving Preferred Placement Initially by County*

* Does not include 5 cases with missing information and counties with < 100 children enrolled

What type of placement did children receive initially, and what was their preferred placement type?
We examined the relationship between preferred placement and actual placement. Eighty-four percent (824 out of 979) of children whose preferred placement was basic foster care actually received that placement initially. Only 22.0 % (18 out of 82) of children whose preferred placement was MATCH actually received that placement initially (Table 3). These placement data reflect the availability of the different levels of care. Basic foster homes are the most available resource (and the least expensive); MATCH beds are scarce and costly.

Table 3: Frequency of Preferred Placement by Whether the Initial Placement was Preferred
(all counties; does not include 10 cases with missing data)

Preferred Placement Type	Was the Preferred Placement Received?		Total
	Yes	No	
MATCH	18 (22.0%)	64	82
Other	12 (31.6%)	26	38
Specialized Foster Care	4 (36.4%)	7	11
Group Home	41 (49.4%)	42	83
Shelter	20 (83.3%)	4	24
Foster Care	824 (84.2%)	155	979
Overall	959	298	1257

Table 4 lists the *preferred* placement type by where the child was *actually* placed (regardless of whether or not the initial placement was the preferred placement). The shaded numbers indicate those whose preferred placement type was their actual placement type after assessment; all other cells reflect placements *other than* the preferred placement type. Among those whose preferred placement was MATCH, nearly 50% (40 out of 82) were placed in foster care.. Among children seeking group home placements, 42.2% (35 out of 83) were placed into basic foster care or an emergency shelter. It is unknown why four children whose preferred placement was foster care were initially placed in a MATCH placement. Note: there are fewer children accounted for in Table 4 than in Table 3 because 39 records in Table 6 had incomplete placement information in the database.

**Table 4. Preferred Placement Type by Type of Placement After Assessment**
(all counties; regardless of whether or not the initial placement was the preferred placement; does not include 39 cases with missing data)

Preferred Placement Type	Type of Placement After Assessment						**Total**
	Foster Care	Group Home	MATCH	Shelter	Specialized Foster Care	Other	
Foster Care	**879**	19	4	70	0	8	980
Group Home	21	**43**	0	14	0	5	83
MATCH	40	2	**21**	9	0	10	82
Shelter	3	0	0	**21**	0	0	24
Specialized Foster Care	3	0	0	3	**4**	1	11
Other	5	1	0	17	0	**15**	38
Total	951	65	25	134	4	39	**1218**

Were children placed in their initial placements within 30 days of removal?

FP/BP guidelines direct that all children be placed in their initial placement within 30 days of removal. The number of days from removal to initial placement varied greatly for the entire FP/BP population as well as by county. The data show that a relatively large percent of children are placed on the same day they are removed; no particular pattern of activity is apparent after the first day. Therefore, Figure 6 shows not only the percentage who received their initial placement on the same day as removal, but also the percentage who were placed within 30 days of removal, by county (the data are sorted by percentage of children placed on the same day as removal). Colquitt County placed most of their children after the 30-day guideline. Conversely, Whitfield placed most (70.4%) of their children on the same day as removal, with 90.4% placed within 30 days. Overall, 34.2% of children were placed on the same day, and 58.2% were placed within 30 days.

Figure 6: Cumulative Percent of Children Placed in Their Initial Placement on the Same Day and at 30 Days After Removal*
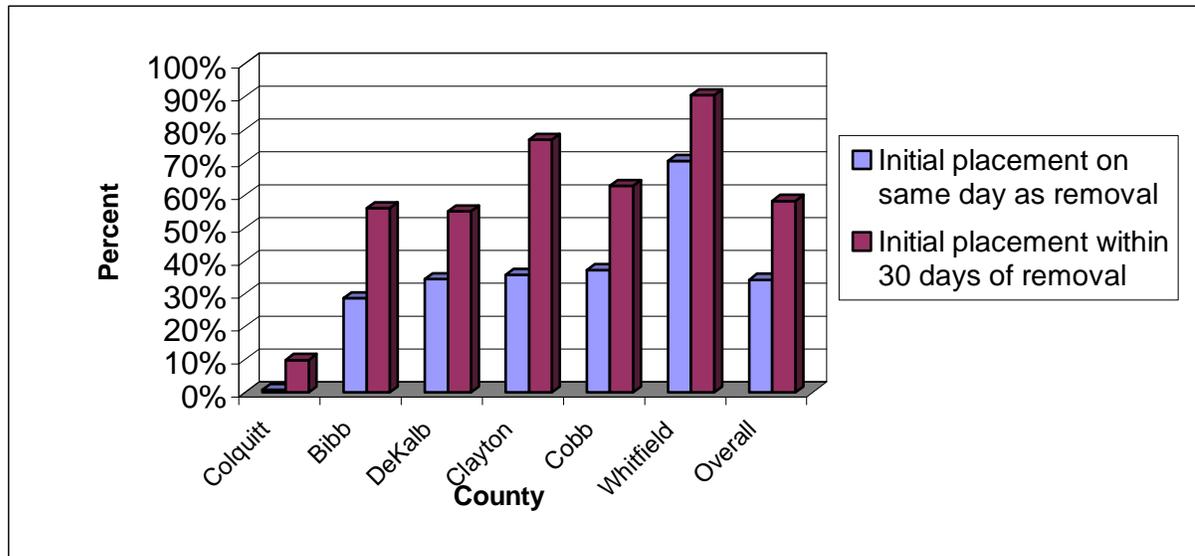
* Does not include 24 cases with missing information and counties with < 100 children

Table 5 lists the median number of days from removal to initial placement by county. The patterns here reflect those in Figure 6. Note that, since more than 50% of the children in Whitfield County were placed on the same day as their removal, the median time from removal to placement is zero days in Whitfield.

