
State of Mississippi
Title IV-E Child Welfare
Waiver Demonstration Project

Final Evaluation Report

Prepared for
The Mississippi Division of Family and
Children's Services
Department of Human Services

Prepared by
Institute of Applied Research
St. Louis, MO

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June 2005

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Executive Summary

This is the final evaluation report of the Mississippi title IV-E child welfare demonstration project. The state's request for a IV-E waiver to operate in eight counties was approved by the Department of Health and Human Services on September 17, 1998. After significant delays, implementation began on April 1, 2001 and the demonstration was approved to run for 60 months. The project was suspended after 42 months, however, and ended on September 30, 2004. The final evaluation report provides findings from the process, impact and cost studies that formed the evaluation. It describes both the challenges faced by the state agency in the operation of the demonstration and the project's outcomes and successes despite these challenges.

Program Model and Purpose

The waiver project in Mississippi was designed as a response to specific findings of the 1995 ACF/DHHS assessment of the state child protection system. The project was built around an intensive services model that emphasized practice that is child-focused and family-centered. The state sought to use the waiver to increase the nature and extent of available services to children and their families in an effort to reduce harm to children, reduce foster care placements and achieve greater permanency and safety for children. The plan from the beginning was to improve the assessment of family needs, and to individualize and broaden the array of services provided to children and their families. A key mechanism in this process was expected to be family team conferences that would involve family members more directly in case planning and identify a circle of support for them. Greater emphasis was to be placed on home-based and prevention services, the provision of greater support to foster parents, especially relative caregivers, and ensuring child well-being.

Implementation

The waiver demonstration operated in eight counties, four in Region 3, which ranges from the area around the city of Jackson over towards the Mississippi River Delta, and four in Region 6-North, an area south of Jackson and around the city of Hattiesburg. The waiver was not begun simultaneously in all eight counties as originally planned but was phased in. Implementation began in April 2001 when the waiver program was started in two counties, Rankin (in Region 3) and Jones (In Region 6-North). In April 2002 the waiver was extended to two additional counties, Holmes (Region 3) and Lamar (6-North). In September 2002, it was begun in the final four counties, Madison and Yazoo in Region 3, and Pearl River and Covington in Region 6-North. DFCS

administrators and the evaluators combined in providing training to CPS staffs as the waiver began in each of the counties.

The waiver program was stopped on September 30, 2004 due to cost neutrality concerns and staffing problems. From the date the waiver began in the first two counties until it was suspended was a period of 42 months. This amounts to 70 percent of the 60 months for which the project was approved. However, only two of the eight counties had active waiver programs for 42 months. Two others operated waiver programs for a period of 30 months and the remaining four had programs for 25 months. In addition, staffing problems that were exacerbated by a state hiring freeze caused some of the counties to slow down or temporarily suspend their waiver projects once begun and before final termination.

Design and Data

The design of the Mississippi waiver involved an experimental and a control group. Cases that met screening criteria were randomly selected for inclusion into one of the two study groups. A computer-based program was developed by the evaluators for the random selection of cases, and the program was placed on laptop computers. Each of the waiver counties was provided a laptop computer with the selection program on it, and workers in each county received training in how to use it. The impact and cost-effectiveness studies utilized outcome and cost data associated with the experimental (waiver) and control (non-waiver) cases.

In Mississippi the waiver program focused on particular types of families and children that either were in court custody (and, in most cases, in out-of-home placement), or were high-risk non-custody cases. The laptop computer program used for random assignment also had waiver screening criteria built into it so that screening and random assignment were carried out simultaneously. Demonstration cases were defined as entire families, including children in active cases with the agency, other siblings, and parents or other caretakers.

The screening criteria did not include any reference to IV-E eligibility. The waiver was viewed as a broad and flexible instrument to improve the provision of child protection services in demonstration counties. It was not limited to IV-E eligible cases because it was believed that if the overriding goals of the project were achieved with any measure of success, the reduction in costs for placement would offset the increase in costs for support services provided to families and children, whether they were among those eligible for IV-E reimbursement or not. And, as a more practical matter, new cases coming into the system would not have their eligibility determined until after efforts to

ensure the safety and well-being of children had been initiated, and there was no interest in delaying the provision of services judged to be needed.

The main research database was composed of data obtained from counties and the Mississippi Automated Child Welfare Information System (MACWIS). MACWIS was in development at the time the Mississippi waiver demonstration was beginning. The delay in the start-up of the waiver had the advantage that all eight counties participating in the demonstration had switched to MACWIS by the time data collection began.

The first extraction of MACWIS data was received by evaluators via the Internet in October 2002. Although the demonstration was suspended as of September 30, 2004, data tracking continued for another quarter. The shortened time period for the project made it less likely that significant differences might be found in longitudinal outcomes between the experimental and control groups. Because of this concern, the research database was kept open as long as possible. The last extraction of MACWIS data utilized in final analyses was received by evaluators via the Internet on January 20, 2005. These data were folded into the research database and analysis proceeded.

While MACWIS provided key data for the impact and cost study, the data collection for the process study often involved interviews and regular site visits to state and county offices. Interviews were routinely carried out with state-level and regional administrators during site visits as well as with child welfare supervisors and social workers in the waiver counties. Because of the difficulties in starting the project, early site visits by evaluators involved as much technical assistance and trouble shooting as organized data gathering. For example, the development of the laptop computer program for random assignment, and the training of supervisors and social workers in its use, was an ad hoc solution to the problem of screening and waiver assignment. The original work plan called for semi-annual visits by evaluators, but more frequent visits were often required. The final site visits and interviews were done in February 2005.

Challenges and Delays

From the very beginning of the project state administrators were faced with significant challenges that impeded first the start of the demonstration and then its operation once it began. These included a lengthy delay in receiving final approval of cost neutrality procedures, which pushed back the start of the waiver at least two years, and significant staffing problems, which hindered the subsequent operation of the project.

There were three significant staff losses that each had serious implications for the waiver. 1) One of the two key regional administrators who developed the waiver

proposal left state employment before the end of the first year of the project. Her replacement was not familiar with the waiver demonstration nor its history or goals, and was absorbed in dealing with basic staffing problems her region was experiencing. 2) One of the two regional waiver coordinators left to take a different job in state government in the first year of the project and was not replaced for two years due to a state hiring freeze. 3) The third loss was probably a casualty of the delay in the start of the project, and was not a person who left but a position that was never filled. The waiver business consultant, who was to have been responsible for constructing a business plan for the project, for monitoring the project's financial data and, significantly, for overseeing cost neutrality, was never hired. Among other consequences, this left essentially all central office waiver responsibilities to an administrator whose plate was already overflowing.

After the first year of the demonstration, the remaining waiver coordinator (for Region 6-North) had to take on a larger caseload in her own county as well as assist in other non-waiver counties hit hard by staff losses, leaving little or no time for waiver-related activities. The functional loss of both waiver coordinators meant a suspension in the use of family team conferences, which the coordinators were to facilitate and which were intended to be the key instruments in improved family assessments and service delivery under the waiver. The coordinators were also meant to provide ongoing technical assistance and support to social workers in all the demonstration counties and to be the day-to-day champions of the waiver in their regions. Without them, especially in the region that had lost its original regional administrator, county CPS supervisors and social workers received much less waiver-related guidance and active help.

Waiver Case Assignments

Through the 42 months that the program operated, 667 cases that met the screening criteria for the waiver were entered into the random assignment program in the eight counties. Approximately equivalent numbers were randomly selected for the waiver group (346) and control group (321). These cases included 1,549 children, 777 in waiver households and 772 in control households. Three in 10 (30.5 percent) of the cases pre-existed the start of the waiver, while 69.5 percent were new cases that entered the child protection system after the waiver had begun. At the time they entered the study population, a slightly higher proportion of experimental children were in court custody (36.9 percent) and/or in out-of-home placement (28.2 percent) than was the case for control children, of whom 32.0 percent were in court custody and 23.7 were in placement outside the home. Seven in 10 (70.8 percent) cases that had been assigned to the waiver had closed by the end of data collection and 29.2 percent of the cases remained open.

Outcomes

Services to Children and Families—Intermediate Outcomes. System changes under the Mississippi waiver were dependent on changes in the way families were approached by child welfare workers. Because the Mississippi waiver followed the intensive services model, the primary expectation was that patterns and levels of services to children and families would change in families and among children assigned to the experimental group as compared to control families and children. This was the *necessary precondition* of other expected effects of the waiver. Unless the service approach changed, other changes could not be expected to follow.

Overall, *experimental families were somewhat more likely to receive services than control families. Three out of four (74.6 percent) waiver group families received one or more purchased services compared with two out of three (67.0 percent) control families.* The waiver primarily made a difference in the provision of assistance in four service categories: school supplies for children, housing-related needs, food, and other unmet personal needs. For example, 28.9 percent of waiver families received help with their housing, utility bills or home improvements compared with 19.4 percent of control families. Experimental-control group differences in other service areas were small, although more often than not a slightly larger percentage of waiver families received services (such as childcare, counseling, medication, and transportation).

Recurrence of New Reports—Measure of Child Safety. The simplest measure of recurrence is the proportion of experimental and control children with new reports of child maltreatment. *A statistically significant difference was found between the two groups: 14.5 percent of experimental children had new incident reports compared to 19.7 percent of control children ($p=.004$).*

When considering specific types of maltreatment, *a statistically significant difference was found in new reports of physical abuse: 3.7 percent of experimental children had new incident reports of physical abuse compared with 6.0 percent of control children ($p=.02$).*

A survival analysis was conducted that showed difference between the experimental and control groups to be distributed evenly over the follow-up period, that is, there was a consistent difference between waiver children and control children who received a traditional intervention. The analysis found that *control children experienced new reports sooner and, therefore, more reports during the follow-up period. The difference between survival rates of experimental and control group children was statistically significant ($p = .03$).*

Waiver services appear to have made an impact: *15.8 percent of experimental children in families that received waiver services had new incident reports compared to 21.4 percent of control children in families receiving services (p=.04).*

Recurrence of Substantiated Reports. The difference between the study groups in new reports that were substantiated was in the hypothesized direction but not statistically significant. Overall, 5.7 percent of experimental children had new substantiated reports compared with 6.2 percent of control children. While the difference was small, it was persistent and found among pre-existing cases as well as new cases and closed cases as well as ones that remained open when data collection was suspended.

Children Remaining with their Parents—A Measure of Family Integrity. At the time they were assigned to one of the two study groups, 402 (26.0 percent) children in the study population were in placement in foster settings outside their parental homes, including placement with relatives. Of the children who were not in placement at the time of waiver assignment, 146 (about 1 in 8; 12.7 percent) were removed from their homes and placed in a foster care or relative care setting by the end of data collection.

Experimental children who had not been removed from their parental homes prior to the start of the demonstration were less likely to be removed and placed in an out-of-home foster care or relative care setting than control children; 9.1 percent of the experimental children were removed from their homes compared to 14.1 percent of control children. This difference was statistically significant (p=.005).

A survival analysis conducted on these data confirmed that *control children experienced out-of-home placement sooner and more often during the follow-up period. The difference between survival rates of experimental and control children was statistically significant (p = .025).*

Effects of Services on Placement. *Control children who received services were more likely to be placed outside the home than experimental children who received services (57.2 percent vs. 33.1 percent), a difference that was statistically significant (p<.001).*

Reunification. Among all children in out-of-home placement during the demonstration, 22.4 percent of experimental children and 19.6 percent of control children were reunified with their parental families before the end of data collection. This included children who were in placement at the time of waiver assignment and those

removed from their homes at a later point in time. Among children in placement at waiver assignment, 20.1 percent of experimental children were reunified compared with 17.5 percent of control children. Among children placed after waiver assignment, 31.0 percent of experimental children were reunified compared with 23.9 percent of control children. Considering only those children in placement in cases in which services were provided, 20.5 percent of experimental children were reunified compared with 15.9 percent of control children. Although each of these differences is in the hypothesized direction, none are statistically significant at $p < .05$. However they represent statistical trends that may have reached statistical significance had the demonstration continued.

Placement with Relatives. Of the 146 children removed from the homes of their parents after waiver assignment, 1 child in 3 (32.1 percent) was initially placed with a relative. This figure was virtually the same for experimental children (32.9 percent) as control children (31.4 percent).

Placement of Siblings Together. No difference was found in the percentage of experimental and control children who were placed with their siblings when removed from the home.

Placement of Children Near their Families. No difference was found in the percentage of experimental and control children placed within the same county as their parental home.

Movement of Children among Different Foster Providers. The mean number of foster care settings in which experimental and control group children were placed when removed from their homes was nearly identical (1.7 vs. 1.8).

Time in Foster Care and at Home. The mean number of open case days for all experimental children during the demonstration was 409 and for control children it was 380. This includes all children in the study population whether or not their cases were closed at the time data collection ended. The difference in the mean number of case days between the study groups primarily involved days spent at home. The mean number of days spent in non-emergency out-of-home placement was nearly identical (147 for experimental children and 145 for control children). The mean number of days spent at home was 263 for experimental children and 235 for control children.

Considering only children not in placement at the time of waiver group assignment, the mean number of open case days was 350 for those in the experimental group and 333 for those in the control group—as with the entire population, experimental

cases stayed open a little longer. And, as before, this was accounted for by time spent at home, not in placement. In fact, the mean number of days in placement was less for experimental children (41) compared with control children (56).

Other Measures of Child Well-Being. The demonstration was truncated at a time critical to the collection of data from families and children. The process of obtaining feedback from families ended prematurely and with an insufficient critical mass to draw distinctions between the two study groups. Accordingly, there is no reliable data on the effect of the waiver on the wages of families or their reliance on public assistance, nor on the school performance of children or their emotional well-being. Data was available related to the provision of health-related services to children, but no difference between the study groups was found.

Cost Analysis

Services and Funding Sources. The waiver represented an important source of funding for services during the demonstration period. For the experimental group waiver funds accounted for a relatively large share of the costs of certain services, such as housing (47.6 percent), home improvements (72.6 percent), food (57.6 percent) hygiene (40 percent) transportation (58.6 percent), and child care (87.0 percent). Overall, waiver funds accounted for one-fourth (25.4 percent) of all funds used to provide services to experimental families, and nearly half (48.1 percent) of all public money (county, plus state and regional funds).

With the availability of waiver funds, the total spent on the experimental group for non-placement services exceeded the total spent on the control group. We would expect this in a project in which dollars formerly available only to pay for placement costs could be used for a variety of other services that might, among other benefits to families and children, prevent or limit placement. However, the difference in service expenditures between the two groups was considerably less than what was accounted for by waiver expenditures on experimental households. This resulted from more being spent on average from other public sources to pay for services for control families. In a resource-poor service environment this may be understandable, and it means that the demonstration was used to benefit not just families in the experimental group but those in the control group as well.

Cost Effectiveness. Two separate designs for determining the cost effectiveness of the Mississippi waiver demonstration were employed. The first involved a comparison of program investment costs with longer-term and bottom-line costs. The second involved examining costs in relation to outcomes.

The results of the first analysis on the entire study population found that mean expenditures for services and foster care was greater for experimental children (\$3,737) than for control children (\$3,200). These figures included costs during the initial case period and any subsequent costs resulting from a child re-entering CPS. These costs were affected by the slightly greater proportion of experimental children already in placement at the time they entered the study population. When the analysis was restricted to the subset of children not in placement at the time of initial screening, mean expenditures were greater for control children (\$1,162) than experimental children (\$1,003). Based on impact study results that found a reduction in subsequent maltreatment reports among experimental children and greater placement avoidance among those not in placement at screening, it might be expected that the demonstration would have produced a positive return on money invested in waiver services.

The results of the second analysis, which examined outcomes in relation to the costs incurred to produce them, were: 1) that *it cost an average of \$270 more per waiver child to produce a reduction of 5.2 percent in subsequent reports of maltreatment; and 2) that it cost an average of \$37 less per child using the approach tested in the demonstration to produce a reduction of 5.0 percent in placement in foster care during the shortened follow-up period.* These figures were based on the entire study population and, as in the previous analysis, do not take differences in administrative costs into account.

Why the Waiver was Suspended

The state faced a number of significant challenges in implementing and operating its IV-E child welfare waiver demonstration. These included a lengthy delay at the start of the project and serious staffing problems throughout. Neither of these was within the control of administrators of the state agency, but both had a crippling effect on the project. But the expressed reason the waiver was abandoned had to do with cost neutrality problems, specifically, administrative cost overruns.

The criteria for selecting cases for the waiver was based on the level of risk to the child and the child's custody status. IV-E eligibility was not considered. In a state with a large number of children in poverty this was not expected to be a problem. But it was. The bottom-line problem for the waiver was that, while Mississippi ranked first in child poverty among the 50 states in 2000, first in the percent of families in poverty, and 47th in median household income, it was, at the same time, 42nd in the percent of foster care cases determined to be eligible for IV-E. Even if the state agency had not experienced severe staffing shortages while the waiver was being operated and was a resource rich

service environment, it is hard to imagine how it could have survived the cost neutrality test with this level of IV-E eligibility.

But whether or not interim administrative overruns would have diminished if the demonstration had been allowed to continue will never be known now. Two areas of cost offsets were possible. If experimental cases re-entered CPS less frequently than control cases and if experimental cases spent less time in foster care, as suggested in the abridged impact analysis, this would have produced savings in both maintenance and administrative costs. At the same time, however, experimental cases tended to stay open longer, suggesting higher administrative costs. Whether differences in administrative costs would have evaporated with fewer experimental cases re-entering the system will never be known, nor will the overall relationship between maintenance and administrative costs for the two groups across a 60-month period.

Part I

Introduction

This is the final evaluation report of the Mississippi title IV-E child welfare demonstration project. The state's request for a IV-E waiver was approved by the Department of Health and Human Services on September 17, 1998. After significant delays, implementation began on April 1, 2001 and the demonstration was approved to run for 60 months. The project was suspended after 42 months, however, and ended on September 30, 2004. This report provides findings from the process, impact and cost studies that formed the evaluation. It describes both the challenges faced by the state agency in the operation of the demonstration and the project's outcomes and successes despite these challenges. This introductory section contains an overview of the demonstration and a brief description of the evaluation methodology.

A. Overview

The Department of Health and Human Services under Section 1130 of the Social Security Act granted the state's request to operate a child welfare demonstration project in eight counties and approved waiver of the following provisions of the Act and Program Regulations:

1. Section 471(a)(3): To allow the state to conduct the demonstration on less than a statewide basis.
2. Section 472(a): To allow the state to expend title IV-E funds for children and families who are not normally eligible under Part E of title IV of the Act.
3. Section 474(a)(3)(E) and 45 CFR 1356.60(c)(3): To allow the state to expend title IV-E funds to pay for services for children and their families that would not normally be covered under Part E of title IV of the Act.

Purpose

The type of demonstration operated in Mississippi has been described as an “intensive services option.” The state sought to use the waiver to increase the nature and extent of available services to children and their families in an effort to reduce harm to children, reduce foster care placements and achieve greater permanency and safety for children.

The waiver removed the restriction that IV-E funds could only be used to defray room and board costs of children who were in the custody of the state, who had been removed from their homes and placed in licensed facilities and foster homes, and who were poor enough to meet eligibility criteria. It gave the state great flexibility in the demonstration counties to use IV-E dollars to improve child welfare through whatever child-focused and family-centered services were judged most appropriate in individual cases.

In its waiver application, the state provided assurances that the implementation of the demonstration project would be consistent with the purposes of titles IV-B and IV-E of the Social Security Act in providing child welfare services, would focus on improving outcomes for children and families, and would make child safety the paramount concern in the implementation of the demonstration.

Project Goals. Through the waiver, the state sought to improve child-focused, family-centered practice in the eight participating counties in order to achieve the following goals:

1. Reduce further abuse and neglect among children and families served.
2. Reduce the placement of children outside their family home.
3. Among children removed from their homes:
 - a. increase placement with relatives;
 - b. increase placement within the community of their parental family;
 - c. reduce the number of number of different placement settings;
 - d. reduce the amount of time children remain in foster care.
4. Increase the well-being of children and their families.

These goals were the basis of the project’s design and the basis of the research questions addressed in the impact evaluation.

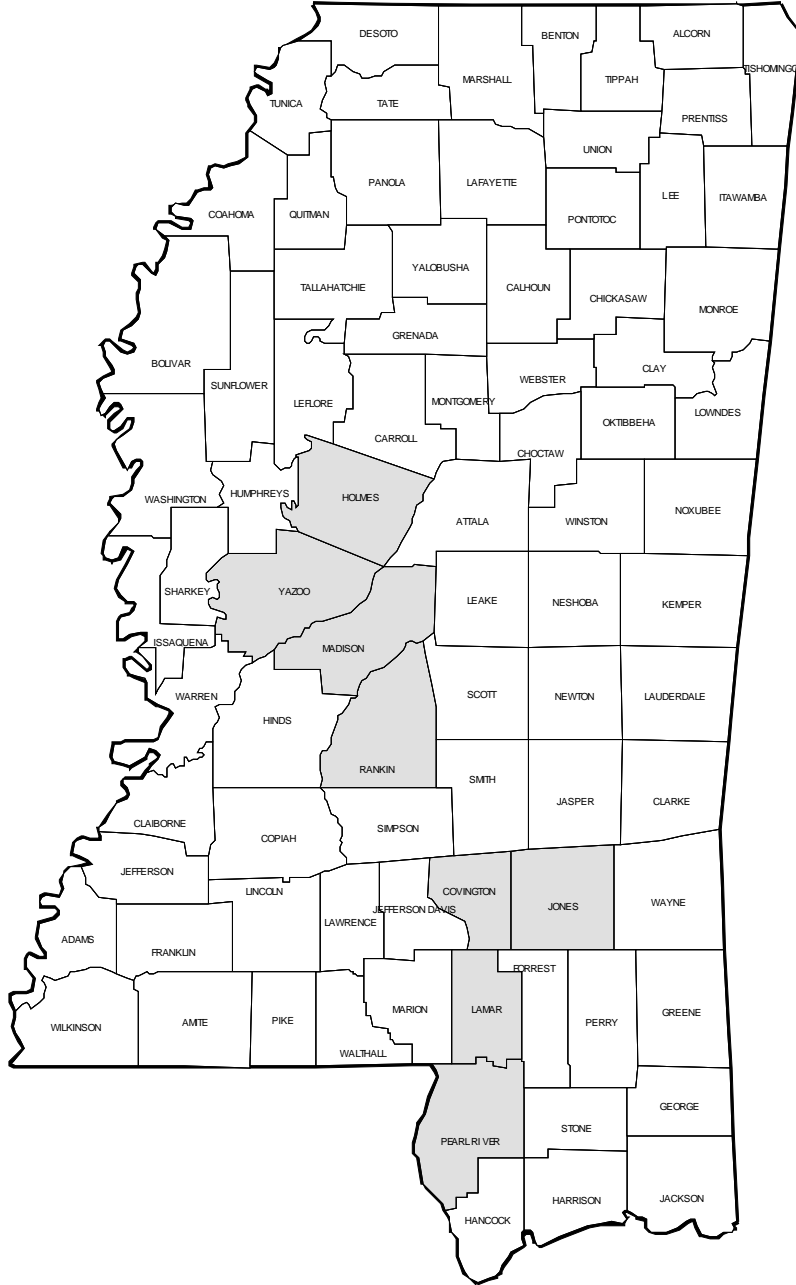
Background

The waiver project in Mississippi was a direct response to the findings of the Final Report of the Mississippi Child and Family Services Pre-Pilot Review completed in 1995 by the Administration for Children and Families and the State Department of Human Services. This assessment examined broad indicators of safety, permanency and child and family well-being in the state and identified several specific problem areas. Among these were that practice had not always been guided by strong family-focused principals, that family needs were often not identified or individualized due to inadequate assessment, that there were too few preventive and after-care services available to be provided to families needing them, that out-of-home care received far more emphasis than home-based preventive and reunification or after-care services, that children remained in foster care longer than necessary and often experience multiple moves, and that foster parents did not have the support or training to properly serve children. In conversations between DHS and the Children's Bureau, the state was encouraged to apply for the waiver demonstration to help the state find ways of addressing and remediating these problem areas.