Table 5. Median Number of Days From Removal to Initial Placement

County	Median Number of Days
Colquitt	55
Bibb	29
Cobb	22
Dekalb	21
Clayton	4
Whitfield	0

Changes in Placement

There are many good reasons for changes in placement, but the FP/BP program intent is to place the child in their preferred placement initially and reduce the number of changes, providing a stable placement for the child. We expect that if a child is placed in the preferred setting, there is less chance of change in placement than if the child did not get a preferred placement initially. In this section, we will examine the number of changes in placement in the FP/BP population, and then examine the relationship between receiving the preferred placement and improved stability. We will also address the relationship between the reason for changing placements and whether the child received their preferred placement initially.

We requested that each county fill in missing data on the forms sent to them in the summer of 2001. However, the number of changes in placement may still be underreported. There were 396 children who had at least one

11

change in placement (Table 6). When we looked at all children in care more than 72 hours (1,147), we found 91.6% (1,051) of children two or fewer placement changes, and therefore had stable placements by our definition.

Table 6. Number of Changes in Placement

Number of Changes	Frequency (Number of Children)	Percent
1	237	59.8
2	63	15.9
3	34	8.6
4	24	6.1
5 to 21	38	9.6
Total Number of Children	396	100.0

Another component of the FP/BP change in placement data was the reason for the change. We analyzed the relationship between those with two or more changes in placement (i.e. unstable placements) and the reason for the first change. Children with "Poor Match" listed as the reason for the first change have less stable placements than children whose reason for first change was different (see Kaplan Meier survival plot in the stability section of Appendix A).

CAFAS Scores

A cornerstone of the FP/BP strategy is a stable initial placement for a child. We might expect that a child who does not function well emotionally and psychologically will be more likely to have a change in placement than a child with less impairment, particularly if they do not receive their preferred placement initially.

One of the tools recommended as part of the FP/BP assessment process is the Child and Adolescent Functional Assessment Scales (CAFAS). CAFAS scores were grouped into high (100 and higher), medium (50 to 90), and low (0 to 40) categories; higher scores indicate more functional impairment. The CAFAS is designed to assess children ages 7 – 17 years only. CAFAS scores are used for this analysis because they are the most common assessment scores submitted to the FP/BP dataset. We restricted our population in this section to the 7 – 17 year old age group (and only counties with > 100 participants), because CAFAS is only valid for that age group.

Across the six counties (Bibb, Cobb, Clayton, Colquitt, Dekalb, Whitfield), 55.7% of the FP/BP population was 7 – 17 years old. Colquitt had only 36.6% of their population in the 7 – 17 year old age group, Cobb had 38.5%, and Dekalb had 48.5%; the three other counties had at least 64.0% in that same age group. This pattern is reflected in Figure 3, which displays the age distribution by county. The authors are uncertain as to the reason for the different age distributions. Regardless, if CAFAS scores are related to age, then the age differences across counties will confound an analysis of CAFAS scores.
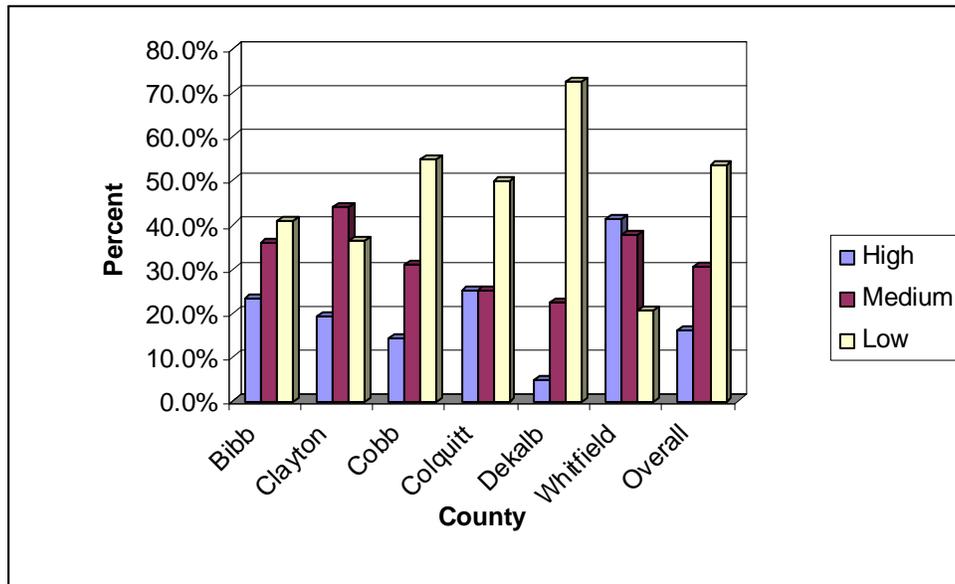
Table 7 shows the percentage of 7 – 17 year olds in each county who have a CAFAS score recorded in the database. Dekalb (93.2%) and Whitfield (89.2%) counties clearly have the largest percentage of 7-17 year olds with a CAFAS score.

Table 7. Percentage of 7 – 17 Year Olds With a CAFAS Score in the FP/BP Database by County

County	Percent
Dekalb	93.2
Whitfield	89.2
Bibb	48.7
Clayton	46.8
Cobb	43.3
Colquitt	26.7
Overall	62.5

Among the 467 records with CAFAS scores for the counties with > 100 participants, 53.3% (249) had low CAFAS scores, 30.4% (142) had medium scores, and 16.3% (76) had high scores (Figure 7). Table 8 shows the same information by county.