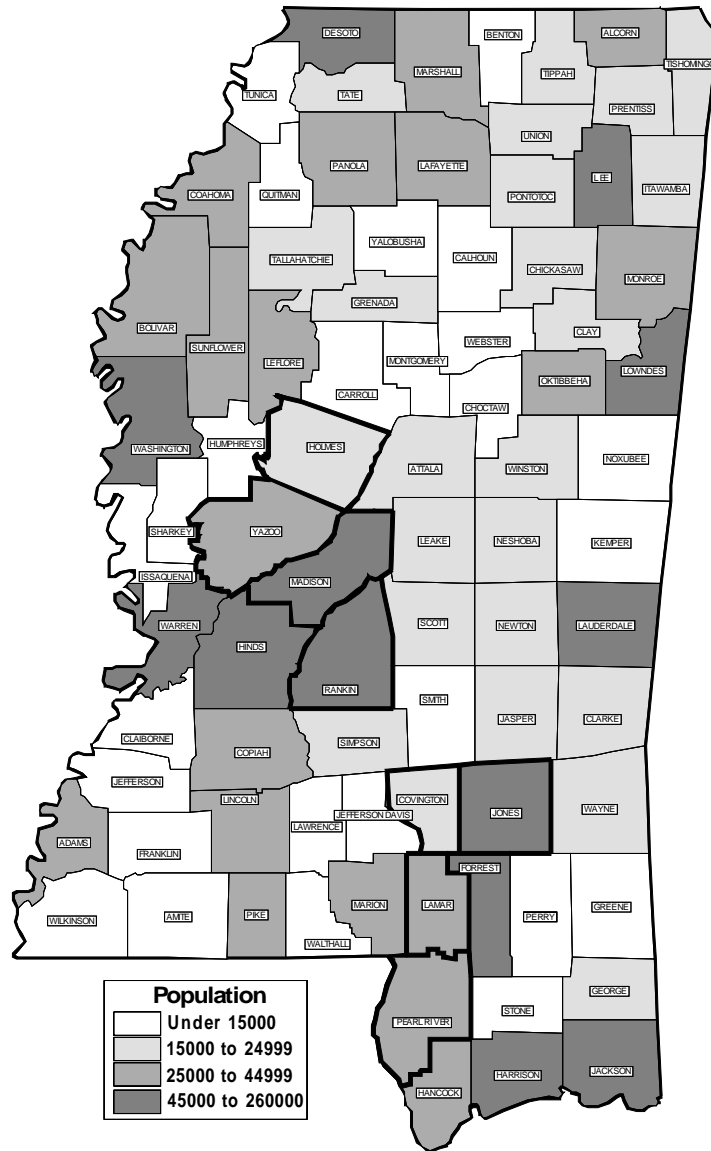
Context

The eight counties selected to be included in the waiver demonstration are shown in Map 1. Four of the counties are in DHS Region 3—Holmes, Madison, Rankin and Yazoo. Four are in Region 6-North—Covington, Jones, Lamar and Pearl River. Overall, these counties represent the state well on key demographic and economic variables. Many Mississippi counties are rural and relatively sparsely populated, as can be seen in Map 2. Covington and Holmes are the least populated and most rural among the eight. Yazoo, Lamar and Pearl River counties fall into the third population tier (25,000 to 45,000). Madison and Rankin are among the state's more highly populous counties. Rankin ranks fourth in population among the state's counties and Madison ranks eighth. Both contain suburban populations of the city of Jackson (which is in Hinds County). Jones is the most populous county in the waiver project in Region 6-North and is in the top population tier depicted on the map.

The total population of the eight-county waiver area at the time of the 2000 census was 411,788 persons. Twenty-eight percent of the population was less than 18 years of age, and one in three (34.4 percent) of these children lived in families with incomes below the poverty level. There were 149,675 family households in the eight counties, and 36 percent of them (53,870) had children under 18 years of age. Thirty percent of the households with children were headed by single parents.



Map 1. Mississippi Waiver Counties



Map 2. Population of Mississippi Counties

The population figures from the 2000 census for the waiver counties along with certain other demographic data are shown in Table 1. Together, the eight counties account for about 15 percent of the total population of the state as well as about this same proportion of the state’s total households and households with young children. The other data in the table show the diversity represented in the counties. Fast-growing Rankin County had a very low unemployment rate in 2000 and a relatively low child poverty rate. Along with Madison County, Rankin ranked high among counties in the state in median household income. At the other end of the spectrum, the two Delta counties, Holmes and Yazoo, are among the state’s poorer counties. They have many children

Table 1. Demographic and Economic Characteristics of Demonstration Counties

County	Total population (2000)	Total households (2000)	Total family households with children under 18 (2000)	Total single parent households with children under 18 (2000)	Percent single parent households (2000)	Labor force (2000)	Unemployment rate (2000)	Median household income (1999)	Percent children in poverty (1999)
Region 3									
Holmes	21,609	7,314	2,635	1,484	56.3	7,211	21.1	17,235	52.3
Madison	74,647	27,219	10,186	2,945	29.0	38,831	3.6	46,970	21.3
Rankin	115,327	42,089	15,431	3,798	24.6	63,134	2.5	44,946	12.2
Yazoo	28,149	9,178	3,267	1,541	47.2	9,959	9.2	24,795	42.9
Region 6-North									
Covington	19,407	7,126	2,608	919	35.2	8,726	5.6	26,669	31.6
Jones	64,958	24,275	7,912	2,522	31.9	32,213	3.3	28,786	25
Lamar	39,070	14,396	5,534	1,273	23.0	18,475	3.1	37,628	15.3
Pearl River	48,621	18,078	6,297	1,720	27.3	20,604	4.5	30,912	25.6
Statewide	2,844,658	1,046,434	363,416	128,932	35.5	1,326,365	5.7	31,330	26.7
Total Waver	411,788	149,675	53,870	16,202	30.1%	199,153	4.7	36,834	23.3
Waiver as % of State	14.48%	14.30%	14.82%	12.57%		15.01%			

living in poverty, low median household income and high unemployment rates, especially Holmes. The range of county child poverty rates across the state can be seen in Map 3. The map divides counties into four tiers based on the percentage of children in poverty in the population. Each of the four poverty tiers, from low to high, is represented in the waiver.

Child Abuse/Neglect Case Characteristics. In 1999, as the waiver project was taking shape in Mississippi, there were 29,422 reported incidents of child abuse or neglect in the state and 6,523 child victims of maltreatment, a rate of 8.7 per 1,000 children. About 6 in 10 of these victims were aged 10 or less and 30 percent were younger than 6. Nearly half (47.0 percent) of these children were victims of neglect while a majority were victims of abuse, including physical abuse (26.6 percent), sexual abuse (21.1 percent) and emotional abuse (2.7 percent).

In 1999 there were 4,871 children in Mississippi who were in foster care, a 4 percent increase from the year before. There were 4 percent more children who entered foster care in 1999 than left it. The median length of stay in placement was over a year and a half. Twenty-five percent were in placement more than three years. Nearly one child in four (24 percent) had been in three or more different placement settings. Nearly 6 of 10 (57 percent) children in foster care were aged 10 or younger and 30 percent were under the age of 6.

The demographic data shown in Table 1 have often been found to be associated with the relative number of child maltreatment reports. Across the country, areas of higher poverty are frequently areas with higher CPS caseloads. And, in economic terms, when compared with other states, Mississippi is poor. Based on 2000 census data, Mississippi ranked 47th in median household income and third in the percent of the population below the poverty level. The state ranked first in the percent of households headed by single women and first in the percent of children living in poverty. These data reflect the living conditions of many people, and they are compounded by the corresponding reality of limited public resources that are available to ameliorate problems that often arise from poverty. Ironically, it may be that the very conditions that made Mississippi a state with much to benefit from the service and monetary flexibility provided by the waiver, also represented barriers that proved insurmountable in implementing it as intended.

provided to children and families, especially preventive and after-care services, and providing greater support to foster parents, and 3) ensuring that child and family well-being were the touchstone of practice.

The first element of the model, emphasis on child-focused, family-centered practice, was to be accomplished by new staff training, greater attention to the assessment of family and child needs, and greater involvement of families themselves in the case planning process. Family team conferences were seen as the primary instrument to improve assessment, family involvement, and the provision of appropriate services. The position of waiver coordinator was to be established in each of the two participating regions to assist county supervisors and child protection workers in all aspects of the demonstration and to serve as facilitators for family team conferences.

A key factor in the implementation of child-focused family-centered practice was to be the provision of services assessed to meet the needs of children and families and necessary to reduce harm to children and keep them safe, that is, the second element of the model. The state's waiver proposal requested the flexibility of expending federal IV-E funds on any item or activity "that eliminates or reduces harm to a child such as: services to a child, parent, relative, foster parent, or adoptive parent which would prevent abuse or neglect to a child; services or items which would prevent the necessity of removing a child from his caretaker while assuring that the child remains safe at home; services or items that would facilitate safe relative placements; services or items that would prevent the unwanted and unnecessary and unplanned removal of a child from a foster home or other placement; services or items that would facilitate the reunification of a child with his family in a safe environment; services or items to adoptive parents, potential adoptive parents, and children freed for adoption for the purpose of facilitating permanent placements; and any other services or items that can be shown to reduce harm to children."

Finally, the emphasis on child-focused, family-centered practice and the broadening of services provided to children and their families through the flexibility allowed by the waiver was to be the primary means through which child and family well-being were to be retained as the touchstone of practice, the third element of the model. All project goals and objectives were viewed as subsumed under this general standard.

Implementation

Initial delays set back the start of the program two and a half years from the time it was first approved. Even then, implementation was phased in over 18 months. The

demonstration began in two counties in April 2001 and the final four came on board in October 2002. Approval had been granted to operate the demonstration for five years, which would have meant an end date of March 31, 2006. The waiver program was suspended on September 30, 2004 due to cost neutrality concerns and staffing problems. The nature of these problems and the causes of the initial delay in starting the project are described in Part II.

B. Methodology

The evaluation of the waiver demonstration consisted of process, impact and cost effectiveness studies. Evaluators provided an overview of the research design for the evaluation at the 5th Annual Child Welfare Demonstration Projects Meeting in Washington, DC. A summary of the presentation, with more detail than is presented here, can be found on the evaluator's web site (www.iarstl.org).

1. Design

Random Assignment. The design of the Mississippi waiver involved an experimental and a control group. Cases that met screening criteria were randomly selected for inclusion into one of the two study groups. A computer-based program was developed by the evaluators for the random selection of cases, and the program was placed on laptop computers. Each of the waiver counties was provided a laptop computer with the selection program on it, and workers in each county received training on how to use it. Data on waiver and control cases were retained automatically in a data base file on the computer. Every three months the files were copied onto floppy diskettes and forwarded to the evaluators. The impact and cost-effectiveness studies were designed to utilize outcome and cost data associated with randomly assigned experimental (waiver) and control (non-waiver) cases.

Waiver Eligibility and Target Population. In Mississippi the waiver program focused on particular types of families and children that either were in state custody (and, in most cases, in out-of-home placement), or were high-risk non-custody cases. The laptop computer program used for random assignment also had waiver screening criteria built into it so that screening and random assignments were carried out simultaneously. When an office identified a family believed to be appropriate for assignment under the waiver, information was entered into the computer program.

The screening and random assignment program (SRAP) accepted any of four types of cases as appropriate:

1. Cases involving children in state custody.
2. Non-custody cases in which one or more children had been removed from the physical custody of the original caretaker and temporarily placed outside the home, and in which the agency plan was family reunification.
3. Non-custody cases that were active at the time the demonstration started and in which the most recent risk assessment completed on the family indicated a high level of risk to the child or children in the home.
4. New non-custody cases that entered the child welfare system after the demonstration began in which the risk assessment indicated a high or medium level of risk to the child or children in the home.

Cases had to satisfy one of these four screening criteria to be considered for inclusion under the waiver. Demonstration cases were defined as entire families including children in active cases with the agency, other siblings, and parents or other caretakers. Such cases together constituted the pool from which random assignments were made.

The computer program ensured that only cases that satisfied approved criteria could be assigned to the waiver and that an approximate equal number of such cases were assigned to the experimental and the control group. Cases assigned to the experimental group were eligible to receive waiver services while those assigned to the control group were served in the traditional manner. The computer program for screening and assigning cases greatly reduced the chances that an inappropriate case was assigned to the waiver, and it ensured that the selection of experimental and control group cases was truly random.

It will be noticed that the screening criteria did not include any reference to IV-E eligibility. The waiver was viewed as a broad and flexible instrument to improve the provision of child protection services in demonstration counties. It was not limited to IV-E eligible cases because it was believed that if the overriding goals of the project were achieved with any measure of success, the reduction in costs for placement would offset the increase in costs for support services provided to families and children, whether they were among those eligible for IV-E reimbursement or not. And, as a more practical

matter, new cases coming into the system would not have their eligibility determined until after efforts to ensure the safety and well-being of children had been initiated, and there was no interest in delaying the provision of services judged to be needed.

2. Research Questions

The goals of the demonstration were transformed into research questions that could be investigated. The following is a list of the research questions that guided the evaluation, most specifically the impact study.

1. Subsequent Abuse or Neglect
 - 1a. Does the demonstration reduce any new CA/N recidivism?
 - 1b. Does the demonstration reduce neglect recidivism?
 - 1c. Does the demonstration reduce physical abuse recidivism?
 - 1d. Does the demonstration reduce sexual abuse recidivism?

2. Remaining with the Parental Family
 - 2a. Do proportionately more children from the experimental group than the control group avoid being placed outside their parental home during the duration of the demonstration?
 - 2b. Do children in the experimental group who have been reunited with their families experience fewer later placements than similar control children?

3. Placement with Relatives
 - 3a. Among children removed from their parental homes, are more experimental than control children placed initially with relatives?
 - 3b. Among children removed from their parental homes, do children in the experimental group spend a greater proportion of their time in placement with relatives than children in the control group?

4. Placement of Siblings Together in the Same Placement Setting
 - 4a. For cases where two or more siblings are removed from their parental home, are there more cases in the experimental group than the control group in which all siblings are placed together in the same placement setting?

5. Placement of Children in the Same Communities as their Parental Families
 - 5a. Among all children removed from their parental homes, is a larger proportion of the experimental group than the control group in placements in the community of the parental family?

6. Reduced Placements in Foster Care
 - 6a. Is a smaller proportion of children in the experimental group than in the control group placed in foster care?

7. Movement of the Same Child among Different Foster Providers

- 7a. Is the average number of foster providers less for experimental group children than control group children?
8. Time in Foster Care
- 8a. Among all children removed from their parental homes, do children in the experimental group spend less time in foster care than children in the control group?
9. Child Well-Being
- 9a. Do the wages of experimental families show a greater increase on average than control families?
- 9b. Are the numbers of yearly quarters that experimental wage earners are employed greater than the corresponding totals for control wage earners?
- 9c. Do experimental parents participate in TANF and in food stamps less than control parents?
- 9d. Do experimental children receive health care services at greater rates than control children?
- 9e. Do more experimental children perform better in school than control children and/or drop out of school less frequently?
- 9f. Is the emotional well-being of experimental children improved in comparison to control children?
- 9g. Does the demonstration lead to improved services relevant to child development?
10. Provision of Services: Intervening Variables
- 10a. Are more services afforded to experimental than to control children and their families?
- 10b. Are better outcomes within the experimental group in comparison to the control group related to increased utilization of assessments and optional services?

3. Data Collection Procedures

The main research database was composed of data combined from counties (SRAP) and the Mississippi Automated Child Welfare Information System (MACWIS).

As noted above, data on waiver cases that accumulated in the lap-top computers utilized by the counties was forwarded on diskettes to the evaluators quarterly. These data included the state case number, the name of the family case head, the case head's social security number, the current date, and the assignment status (experimental or control), the risk level determined during the assessment, and whether or not any child in the family was in custody and/or out-of-home placement at that time.

MACWIS was in development at the time the Mississippi waiver demonstration was beginning. The delay in the start-up of the waiver had the advantage that all eight counties participating in the demonstration had switched to MACWIS by the time data collection began.

The first extraction of MACWIS data was received by evaluators via the Internet in October 2002. A program was written to convert the data, downloaded in a text format in 32 files, to a database format. Other custom programs were used to organize the data into three separate but linked files—a case file, a person file, and an information file. Software was also developed to match county data files identifying cases assigned to the waiver and control groups to the MACWIS case file. A time line of all events recorded in MACWIS was created for each person found in the county assignment file and the data stored in the project information file.

Protocols were established to routinize monthly extractions and data downloads from the state MIS office to evaluators. Each download was cumulative and, using the programs developed for this purpose, the new data were integrated into the project database. Thus, the research database permitted the ongoing addition of information necessary to track families and children as monthly MACWIS file extracts were received. From this database, variables for outcome/impact analyses were generated.

MACWIS data included records of child abuse and neglect reports, investigations and intakes in the child welfare system, cases, case members, family relationships, custody and placement of children, services recommended and delivered, and other relevant information. These were combined into a research database along with data from counties (SRAP). The diagram on the following page shows the process utilized to create the research database.

The research database thus contained all data judged to be relevant on waiver experimental and control families from county laptop computers and MACWIS. Monthly uploads of MACWIS data were merged into the database providing updated information on the study population and permitted ongoing tracking of data. Quarterly data received from counties included information on new cases that were added to the research database. Historical data and other characteristics on these new cases was extracted from MACWIS and added to the database. The resulting research database, with information from both sources, contained characteristics of persons and cases, historical data on families, experimental and control identification, along with tracking data on custody and placements, new abuse and neglect reports, and service delivered to families and children.

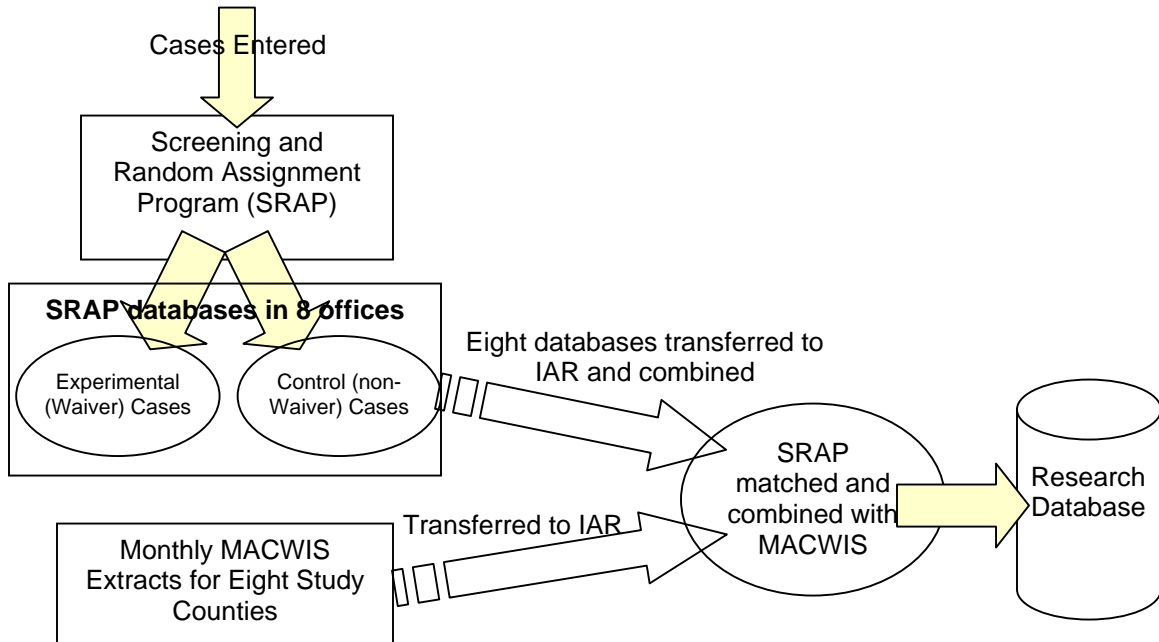


Figure 1. Data Collection and the Research

Although the demonstration was suspended as of September 30, 2004, data tracking continued for another quarter. The shortened time period for the project made it less likely that significant differences might be found in longitudinal outcomes between the experimental and control groups. Because of this concern, the research database was kept open as long as possible. The last extraction of MACWIS data utilized in final analyses was received via the Internet on January 20, 2005. These data were folded into the research database and analysis proceeded.

Process Study. While MACWIS provided key data for the impact and cost study, the data collection for the process study often involved interviews and regular site visits to state and county offices. Interviews were routinely carried out with state-level and regional administrators during site visits as well as with child welfare supervisors and social workers in the waiver counties. Because of the difficulties in starting the project, early site visits by evaluators involved as much technical assistance and trouble shooting as organized data gathering. For example, the development of the laptop computer program for random assignment, and the training of supervisors and social workers in its use, was an ad hoc solution to the problem of screening and waiver assignment. The original work plan called for semi-annual visits by evaluators, but more frequent visits were often required. The final site visits and interviews were done in February 2005.

4. Limitations

Data from MACWIS and SRAP were available for analytical purposes on the entire study population. The original research design called for a sample of closed cases to be selected on which additional and more detailed information would be collected from county social workers. An instrument was developed for this purpose and samples of experimental and control families in cases that had closed were randomly selected. For a period of several months social workers in waiver counties assigned to cases in the sample were contacted and many were able to return the case-specific questionnaires they were sent. However, critical staff shortages in some counties, a hiring freeze that prevented full staffing of offices, and the need for social workers in the southern four waiver counties to work shifts in neighboring counties on a rotating basis, made completing the questionnaire a decreasing priority for workers with increasingly stressful workloads, and the surveys were discontinued.

Obtaining feedback from families in closed cases, another planned activity, was an extreme challenge. Many did not have telephones and contacting them was very difficult. Household structures were often in flux, with people moving frequently, often sharing space with relatives. After other means were tried, an arrangement was established through the graduate social work schools at Jackson State and Southern Mississippi. Students in MSW programs with an interest in the project were recruited as interviewers and trained by evaluators. Although their success in contacting families was limited, with address and telephone information that was often several months old when the case closed, all efforts to contact families ceased when the project was abandoned.

Part II

Process Analysis

A. Implementation of the Waiver

Project Design and Administration

The waiver project in Mississippi was designed as a response to specific findings of the 1995 ACF/DHHS assessment of the state child protection system. The project was built around an intensive services model that emphasized practice that is child-focused and family-centered. The plan from the beginning was to improve the assessment of family needs, and to individualize and broaden the array of services provided to children and their families. Greater emphasis was to be placed on home-based and prevention services, the provision of greater support to foster parents especially relative caregivers, and ensuring child well-being.

Principal planners of the project, and authors of the waiver proposal, included the two Regional Directors administratively responsible for the eight counties included in the project along with DFCS state administrators. This combination of state and regional administrators, under the leadership of the DFCS Director of Administration, provided the planning and operational management for the project. The original plan for the waiver included a business manager to oversee fiscal budgeting and planning and monitoring the project's cost neutrality. This position was never filled. The original plan also called for a waiver coordinator in each of the two program regions, and the waiver began with the two coordinators in place.

Prior to the start of the waiver DFCS administrators engaged in preliminary efforts to lay a solid foundation for the project. These efforts included: 1) A survey of experienced DFCS social workers to identify and prioritize new services that would be needed by children assigned to the waiver; 2) The two regional directors of DFCS initiated a series of meetings with representatives of other state agencies and regional

groups to try to establish lines of communication and an active relationship between the waiver project and ongoing inter-agency collaborations and local planning teams; and 3) Two rounds of staff training were provided in the eight waiver counties that focused on strength-based assessments and family team conferences.

Major Project Dates

The following is a list of major project events with their dates.

➤ Date of waiver approval	Sep 17, 1998
➤ Survey of service needs	Nov-Dec, 1998
➤ Inter-agency and community planning meetings (monthly)	Oct, 1998 – Dec, 1999
➤ Date of evaluation contract	Nov 10, 1999
➤ Training of social workers in strengths-based planning	Jan, 2000
➤ Second round of staff training	Apr, 2000
➤ Submission of modifications in DHS cost allocation plan	Aug 4, 2000
➤ Initial implementation of waiver demonstration in two counties	Apr 1, 2001
➤ Implementation of waiver in two additional counties	Apr 1, 2002
➤ Final approval of cost neutrality/cost allocation plan	July 2002
➤ Implementation of waiver in final four counties	Oct 1, 2002
➤ Waiver suspended	Sept 30, 2004

Challenges and Delays

From the very beginning of the project state administrators were faced with significant challenges that impeded first the start of the demonstration and then its operation once it began. These included a lengthy delay in receiving final approval of cost neutrality procedures, which pushed back the start of the waiver, and significant staffing problems, which hindered the subsequent operation of the project.

The first of these problems put the project on hold before it began, resulted in a serious loss of organizational momentum and blunted enthusiasm for the project which made start-up increasingly difficult, created a lengthy time-lag between all preparatory and planning activities (such as the training of social workers and efforts to establish inter-organizational linkages) and the start and operation of the waiver, and led to the project being phased-in slowly. The delay also meant that a gubernatorial change, with its attendant changes in state agency administrators, would occur between project planning and its initial implementation. And, finally, the delay meant that the project's

start-up corresponded with the economic downturn (nationally and in the state), which exacerbated the state's CPS staffing problems.

There were three significant staff losses that each had serious implications for the waiver. 1) One of the two key regional administrators who developed the waiver proposal left state employment in the first year of the project. Her replacement was not personally invested in the project, was not familiar with it nor its history or goals, and was absorbed in dealing with basic staffing problems her region was experiencing. 2) One of the two regional waiver coordinators left to take a different job in state government in the first year of the waiver and was not replaced for two years due to the hiring freeze. 3) The third loss was probably a casualty of the delay in the start of the project, and was not a person who left but a position that was never filled. The waiver business consultant who was to have been responsible for constructing a business plan for the project, for monitoring the project's financial data and, significantly, for overseeing cost neutrality was never hired. Among other consequences this left essentially all central office waiver responsibilities to an administrator whose plate was already overflowing.

The state freeze on replacing staff who left coupled with, in some counties, a reduction in FTE positions, led to an increase in workload demands and stress among workers who remained. After the first year of the waiver, for example, the remaining waiver coordinator herself had to take on a larger caseload in her own county as well as assist in other non-waiver counties hit hard by staff losses, leaving little or no time for waiver-related activities. The functional loss of both waiver coordinators meant a suspension in the use of family team conferences, which the coordinators were to have facilitated and which were intended to be the key instruments in improved family assessments and service delivery under the waiver. The waiver coordinators were also meant to provide ongoing technical assistance and support to social workers in all the demonstration counties and to be the day-to-day champions of the waiver. Without them, especially in the region that had lost its original regional administrator, county CPS supervisors and social workers received much less waiver-related guidance or active help.