Figure 7. CAFAS Scores by County

Table 8. Percentage of 7 – 17 Year Olds With High CAFAS Score in the FP/BP Database by County

County	Percent
Dekalb	4.9
Cobb	14.3
Clayton	19.2
Bibb	23.2
Colquitt	25.0
Whitfield	41.4

Overall	16.3

Discharges

There have been 800 (56.2%) discharges among the 1,424 children who were enrolled in FP/BP. Among the counties with greater than 100 participants, 761 of 1,340 (56.7%) children, have been discharged; 44.9% (602 of 1,340) took place within 12 months of removal. Figure 8 shows the cumulative percentage of children discharged within 12 months by county by month. Bibb, Clayton, and Colquitt have similar patterns of discharge across the twelve months, with just over 50.0% of all the FP/BP participants discharged within 12 months. Cobb and Whitfield have slower rates of discharge, both with less than 30.0% of their participants discharged within 12 months; they are keeping the majority of their children in custody longer than 12 months. While Dekalb mirrors Cobb and Whitfield for the first 11 months, they have a large increase in month 12 that aligns them with Bibb, Clayton, and Colquitt.

Figure 8. Cumulative Percentage of Children Discharged Within 12 Months of Removal by County*

* Does not include counties with < 100 children enrolled
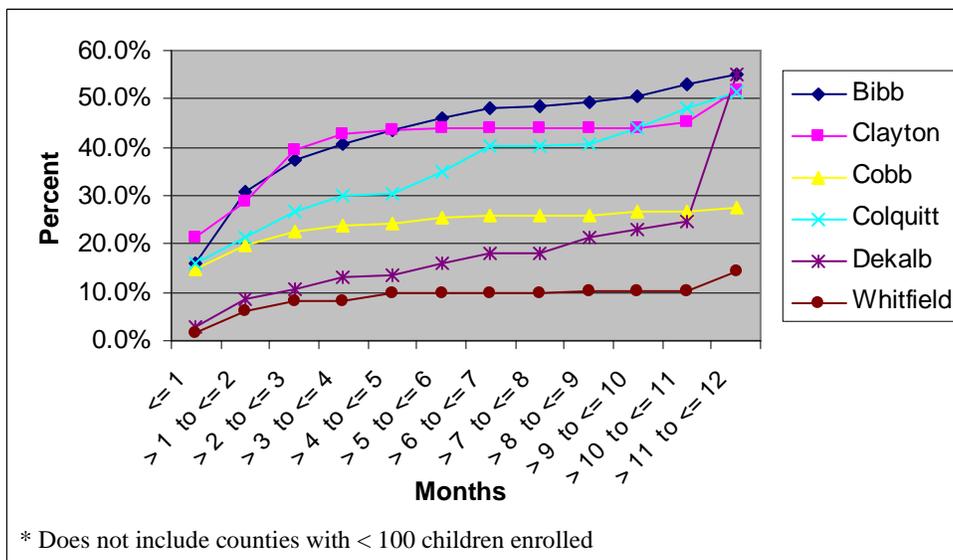
Multivariate Analysis

In the preceding analyses we presented statistics from a single variable, e.g. CAFAS score, without accounting for associations that a variable might have with other variables, e.g. age. If older children generally have higher CAFAS scores, then a county's higher CAFAS scores may be attributable to the age distribution. Our bivariate analysis shows that children with high CAFAS scores are less likely to receive their preferred placement. However, this apparent relationship between CAFAS score and placement history may be explained by the effect of age on placement.

14

A range of similar questions arise when we try to account for the complicated associations between age, race, gender, time in care, and type of placement. Without understanding the ways that these variables ("covariates") interact with or confound each other, we cannot answer questions of cause and effect or the true strength of the relationship between stability and the best initial placement.

By combining multiple variables into a single analytical model, then eliminating the variables that have little influence on the model results, we gain a better picture of the important variables and the strengths of their association with our outcome of interest. Multivariate models generally require that our data not have missing values, so some incomplete records were excluded. Excluding these records generally strengthen and do not bias the results. The following records were excluded:

a) All data from counties that had less than 100 records in the FP/BP database (Henry, Monroe, Rockdale, Screven, Spalding).
b) Records with incompatible dates. For example, date of removal preceding the date of birth.
c) Records missing either gender, race, or date of birth.
d) Records missing date of prior removal or whether the child received the preferred placement were removed so that the effects of these characteristics could be estimated.

These exclusions resulted in a record count of 1,056 for the multivariate dataset.

Based on the primary FP/BP evaluation measures, two outcome measures were modeled:

- Placement Stability: children having two or fewer changes in placement, and
- Length of Stay: the time from removal to discharge

The data for placement moves in Bibb County were found to have no association to receiving a preferred placement or any of the other variables. Data from the other five counties showed consistent associations that were not present in Bibb County, so the stability analysis that follows does not apply to Bibb County.

Placement Stability

Overall, children receiving their preferred placement initially had approximately 20% better placement stability at one year. Age, race, and gender all have significant associations to placement stability, with age being the strongest. Non African-American males over five years old gained the most by receiving their preferred initial placement. Figure 9 compares the stability using a survival plot of children in this group (as estimated by a multivariate regression model) who did and did not receive their preferred placement.

Figure 9: Placement Stability of Non-African-American Males Over 5 Years Old
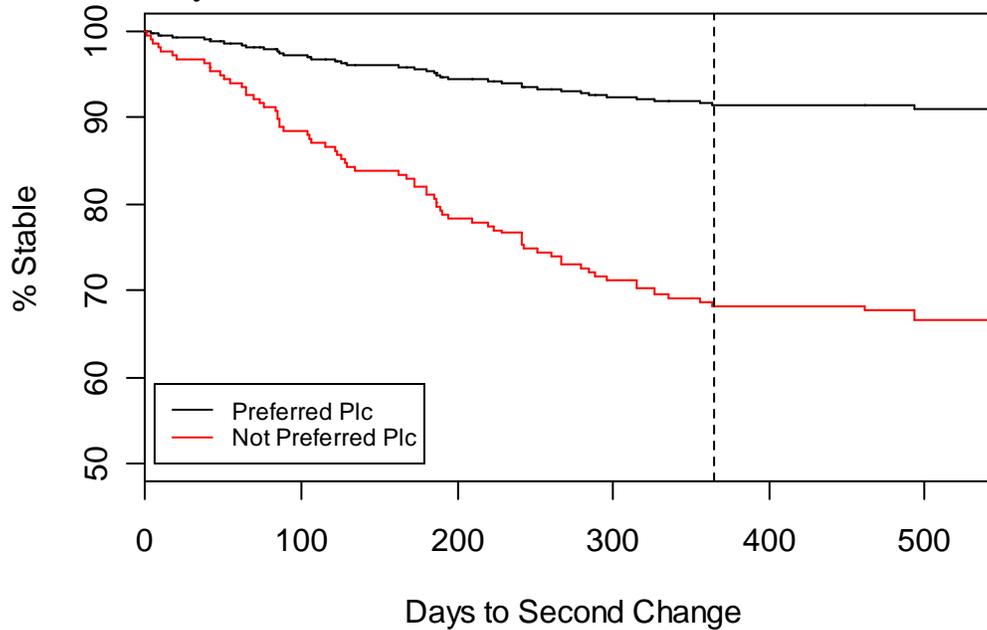
Initially, on the first day, there have been no placement changes and 100% of children are in stable placements. As time progresses to the right, children experience instability in their placements (two or more moves indicating an unstable placement). Children in this age/race/gender group who did not receive their initial preferred placement experience more placement instability over time, with 32% of them having two or more placement changes by one year. Approximately 8% of those with preferred placement had two or more changes.

CAFAS score and history of prior removals did not have a significant association to placement stability. The following bullet points and Table 9 summarize the most significant findings:

- Males over five years old who received their preferred placement through the FPBP assessment process had 20-24% better placement stability at one year than those who did not receive their preferred placement.

- Non African-American males benefited most from this effect. Ninety-two percent of those in this group who received their preferred placement remained in that same placement at one year, compared to 68% of those who did not receive their preferred placement, i.e. non African-American males five and older were four times more likely to have two ore more changes.

- African-American females five or older showed a 14% improvement in stability at one year (93% vs. 79%) by receiving their preferred placement.

- Children younger than five receiving their preferred placement showed a 5% improvement in stability at one year (98% vs. 93%).

- Non African-American females who received their preferred placement did not show a statistically significant improvement in stability at one year, probably due to a shortage of data.

- Scores from the Child and Adolescent Functional Assessment Scale (CAFAS) were not found to be related to placement stability.

Table 9. Stability at One Year

| Age (in Years)	Gender	AA?	Stability of Children Who Did *not* Receive Preferred Placement Initially	Stability of Children Who Did Receive Preferred Placement Initially	Improvement in Stability by Receiving Preferred Placement Initially
>= 5	M	N	68%	92%	24%
>= 5	M	Y	76%	95%	19%
>= 5	F	Y	79%	93%	14%
< 5	All	All	93%	98%	5%

This analysis used a standard statistical modeling methodology (Cox Proportional Hazards Regression) to account for differing observation times and simultaneously adjust for the effects of gender, race, age, prior removal and CAFAS score.

CAFAS score still has an association with placement stability indirectly, through its strong association with whether a child receives their preferred placement. Children with high CAFAS scores are 5.6 times less likely to receive their preferred placement ($p<0.001$ based on logistic regression model adjusting for age, race, and gender), and therefore less likely to have a stable placement.

Length of Stay in Care

A second multivariate analysis was performed using length of stay (the time from removal to discharge) as the outcome. No association was found between the length of stay in foster care and whether a child received his or her preferred placement. As can be seen in Figure 9, after accounting for age, race, gender, and CAFAS score, there is no association between length of stay and whether a child received their preferred initial placement. The two curves in Figure 10 showing the percentages of children discharged over time are nearly identical.