MACWIS

The development and installation of the Mississippi Child Welfare Information System (MACWIS) coincided with the beginning of the waiver. The training on the new system was intense and took place at a rapid pace across the state during May and June 2001. While this training was taking place it was difficult to initiate other new activities as county staffs were often in the position either of undergoing training or of providing

backup for those receiving it. However, the installation of this system represented a significant step in the state where previously many counties relied on paper files only and that had few computer resources available for staff. Moreover, the design of the system provided a comprehensive database for storing and tracking information on child protection cases, including service and cost data associated with children and their families.

Phase In

The waiver was not begun simultaneously in all eight participating counties as originally planned but was phased in. Implementation began in April 2001 when the waiver program was started in two counties, Rankin (in Region 3) and Jones (In Region 6-North). In April 2002 the waiver was extended to two additional counties, Holmes (Region 3) and Lamar (6-North). In September 2002, it was begun in the final four counties, Madison and Yazoo in Region 3, and Pearl River and Covington in Region 6-North. DFCS administrators and the evaluators combined in providing training to CPS staffs as the waiver began in their counties. This included background on the waiver program nationally, the nature of the waiver in the state, the elements of the evaluation and how the evaluation would impact local office staff, and instruction in the use of the lap-top computer-based screening and assignment software.

Use of the Waiver

From the date the waiver began until it was suspended was a period of 42 months. This amounts to 70 percent of the 60 months for which the project was approved. However, it would not be accurate to assume that the waiver operated at 70 percent of its planned level. Only two of the eight counties had active waiver programs for 42 months. Two others had waiver programs for a period of 30 months and the remaining four had programs for just 25 months. But even this gives an inflated picture of the operation of the waiver program, for not all the counties operated active waiver programs each month from their start date through the suspension of the project. For example, Jones County, one of the two counties that implemented the waiver in the first phase, effectively had to suspend the waiver early in the final year of the project because the coordinator of the program there was given an expanded caseload not related to the waiver in addition to being required to help out on a rotating basis in another, non-waiver county that was experiencing severe worker shortages. Rankin County, the other phase 1 county, essentially suspended the waiver for 10 months during its second year when the Region 6 coordinator left to take another job. Because of the hiring freeze she was not replaced nor were other social workers in Rankin County who left. And while Madison County was included in the final group to begin the waiver, the actual start of the waiver in that

county was delayed an additional 12 months when one of its two social workers was lost to the county when called for active duty in the Army Reserves because of the war in Iraq. Thus, staff shortages, and the functional loss of both waiver coordinators, complicated and reduced the active use of the waiver in the state.

Figures 2 and 3 show the number of cases screened for the waiver (cases that were randomly assigned to either the experimental or control groups). Figure 2 shows the accumulating number of CPS cases entered into the waiver screening and assignment program. It also shows the beginning of the various implementation phases as new counties came on board. Figure 3 shows the number of cases assigned to either the experimental or control group each month. The graphs show that during the first month of implementation in new counties there was always an increase, often dramatic, in the number of new cases brought into the study population. These were months when new counties could bring in cases already on their caseload. During subsequent months, when only new cases were typically entered into the system, the numbers are modest. Two other months stand out: month 20, when Yazoo County brought in a large number of existing cases, and month 33, when Pearl River County brought in a large number of such cases.

As noted above, because of various staffing problems all the counties were not able to operate their waiver programs on a continuing basis once they implemented them. If we take, as an indicator of an “active” program, the entry of one case into to the screening and assignment system during a given month, we get some idea of this. Table 2 shows the number of possible waiver program months for each county, from 42 months down to 25 months. The following column shows the number of months in which at least 1 case was entered into the assignment program. The third data column gives a percentage for each county that was derived by dividing the number of “active” months by the number of possible waiver months. Using this measure, Lamar County operated the most active waiver program in the state and Madison County the least active program. The fourth data column is the percentage derived from dividing active waiver months by planned months (that is, 60). This gives an overall measure of the final implementation status of the waiver.

The use of “active” program defined by at least one case entered into the assignment program during a given month is not, of course, fully accurate. Cases assigned to the waiver in previous months continue on caseloads and so the waiver may be viewed as “continuing” even though new cases are not entering the system. In addition, especially for the smaller counties, such as Lamar and Covington, it may have been that there were no new cases that met the screening criteria for entry into the waiver.

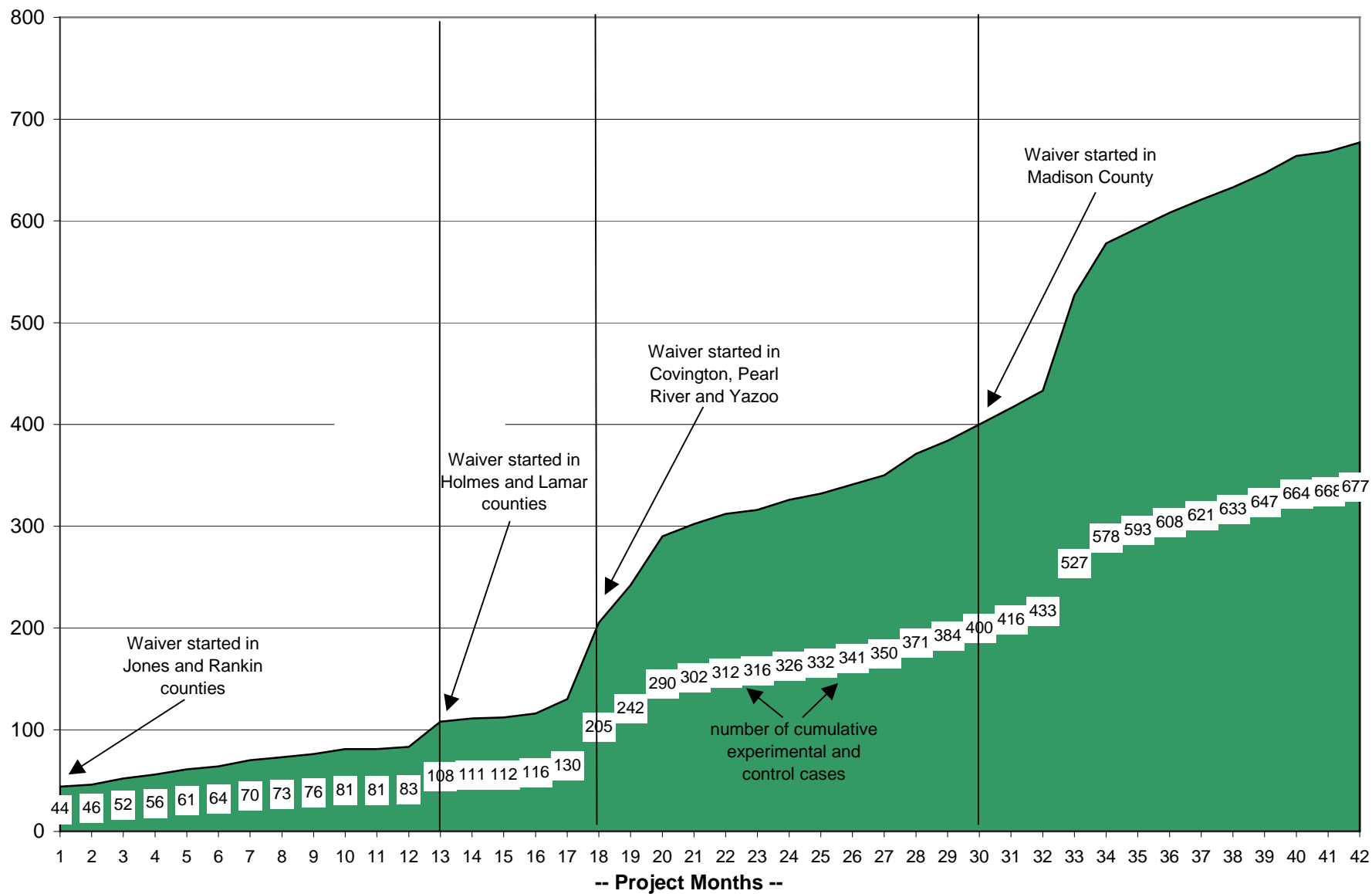


Figure 2. Cumulative Number of Cases Assigned to the Demonstration Project by Project Month (Experimental and Control Cases Combined)

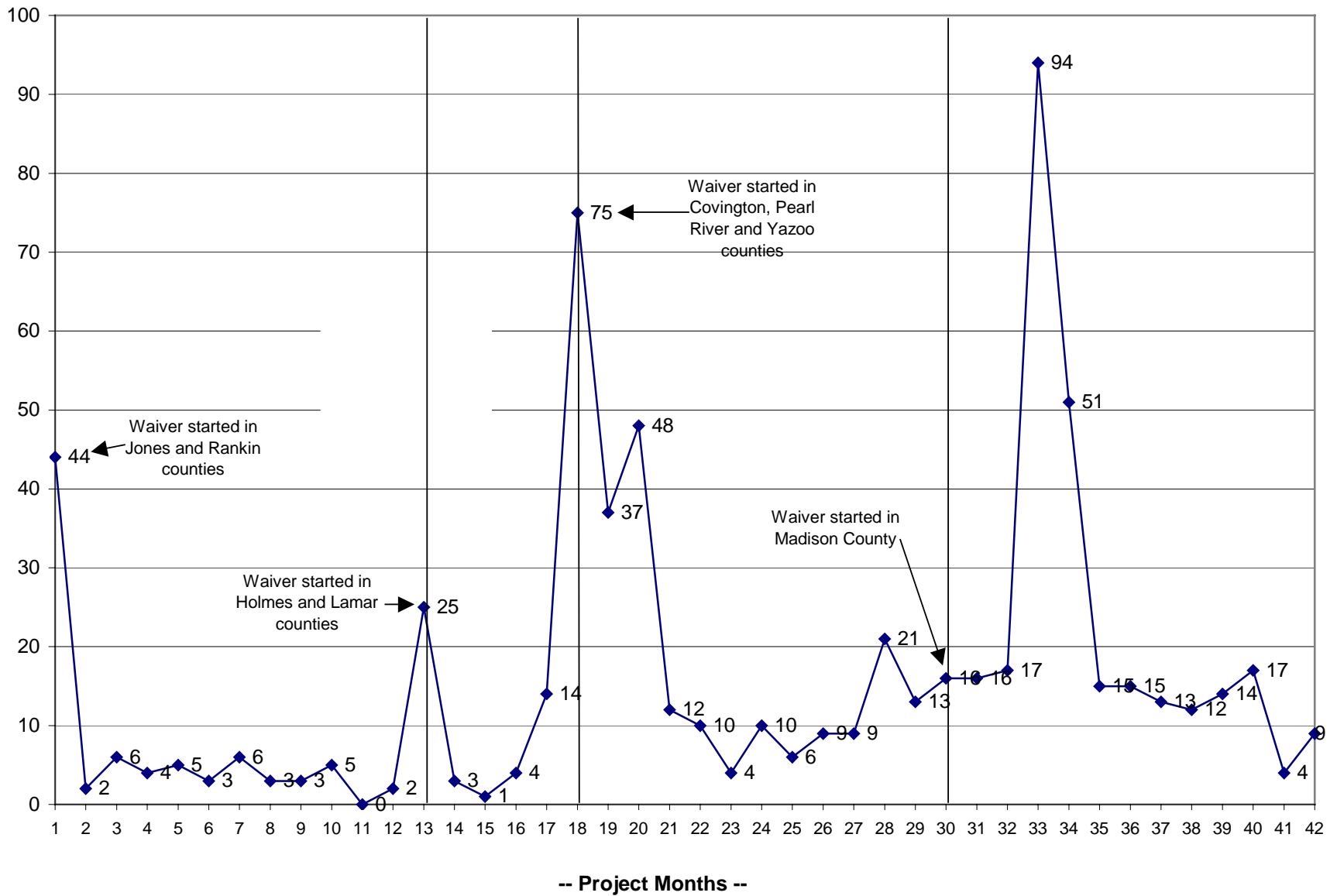


Figure 3. Number of Cases Assigned to the Demonstration during Each Project Month (Experimental and Control Cases Combined)

**Table 2. Waiver Status in Each County:
Possible and Active Months**

County	Possible waiver program months	Months with “active” waiver program	Active/ possible	Active/ 60 months
Jones	42	24	57.1%	40.0%
Rankin	42	25	59.5%	41.7%
Holmes	30	19	63.3%	31.7%
Lamar	30	24	80.0%	40.0%
Pearl River	25	17	68.0%	28.3%
Yazoo	25	11	44.0%	18.3%
Covington	25	13	52.0%	21.7%
Madison	25	5	20.0%	8.3%
Total	244	138	56.6%	28.8%

Accordingly, the concept “active program month” should be interpreted as a general indicator of relative implementation not a definitive measure.

Figure 4 shows the accumulating number of cases entered into the assignment program each month by each of the eight counties. This graph is a picture of the implementation of the waiver in each location.

Implementation in Region 3

We will quickly review the implementation of the demonstration in the four waiver counties in Region 3, Rankin, Holmes, Yazoo and Madison.

Rankin County. One of the first two counties to implement the waiver, Rankin began the demonstration with two CPS supervisors and all seven social worker positions filled. The waiver coordinator for Region 3 worked out of this county and was active in conducting family team conferences, and, along with the waiver coordinator from Region 6 North, developed team conferencing materials based on best practice literature. By the end of the year (2001), however, staff loses and the hiring freeze took a sudden toll on

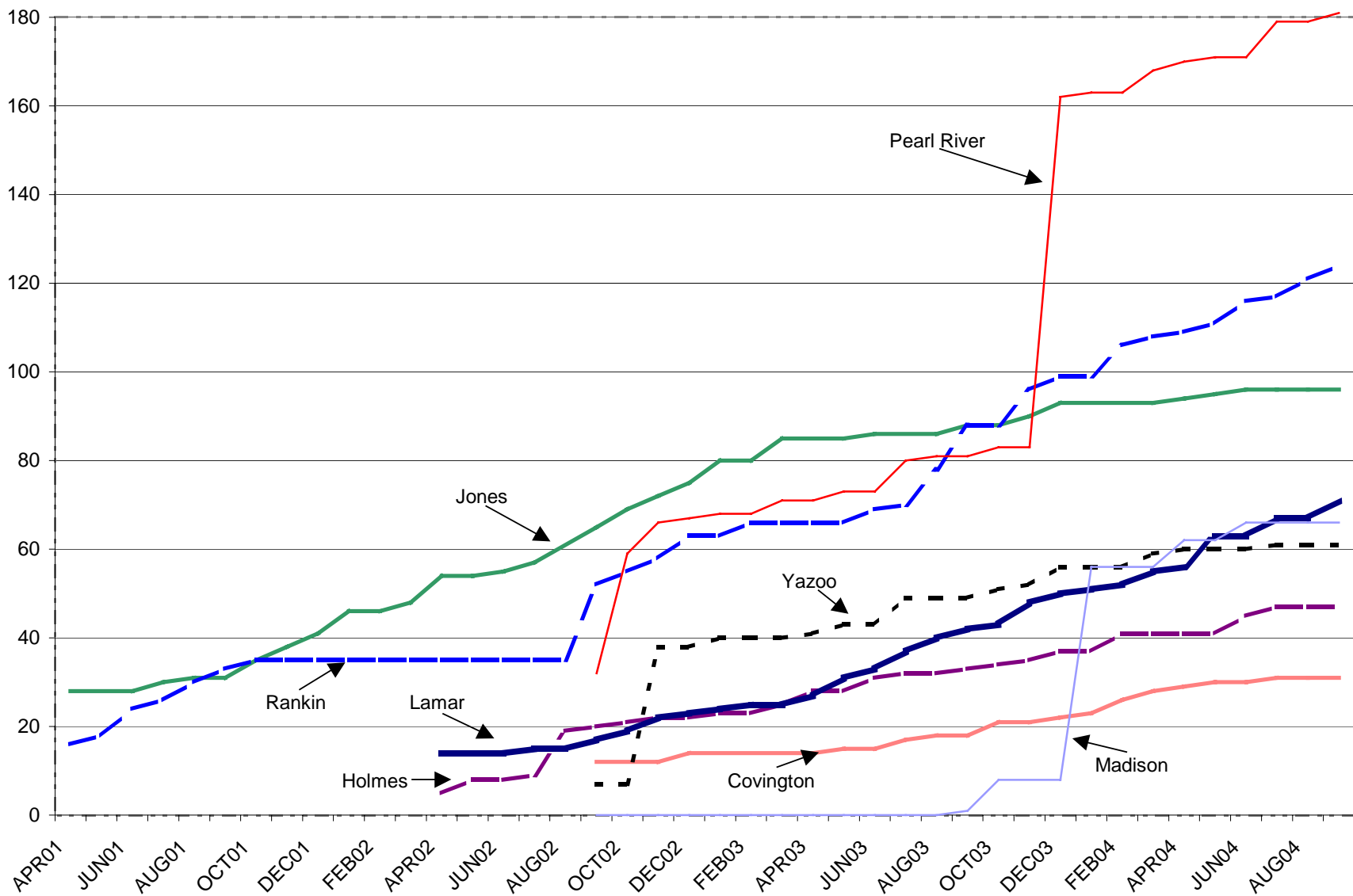


Figure 4. Cumulative Number of Cases Assigned to the Demonstration Project Each Month by County

the program. The waiver coordinator left along with one of the CPS supervisors and were not replaced. The waiver went into suspension with no new entries into the assignment program for 10 months. (Notice the flat line on the graph.) Through the efforts of the remaining supervisor and the regional director, the waiver was revived. In late summer 2003, with the hiring freeze off, this supervisor moved into the coordinator's position and staffing otherwise improved (although not at the pre-waiver level). At this point, as the graph shows, the waiver was again actively utilized.

Holmes County. Holmes began the waiver in the second phase in April 2002. Holmes is a small county and significantly affected by the loss or gain of a single social worker. The loss of the coordinator in this region put the full burden of waiver implementation here squarely on the shoulders on the Area Social Worker Supervisor. As can be seen in the graph, the waiver program in Holmes was used in a relatively steady way throughout the project period. However, there is no doubt staffing problems seriously affected the use of the waiver here. At the time the waiver was suspended, Holmes had only one active social worker in its three positions.

Yazoo County. Yazoo County was one of the four phase 3 counties, starting the waiver in September 2002. After assigning pre-existing cases to the experimental or control group, Yazoo County made relatively modest use of the waiver. As in other counties, severe staff shortages limited what this county could do. By the end of the waiver, the county had just 2 of its 4 social worker positions filled.

Madison County. Madison was the last county to implement the waiver in this region. Nominally a phase 3 county, Madison did not assign anyone to the waiver for a full year after other counties in this cluster. As noted above, Madison lost one of its two social worker to the Iraq War and it was not until the new waiver coordinator began working that this county was able to implement the waiver at all.

Implementation in Region 6-North

This region includes the other four waiver counties: Jones, Lamar, Covington, and Pear River. The waiver program in this region suffered a severe blow when the regional director left state government. One of the original developers of the state's waiver application, she had been an active and articulate champion of the waiver and an effective bridge to other agencies and organizations. Her replacement did not have the same familiarity with the waiver and came into the position at a time when staffing problems in the region were especially critical.

Jones County. Jones was one of the two phase 1 counties that first implemented the waiver in April 2001. The waiver coordinator for Region 6-North worked out of this county and was most responsible for the solid start the demonstration got in this region. When the Regional Director left, it was the coordinator who stepped in and shouldered major responsibility for the waiver in the region and, as long as she was able, actively assisted other counties' waiver programs and conducted family team conferences. As can be seen in Figure 4, Jones County made steady use of the waiver through the beginning of 2003. However, from this point until the demonstration was abandoned, the waiver was effectively suspended in this county with periodic exceptions. Staffing problems in nearby Forrest County and in some of the coastal counties became especially acute. Social workers from counties across the state were used in a rotating manner to plug the leak, a process that inevitably stressed caseloads in their home counties. Jones County, which once had one of the most stable CPS staffs in the state, was itself hit by staff losses and affected by the hiring freeze. Workers from Jones were called on to increase their caseloads and also to help occasionally in neighboring Forrest County. The waiver coordinator was caught up in this "back-door draft" and was ultimately unable not only to support waiver programs in other counties in the region, but even to sustain the demonstration in her own county. As can be seen in Figure 4, the use of the waiver in Jones County nearly flat-lined during the last year and a half of the demonstration.

Lamar County. Lamar County began the waiver in April 2002 as one of two phase 2 counties. As noted above, it made steady use of the waiver throughout the demonstration period. It did this despite its own staffing problems. For most of the demonstration, Lamar operated with two social workers, although the county has four social worker positions. At the end of the demonstration the county was down to one active social worker with the other on indefinite medical leave and her position unfilled. By any measure, the implementation and use of the waiver in this county was remarkable and must be considered a model achievement, not just in assigning cases to the waiver but in the manner in which the waiver was utilized.

Pearl River County. One of the four phase 3 counties, Pearl River began its waiver program in September 2002. The county screened a relatively large number of cases for the waiver during the first two months of its program. However, the county did not fully implement a practice change until later in the year. This means that the early waiver cases were treated essentially the same as control cases and were only nominally waiver cases. Throughout most of 2003 a practice difference was reported to have existed. However, in December 2003 a very large number of cases (79) were again screened for the waiver and assigned to either experimental or control groups. These cases represent 44 percent of all the cases screened for the waiver. Although this county

is not as understaffed as many of the other waiver counties (with all eight of its social worker positions filled, although one of these workers is on indefinite medical leave and another has been helping in another county), it is questionable whether the waiver could have been utilized in any comprehensive way with this many cases in such a short time.

Covington County. Covington began its waiver on September 2002, one of the four phase 3 counties. It is the smallest county in population among the eight in the demonstration. Like many of the other counties, Covington screened a large number of pre-existing cases for the waiver during its first month. The number was 39 percent of all cases screened for the waiver during the demonstration. From that point on, the number screened was relatively steady.

B. Features of the Waiver

Identification of Service Needs

In order to provide a rational framework for the project, one of the first activities undertaken in preparation for the waiver was to identify and prioritize new services that would be needed by children and families assigned to the waiver. Feedback was solicited from DFCS social workers with at least two years experience through a mail survey. The survey was conducted in the fall of 1998 and 174 social workers from across the state participated in it, two-thirds of those surveyed. In the survey, workers were asked to identify services and cash expenditures that would reduce the number of children removed from their custodial parents and result in reduced recidivism. Services most often mentioned by the social workers were parenting education, basic and emergency assistance, homemaker services, counseling services, child care, transportation, housing-related services, substance abuse treatment, among other support services. Many also described the need for more staff and smaller caseloads as well as a need for more foster care settings and support for relative caregivers. While the list of needed services could be used to guide CPS intervention and case planning for waiver families, the issue of caseloads was beyond the control of counties and, for all practical purposes, state administrators. In the event, however, the waiver was utilized to support relative and other foster care situations to reduce disruptions.

Service System Development and Inter-Agency Coordination

The state's waiver proposal envisioned the possibility that the waiver would become part of a significant transformation in the state's child welfare system, one that extended beyond the current scope of the state Department of Human Services. This view arose from the recognition that the needs of families and children exceeded the capacity as well as the mandate of any single agency, and that child and family welfare required the involvement and active collaboration of the broader public service system in the state and coordination among formal and informal community and regional resources.

During 1999 and 2000, DHS waiver project representatives met several times with representatives of the State Department of Mental Health in the hope of establishing an active relationship between the waiver project and ongoing inter-agency collaborations, particularly the Mississippi Families as Allies Wrap-Around Initiative and county MAP Teams. Families as Allies was a project of the Mississippi Children's Advisory Council (CAC) housed at DMH and it had as a goal the development of an integrated, wraparound system of services in the home and the community primarily for children and youths at risk of placement. Materials and strategies developed by Families as Allies were integrated into the waiver's individualized service planning process. County MAP (Multidisciplinary Assessment and Planning) Teams were established to facilitate local area inter-agency coordination and to staff cases and plan appropriate services. The teams included family members, school representatives, child welfare workers, mental health center case managers and therapists, county health representatives, among other stakeholders. Coordinators of local MAP Teams in waiver counties were included in meetings held between waiver project representatives and DMH officials. These meetings were useful in identifying services and strategies for service delivery and in the development of multi-disciplinary team management methodologies. The MAP Team coordinators also provided another perspective on services needed to reduce harm to children in their communities. During 2000 and 2001, the two Regional Administrators who were the principal co-authors of the state's waiver proposal made presentations on the nature and scope of the waiver project to other state and local groups. This included the Citizens Review Board for DFCS (an advisory body that monitors the Division's five-year plan), the Mississippi Permanency Partnership Networks (federally supported, county-level teams that identify new service needs and seek to facilitate the closing of service gaps) and to local MAP Teams operating in waiver counties. Unfortunately, the delay in starting the waiver and the loss of one of the two Regional Administrators caused a loss of inter-organizational momentum that was never re-established.

Business Consultant and Cost Neutrality

From the early planning stages, it was believed that the project in Mississippi had to be not just programmatically effective but cost efficient. Initially it was thought that a key component of the project would be the development of a business plan. The state's waiver application states: "The Mississippi Project can not generate additional funds through the delivery of new services nor by increasing the number of clients. But if the Mississippi Project is to be successful, the services delivered by the project must be both effective and cost efficient. These restraints demand a business plan and the assistance of an expert in this type of financial analysis. In addition, the 'cost neutrality' requirement of the project is another compelling reason for hiring a business consultant/evaluator."

Cost neutrality, it was believed, would have to be assured through good planning and the development of a financial budget and ongoing monitoring of waiver-related service costs and the cost neutrality limit. It was anticipated that a business consultant would be hired, but this plan fell victim to subsequent delays in implementing the project and to widespread staffing problems and the freeze on new hires.