Figure 10: Length of Stay for 5-9 Year Old, African-Americans Not Having High CAFAS Scores
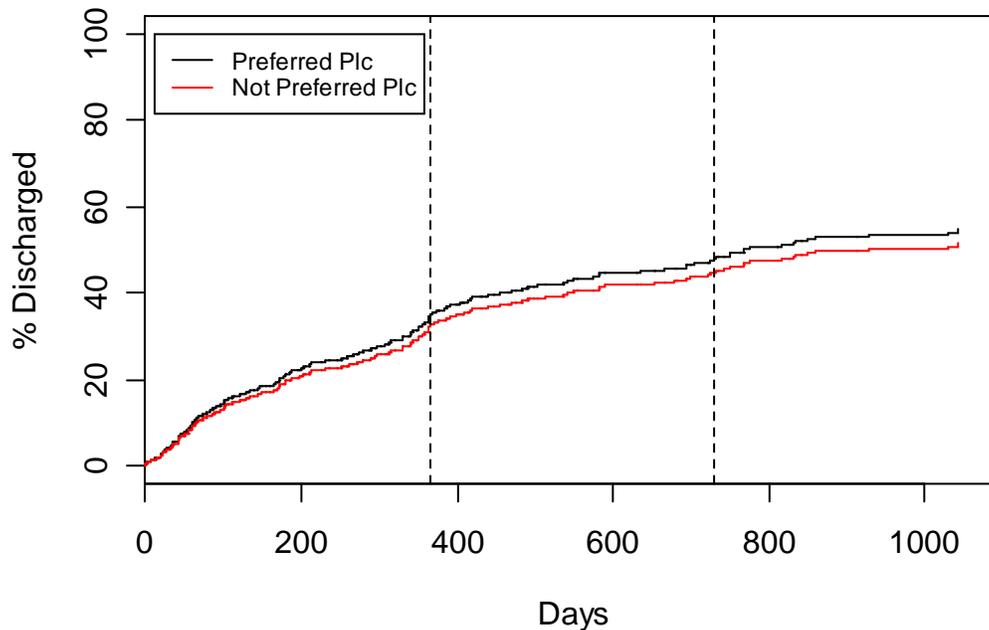
A statistically significant association was found between the length of stay in foster care and age, race, and CAFAS score. No association was found between prior removals and length of stay in foster care.

Discussion

The central purpose of this analysis was to evaluate the FP/BP program by measuring the strength of the relationship between receipt of a preferred placement and 1) subsequent stability, and 2) length of stay in care. We have used data to paint a picture of the population and "activities" of the FP/BP program from its inception in January of 1998 to October 31, 2001, utilizing bivariate and multivariate techniques.

Demographics

Analysis revealed African-Americans are over-represented in the FP/BP population (60% vs. 44% in the general population) among the six counties with more than 100 participants (Bibb, Clayton, Cobb, Colquitt, Dekalb, Whitfield). The three patterns that emerge when age is stratified by county (Figure 3) can only be explained by differences in practice between counties.

Placements

Overall, almost three-quarters (74%) of all the children received their preferred placement initially. The high variation in percentage of those children across the six counties may be due to variance in practice and reporting (Figure 5). The percent receiving their preferred placement ranges from 42.5% in Clayton to 99.2% in Colquitt.

The data indicate a need for MATCH and specialized foster care placements based on the percent of children who did not receive those preferred placements; only 22.0% of recommended MATCH and 36.4% of recommended specialized foster placements were fulfilled initially. This could be an issue of overall availability or immediate availability, as these are initial placement; children may have been placed elsewhere temporarily while waiting for the placement to become available.

Overall, 34.2% of the children were placed on the same day as removal, and 58.2% were placed within 30 days of removal, but, again, there were large inter-county variations that point to practice differences.

Changes in Placement

We suspect the number of changes may be underreported because of differing definitions and practices across the counties. Analysis revealed that a poor match on the initial placement caused placements to be less stable (see Kaplan Meier survival plot in the stability section of Appendix A).

CAFAS Score

As with other measures, data revealed high variation in the proportions of children with high CAFAS scores when stratified by county (Figure 7). Additionally, the variation in age across counties probably confounds the results from CAFAS scores and contributes to the inter-county variations.

Discharges

Between January 1, 1998 and October 31, 2001, 56.2% of the children enrolled in FP/BP were discharged. Overall, almost 45% of the children in the six counties analyzed were discharged with 12 months of removal. Again, there was a large amount of variation when stratified by county (Figure 8).

Placement Stability

Overall, children receiving their preferred placement had approximately 20% better stability at one year. When accounting for age, race, and gender associations, we found that non African-American children benefited most from receiving a preferred placement (92% remained in the same placement at one year vs. 68% among those that did not receive a preferred placement).

Length of Stay in Care

No association was found between length of stay and whether the children received their preferred placement. As shown in the multivariate results of Figure 10, the percentage of children discharged over time is the same, regardless of whether they received their preferred placement or not.

Summary

Many of the variables in this analysis confound the results, making it difficult to "tease out" some conclusions. Additionally, practices, reporting, and definition variations across counties make it difficult to draw sound conclusions for some measures. Nevertheless, we found that the 74% of children receiving their preferred placement had much more stable placements than the 26% of children who did not receive their preferred placement.

Appendix A

Kaplan Meier Survival Plots

Stability:

Placement Stability by Age

Legend:
- 0-4, N=274, O/E=12/35.2
- 5-9, N=298, O/E=37/36.8
- 10-14, N=308, O/E=48/36.9
- 15+, N=176, O/E=31/19

p-value for equality = <0.001

Placement Stability by CAFAS Score

Legend:
- Low or No Score, N=859, O/E=88/104.9
- Medium, N=126, O/E=20/15.1
- High, N=71, O/E=20/7.9

p-value for equality = <0.001

Placement Stability by County

Legend:
- BIBB, N=217, O/E=54/20.4
- CLAYTON, N=120, O/E=8/15.7
- COBB, N=186, O/E=7/26.8
- COLQUITT, N=115, O/E=14/13.4
- DEKALB, N=300, O/E=33/36.7
- WHITFIELD, N=118, O/E=12/15

p-value for equality = <0.001

Placement Stability by Preferred Placement

Legend:
- Y, N=804, O/E=75/99
- N, N=252, O/E=53/29

p-value for equality = <0.001

Placement Stability by Prior Removal

Legend:
- N, N=391, O/E=29/47.9
- Y, N=665, O/E=99/80.1

p-value for equality = 0.001

Placement Stability by Reason for First Change

Legend:
- Other Reason, N=236, O/E=85/103.3
- Poor Match, N=52, O/E=35/16.7

p-value for equality = <0.001

Length of Stay:

All Children
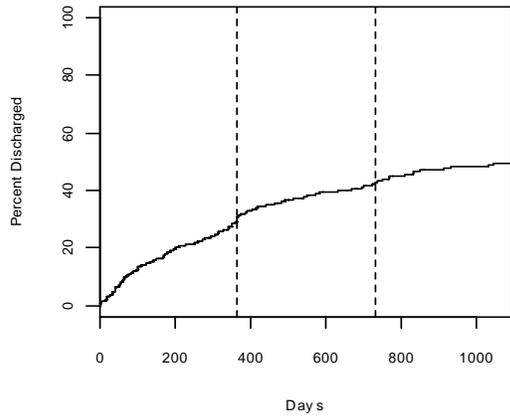
% Discharged by Gender/Race

Legend:
- F/AA, N=321, O/E=166/132.3
- F/White, N=172, O/E=52/74.5
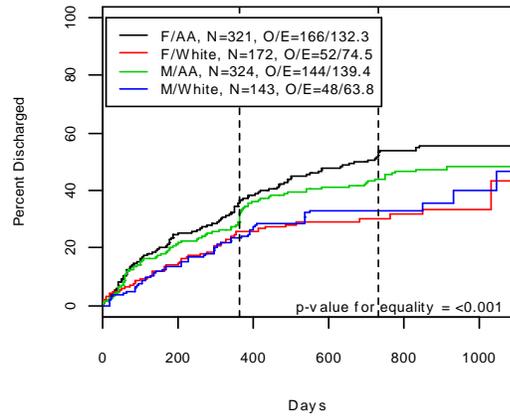- M/AA, N=324, O/E=144/139.4
- M/White, N=143, O/E=48/63.8

p-value for equality = <0.001

% Discharged by CAFAS Score

Legend:
- Low, N=247, O/E=131/100.8
- Medium, N=126, O/E=50/54.9
- High, N=71, O/E=23/31.2
- No Score, N=612, O/E=250/267.1

p-value for equality = 0.005

% Discharged by County

Legend:
- BIBB, N=217, O/E=149/78.3
- CLAYTON, N=120, O/E=22/57
- COBB, N=186, O/E=16/95
- COLQUITT, N=115, O/E=62/46.2
- DEKALB, N=300, O/E=188/126.3
- WHITFIELD, N=118, O/E=17/51.2

p-value for equality = <0.001
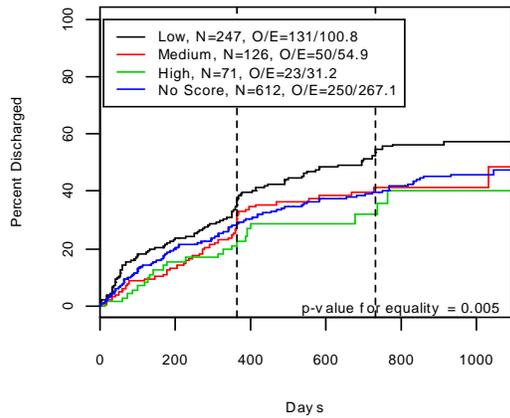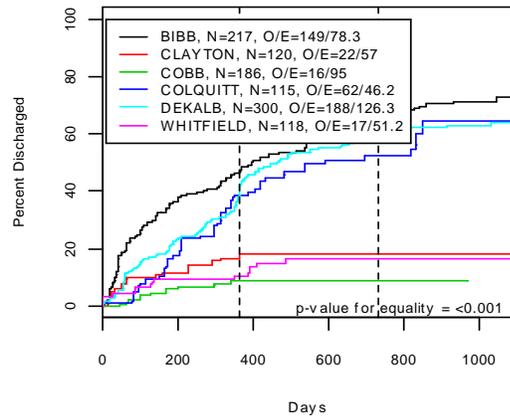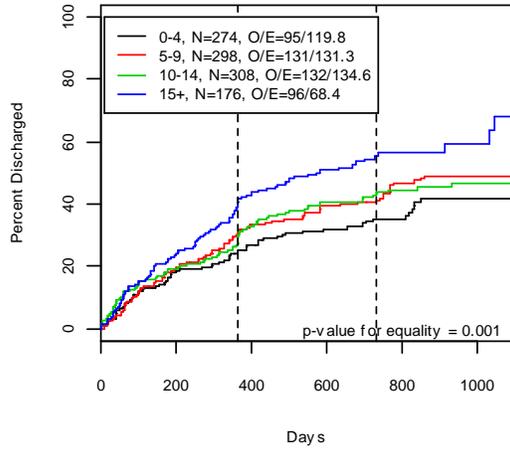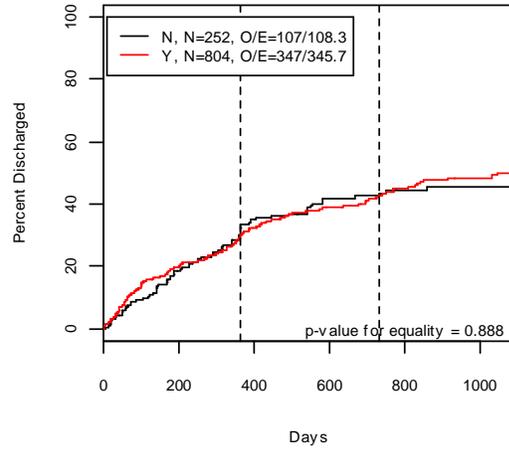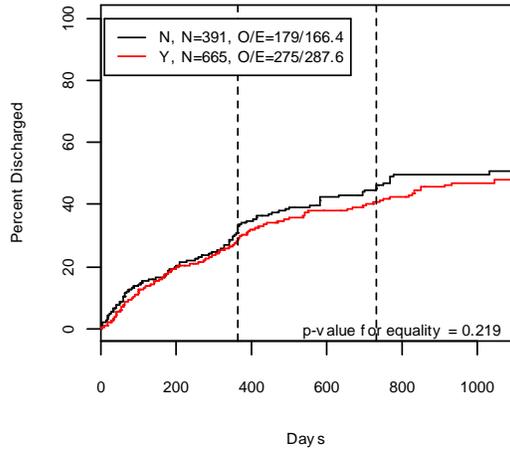
% Discharged by Age

% Discharged by Preferred Placement
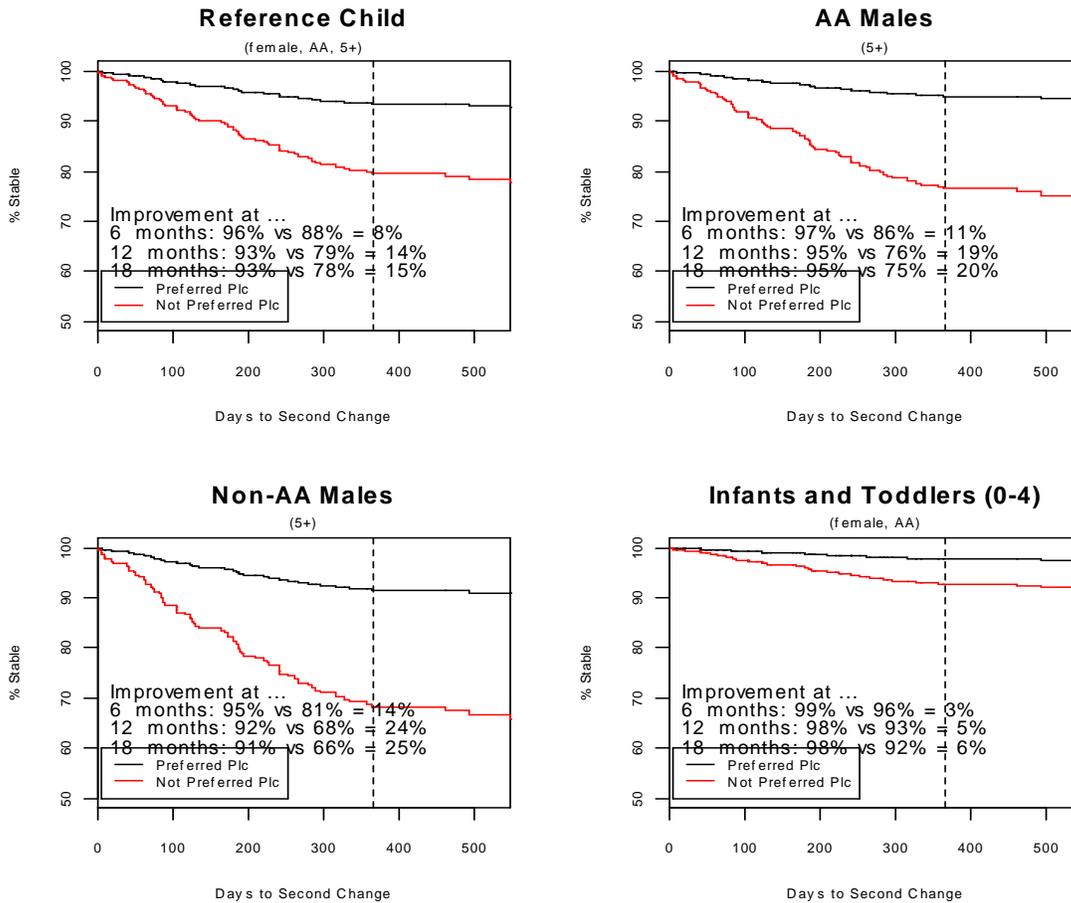

% Discharged by Prior Removal

Cox Proportional Hazards Model

Stability:

FP/BP 1998-2001: Stability vs. Receiving Preferred Placement

(Cox PH model adjusted for gender, race, and age, N=839, Bibb excluded)

Reference Child

(female, AA, 5+)

Improvement at …
6 months: 96% vs 88% = 8%
12 months: 93% vs 79% = 14%
18 months: 93% vs 78% = 15%

— Preferred Plc
— Not Preferred Plc

Days to Second Change

AA Males

(5+)

Improvement at …
6 months: 97% vs 86% = 11%
12 months: 95% vs 76% = 19%
18 months: 95% vs 75% = 20%

— Preferred Plc
— Not Preferred Plc

Days to Second Change

Non-AA Males

(5+)

Improvement at …
6 months: 95% vs 81% = 14%
12 months: 92% vs 68% = 24%
18 months: 91% vs 66% = 25%

— Preferred Plc
— Not Preferred Plc

Days to Second Change

Infants and Toddlers (0-4)

(female, AA)

Improvement at …
6 months: 99% vs 96% = 3%
12 months: 98% vs 93% = 5%
18 months: 98% vs 92% = 6%