From the point in time when approval was received for the project in 1998 and throughout 1999, meetings were held between administrators of the Department of Human Services and the Mississippi Department of Budgets and Accounting to develop a strategy and methodology related to the allocation of administrative and indirect costs associated with the demonstration and the cost neutrality provisions of the terms and conditions of the waiver. Discussions related to cost neutrality were initiated with the ACF Regional Office.

However, approval of the state's cost neutrality plan and procedures was delayed. Modifications in the department's cost allocation plan related to the cost neutrality requirements of the waiver were submitted in August 2000 following a number of conversations with the ACF Regional Office. Final approval of the plan was not granted until July, 2002 and until after a comprehensive review was conducted of the state's full cost allocation plan. In the interim, implementation was delayed and then begun in two counties in order to get the project underway. A provisional and conservative budgeting and allocation system was devised for the two counties to monitor waiver expenditures. The approved cost neutrality plan required workers in waiver counties to account for 100 percent of their time in order to determine administrative costs, something not required in non-waiver counties and a requirement that proved burdensome for workers already stretched thin due to staff shortages and caseload demands.

Staff Training and Development of Materials

In 2000, two rounds of training were provided to staff in the eight waiver counties. The training focused on facilitating strengths-based planning and included workshops on strength-based assessment, group facilitation techniques, and family team conferences. Mock conferences were conducted to help staff develop group facilitation skills and techniques that would be needed in family team conferences.

The two regional waiver coordinators participated in the training. Taking what they learned from the training and from a review of best-practice literature including materials developed by the Mississippi Families as Allies project, and with guidance from the two Regional Administrators instrumental in the waiver design, the coordinators developed team conferencing materials for use in individual service planning. The materials were family-focused and child-centered, constructed to assess family needs and child well being, and included guidelines for involving families and the development of individualized service plans. The coordinators also developed ancillary policy and procedural guidelines and forms.

Prior to the implementation of the waiver in each of the counties, social workers and supervisors also received training on the system developed by the evaluators for the random assignment of cases into experiment (waiver) and control (non-waiver) groups. This training was combined with an overview of the demonstration project and a review of the purpose and goals of the waiver.

Family Team Conferences

From the beginning, a key element to the state's approach to the waiver was to be the incorporation of family-centered practice methodology including the use of family team conferences. Initially, it was planned to hold conferences with every family assigned to the waiver facilitated by the regional waiver coordinators. The conferences were seen as the starting point for the development of a safety and permanency plan for the children in which parents and/or other caregivers would play central roles. The paradigm called for a family support team to be assembled composed of parents, relatives, and the DFCS worker along with any other participants who might be critical in establishing a wraparound service plan for the children (such as foster or other substitute care providers, juvenile authorities, school personnel, service providers for the family or child, the family attorney, and others who might be involved in the case or who the family may wanted to include). The family was to be fully included and involved in the conference and in the planning and decision-making phases. The conference would result in a wraparound plan that specified the outcomes being sought and the assistance

and services that were to be provided. The plan also indicated what actions individual family members and other participants agreed to do.

The staff shortages that hit the agency during the waiver's first year and the loss of the coordinator in Region 3 made it impossible to employ a separate facilitator to conduct conferences in all cases from the very beginning. However, it became apparent through early experience that there were cases in which the introduction of these conferences were simply not feasible (cases involving children in distant, even out-of-state, therapeutic placements, for example) or necessary (for example, cases of single parents with limited or no support systems in which the mother and worker quickly agreed on the services that were needed and on action steps that must be taken). Workers were more likely to request the involvement of the facilitator in complicated cases involving families in crisis with needs, often multiple and complex, that had not been met. Family-centered practice formed the core of the process, which strove to maintain a positive focus that emphasized the family's strengths and short and longer-term needs and then proceeding as quickly as feasible to the tasks to be done (what, when, how and by whom). A major contribution of the facilitator was assisting the worker in case management, making referrals to other resources in the community and, through the availability of waiver funds, identifying and obtaining practical necessities needed by the family to avoid the removal of the children and placement in foster care or to aid in meeting other case goals.

After the waiver coordinator in Region 3 left no family team conferences were held until toward the very end of the project when a replacement was designated. In Region 6 North, the coordinator facilitated conferences into 2003, with increasing strain due to other obligations, but then was unable to continue to conduct any.

Guidelines for Waiver Fund Expenditures

While waiver funds could be used on a wide variety of services or items, the agency sought to restrict their expenditure to situations involving the prevention of harm or potential harm to children. To help ensure this, the agency developed guidelines for the use of waiver funds. Workers were asked to identify and document the specific outcome toward which expenditures were directed from among the following set of potential outcomes that were viewed as consonant with the goals of the waiver:

- The reduction or elimination of factors causing abuse and/or neglect in a family or setting.
- Enabling a child to remain safely in his home with his family.

- For children who are removed from their family, the facilitation of successful relative placements.
- The facilitation of placement of siblings in the same setting.
- The facilitation of placements which allow children to remain in their own community.
- Keeping children safe while avoiding the necessity of state custody and foster care.
- Reducing the length of time a child is in foster care.
- The facilitation of the reunification of a child with his family.
- The prevention of the disruption of a placement.
- Facilitation of the adoption of a child for whom adoption is the plan.
- Decreasing the amount of time necessary for finalization of adoption.
- Enhancing the well-being of a child.

Supervisors within counties were responsible for determining that requests for waiver funds by social workers were legitimate and appropriate and related to one or more of these outcomes.

Experimental Design and Waiver Assignment Process

The design of the Mississippi waiver involved an experimental and a control group. Cases that met screening criteria were randomly selected for inclusion into one of the study groups. The decision to screen a case for possible inclusion in the waiver was the responsibility of the county DFCS office. Workers in each county received training on how to use the selection program developed by evaluators. It was not necessary for a county judge to authorize the process and, as a result, judges did not play a key role in this waiver project.

Cases, Children, and Waiver Services

Operationally, a case was the family or household of a particular household head. The household (or case) could include one or two adult parents or other caregivers and the children of the household. The case could involve a traditional or standard family (for example with two parents and their children) or a non-traditional or blended family (involving children who are step- or half-brothers and sisters). The case could also involve children who were living with their primary caregivers in the home and any who might have been removed and placed outside the home but for whom reunification remained the goal. In addition, there were a small number of cases in which children were cleared for adoption and were temporarily classified as a household of one.

For the purposes of the demonstration, the important point was that the case initially involved whoever was part of the household at the time of waiver/control group assignment. All household children in a case selected for the waiver group were assigned individually to the waiver and all household children in a case selected for the control group were considered control group children. Any person in a case or household selected for the waiver group or the household as a whole could receive waiver-related services. (Thus, child A might receive school supplies, child B might receive medical services, the mother might receive substance abuse treatment, and the home itself might be repaired.) Moreover, once a household and household members had been assigned to the waiver or control group they remained in that group for the duration of the project. Thus, if a new case was opened on the same family or household members during the demonstration, they returned to the system as either waiver or control group members depending on how they were originally assigned. If, in the interim, a new child was born into the household, that child took on the waiver or control group designation of the household.

Staffing

Compared with other states, perhaps most other states, child protection caseloads carried by social workers in Mississippi are often large. The ability of workers to provide all the attention some cases require is limited by this. In addition, their ability to address all the significant problems found in cases is often constrained by the unavailability of resources. While many, if not most, counties in the state experience these problems, some experience them more than others. There is a disparity in the resource base among counties and there is, as well, some variability in case-to-worker ratios, something that was exacerbated in certain locations by the hiring freeze and the reduction of civil service positions. And so, while all county child protection staffs face a difficult task, workers in some counties have faced a very difficult task and a very complex one. This reality could be seen in the variation in the nature of county caseloads. Some counties had a wide range of cases, from low to high risk and including many prevention cases along with court custody and placement cases. Other counties, however, opened many fewer lower risk prevention cases because their small staffs were overwhelmed by the critical cases that took nearly all of their time.

As is nearly always the case with long-term projects within any state agency, administrative changes within the agency occur while a project is underway as individuals retire or resign and as new appointments are made. This occurred in the most senior positions within the Mississippi Department of Human Services and the Division of Family and Children's Services during the demonstration. At the same time, the

administrator with direct managerial and operational responsibility over the waiver remained in place from the time the project was first implemented and this provided stabilizing continuity. However, as has been noted, the failure to hire the business consultant added considerably to her workload.

C. Waiver Case Assignments

Through the 42 months that the program operated, 667 cases that met the screening criteria for the waiver were entered into the random assignment program in the eight counties. Approximately equivalent numbers were randomly selected for the waiver group (346) and control group (321). These cases included 1,549 children, including 777 in waiver households and 772 in control families. Figures 5 plots the cumulative number of cases that were entered into the random assignment program by county by month, whether they were assigned to the experimental or control group. Figure 6 shows the cumulative number of children in these cases.

Households and Children

Table 3 shows the number of waiver and control cases that were selected through the random assignment program in each county through September 30, 2004. It also shows the number of children in these cases.

Table 3. Distribution of Waiver and Control Cases and Children by Family

County	Cases (Households)		Children	
	Waiver	Control	Waiver	Control
Covington	19	12	43	30
Holmes	20	19	58	54
Jones	45	51	107	128
Lamar	36	34	73	92
Madison	32	34	75	65
Pearl River	100	81	207	189
Rankin	66	58	138	113
Yazoo	28	32	76	101
Total	346	321	777	772

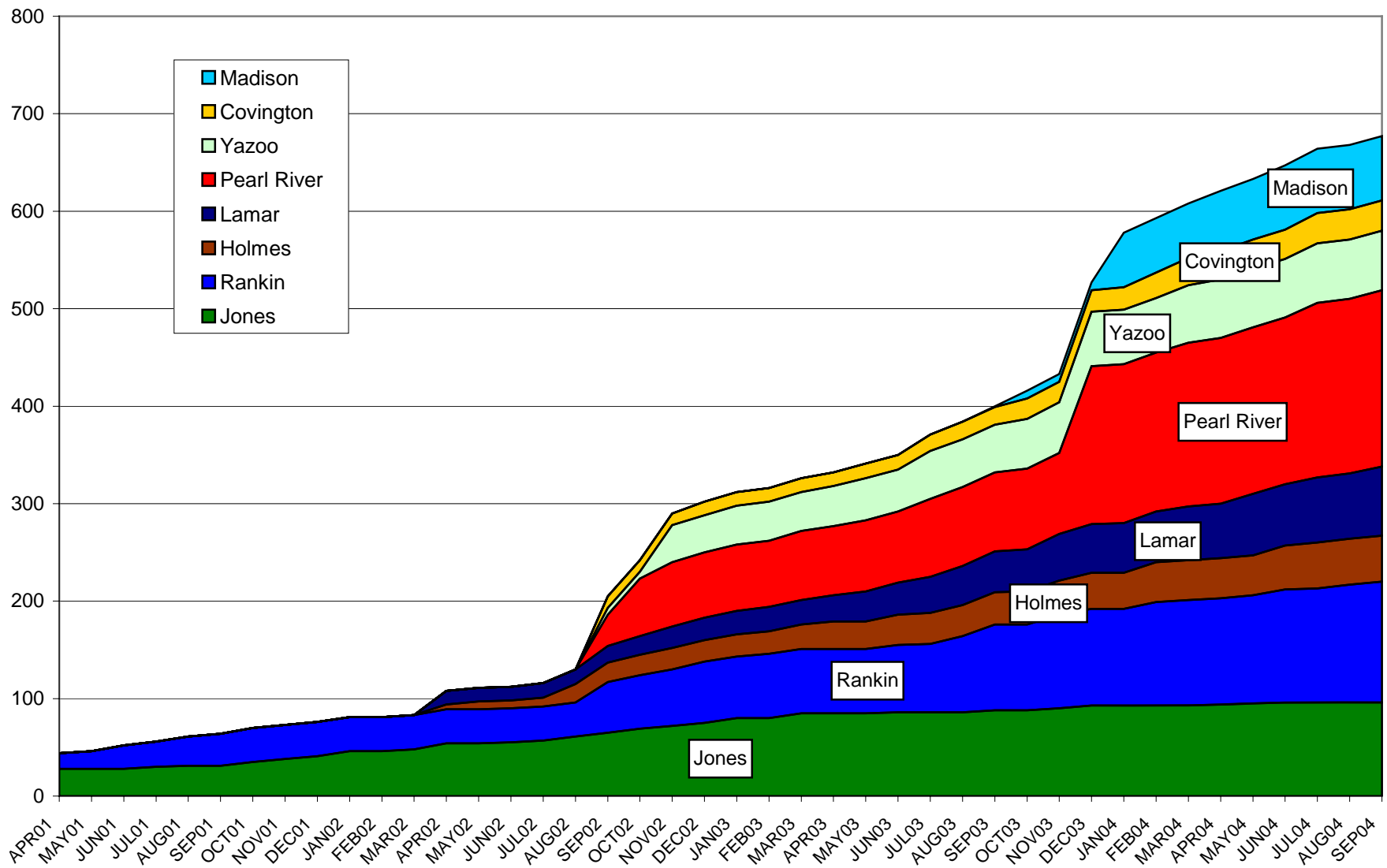


Figure 5. Cumulative Number of Families by County Assigned to the Waiver or Control Group

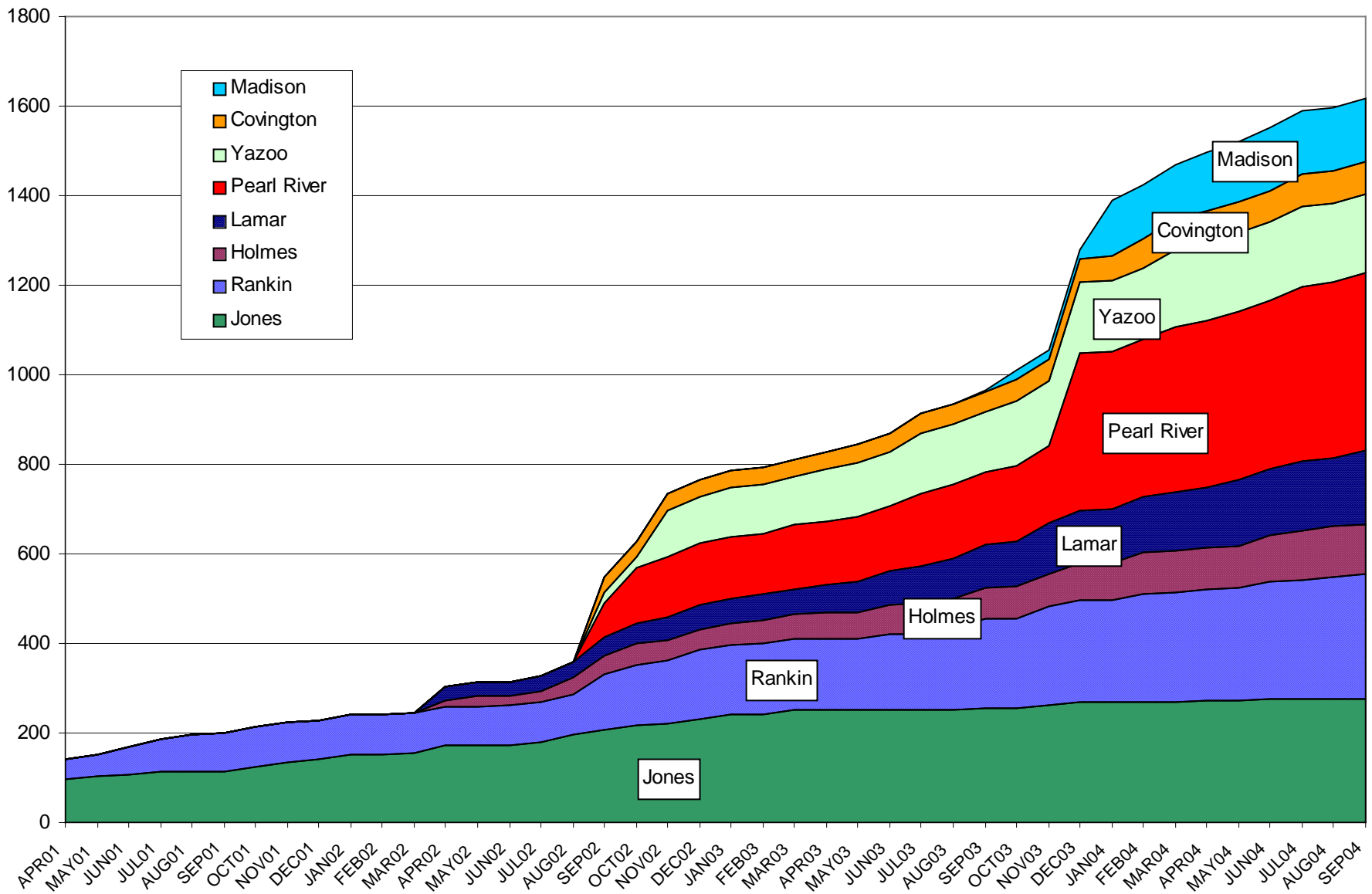


Figure 6. Cumulative Number of Children in Waiver, Control or Other Group Families

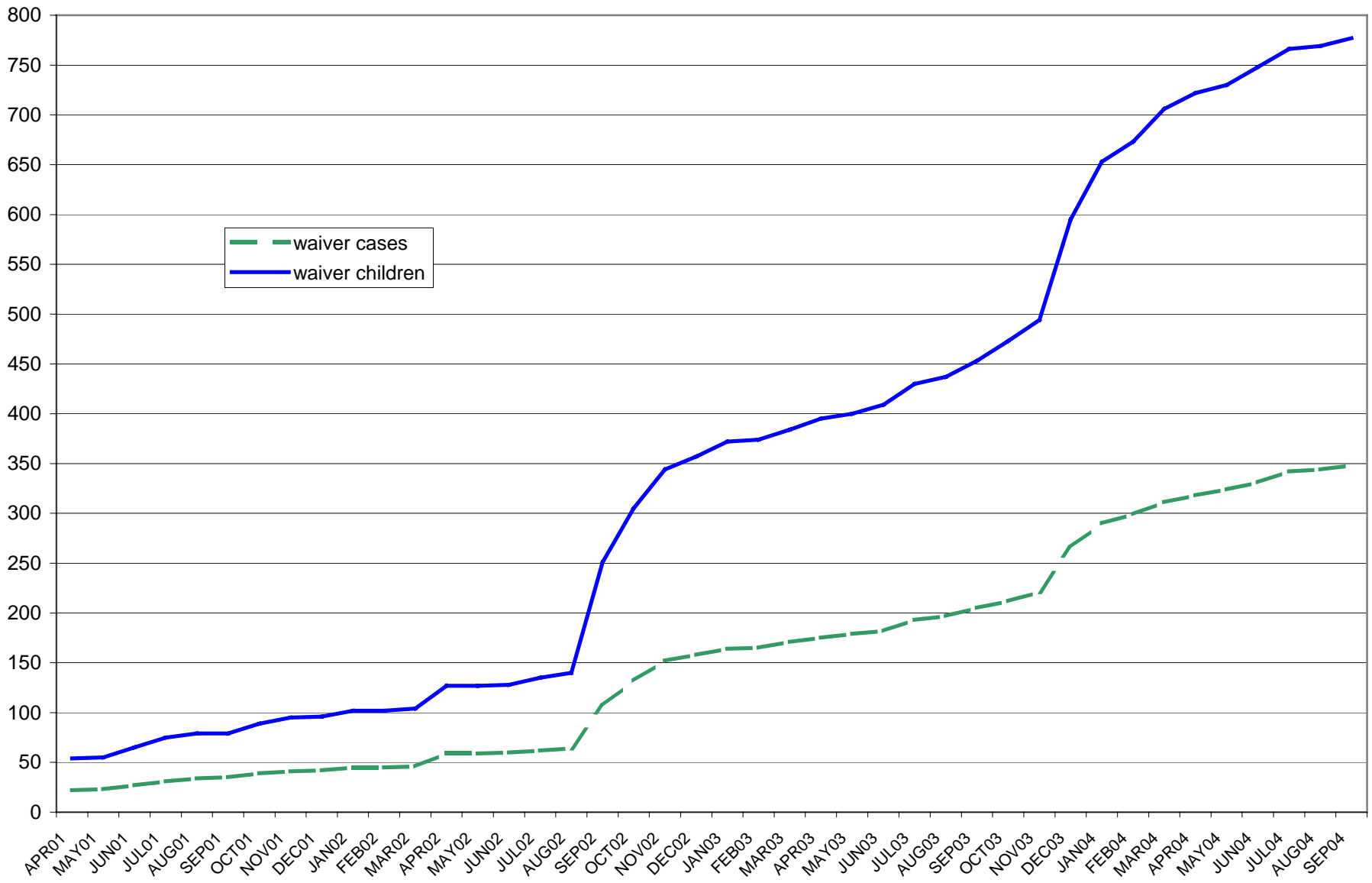


Figure 7. Cumulative Number of Cases and Children Assigned to the Waiver from 4/1/01 through 9/30/03

Figure 7 shows the cumulative number of families (cases) and children randomly assigned to the waiver over the 42-month period. What can be appreciated in this graph is not just the growth in waiver cases overall, but the impact of the decision to implement the waiver in stages during the first two years of the project.

Case Opening and Waiver Assignment

The state’s waiver proposal described the waiver population in terms of new cases and previously existing cases, and both types are evident. A pre-existing case is one that had been opened prior to the implementation of the waiver in a particular county; a new case was one opened after a county’s implementation date. Table 4 shows the percentage of new and pre-existing cases for each county and for all combined. As can be seen, 7 in 10 cases (69.5 percent) assigned to the waiver were new cases, while 3 in 10 cases predated the county’s waiver program.

Table 4. Percent of New and Existing Cases Assigned to the Waiver

<i>County</i>	<i>New Case (%)</i>	<i>Existing Case (%)</i>
Covington	68.4	31.6
Holmes	76.2	23.8
Jones	64.4	35.6
Lamar	86.5	13.5
Madison	78.1	21.9
Pearl River	56.0	44.0
Rankin	89.4	10.6
Yazoo	42.9	57.1
Total	69.5	30.5

Table 5 shows the relationship between the date of case opening and the waiver assignment date for all waiver cases. About one waiver child in six (16.5 percent) were assigned to the waiver on the same day their case opened. Another 7.2 percent were assigned to the waiver within the first week after their case opened and another 19.9 percent were assigned between one week and two months of case opening. At the same

time, 23.4 cases were assigned at least one year following the opening of the case, including 7.5 percent that had been opened for 5 or more years. Most of these older, ongoing cases involved children in placement.

Table 5. Time between Case Opening and Waiver Assignment

Same day	16.5%
Within 7 days	7.2%
Between 8-59 days	19.9%
Between 60-179 days	19.7%
Between 180-364 days	13.3%
Between 1-3 yrs	11.3%
Between 3-5 yrs	4.6%
More than 5 yrs	7.5%

D. Population Characteristics

Risk level

Waiver eligibility in Mississippi was contingent on whether 1) children in a family case had been assessed as either moderate or high risk or 2) were in court custody. Regarding the first, Figure 8 shows the percentage of experimental and control cases that were assessed to have high, medium and low levels of risk to children. As can be seen in the figure, the level of risk was assessed to be high or moderate in 96.8 percent of the waiver families and 97.0 percent of the control families. Children were judged to be at high risk in 60.0 percent of the families in the study population (61.9 percent among the experimental group and 58.1 percent of the control group).

Children in Court Custody and/or Placed Outside Their Homes

Just under half of the families (48.0 percent of waiver families and 47.7 percent of control families) had at least one child in court custody at the time of entry into the waiver selection program. Children in court custody cases might either continue to live in their own homes or be placed in some type of foster care arrangement outside their homes. This gives us a four-group typology at the time of waiver assignment in which children may be 1) in custody and placed; 2) in custody but not placed; 3) not in custody

and placed; and 4) neither in custody nor placed outside the home. Cases in which the court does not take custody of the children are referred to as prevention cases.

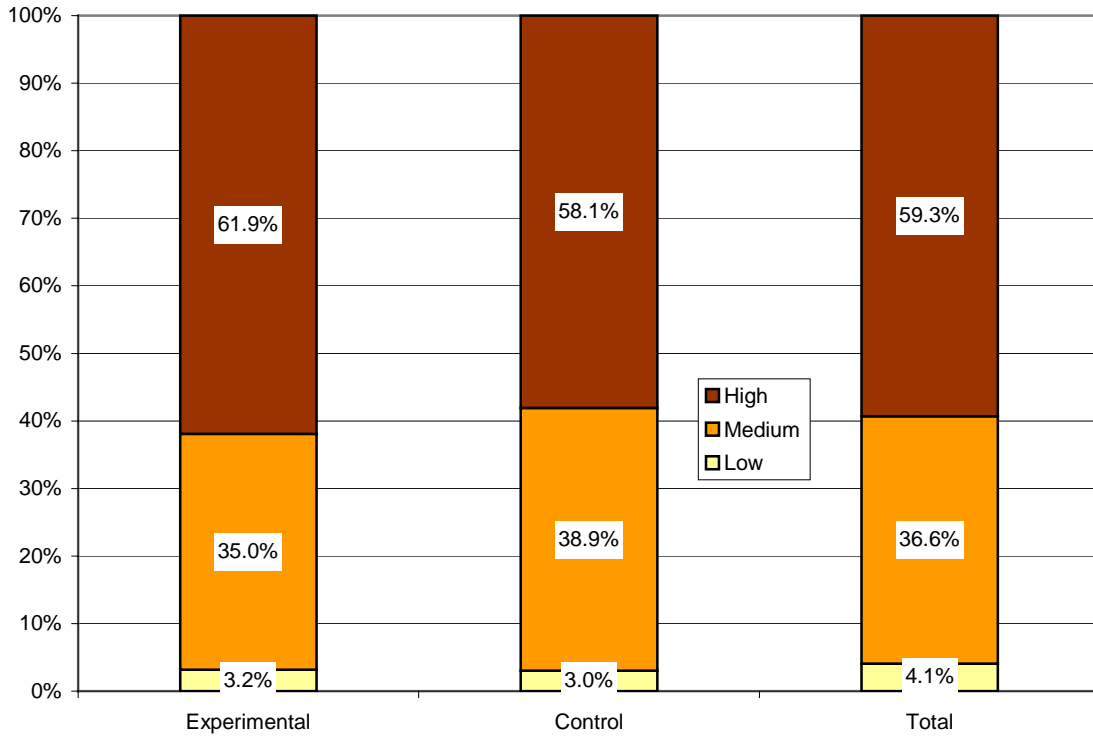


Figure 8. Level of Risk among Experimental and Control Families

The percentage of waiver and control children in each county who fell into these four groups is shown in Table 6. Variation among the counties is evident in this table. It should be remembered that custody and placement figures shown here are independent of waiver effects but represent the situation of study children at the time of waiver assignment.