— Preferred Plc
— Not Preferred Plc

Days to Second Change

Length of Stay:

FP/BP 1998-2001: Length of Stay vs. Age/CAFAS/Race

(Cox PH model adjusted for preferred, age, CAFAS, and race, N=1056)

Preferred Placement
(5-9, not high CAFAS, AA)

Age
(preferred, not high CAFAS, AA)

CAFAS Scores
(preferred, 5-9, AA)

Race
(preferred, 5-9, not high CAFAS)
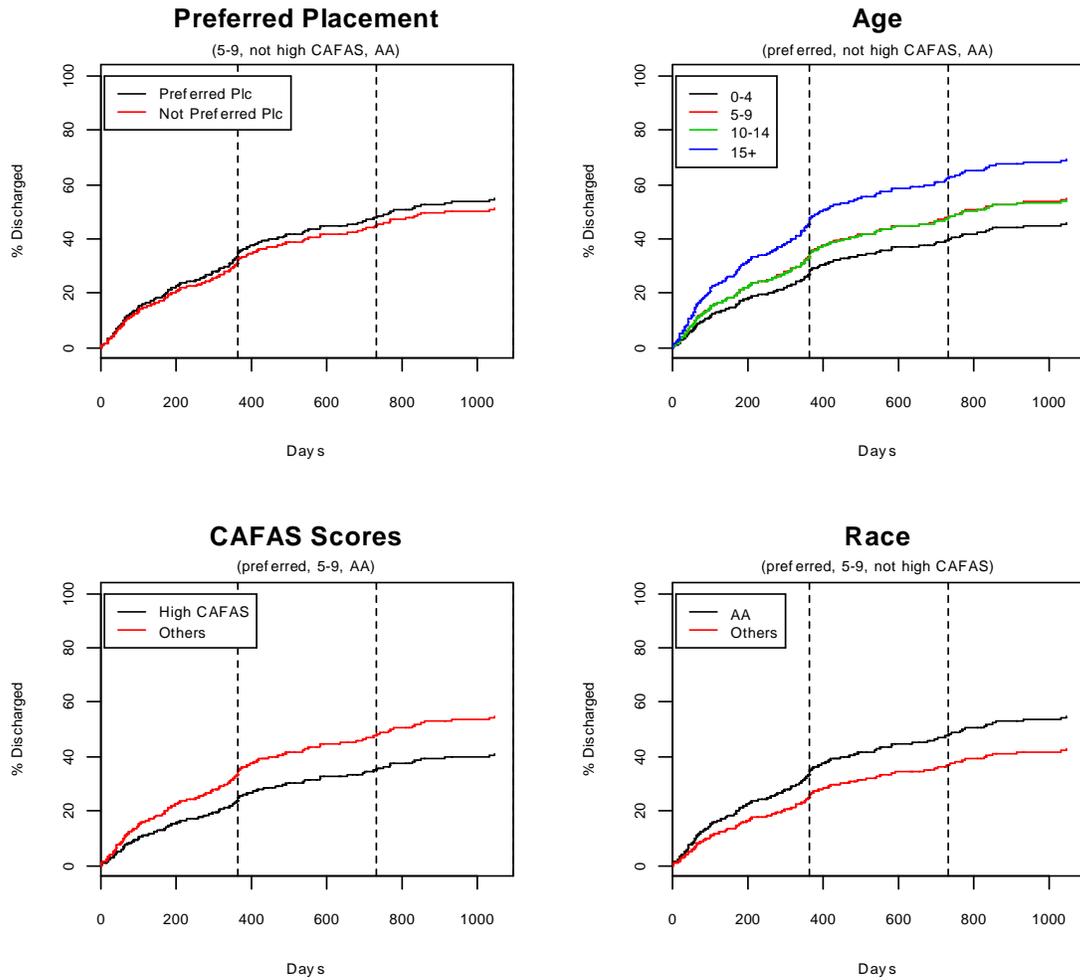
Stability Model Result Details:
```
Call:
coxph(formula = surv1 ~ waspref * (gender * isAA) + fiveplus,
    data = s1)
```

```
                          coef exp(coef) se(coef)      z       p
wasprefY                  1.32    3.7520    1.028   1.29 0.2000
genderM                   2.23    9.3377    1.049   2.13 0.0330
isAAY                     1.72    5.6074    1.049   1.64 0.1000
fiveplusY                 1.10    3.0138    0.378   2.92 0.0035
wasprefY:genderM         -2.79    0.0615    1.140  -2.45 0.0140
wasprefY:isAAY           -2.54    0.0792    1.126  -2.25 0.0240
genderM:isAAY            -2.08    0.1252    1.133  -1.83 0.0670
wasprefY:genderM:isAAY    2.36   10.5466    1.318   1.79 0.0740

Likelihood ratio test=48.6  on 8 df, p=7.7e-08  n= 839
```

Length of Stay Model Result Details:
```
Call:
coxph(formula = surv1 ~ waspref + highcafas + agecat + isAA,
    data = s1)
```

```
             coef exp(coef) se(coef)      z       p
wasprefY   0.0925     1.097    0.115  0.802 4.2e-01
highcafasY -0.4053     0.667    0.222 -1.823 6.8e-02
agecat5-9   0.2534     1.288    0.135  1.877 6.0e-02
agecat10-14 0.2475     1.281    0.137  1.806 7.1e-02
agecat15+   0.6541     1.923    0.149  4.378 1.2e-05
isAAY       0.3476     1.416    0.102  3.413 6.4e-04

Likelihood ratio test=34.1  on 6 df, p=6.5e-06  n= 1056
```