Variation among counties can be more easily seen in Table 7, which shows the percentage of all children, whether experimental or control, that were in court custody and/or out-of-home placement at the time of waiver assignment. Over half of the children in Yazoo County cases were in court custody, whereas less than one-fifth of the cases in Holmes County were in court custody. Similarly, there were considerable differences among counties in the percent of children in out-of-home placement at the time they were screened for the waiver and assigned to one of the study groups. Over one-third of the children in cases in Yazoo and Madison County were in out-of-home placement settings at the time of waiver group assignment. On the other hand, just over 1

Table 6. Percent of Children in Different Types of Cases by County and Study Group

	<i>Waiver</i>				<i>Control</i>			
	<i>Yes</i>	<i>Yes</i>	<i>No</i>	<i>No</i>	<i>Yes</i>	<i>Yes</i>	<i>No</i>	<i>No</i>
<i>In Custody:</i>	<i>Yes</i>	<i>Yes</i>	<i>No</i>	<i>No</i>	<i>Yes</i>	<i>Yes</i>	<i>No</i>	<i>No</i>
<i>Placed:</i>	<i>Yes</i>	<i>No</i>	<i>Yes</i>	<i>No</i>	<i>Yes</i>	<i>No</i>	<i>Yes</i>	<i>No</i>
Covington	34.9%	4.7%	0.0%	60.5%	13.3%	3.3%	0.0%	83.3%
Holmes	8.6%	6.9%	0.0%	84.5%	14.8%	7.4%	0.0%	77.8%
Jones	26.2%	13.1%	0.0%	60.7%	21.9%	8.6%	0.0%	69.5%
Lamar	8.2%	9.6%	0.0%	82.2%	14.1%	12.0%	0.0%	73.9%
Madison	30.7%	1.3%	0.0%	68.0%	40.0%	7.7%	0.0%	52.3%
Pearl River	32.4%	11.1%	0.0%	56.5%	29.1%	4.8%	0.5%	65.6%
Rankin	23.9%	4.3%	0.7%	71.0%	20.4%	5.3%	1.8%	72.6%
Yazoo	53.9%	15.8%	0.0%	30.3%	22.8%	19.8%	0.0%	57.4%
Total	28.1%	8.9%	0.1%	62.9%	23.3%	8.7%	0.4%	67.6%

Table 7. Percent of All Children (Experimental and Control) Who were in Court Custody and in Out-of-Home Placement at the Time of Waiver Group Assignment.

County	In Court Custody	In Out-of-Home Placement
Covington	30.1%	26.0%
Holmes	18.8%	11.6%
Jones	34.5%	23.8%
Lamar	22.4%	11.5%
Madison	39.3%	35.0%
Pearl River	38.9%	31.1%
Rankin	27.1%	23.5%
Yazoo	54.2%	36.2%
Total	34.5%	26.0%

in 10 children in Holmes and Lamar County had been removed and placed in some type of foster care arrangement. These differences seem to be indicative of two things: county differences in caseload and family characteristics, to be sure, but also to some degree, dissimilarities in approach to child maltreatment cases found among juvenile court judges from one county to another.

Table 8 splits out these figures for the two study groups and shows the percentage of experimental and control children that were in court custody and out-of-home placement at the time of waiver assignment. Variation among counties is still evident. But we can also see some overall, although not large, differences between the two study groups. The experimental group overall has somewhat larger percentages of children in custody and in placement outside their homes than the control group. To the extent that the differences arise from differences in caseload characteristics or from differences in the circumstances of families, it suggests that the experimental group included a somewhat larger percentage of more difficult or complex cases despite the random assignment procedures. These differences may have lessened over the next year if the demonstration had continued; but we will never know.

Table 8. Percent of Experimental and Control Children in Court Custody and Out-of-Home Placement at the Time of Waiver Assignment

County	Experimental Children		Control Children	
	In Custody	In Out-of-Home Placement	In Custody	In Out-of-Home Placement
Covington	39.5%	34.9%	16.7%	13.3%
Holmes	15.5%	8.6%	22.2%	14.8%
Jones	39.3%	26.2%	30.5%	21.9%
Lamar	17.8%	8.2%	26.1%	14.1%
Madison	32.0%	30.7%	47.7%	40.0%
Pearl River	43.5%	32.4%	33.9%	29.6%
Rankin	28.3%	24.6%	25.7%	22.1%
Yazoo	69.7%	53.9%	42.6%	22.8%
Total	36.9%	28.2%	32.0%	23.7%

Family Characteristics

Just over a third (48.3 percent) of the children in waiver cases lived with two or more caregivers, while a little over half (50.8 percent) lived with one caregiver and a small percentage (0.9 percent) had been cleared for adoption and were considered households of one. For 74.3 percent of the children, their primary caregiver was considered to be a birth parent; for a small percentage the primary caregiver was another relative. The mean number of people in the households of waiver children was 4.7. This included an average of 1.4 caregivers, 2.3 children, and 1.0 other adults. The percentage of households considered to involve blended families, in which the children did not share the same mother and father, was 12.8 percent. Table 9 shows the mean number of children, caregivers and total household members in waiver cases by county. Figure 9 shows the relative similarities between the experimental and control cases in selected demographic variables, including household composition, race and age of children.

Table 9. Mean Number of Children, Caregivers and Total Household Members in Waiver Cases by County

County	<i>Mean number of</i>		
	<i>Case members</i>	<i>Children</i>	<i>Caregivers</i>
Covington	8.2	2.3	1.7
Holmes	4.6	2.9	1.3
Jones	5.4	2.4	1.4
Lamar	3.9	2.0	1.7
Pearl River	4.9	2.1	1.4
Rankin	4.1	2.1	1.5
Yazoo	4.7	2.7	1.5
Madison	3.8	2.3	1.2
Total	4.7	2.2	1.4

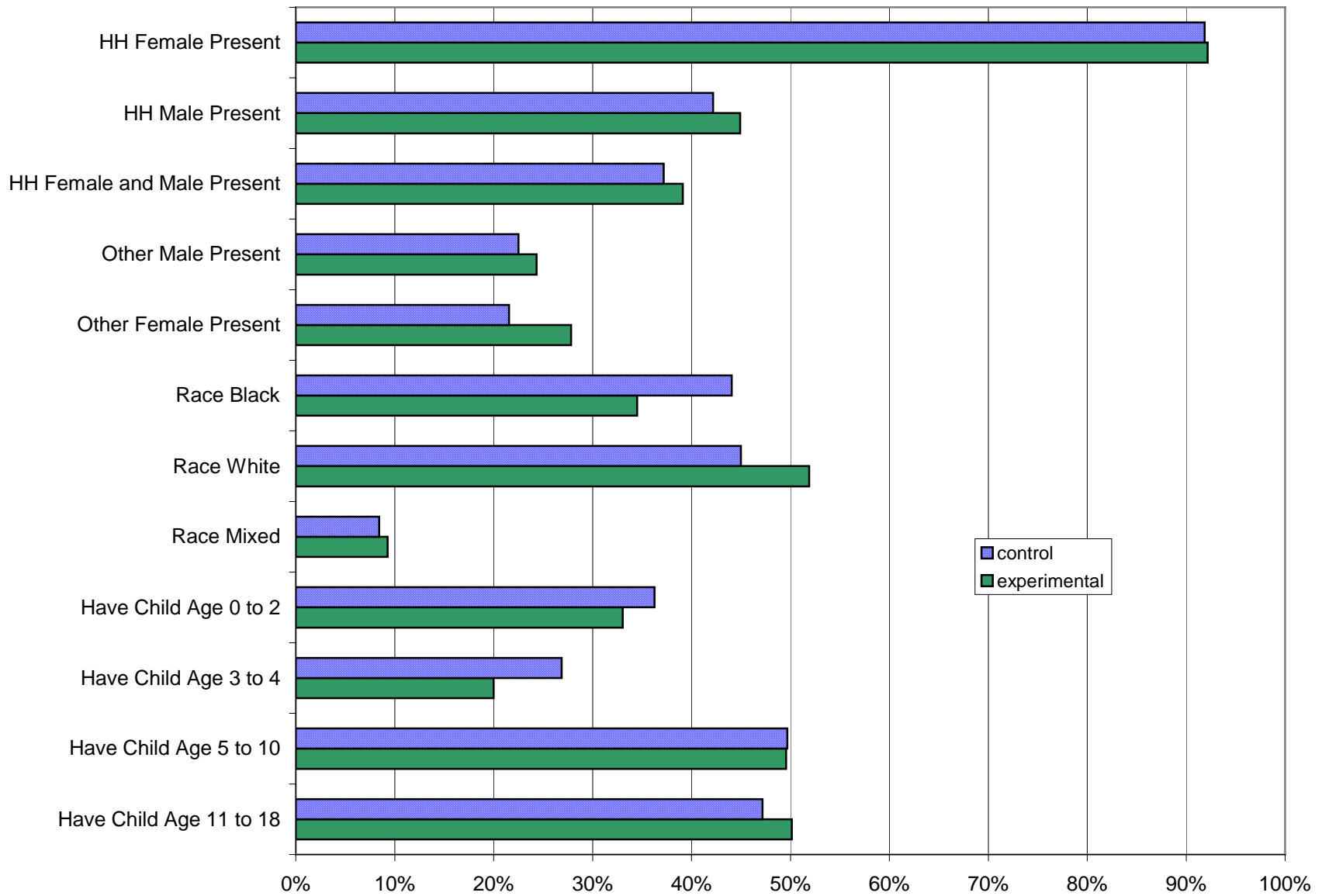


Figure 9. Demographic Characteristics of Experimental and Control Families

Characteristics of Children

There were a few more girls than boys in waiver cases (52.8 percent vs. 47.2 percent). There were more children who were ethnically white, 55.6 percent, than black, 44.2. A majority (83.4 percent) had one or more siblings. Only a small percentage (1.4 percent) of the children were recorded in MACWIS as having a disability, but this is notoriously poor data in state child protection systems.

The average age of children at the time they were assigned to the waiver was 8.9 years—41.3 percent were younger than 6, while 17 percent were aged 15 and over. (See Table 10.) Table 11 shows some other characteristics of children in the waiver cases in each of the counties.

Table 10. Age of Children Assigned to the Waiver

<i>Age</i>	<i>Percent</i>
Less than 3	19.3%
3-6 yrs	22.0%
7-10 yrs	21.0%
11-14 yrs	20.7%
15 and over	17.0%

Type of Maltreatment

Over half (59.0 percent) of the waiver cases entered the CPS system due to a substantiated report of child neglect. Physical abuse was the primary problem in 17.3 percent of the cases, while 9.2 percent involved sexual abuse and 9.5 percent involved emotional abuse. Table 12 shows the breakdown of maltreatment type for waiver cases in each of the counties.

Open and Closed Cases

Seven in 10 (70.8 percent) cases that had been assigned to the waiver since the start of the demonstration had closed by the end of data collection (January 20, 2005), and 29.2 percent of the cases remained open. The percent of open and closed cases by county can be seen in Table 13. Counties that implemented the waiver more recently tend to have a larger proportion of open cases. Two out of every three cases that closed by the mid point in the project were cases from Jones and Rankin counties.

Table 11. Characteristics of Children in Waiver Cases by County

County	Gender (%)		Ethnicity (%)		Risk Level (%)			Age at Waiver Entry (mean)	% with one or more siblings
	Boys	Girls	White	Black	High	Medium	Low		
Covington	48.8	51.2	55.0	45.0	48.8	48.8	2.3	9.9	86.0
Holmes	46.6	53.4	8.8	91.2	62.1	37.9	0.0	8.4	96.6
Jones	45.8	54.2	38.9	61.1	71.3	20.8	7.9	8.3	86.0
Lamar	42.5	57.5	75.4	24.6	65.8	34.2	0.0	9.2	76.7
Pearl River	51.2	48.8	78.3	21.7	59.4	40.6	0.0	8.7	79.2
Rankin	46.4	53.6	75.0	25.0	66.7	26.8	6.5	8.7	84.1
Yazoo	44.7	55.3	27.7	72.3	56.6	42.1	1.3	9.2	86.8
Madison	46.7	53.3	19.2	80.8	53.3	46.7	0.0	9.5	81.3
Total	47.2	52.8	55.8	44.2	61.6	35.9	2.5	8.9	83.4

Table 12. Percent of Waiver Cases by County in which Certain Types of Maltreatment were Present

County	Neglect	Physical Abuse	Emotional Abuse	Sexual Abuse
Covington	63.2%	15.8%	10.5%	26.3%
Holmes	65.0%	5.0%	10.0%	0.0%
Jones	64.4%	20.0%	20.0%	4.4%
Lamar	48.6%	16.7%	5.6%	5.6%
Madison	65.6%	3.1%	0.0%	3.1%
Pearl River	55.0%	21.0%	11.0%	9.0%
Rankin	54.5%	13.6%	6.1%	16.7%
Yazoo	75.0%	35.7%	7.1%	7.1%
Total	59.0%	17.3%	9.5%	9.2%

Table 13. Percent of Waiver Cases that were Open and Closed as of 1/20/05

<i>County</i>	<i>Percent Open</i>	<i>Percent Closed</i>
Covington	31.6	68.4
Holmes	20.0	80.0
Jones	15.6	84.4
Lamar	22.2	77.8
Madison	37.5	62.5
Pearl River	27.0	73.0
Rankin	30.3	69.7
Yazoo	60.7	39.3
Total	29.2	70.8

E. Services

The waiver demonstration permitted participating counties wide latitude and discretion in the utilization of IV-E funds in waiver cases. Through the waiver, funds formerly restricted to children in foster care or licensed facilities who met title IV-E eligibility criteria, were used to pay for a wide variety of items and services to eliminate behaviors and situations harmful to children. Children in waiver cases were assisted directly through services provided to them or indirectly through assistance to their families or a relative caring for them.

Specific services provided to waiver families and children are summarized below in Table 14. This table shows data extracted from MACWIS on waiver families. It shows the number of families selected for the experimental group that received various specific types of services, whatever the source of funding for the services.

Tables 15 and 16 break down county expenditures of waiver funds for each county. Table 15 shows the amount of waiver funds expended within various service categories. Table 16 shows the percentage of waiver funds expended by service category.

**Table 14. Services Provided to Waiver Families
(n = 346)**

<i>Service</i>	<i>Number of Families that Received Service</i>
Clothing	167
School Supplies	58
Housing, Rent, Utilities	81
Home Improvement	19
Food Needs	52
Personal Hygiene	17
Transportation	22
Other Unmet Personal Needs	213
Medical	51
Unmet Medical Dentist	17
Prescription Drugs/Medication	59
Psychological Evaluation	26
Counseling/Therapy/Treatment	55
Adult Substance Abuse Services	5
Emergency Shelter	37
Temporary Boarding	29
Foster Home/Facility	115
Independent Living	74
Child Care	10

Table 15. Amount of Waiver Expenditures by Service Type and County

Services/County	Covington	Holmes	Jones	Lamar	Rankin	Madison	Pearl River	Yazoo
Clothing	\$5,342	\$545	\$4,737	\$375	\$6,375	\$1,825	\$1,054	\$570
School Supplies	38	0	1,314	0	1,073	275	0	0
Housing	0	2,255	2,648	2,913	3,865	0	6,027	1,542
Home Improvement	450	110	5,583	2,582	0	0	0	0
Food	0	720	890	548	900	200	135	275
Hygiene	0	0	157	0	20	0	25	0
Transportation	0	0	417	415	2,068	0	206	0
Other Needs	4,318	1,372	16,452	2,369	9,238	670	11,793	5,588
Medical	54	40	9	196	420	0	20	0
Dental	0	0	23	0	0	0	3,927	0
Meds/Glasses/Hearing Aids	0	0	201	317	195	0	58	0
Psychological Evaluation	700	0	3,280	350	1,100	0	250	0
Counseling	10	0	148	40	875	0	502	0
Substance Abuse	0	0	0	100	0	0	0	0
Boarding/Hotel (Child)	243	0	3,003	0	0	0	74	0
Child Care	0	0	2,990	0	0	0	5,980	0
Independent Living	0	0	0	0	0	0	0	0
total	11,155	5,041	41,851	10,205	26,129	2,970	30,051	7,975
average per case	587	240	930	276	396	93	301	285
Number of waiver cases	n=19	n=21	n=45	n=37	n=66	n=32	n=100	n=28

Table 16. Percent of Waiver Expenditures by Service Type and County

Services/County	Covington	Holmes	Jones	Lamar	Rankin	Madison	Pearl River	Yazoo
Clothing	47.9	10.8	11.3	3.7	24.4	61.4	3.5	7.1
School Supplies	0.3	0.0	3.1	0.0	4.1	9.3	0.0	0.0
Housing	0.0	44.7	6.3	28.5	14.8	0.0	20.1	19.3
Home Improvement	4.0	2.2	13.3	25.3	0.0	0.0	0.0	0.0
Food	0.0	14.3	2.1	5.4	3.4	6.7	0.4	3.4
Hygiene	0.0	0.0	0.4	0.0	0.1	0.0	0.1	0.0
Transportation	0.0	0.0	1.0	4.1	7.9	0.0	0.7	0.0
Other Needs	38.7	27.2	39.3	23.2	35.4	22.6	39.2	70.1
Medical	0.5	0.8	0.0	1.9	1.6	0.0	0.1	0.0
Dental	0.0	0.0	0.1	0.0	0.0	0.0	13.1	0.0
Meds/Glasses/Hearing Aids	0.0	0.0	0.5	3.1	0.7	0.0	0.2	0.0
Psychological Evaluation	6.3	0.0	7.8	3.4	4.2	0.0	0.8	0.0
Counseling	0.1	0.0	0.4	0.4	3.3	0.0	1.7	0.0
Substance Abuse	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0
Boarding/Hotel (Child)	2.2	0.0	7.2	0.0	0.0	0.0	0.2	0.0
Child Care	0.0	0.0	7.1	0.0	0.0	0.0	19.9	0.0
Independent Living	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

F. Use of the Waiver

The waiver in Mississippi was used to help manage and address problems in particularly complex cases. Waiver funds were sometimes blended with those available from the county and the state through other programs to create the critical financial mass needed to make a difference. The waiver allowed county social workers to provide targeted, compassionate assistance that addressed acute, chronic, and often very basic needs of families and children on their caseloads.

Family Conferences

It was originally intended that Family Team Conferences would be held in all waiver cases. Staff shortages made this an unachievable objective nearly from the beginning of the demonstration. Only during the very early stages of the project, when both regional coordinators were able to devote themselves full time to the waiver, were many conferences held. Throughout this brief period, coordinators and county social workers reported a high level of satisfaction with the process and its effects.

An example of the use of family team conferencing involved a case of a Jones County teenager who had been in foster care for a year. The placement was made because of the violent relationship between the girl and her father. When the girl became pregnant she informed her father through a social worker for fear of his reaction. Family conferences were held with two goals, to explore the possibility of reuniting the girl with her father and to keep her from dropping out of school. The girl was a year older than her classmates; her father had been phlegmatic about her school attendance and she had fallen a grade behind. The conferences were attended by the school counselor and work-study teacher, the father and teenager, her social worker and the facilitator. The forum gave the father an opportunity to voice his concerns about his daughter, to learn about issues related to his daughter's pregnancy, and for both of them to learn more about child development and consider future practical considerations, such as child care. With assistance from other members of the group, a pragmatic plan was developed that addressed the pregnancy and health concerns and set graduation from high school as a central objective. The father and daughter remained together, with the father, more understanding and tolerant of his daughter, wanting her and her baby to remain with him.

Another example of the use of family conferences involved a case in Lamar County. It was the case of a five year-old boy at risk of being removed from his parents who lived in a mobile home. The parents, both described as mentally challenged, had very limited financial resources. While the family had no prior case history, there were significant safety concerns for the child due to the uninhabitable condition of the mobile

home. Part of the trailer had collapsed and the hot water heater and commode had fallen out and into the back yard. Electric wires coming into the home ran through water beneath the trailer. Waiver funds were added to county funds in order to purchase construction material, a new hot water heater, windows and a door. Through a family team conference the grandparents became involved, taking temporary care of the boy, while members of the family's church provided volunteer labor to rehab the trailer.

This case encapsulates how the waiver demonstration was originally envisioned by its designers. The flexibility of the waiver funds permitted them to be blended with county dollars to attain an amount sufficient to address the basic physical needs of the family. The family conference brought together a small community of people able and willing to assist the family. Through the funds and the help of others, both essential, the family remained intact and the pressing safety concerns for the child were addressed.

These and other examples of the use of family conferences at the start of the demonstration inevitably invite to the question: "What if?" What if the state had more fully staffed child protection offices in demonstration counties? What if it had immediately replaced the coordinator who left and had allowed the other to concentrate on waiver activities full time as originally intended? The complexity of many of the cases faced by Mississippi CPS workers and the limited resources available to them suggest that those who designed the project understood the potential it offered. However, the level of staffing in county CPS offices, even without the subsequent shortage crisis, undoubtedly made conferences in all waiver cases an unattainable goal.

Other Examples of Waiver Usage

Even without family conferences many examples surfaced during the demonstration of the positive use of the waiver. One use was supporting placement with relatives, a goal of the project. This typically involved situations in which relatives were available to provide care for children, as an alternative to a formal and costly foster care placement, but could not afford to do so. An example from **Jones County** involved a 24-year old single mother with four children aged 1 to 9; the youngest was a special needs infant. The young mother did not have a steady job and moved her children from one temporary home to another. Her children became wards of the court during a period of homelessness when she was unable to pay her rent and was thrown into the streets with her children. The woman had no relatives who could afford the costs of taking in all four children. As an alternative to separate foster care arrangements and at a cost considerably less than four board payments, waiver funds were used to pay a home maintenance fee to the woman's great grandmother who took all the children in.

Through the waiver, the four siblings were kept together and were placed with someone they knew rather than foster parents who were strangers, and at a savings of IV-E funds.

Homelessness was a factor in a number of the cases in the study population, as it was in an example from **Rankin County**. This case involved a two-parent family with an 11-year old son and a 14 year-old daughter. The father was disabled and unable to work and the family had a history of instability and frequent moves that led to serious behavioral and emotional problems for the children. The family became homeless when they were unable to pay their rent and were forced out of their home. The children were taken into custody and placed in foster care, but the placement situations were unreliable. Through the waiver, the family received short-term assistance to pay rent and the parents found new living arrangements that allowed the son to live with them once again. Waiver funds were also used to pay for tutoring services for the boy to help him catch up for missed time at school. A relative placement was secured for the daughter through waiver funds which paid for a bed and medication prescribed to address her bouts of severe anxiety. Finally, the mother was helped to find a job and the family attained a level of stability it had lacked for several years.

In **Holmes County** waiver funds were frequently used to help very poor families meet basic and home-related needs so that children did not have to be removed and placed in foster care. One such case involved a woman with four children between the ages 3 and 9. A boyfriend of the woman lived with her from time to time and was the father of the children, but he did not provide a steady source of support. A child protection case was opened on the family after the utilities had been turned off and there was little food in the house. To forestall the removal of the children until the situation could be more permanently addressed, waiver funds were used to purchase food and pay the utility bills so that power, heat and water could be restored to the home. The stop-gap nature of this case was replicated in a number of waiver cases, with waiver funds used to address immediate problems and provide at least temporary relief. For many of these families who lived in poverty, the level of need exceeded the capabilities of the demonstration that was often limited to putting a small patch on a deep wound.

Yazoo County, like Holmes, is a very poor county and the only demonstration county in the Mississippi Delta region. It has a high percentage of custody cases owing in part to the approach to child welfare taken by the county judge. The county CPS office used the waiver to provide basic sustenance and to support relative placements when possible. A case in point involved a single mother with a 6 year-old child who was physically abused by the mother and her boyfriend causing a serious injury. Through the waiver, an aunt, who lived in poverty herself, was able to take care of the child with

waiver funds that were used to help pay utility costs, buy food and provide childcare while the aunt looked for a job. By the end of the project, adoption proceedings were awaiting the aunt's employment.

Pearl River County also frequently used the waiver to meet basic needs of families on its caseload. In one such case, waiver funds were used to enable a single mother with a two year-old child reestablish house-keeping in a new apartment. The funds helped to purchase needed household goods and bedding supplies and to make the deposit necessary to have the electricity turned on. The woman's previous living situation had been unsafe for her child—an unheated, dilapidated house that was extremely filthy, with mattresses without sheets on the floor and back porch. The alternative to the new living situation was removing the child.

In all demonstration counties waiver funds were used to pay for school-related needs of children. An example of this in **Covington County** involved a 17 year-old boy who was struggling to complete high school. His mother, a single parent and an alcoholic, had a long history with the child protection agency and a long arrest record with periods of incarceration. Mother and son had not had a stable living situation for a number of years. Despite his circumstances, the boy soldiered on in an effort to finish school and hoped to go on to college. Waiver funds paid for basic school supplies that he was unable to buy that had hindered his academic performance.

An example of the use of the waiver in **Lamar County** involved the case of a young family with low functioning parents and three children ages 2, 7 and 9. The family had been homeless until a brother gave them a small mobile home to use. But the trailer was unsafe and did not have functioning sanitary or electrical systems. The children were taken into custody, removed and placed in foster care for neglect. The foster home was 100 miles from the parents; no closer foster placement could be found that would accept all three children. Waiver and county funds were used to purchase needed materials to repair the trailer. The parents took an active hand in the process and repaired the windows and fixed the leaking roof and had a septic tank installed. The county social worker, showing extraordinary commitment to her case family, laid the plumbing and did all the needed electrical work herself during her off hours. Once repairs were completed, the judge allowed the children to be released from paid foster care and reunited with their parents.

These are some examples of how the waiver was used to help children and families in Mississippi. There are two problems, however, in documenting whether the waiver accomplished its goals and achieved a level of family and child well-being

beyond what the traditional system achieves. The first has to do with the nature of cases confronting the child protection system, particularly the level of poverty and social psychological instability found in many CPS cases in the demonstration counties. Many of the families in the study population had very limited resources and limited prospects. Their needs were often substantial, multiple and complex, as illustrated in the examples above. While waiver funds might have been able to address immediate conditions that gave rise to current concerns of child safety, whether the level of intervention was sufficient to make a measurable difference for any length of time is unknown. The second problem has to do with a kind of organizational poverty, which in military terms might be described as a meager retaliatory force projected against a substantial threat. CPS staffing in the counties was marginal at best and service resources very limited by any measure. One of the practical consequences of this situation was that the availability of waiver funds for waiver cases permitted social workers, with limited resources available to them, to sometimes reserve non-waiver funds for other (control) cases. Thus, if the waiver was beneficial—as it can be shown to have been in individual cases—such benefits may be hidden in a statistical analysis since control cases may have benefited from the waiver as well.

The results of the impact analysis are presented in the next section of the report. The question for the impact study was not whether good effects were produced in individual instances or cases, but whether they were produced systematically and sufficiently for program goals to be achieved.

Part III

Impact Analysis

The impact analysis focuses on the comparison of outcomes for experimental and control cases. Outcomes of interest in title IV-E waiver demonstrations depend in part upon specific state goals around which the projects are constructed. At the same time there are overarching concerns in all such projects that pertain to child well-being and family integrity. In the Mississippi demonstration, specific project goals amounted to a restatement of the central concerns and objectives of the child protection system. The waiver was adopted because it was viewed as a possible better mechanism to achieve these goals, and the demonstration was an opportunity to test this idea.

Project goals in this demonstration involved nine major outcome areas and the intermediate outcome of increased provision of services. These were the focus of the impact analysis.

Intermediate Outcome

Increased/intensive provision of services

Project Goals

1. Less subsequent abuse and neglect
2. Increased family integrity
3. Reduced placements in foster care
4. Placement of children with relatives
5. Placement of siblings together
6. Placement of children near their families
7. Reduced movement among different foster settings
8. Reduced time in foster care
9. Other/general child well-being outcomes

Intensive Services Model

System changes under the Mississippi waiver were dependent on changes in the way families were approached by child welfare workers. Because the Mississippi waiver followed the intensive services model, the primary expectation was that patterns and levels of services to children and families would change in families and among children assigned to the waiver (the experimental group) as compared to control families and children. This was the *necessary precondition* of other expected effects of the waiver. Unless the service approach changed, other changes could not be expected to follow. The first task of the impact study, therefore, was to examine whether differences in services provided could be found between the experimental and control groups. These are sometimes referred to as “intermediate outcomes” and we may also refer to them as “service outcomes,” on the assumption that the delivery of services, particularly those that address fundamental needs of children and families, is itself an immediate positive outcome.

Challenges

It is possible that even if service changes were put into effect they might have been insufficient to change long-term outcomes for children and families. There are several reasons for this: First, poverty, with its attendant effects, is a major contributor to removal and placement of children outside the home, but the waiver could address only marginally the intense poverty of many families on the state’s caseload. Second, as pointed out in the previous section, most waiver counties experienced severe staff shortages during the project, and this could be expected to impinge on the effectiveness of the waiver. Third, low staffing and limited resources resulted in caseloads with a large proportion of custody cases. There are often limited options in such cases, which typically consist of families in dire conditions and with complex, multi-dimensional problems.

It is also possible that desired changes in outcomes could not always be detected. In assessing impact, time is an essential requirement, time to see if changes in intervention produce anticipated changes in outcomes. That is why child welfare demonstrations are 60-month projects and evaluations are longitudinal in nature. Effects, or changes in outcomes, take time to occur and to be recognized. Unfortunately, the Mississippi project was shorter than planned and squeezed at both ends. It was delayed starting, especially in six of the eight counties, and truncated before a full 60 months had elapsed. Overall, it was fully operational for less than half of its approved time.

Unit of Analysis

The *primary unit of analysis* for the research questions being analyzed in this section of the report is *the child*. For most experimental and control cases, the child (or children) of interest is (are) designated as “household child(ren)” in MACWIS. Other children are sometimes listed as “other members” of the household. These may be older siblings that are not included in the case but more often are children of the extended family, that is cousins of children in the case, aunts and uncles who are under 18 years of age, or unrelated children of other adults in the household. Such children are excluded from the analysis.

There is one exception to note about the unit of analysis. Analysis of service provision was primarily done at the family case level. Services might be provided to individuals within families, such as providing counseling to parents or school supplies to children. Services might also be provided to families as units, such as repair to their homes or help paying to have utilities turned on. And services might be provided to the case by funding a relative to care for a child. In the analysis of services, therefore, the unit in question is the family case.

In the following sections, we first examine service outcomes and, then, outcomes related to child safety and well-being and family integrity.

A. Services to Children and Families

Overall, *experimental (waiver) families were somewhat more likely to receive services than control families. Three out of four (74.6 percent) waiver group families received one or more purchased services compared with two out of three (67.0 percent) control families.* Table 17 shows the percent of waiver and control families who received specific types of purchased services.

The waiver primarily made a difference in the provision of assistance in four service categories: school supplies for children, housing-related needs, food, and other unmet personal needs. For example, 28.9 percent of waiver families received help with their housing, utility bills or home improvements compared with 19.3 percent of control families. Experimental-control group differences in other service areas, such as medical and therapeutic services, were small, although more often than not a slightly larger percentage of waiver families received services (such as child care, counseling, medication, and transportation). Experimental-control group differences may be more easily viewed in Figure 10.

Table 17. Percent of Experimental (waiver) and Control (non-waiver) Families who Received Specific Funded Services

<i>Services</i>	<i>Experimental %</i>	<i>Control %</i>
Clothing	48.3	49.2
School Supplies	16.8	11.8
Housing, Rent, Utilities	23.4	15.3
Home Improvement	5.5	4.0
Food Needs	15.0	10.9
Personal Hygiene	4.9	5.3
Transportation	6.4	5.0
Other Unmet Personal Needs	61.6	55.8
Medical	14.5	14.6
Unmet Medical Dentist	4.9	3.4
Prescription Drugs/Medication	13.9	11.2
Prescription Glasses/Hearing Aids	3.2	2.2
Psychological Evaluation	7.5	6.9
Counseling/Therapy/Treatment	15.6	13.4
Adult Substance Abuse Services	1.4	0.6
Emergency Shelter	10.7	11.2
Temporary Boarding	8.4	6.2
Foster home/facility	33.2	34.3
Independent living	21.4	20.2
Child care expenses	2.9	1.6
Any services	74.6	67.0
No funded services	25.4	33.0

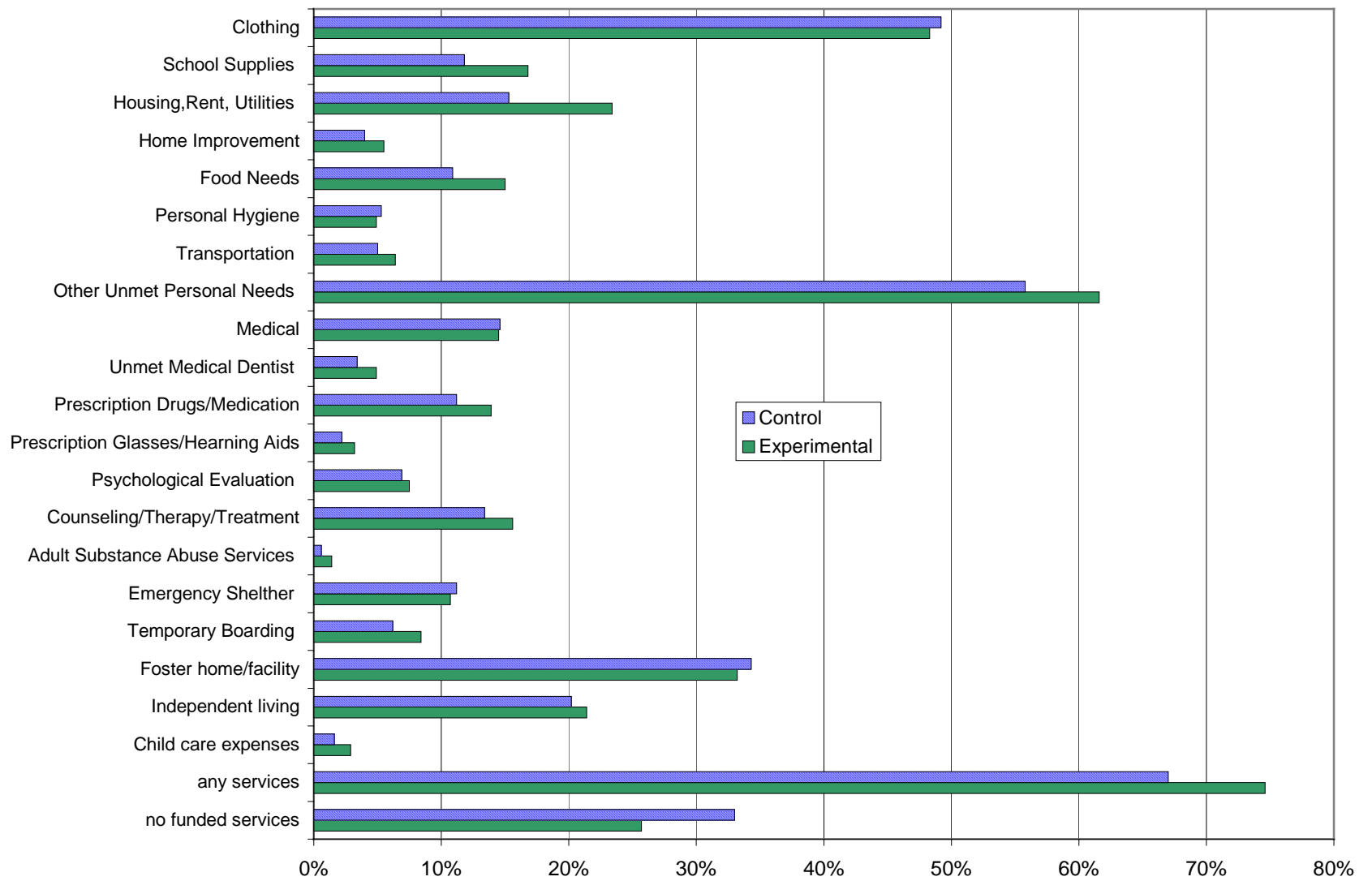


Figure 10. Percent of Experimental and Control Families who Received Specific Funded Services

Table 18 shows the percent of waiver and control families in each project county who received one or more purchased service during the demonstration. As can be seen, in three of the counties (Holmes, Jones and Rankin), waiver families were considerably more likely than control families to receive some purchased services. In three of the other counties (Lamar, Madison, and Yazoo) the waiver group service advantage was present but the difference was not great. In two counties, Pearl River and Covington, the two groups were essentially equivalent in the percent of families that received any services (and in Covington, in fact, the control group had a slight advantage). However, among those families in Covington County who received any services at all, waiver group families were provided more different types of services than were control families. For all eight counties combined, *waiver group families received an average of 3.2 different services compared with 2.8 for control families.*

Table 18. Percent of Waiver and Control Families who Received Any Services by County

Received any services	Experimental	Control
Covington	73.7	75.0
Holmes	75.0	68.4
Jones	86.7	70.6
Lamar	75.0	73.5
Madison	59.4	55.9
Pearl River	71.0	70.4
Rankin	74.2	51.7
Yazoo	85.7	81.3
Total	74.6	67.0

To repeat then, for the demonstration taken as a whole, experimental families were more likely to receive services than control families. Why differences between the two study groups were not greater than they were is discussed in the Cost Analysis in Part IV. What follows is a discussion of outcome findings.

B. Outcome Measures

1. Subsequent Abuse or Neglect (Measure of Safety)

For a child that has been in the child protection system, a basic measure of well-being and safety is finding whether or not maltreatment has recurred following the initial incident that brought the child into the system. Two measures of recurrence are frequently used and were available in this evaluation through data from MACWIS : 1) new reports of child abuse or neglect, and 2) findings that the new reports can be substantiated.

Recurrence of New Reports. The simplest measure of recurrence is the proportion of experimental and control children with new reports of child maltreatment. *A statistically significant difference was found between the two groups: 14.5 percent of experimental children had new incident reports compared to 19.7 percent of control children ($p=.004$).*

When considering specific types of maltreatment (see Figure 11), *a statistically significant difference was found in new reports of physical abuse: 3.7 percent of experimental children had new incident reports of physical abuse compared with 6.0 percent of control children ($p=.02$).* Differences between the two groups in new reports of neglect or sexual abuse were not significant, although the differences were in the hypothesized direction: 12.4 percent of experimental children had new neglect reports

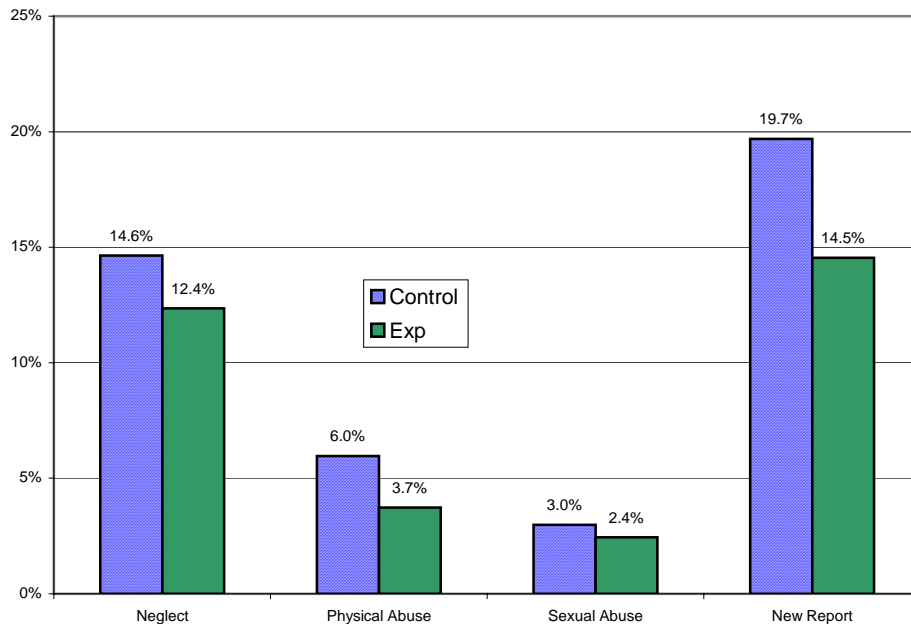


Figure 11. Percentage of Children with New Reports of Maltreatment.

compared to 14.6 percent of control children; and 2.4 percent of experimental children had new reports of sexual maltreatment compared to 3.0 percent of control children. The pattern seen in Figure 11 of more reports for control children was found for pre-existing cases and new cases, and for cases that had closed prior to the end of data collection as well as cases that remained open.

These findings, while statistically significant and programmatically important, are derived from a static analysis that treats all families the same, however long their follow-up period might have been. Families entered the study over a 42-month period, experienced cases of varying lengths, and presented different lengths of time for follow-up. Moreover, the phased-in nature of the demonstration meant that families in different counties entered the study over project periods of different lengths and with shorter and longer opportunities for follow-up. In addition, the mean number of days on which data was available (from the date of case opening through the end of data collection) was 670 for experimental children and 656 for control children, a difference of 12 days. This means that the experimental group had, on average, 12 more days during which to accumulate a maltreatment report. A collection of statistical techniques exists for addressing differences of these kinds called survival analysis. The simplest type of survival analysis is referred to as life table analysis.

Survival Analysis through Life Tables

Survival analysis as applied to the reoccurrence of reports of child abuse and neglect is concerned with the period of time until a new report occurs. The method considers both *whether* new reports occur and *how long it was* before they occurred. This time period is referred to as *survival time*, how long the family “survives” until a terminal event—in this case, a new accepted report—occurs. The main problem that arises in most evaluations of time-to-a-terminal-event is that tracking of cases is cutoff at the end of the study. Cases that do not experience the event before the study ends are called *censored cases* in survival analysis. We assume that some of the censored cases would have been observed to experience a report had data collection continued, but we cannot know which. Nonetheless, all cases, both censored and uncensored are used in computing life tables. Life tables use a particular technique to determine the number of cases *exposed to risk* of the terminal event while at the same time taking into account the censored cases. In this study, we have determined how many families were exposed to the risk of new CA/N reports while also considering families tracked to the very end of data collection with no new reports.

In constructing a life table the tracking time is divided into fixed intervals. For example, in this analysis 20-day intervals were chosen. The maximum tracking time was 45 months, which means there were 67 such intervals to consider. The rate of new reports in each interval can be thought of as a probability, with a value ranging from 0 (no terminal events) to 1 (every case experienced a terminal event). The probabilities can be accumulated until at the end of the last time interval to give a total probability.

Finally, in an experimental study, separate life tables can be constructed for the experimental and control groups. Then the survival times of cases in the experimental group can be compared to those in the control group to see if, as a whole, they are different. If the overall difference is great enough to be unlikely to have occurred by chance, we can assert that the experiment was a success.

The results of the survival analysis are shown in Figure 12. The analysis shows that the difference between experimental and control group children was distributed evenly over the follow-up period, that is, there was a consistent difference between waiver children and control children who received a traditional intervention. In the graph, the lower the line, the poorer the survival: *Control children experienced new reports sooner and, therefore, more reports during the follow-up period. The difference between survival rates of experimental and control group children was statistically significant ($p = .03$).*

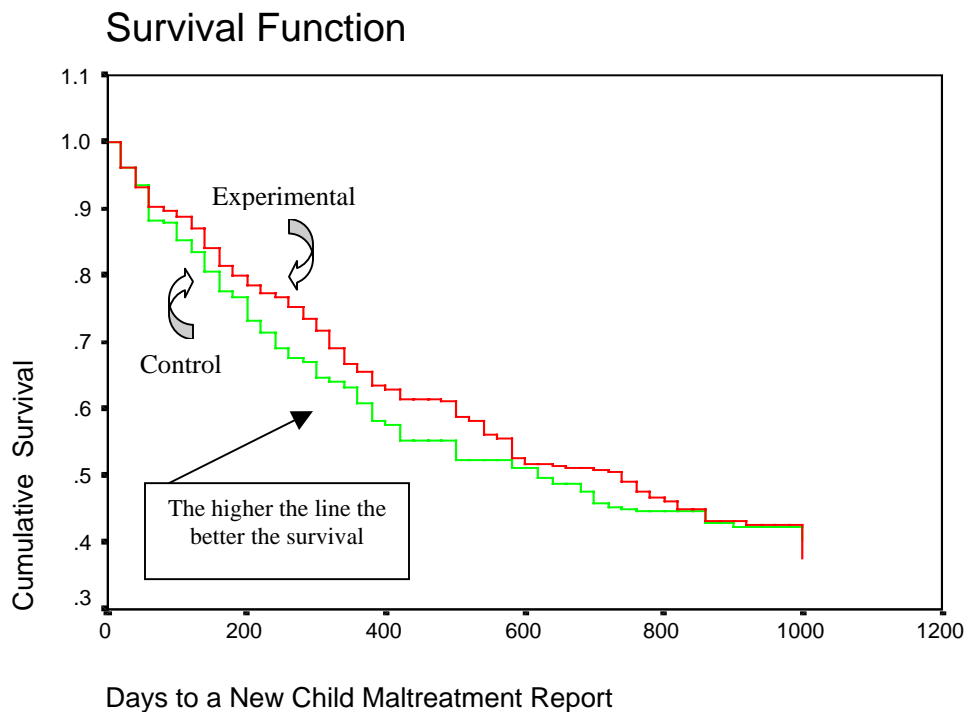


Figure 12. Survival of Experimental and Control Families until a New Child Maltreatment Report (20-Day Intervals)

Effects of Services on Recurrence. Among children in families that had received some services, the recurrence rate of new maltreatment reports was slightly higher (18.4 percent) than for children in families that did not receive services (16.2 percent). This is a finding we have seen in numerous studies. The provision of services, judged by social workers to be necessary and appropriate in an environment of limited resources, is more likely to be reserved for more serious cases. Thus, service provision is often a kind of proxy variable for family risk. Waiver services, however, appear to have made an impact. *Among children in families that received services, a statistically significant difference was found between the groups: 15.8 percent of experimental*

children in families that received waiver services had new incident reports compared to 21.4 percent of control children in families receiving services ($p=.04$). (See Figure 13.)

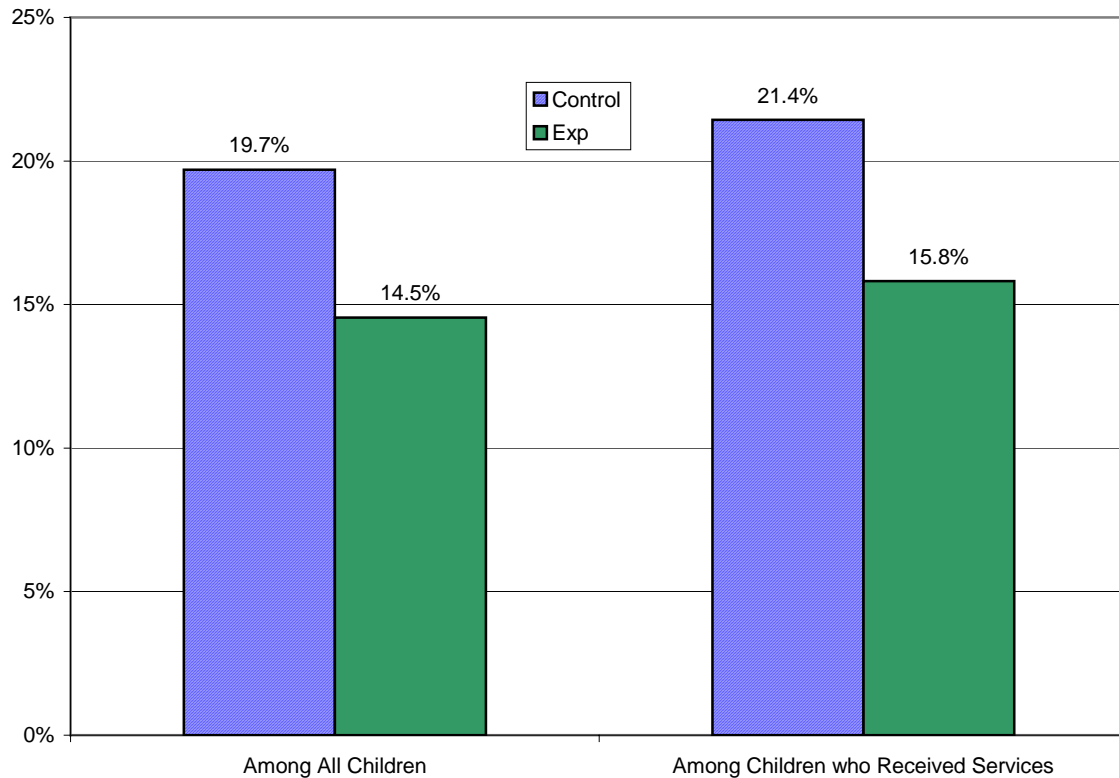


Figure 13. Percentage of Children with New Reports of Maltreatment – New Reports among All Children and Children who had Received Services.

Recurrence of Substantiated Reports. The difference between the study groups in new reports that were substantiated was not statistically significant, although in the hypothesized direction: 5.7 percent of experimental children had new substantiated reports compared with 6.2 percent of control children. While the difference was small, it was persistent and found among pre-existing cases as well as new cases and closed cases as well as in cases that remained open when data collection was suspended.

2. Children Remaining with their Parents—A Measure of Family Integrity

Altogether there were 1,549 children in the study population, 777 in experimental families and 772 in control families. At the time they were assigned to one of the two study groups, 402 (26.0 percent) of these children were in placement in foster settings outside their parental homes, including placement with relatives. This included 219

children in experimental families (28.2 percent of experimental families) and 183 children in control families (23.7 percent of control families). Of the other children ($n=1,147$; 74.0 percent of the study population) who were not in placement at the time of waiver assignment, 146 (about 1 in 8; 12.7 percent) were subsequently removed from their homes and placed in a foster care or relative care setting.

Experimental children who had not been removed from their parental homes prior to the demonstration were less likely to be removed and placed in an out-of-home foster care or relative care setting than control children; 9.1 percent of the experimental children were removed from their homes compared to 14.1 percent of control children.¹ This difference was statistically significant ($p=.005$). Figure 14 shows the percentage of experimental and control children who were in their homes at waiver assignment and remained there through the next 18 months (the period on which we have data from each of the eight demonstration counties). As these data indicate, waiver children who were not already in out-of-home placement prior to waiver assignment were more likely to remain in their parental homes than were similar control children.

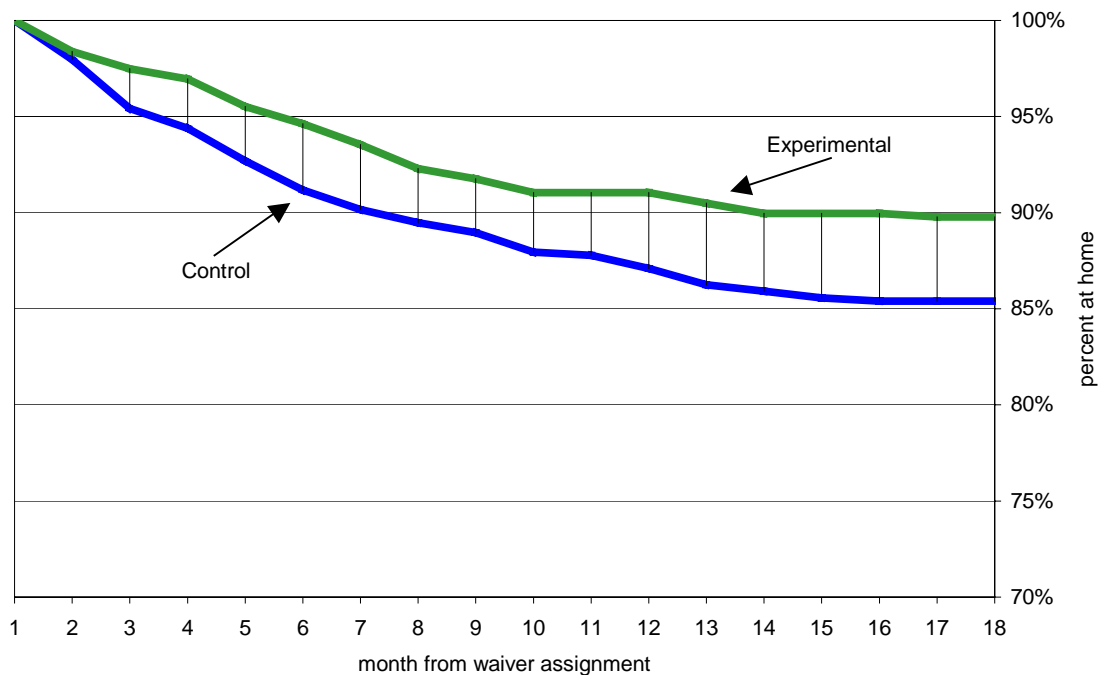


Figure 14. Percentage of Children by Month who Remained in their Homes (and Not Placed in Foster Care) Following Waiver Assignment.

¹ These figures do not include short-term emergency placements, which happened in virtually equivalent, small proportions for both groups.

The difference in placement rate between experimental and control children who were in their homes at waiver assignment was especially pronounced among children in pre-existing cases: 25.9 percent of the control children in these cases were subsequently removed from their homes compared to 13.4 percent of experimental children ($p=.01$).

Survival Analysis. A survival analysis was conducted on placement data. In this case the analysis examined the occurrence of out-of-home placement among children who were living in their parental homes at the time of waiver assignment. The analysis took into account whether placement occurred and how long it was before it occurred—that is, the survival time before the terminal event. The terminal event, in this case, was removal and placement outside the home in any kind of foster care setting.

The results of the survival analysis are shown in Figure 15, and, as before, the lower the line in the graph, the poorer the survival. The results indicate that *control children experienced out-of-home placement sooner and more often during the follow-up period. The difference between survival rates of experimental children and control children was statistically significant ($p = .025$).*

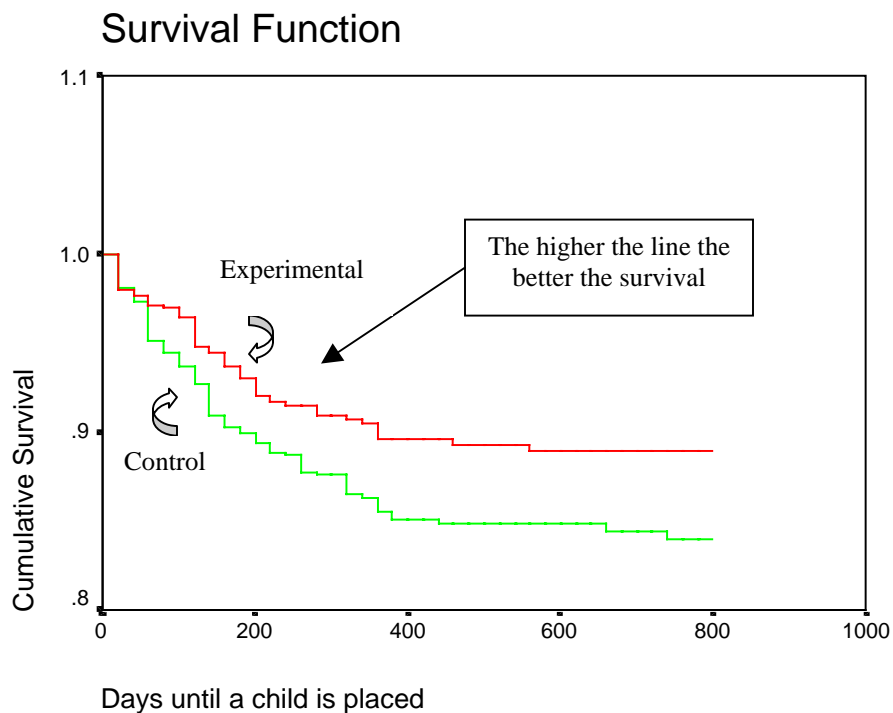


Figure 15. Survival of Experimental and Control Children until Out-of-Home Placement Occurs (20-day Intervals)

Effects of Services on Placement. *Children in families that received some services were more likely to be removed from their homes and placed in some kind of foster care setting. This was much more likely to happen among control children (57.2 percent) than experimental children (33.1 percent), a difference that was statistically significant ($p < .001$). (See Figure 16.) As noted above, the provision of services typically indicates a judgment by a social worker that a family is in greater need, and it is often an indication of a more complex and troublesome case. The relative difference in placement percentages between the two groups indicates that waiver cases were more likely to be given services that reduced the need for removal, a goal of the demonstration.*

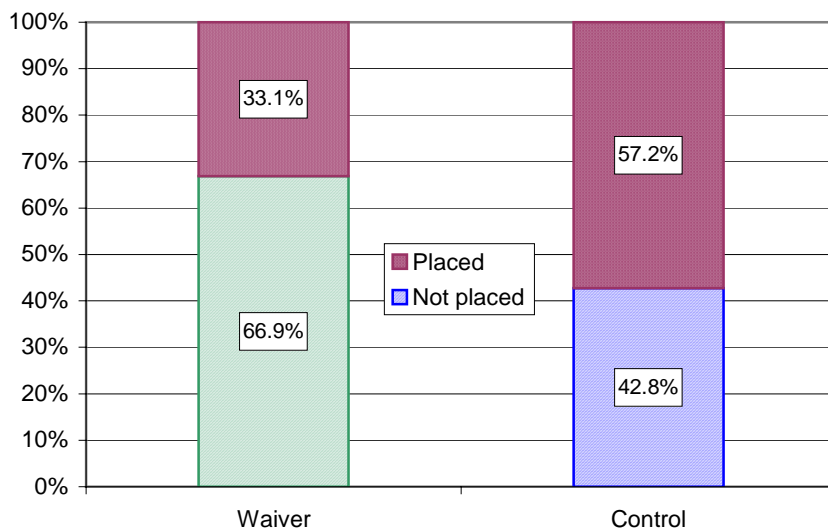


Figure 16. Percent of Children in Cases Receiving Services that were Placed or Not Placed Outside their Homes.

Reunification. Among all children in out-of-home placement during the demonstration, 22.4 percent of experimental children and 19.6 percent of control children were reunified with their parental families before the end of data collection. This included children who were in placement at the time of waiver assignment and those removed from their homes at a later point in time. Among children in placement at waiver assignment, 20.1 percent of experimental children were reunified compared with 17.5 percent of control children. Among children placed after waiver assignment, 31.0 percent of experimental children were reunified compared with 23.9 percent of control children. Considering only those children in placement in cases in which services were provided, 20.5 percent of experimental children were reunified compared with 15.9

percent of control children. Although each of these differences is in the hypothesized direction, none are statistically significant at $p < .05$. However they represent statistical trends that may have reached statistical significance had the demonstration continued.

The difference between experimental and control-group cases was statistically significant among one group of children: those whose cases were opened after the start of the waiver (that is, “new” cases). Of the children in this group who were placed, 29.7 percent of experimental children were reunited compared to 20.9 percent of control children ($p = .05$).

Among the counties in the demonstration, experimental children in Lamar County were the most likely to be reunified—52.9 percent of experimental children were reunited with their families compared with 30.4 percent of control children.

3. Reduced Placements in Foster Care

As noted above, there were 1,147 children in the demonstration who were not in out-of-home foster care settings at the time of screening for waiver group assignment. Of these, 558 were experimental children in families assigned to the waiver and 589 were children in control families. Figure 17 shows the percent of these children who were ever subsequently placed in particular types of out-of-home care. The first bar in the graph shows the overall percentages of these children who were placed in any out-of-home setting (14.1 percent of control children and 9.1 percent of experimental children, as seen above). The remaining bars show the percent ever placed in various out-of-home settings. As can be seen, for this population of children the percentage of control children in each type of placement setting was larger than the percentage of experimental children, reflecting the overall larger percentage of control children removed from their homes. This includes placement with relatives, placement in non-relative family foster care homes, and placement in group homes and institutions (including therapeutic foster settings).

It was a goal of the demonstration to try to keep families intact when possible by providing support services to prevent the need for removal. A secondary goal was to turn first to relatives if possible when removal could not be avoided rather than placing children with strangers. *Altogether, 8.0 percent of this group of experimental children spent some time with strangers (that is, not with their parents or other relatives), compared with 10.3 percent of control children.*

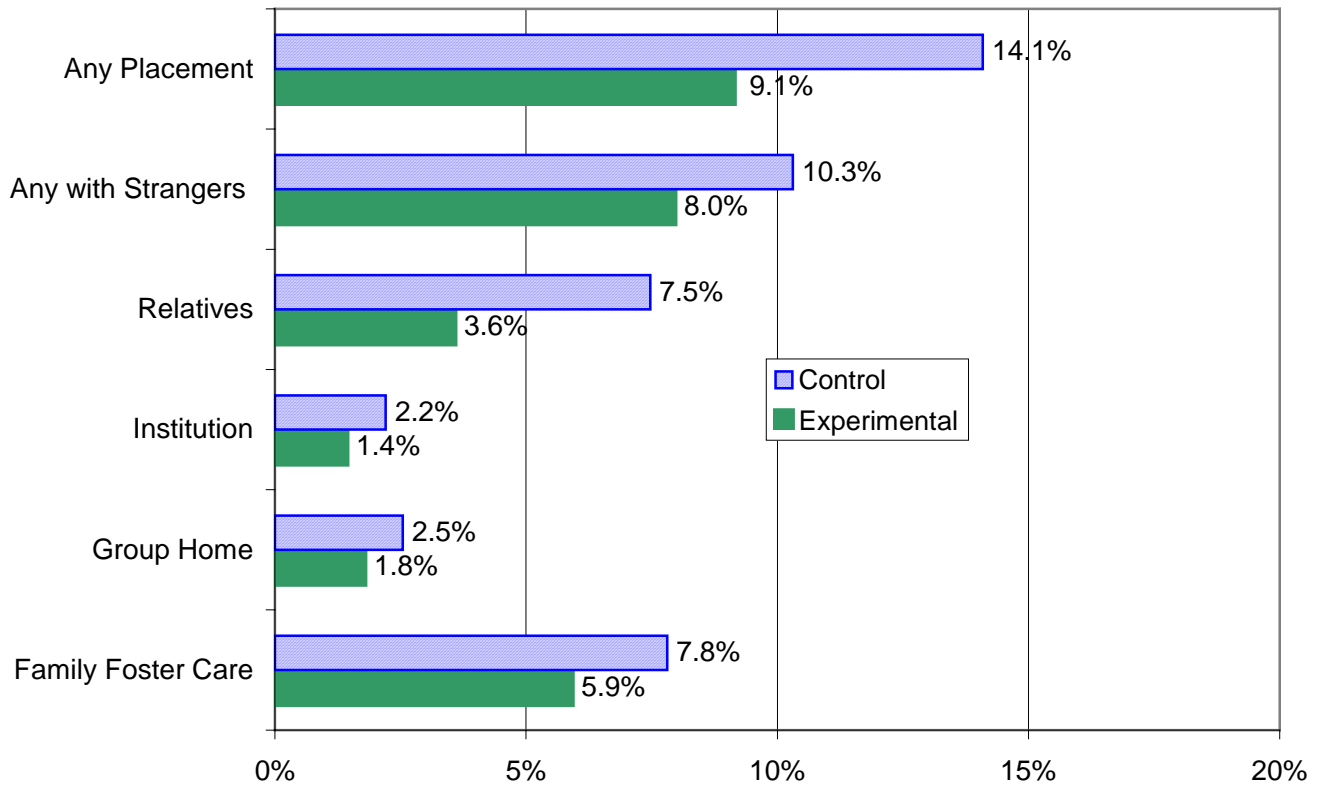


Figure 17. Percent of Children Placed Outside the Home in Various Foster Care Settings among Children who were in their Parental Homes at the Time of Waiver Assignment.

4. Placement with Relatives

Of the 146 children removed from their homes after waiver assignment, about 1 child in 3 (32.1 percent) was initially placed with a relative. This figure was virtually the same for experimental children (32.9 percent) as control children (31.4 percent). In this regard, there was not a statistically significant difference between the study groups, and this held for children in old cases (25.2 percent for experiments vs. 24.4 percent for controls), or new cases (40.6 percent for experimentals, 37.2 percent for controls), or in cases in which services were provided (31.6 percent for experimental children, 29.7 percent for control children). In each instance, nonetheless, the difference was in the hypothesized direction. Among the demonstration counties, the greatest use of relative placements for this group of waiver children was found in Holmes County (57.1 percent), Yazoo County (56.9 percent) and Madison County (55.6 percent). The least amount of relative placement was found in Jones (5.3 percent) and Rankin (9.1 percent) counties.

As a group, children in the study population who were in out-of-home placements spent 30.6 percent of this time with relatives. No statistically significant difference was found between experimental and control children in the total amount of time they spent in relative care, although the percent of time spent by control children was a little higher (32.3 percent) compared to experimental children (28.9 percent).

5. Placement of Siblings Together

If children are removed from their parental homes some measure of continuity and stability can be maintained if siblings are placed with the same provider. Being placed together increases the chance that siblings will remain in contact and will be able to maintain the emotional bonds of sisters and brothers. It was a goal of the demonstration, with the well-being of children in mind, to place siblings together in the same placement setting.

As we have seen, among children who were not in placement outside their homes at the time of waiver assignment, 146 were subsequently removed and placed. These children came from 80 different families. Of these families, 30 had more than one child placed during the demonstration. In all but one instance, siblings were placed together at least some of the time they were in foster care. More often than not (56.3 percent), however, siblings were not kept together all the time they were in out-of-home placement. The difference between experimental and control children was not statistically significant, although the percentage of control children always kept together was greater, 47.4 percent compared with 38.5 percent for experimental children.

6. Placement of Children Near their Families

There was virtually no difference between experimental and control children with respect to this goal. Both sets of children spent about half of their out-of-home placement time in the county of their family home (50.6 percent for experimental children and 49.5 percent for control children). This means that foster care settings were frequently at some distance from the parental home. This was true whether or not services had been provided to the family or whether the case pre-dated the waiver or was opened after the waiver had been implemented.

7. Movement of Children among Different Foster Providers

Another goal of the demonstration was to reduce the number of different foster providers utilized during each child’s tenure in placement. This is a measure of the stability of placements and an issue when considering the child’s well-being. Figure 18 shows the mean number of placements for the subset of children who were not in placement at the time of waiver assignment but removed from their homes subsequently. Differences between the experimental and control groups were not significant; in fact, they were nearly identical overall: the mean was 1.7 for experimental children and 1.8 for control children. The difference was slightly greater between the groups among cases that had closed by the end of data collection (1.4 for experimental children and 1.9 for control children), but it was still not significant. Among the counties, the mean number of providers for experimental children was greater in Rankin and Pearly River but, again, the differences were not statistically significant.

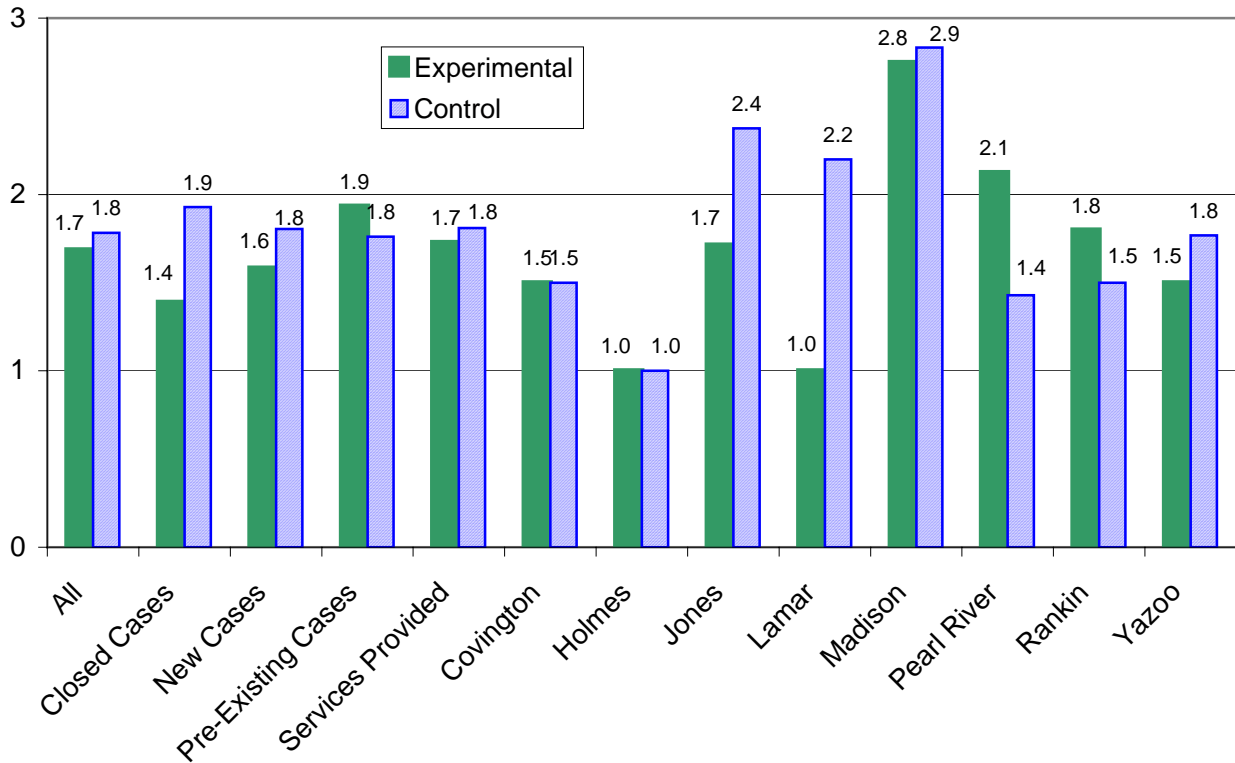


Figure 18. Mean Number of Placement Providers for Experimental and Control Children Placed after Waiver Assignment

8. Time in Foster Care and at Home

The mean number of open case days for experimental children during the demonstration was 409 and for control children it was 380. This includes all children in the study population whether or not their cases were closed at the time data collection ended. (Note: These numbers involve only the original cases that brought children into the study population and not any additional case days from a second case opening that may have occurred. In fact, only 6 experimental families and 6 control families had new case openings after their original case had closed and before data collection ended.)

The difference in the mean number of case days between the study groups primarily involved days spent at home. The mean number of days spent in non-emergency out-of-home placement was nearly identical (147 for experimental children and 145 for control children). The mean number of days spent at home was 263 for experimental children and 235 for control children. As a group, therefore, experimental children spent a little higher percentage of their total case days in their parental home than did control children (64.1 percent compared with 61.9 percent) and, correspondingly a little smaller percentage of their total case days in one or more placement settings (35.9 percent compared with 38.1 percent). See Figure 19.

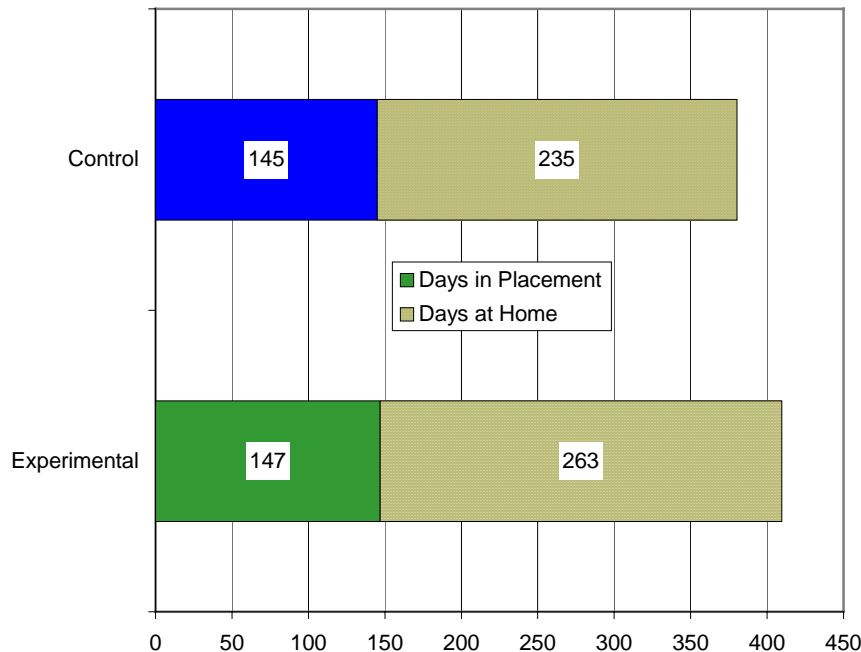


Figure 19. Mean Case Days Spent in Foster Care Placement and at Home among All Children in the Study Population

The above analysis includes all children in the study population. However, as was seen above in Research Question 2, there was a larger proportion of experimental children in out-of-home placement at the time of waiver assignment than control children, 28.2 percent vs. 23.7 percent, a difference of 4.5 percent. One way to reduce this bias from the analysis is to focus only on those cases in which there were no children already in placement at the time they were assigned to the waiver and entered the study population. For this subset of children, the mean number of open case days was 350 for those in the experimental group and 333 for those in the control group—as with the entire population, experimental cases stayed open a little longer. And, as before, this was accounted for by time spent at home, not in placement. In fact, the mean number of days in placement was less for experimental children (41) compared with control children (56). See Figure 20.

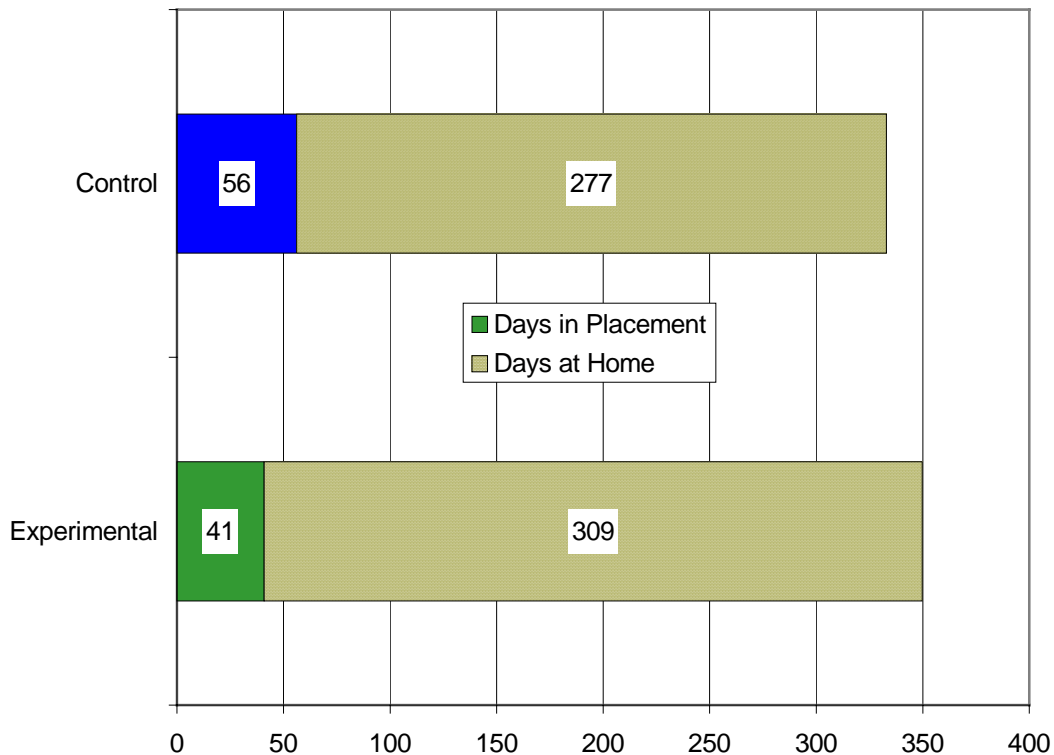


Figure 20. Mean Case Days Spent in Foster Care Placement and at Home among Children not in Placement at Waiver Assignment

9. Other Measures of Child Well-Being

The demonstration was truncated at a time critical to the collection of data from families and children. The process of obtaining feedback from families ended prematurely and with an insufficient critical mass to draw distinctions between the two study groups. Accordingly, there is no reliable data on the effect of the waiver on the wages of families or their reliance on public assistance, nor on the school performance of children or their emotional well-being.

We do, however, have data on the provision of health-related services to children in the study population. One of the goals of the demonstration was to increase such services through the waiver. The data indicates, however, that there was no difference between experimental and control children in this. In both groups 10 percent of the children received such services, which included medical and dental services, personal hygiene assistance, prescription drugs and other medication, and eye glasses.

C. A Summary of Impact Study Findings

1. Experimental families were somewhat more likely to receive services than control families. Three out of four (74.6 percent) waiver group families received one or more purchased services compared with two out of three (67.0 percent) control families. The difference primarily involved an increase in services to waiver families that addressed basic, everyday needs, such as school supplies for children and help with home repairs and utility payments.
2. A smaller percentage of experimental children had new maltreatment reports through the end of the data collection period than control children (14.5 vs. 19.7; $p=.004$). A survival analysis found that control children experienced new reports sooner and more often during the follow-up period.
3. Waiver services made a difference: 15.8 percent of experimental children in families that received waiver services had new incident reports compared to 21.4 percent of control children in families receiving services ($p=.04$).
4. Experimental children who had not been removed from their parental homes prior to the demonstration were less likely to be removed and placed in foster care or relative care settings than similar control children (9.1 percent vs. 14.1 percent; $p=.005$). This means that waiver children who were not already in out-of-home

placement prior to waiver assignment were more likely to remain in their parental homes than were similar control children. Results of a survival analysis confirmed that control children experienced out-of-home placement sooner and more often during the follow-up period.

5. Waiver services affected placement: Waiver children in families that received non-placement services were less likely to be removed from their homes and placed in foster care than control children in families that received services (33.1 percent vs. 57.2 percent; $p < .001$). This means that waiver families were more likely to be given services that reduced the need for removal.
6. No statistical difference was found between experimental and control group children in:
 - a. The percent of new reports that were substantiated.
 - b. The percent of children placed with relatives.
 - c. The percent of siblings placed in the same foster settings.
 - d. The percent of children placed in foster care near their parental homes.
 - e. The number of different foster settings in which children were placed.
 - f. The provision of medical or dental services to children.

Part IV

Cost Analysis

Introduction

Conducting a cost-effectiveness analysis on a suspended program is problematic. As noted earlier in this report, child welfare waiver demonstrations are longitudinal in nature for a reason. It is important to allow program changes time to produce desired outcomes. The underlying hypothesis of waiver demonstrations such as the one in Mississippi is that major changes in the lives of children and families can be more clearly seen and reliably interpreted in the longer run.

With respect to program costs this is particularly important. Because of the cost neutrality requirement of the demonstrations, there is an incentive not to overspend on providing alternative services. At the same time, there is corresponding incentive not to underspend on the initial case: Funds are available to be used for the benefit of children and families and a large number of these families, certainly in the Mississippi demonstration, have significant needs. And so, even if the need for placement is lessened, approaching services in a miserly fashion can only be expected to have consequences that run counter to the goals of the program. Thus, along with other outcomes, significant cost savings should be expected to be realized primarily in the longer run, for example through a reduction in costs associated with lowering the need for long-term foster care or because fewer waiver cases are returning to the child protection system once their cases have closed. In the case of the Mississippi waiver, the longer-term results are those that are lacking, and judgments about the relative cost effectiveness of this demonstration should be cautious at best. It is a bit like forming a judgment about the effectiveness of a 20-day anti-biotic that was taken for 12 days.

The analysis that follows has three parts. The first is an examination of the interaction between services (excluding placement) and funding sources. This is followed by an examination of cost effectiveness from two perspectives: one that

involves a comparison of program investment costs with longer-term and bottom-line costs, and the second which considers costs in relation to outcomes.

A. Services and Funding Sources

The waiver represented an important source of service funding during the demonstration period. Other sources included county funds (in some but not all counties), contributions from civic and church groups and individuals, the child's own funds (such as SSI or money from a parent's pension), state funds, regional funds, and federal family preservation funds. Regional funds consisted mostly of federal funds from other federal sources and are distributed to regions within the state, and to counties within regions, based on a formula that considers caseload size. State funds are similar to regional funds but are used for different types of services, such as medical costs not paid for by Medicaid and independent living funds.

The following two tables show the percent of expenditures for experimental families (Table 19) and control families (Table 20) in each service category that was paid for by different funding sources. As can be seen, for the experimental group waiver funds accounted for a relatively large share of the costs of certain services, such as housing (47.6 percent), home improvements (72.6 percent), food (57.6 percent) hygiene (40 percent) transportation (58.6 percent), and child care (87.0 percent). Overall, waiver funds accounted for one-fourth (25.4 percent) of all funds used to provide services to experimental families, and nearly half (48.1 percent) of all public money (county, plus state and regional funds).² This gives us some appreciation of the importance of the waiver for experimental families in these counties.

Tables 21 and 22 are similar to Tables 19 and 20, but the percentages are calculated by column so that this shows more clearly how each funding stream was used. We can see, for example, that 15.4 percent of waiver funds were spent on clothing and 20.6 percent on housing and home improvements (combined).

Tables 23 and 24 show the actual dollars from the various funding streams that were expended on specific services. With the availability of waiver funds, the total spent

² These tables and the ones that follow in this chapter that show funds expended for CPS services include only those costs recorded in MACWIS. Medicaid costs and board payments to licensed foster care providers are not included.

**Table 19. Percent of Services Funded through Various Sources
(Experimental Cases Only)**

Service	County	Donations	Child's Funds	State	Regional	Family Preserv	Waiver	Total
Clothing	1.9%	0.0%	12.9%	0.0%	57.8%	2.3%	25.1%	100.0%
School Supplies	2.8%	0.0%	36.4%	0.0%	31.7%	2.0%	27.1%	100.0%
Housing	5.1%	0.0%	37.4%	0.0%	5.5%	4.4%	47.6%	100.0%
Home Improvement	0.0%	0.0%	25.0%	0.0%	2.0%	0.4%	72.6%	100.0%
Food	5.9%	1.9%	0.0%	0.0%	21.5%	13.2%	57.6%	100.0%
Hygiene	0.0%	0.6%	25.7%	0.0%	31.9%	1.8%	40.0%	100.0%
Transportation	0.0%	0.0%	26.8%	0.0%	13.8%	0.8%	58.6%	100.0%
Other Needs	3.2%	3.8%	59.5%	0.0%	15.0%	1.2%	17.3%	100.0%
Medical	5.6%	0.0%	44.4%	37.2%	0.0%	4.7%	8.2%	100.0%
Dental	1.0%	0.0%	43.8%	32.8%	0.0%	0.0%	22.4%	100.0%
Prescription Drugs/Glasses/Hearing Aids	25.3%	0.0%	15.6%	22.4%	0.0%	8.4%	28.2%	100.0%
Psychological Evaluation	0.0%	0.0%	3.8%	0.0%	23.4%	0.0%	72.8%	100.0%
Counseling	26.7%	0.0%	10.1%	0.0%	25.9%	1.4%	36.0%	100.0%
Substance Abuse	66.0%	0.0%	0.0%	0.0%	0.0%	0.0%	34.0%	100.0%
Boarding/Hotel (Child)	26.8%	0.0%	40.0%	0.0%	6.7%	0.0%	26.5%	100.0%
Child Care	0.3%	0.0%	0.0%	12.7%	0.0%	0.0%	87.0%	100.0%
Independent Living	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	100.0%
Total	3.7%	2.2%	43.2%	4.1%	19.6%	1.7%	25.4%	100.0%

**Table 20. Percent of Services Funded through Various Sources
(Control Cases Only)**

Service	County	Donations	Child's Funds	State	Regional	Family Preserv	Waiver	Total
Clothing	1.2%	0.1%	23.9%	0.0%	71.6%	3.1%	0.0%	100.0%
School Supplies	12.7%	0.0%	29.9%	0.0%	54.4%	3.0%	0.0%	100.0%
Housing	3.6%	0.0%	76.2%	0.0%	13.7%	6.0%	0.0%	100.0%
Home Improvement	4.1%	2.3%	58.7%	0.0%	33.1%	1.8%	0.0%	100.0%
Food	6.8%	0.0%	0.0%	0.0%	75.1%	18.1%	0.0%	100.0%
Hygiene	0.0%	0.0%	33.6%	0.0%	14.2%	52.2%	0.0%	100.0%
Transportation	0.8%	0.0%	54.7%	0.0%	21.4%	0.5%	0.0%	100.0%
Other Needs	3.6%	5.5%	66.4%	0.0%	23.0%	1.2%	0.0%	100.0%
Medical	3.9%	0.9%	27.9%	65.6%	0.0%	1.6%	0.0%	100.0%
Dental	0.0%	0.0%	21.7%	78.3%	0.0%	0.0%	0.0%	100.0%
Prescription Drugs/Glasses/Hearing Aids	23.1%	0.0%	36.4%	39.6%	0.0%	0.9%	0.0%	100.0%
Psychological Evaluation	11.4%	0.0%	30.1%	0.0%	39.1%	19.3%	0.0%	100.0%
Counseling	22.0%	0.0%	38.6%	0.0%	39.3%	0.2%	0.0%	100.0%
Substance Abuse	90.9%	0.0%	0.0%	0.0%	9.1%	0.0%	0.0%	100.0%
Boarding/Hotel (Child)	7.9%	0.0%	88.9%	0.0%	3.2%	0.0%	0.0%	100.0%
Child Care	23.0%	0.0%	56.7%	16.1%	4.2%	0.0%	0.0%	100.0%
Independent Living	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	100.0%
Total	3.8%	2.9%	54.3%	7.4%	28.7%	2.3%	0.0%	100.0%

**Table 21 How Specific Sources of Funding were Utilized
(Experimental Cases Only)**

Service	County	Donations	Child's Funds	State	Regional	Family Preserv	Waiver	Total
Clothing	7.9%	0.0%	4.7%	0.0%	46.0%	20.9%	15.4%	15.6%
School Supplies	1.4%	0.0%	1.6%	0.0%	3.0%	2.1%	2.0%	1.9%
Housing	10.3%	0.0%	6.6%	0.0%	2.1%	19.3%	14.2%	7.6%
Home Improvement	0.0%	0.0%	1.3%	0.0%	0.2%	0.5%	6.4%	2.3%
Food	1.9%	1.0%	0.0%	0.0%	1.3%	9.2%	2.7%	1.2%
Hygiene	0.0%	0.0%	0.1%	0.0%	0.2%	0.1%	0.1%	0.1%
Transportation	0.0%	0.0%	0.6%	0.0%	0.7%	0.4%	2.3%	1.0%
Other Needs	47.7%	98.9%	77.4%	0.0%	42.8%	39.7%	38.3%	56.2%
Medical	2.5%	0.0%	1.7%	15.4%	0.0%	4.6%	0.5%	1.7%
Dental	0.9%	0.0%	3.4%	26.6%	0.0%	0.0%	2.9%	3.3%
Prescription Drugs/Glasses/Hearing Aids	3.5%	0.0%	0.2%	2.8%	0.0%	2.5%	0.6%	0.5%
Psychological Evaluation	0.0%	0.0%	0.1%	0.0%	1.7%	0.0%	4.2%	1.5%
Counseling	5.9%	0.0%	0.2%	0.0%	1.1%	0.7%	1.2%	0.8%
Substance Abuse	1.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%
Boarding/Hotel (Child)	16.9%	0.0%	2.2%	0.0%	0.8%	0.0%	2.5%	2.4%
Child Care	0.2%	0.0%	0.0%	6.0%	0.0%	0.0%	6.6%	1.9%
Independent Living	0.0%	0.0%	0.0%	49.2%	0.0%	0.0%	0.0%	2.0%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

**Table 22. How Specific Sources of Funding were Utilized
(Control Cases Only)**

Service	County	Donations	Child's Funds	State	Regional	Family Preserv	Waiver	Total
Clothing	5.5%	0.7%	7.6%	0.0%	43.1%	23.3%	0.0%	17.3%
School Supplies	4.8%	0.0%	0.8%	0.0%	2.8%	1.9%	0.0%	1.5%
Housing	8.5%	0.0%	12.6%	0.0%	4.3%	23.3%	0.0%	9.0%
Home Improvement	1.0%	0.7%	1.0%	0.0%	1.1%	0.7%	0.0%	0.9%
Food	2.0%	0.0%	0.0%	0.0%	2.9%	8.8%	0.0%	1.1%
Hygiene	0.0%	0.0%	0.1%	0.0%	0.1%	4.4%	0.0%	0.2%
Transportation	0.3%	0.0%	1.2%	0.0%	0.9%	0.3%	0.0%	1.2%
Other Needs	47.9%	97.5%	63.0%	0.0%	41.3%	26.8%	0.0%	51.6%
Medical	3.1%	1.0%	1.6%	26.9%	0.0%	2.2%	0.0%	3.0%
Dental	0.0%	0.0%	1.3%	34.4%	0.0%	0.0%	0.0%	3.3%
Prescription Drugs/Glasses/Hearing Aids	3.2%	0.0%	0.4%	2.8%	0.0%	0.2%	0.0%	0.5%
Psychological Evaluation	2.9%	0.0%	0.5%	0.0%	1.3%	8.1%	0.0%	1.0%
Counseling	7.0%	0.0%	0.9%	0.0%	1.7%	0.1%	0.0%	1.2%
Substance Abuse	1.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%
Boarding/Hotel (Child)	11.1%	0.0%	8.7%	0.0%	0.6%	0.0%	0.0%	5.3%
Child Care	1.4%	0.0%	0.2%	0.5%	0.0%	0.0%	0.0%	0.2%
Independent Living	0.0%	0.0%	0.0%	35.4%	0.0%	0.0%	0.0%	2.6%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	0.0%	100.0%

**Table 23. Amount of Funds Spent on Specific Services from Specific Funding Sources
(Experimental Cases Only)**

Service	County	Donations	Child's Funds	State	Regional	Family Preserv	Waiver	Total
Clothing	\$1,583	\$0	\$10,703	\$0	\$47,999	\$1,910	\$20,824	\$83,018
School Supplies	\$283	\$0	\$3,634	\$0	\$3,161	\$195	\$2,701	\$9,973
Housing	\$2,061	\$0	\$15,134	\$0	\$2,226	\$1,762	\$19,249	\$40,432
Home Improvement	\$0	\$0	\$3,002	\$0	\$239	\$50	\$8,724	\$12,016
Food	\$374	\$120	\$0	\$0	\$1,368	\$842	\$3,667	\$6,371
Hygiene	\$0	\$3	\$130	\$0	\$161	\$9	\$202	\$505
Transportation	\$0	\$0	\$1,422	\$0	\$734	\$40	\$3,107	\$5,302
Other Needs	\$9,501	\$11,467	\$178,081	\$0	\$44,729	\$3,628	\$51,774	\$299,181
Medical	\$502	\$0	\$4,001	\$3,356	\$0	\$421	\$739	\$9,019
Dental	\$175	\$0	\$7,709	\$5,785	\$0	\$0	\$3,950	\$17,619
Prescription Drugs/Glasses/Hearing Aids	\$691	\$0	\$425	\$612	\$0	\$229	\$770	\$2,728
Psychological Evaluation	\$0	\$0	\$300	\$0	\$1,825	\$0	\$5,680	\$7,805
Counseling	\$1,168	\$0	\$440	\$0	\$1,134	\$61	\$1,575	\$4,377
Substance Abuse	\$194	\$0	\$0	\$0	\$0	\$0	\$100	\$294
Boarding/Hotel (Child)	\$3,359	\$0	\$5,024	\$0	\$846	\$0	\$3,320	\$12,549
Child Care	\$35	\$0	\$0	\$1,309	\$0	\$0	\$8,970	\$10,314
Independent Living	\$0	\$0	\$0	\$10,695	\$0	\$0	\$0	\$10,695
Total	\$19,926	\$11,590	\$230,007	\$21,757	\$104,421	\$9,147	\$135,351	\$532,199

**Table 24. Amount of Funds Spent on Specific Services from Specific Funding Sources
(Control Cases Only)**

Service	County	Donations	Child's Funds	State	Regional	Family Preserv	Waiver	Total
Clothing	\$957	\$100	\$18,882	\$0	\$56,459	\$2,442	\$0	\$78,840
School Supplies	\$841	\$0	\$1,990	\$0	\$3,613	\$200	\$0	\$6,644
Housing	\$1,483	\$0	\$31,233	\$0	\$5,620	\$2,441	\$0	\$40,777
Home Improvement	\$175	\$96	\$2,479	\$0	\$1,397	\$75	\$0	\$4,222
Food	\$347	\$0	\$0	\$0	\$3,808	\$918	\$0	\$5,073
Hygiene	\$0	\$0	\$298	\$0	\$126	\$464	\$0	\$889
Transportation	\$44	\$0	\$3,068	\$0	\$1,202	\$28	\$0	\$4,342
Other Needs	\$8,374	\$13,057	\$156,471	\$0	\$54,121	\$2,807	\$0	\$234,830
Medical	\$547	\$132	\$3,886	\$9,118	\$0	\$226	\$0	\$13,909
Dental	\$0	\$0	\$3,234	\$11,651	\$0	\$0	\$0	\$14,885
Prescription Drugs/Glasses/Hearing Aids	\$561	\$0	\$888	\$965	\$0	\$22	\$0	\$2,436
Psychological Evaluation	\$500	\$0	\$1,325	\$0	\$1,720	\$850	\$0	\$4,395
Counseling	\$1,222	\$0	\$2,142	\$0	\$2,181	\$10	\$0	\$5,555
Substance Abuse	\$250	\$0	\$0	\$0	\$25	\$0	\$0	\$275
Boarding/Hotel (Child)	\$1,932	\$0	\$21,710	\$0	\$783	\$0	\$0	\$24,425
Child Care	\$244	\$0	\$600	\$170	\$45	\$0	\$0	\$1,059
Independent Living	\$0	\$0	\$0	\$11,978	\$0	\$0	\$0	\$11,978
Total	\$17,478	\$13,386	\$248,205	\$33,882	\$131,100	\$10,483	\$0	\$454,534

on the experimental group for services exceeded the total spent on the control group. We would expect this in a project in which dollars formerly available only to pay for placement costs could be used for a variety of other services that would, among other benefits to families and children, prevent or limit placement. What is also interesting in these tables, however, is that the difference in service expenditures between the two groups (\$532,199 less \$454,534 = \$77,665) was considerably less than what is accounted for by waiver expenditures on experimental households (\$135,351).

A better way to appreciate the funding dynamics at work is to look at mean costs expended on experimental and control cases (since the number of cases in the two groups was not identical; 346 experimentals and 321 controls). These mean costs (excluding amounts for out-of-home foster and boarding care costs) are shown in Table 25. The average spent for non-placement services for experimental cases from all revenue sources was \$1,519 compared with \$1,337 for control families. Considering only public sector funding streams the amount was \$839 for experimental cases and \$608 for control cases.

Table 25. Mean Expenditures Per Case on All Services (Excluding Foster Care) by Funding Source

	Experimental Cases	Control Cases	Difference
Public Revenue Sources			
County	\$57.59	\$54.45	\$3.14
State	\$62.88	\$105.55	-\$42.67
Regional	\$301.79	\$408.41	-\$106.62
Family Preservation	\$26.44	\$32.66	-\$6.22
Waiver	\$391.19	0	\$391.19
Total from public sources	\$838.90	\$607.50	\$231.40
Private Revenue Sources			
Donations	33.31	40.69	-7.38
Child's Funds	646.5	688.44	-41.94
Total from private sources	679.81	729.12	-49.32
Total	\$1,518.71	\$1,336.62	\$182.08

While we would expect more to be spent on such services for waiver families, the difference is less than the amount of waiver funds expended (\$231 VS. 391). This is because more was spent on average from other public sources to pay for services for control families. Across all eight counties, \$149 more was spent on average on control cases than waiver cases from state and regional monies. This confirms what evaluators heard anecdotally, that the availability of waiver dollars allowed counties to spend more from other sources on control families. In a resource-poor service environment this is a natural occurrence (and one that may happen with some regularity in demonstration projects). It means that the demonstration was used to benefit not just families in the experimental group but those in the control group as well. To be sure, more was still spent for non-placement services for experimental cases because of the waiver than for control cases, but not as much more as might have been expected. It also means that any positive impact realized by the project was probably greater than what could be detected because of this “positive contamination.”

Counties varied in how they used the waiver and how they integrated it into their child protection system. This can be seen in Table 26, which shows mean expenditures for non-placement services for experimental and control cases by county and by funding source. As can be seen there were substantial differences both in total mean expenditures for services and expenditures by funding source. The bottom portion of the table shows the differences in mean amounts (experimental group costs minus control group costs) and differences here reflect probable differences in how the waiver and other funding streams were utilized by the counties, for it is unlikely these differences can be all or even mostly accounted for by differences within caseloads. In Jones County, for example, the mean expenditures involving regional funds were considerably greater for the experimental group than the control group. On the other hand in Holmes, Lamar, Madison, Pearl River, and Yazoo counties the opposite was the case. In these latter counties mean expenditures for services with regional funds favored control cases. One explanation for this was mentioned above, that in certain counties the waiver was viewed as adding to the total pool of service funds available for the county, and since waiver funds were restricted to experimental families, regional dollars were utilized more for other families including those in the control group. At the same time, it would appear that county and regional funds were sometimes used in combination with waiver funds to provide a critical mass sufficient to make a difference in a subset of families. We know from anecdotal comments during interviews that funding streams were blended together sometimes to pay for basic necessities families needed, some of which were beyond the capacity of individual funding streams. This latter explanation may also apply to differences among counties in the use of county and state funds.

**Table 26. Mean Expenditures for Non-Placement Services
by County and by Funding Source**

Experimental Cases (n)	Funding Source					
County	County	State	Regional	Fam Pres	Waiver	Total
Covington (19)	\$50	\$49	\$266	\$0	\$587	\$952
Holmes (20)	\$158	\$0	\$124	\$146	\$251	\$677
Jones (45)	\$192	\$239	\$812	\$22	\$930	\$2,195
Lamar (36)	\$68	\$0	\$254	\$47	\$283	\$653
Madison (32)	\$13	\$7	\$96	\$19	\$93	\$229
Pearl River (100)	\$34	\$63	\$215	\$2	\$301	\$614
Rankin (66)	\$10	\$34	\$270	\$35	\$396	\$745
Yazoo (28)	\$10	\$44	\$315	\$14	\$285	\$668
All Waiver Cases (346)	\$58	\$63	\$302	\$26	\$391	\$839
Control Cases						
County	County	State	Regional	Fam Pres	Waiver	Total
Covington (12)	\$58	\$0	\$252	\$0	\$0	\$310
Holmes (19)	\$65	\$0	\$416	\$151	\$0	\$633
Jones (51)	\$87	\$437	\$679	\$17	\$0	\$1,220
Lamar (34)	\$124	\$2	\$378	\$106	\$0	\$661
Madison (34)	\$69	\$7	\$229	\$0	\$0	\$305
Pearl River (81)	\$48	\$33	\$339	\$27	\$0	\$449
Rankin (58)	\$9	\$98	\$248	\$12	\$0	\$367
Yazoo (32)	\$3	\$93	\$723	\$7	\$0	\$836
All Control Cases (321)	\$54	\$106	\$408	\$33	\$0	\$608
Difference (Experimental mean less Control mean)						
County	County	State	Regional	Fam Pres	Waiver	Total
Covington	-\$9	\$49	\$14	\$0	\$587	\$642
Holmes	\$92	\$0	-\$292	-\$5	\$251	\$44
Jones	\$105	-\$198	\$133	\$5	\$930	\$975
Lamar	-\$56	-\$2	-\$124	-\$59	\$283	-\$7
Madison	-\$56	\$0	-\$133	\$19	\$93	-\$76
Pearl River	-\$14	\$30	-\$124	-\$25	\$301	\$166
Rankin	\$1	-\$63	\$23	\$23	\$396	\$378
Yazoo	\$8	-\$49	-\$408	\$6	\$285	-\$168
All	\$3	-\$43	-\$107	-\$6	\$391	\$231

B. Cost Effectiveness

Two separate designs for determining the cost effectiveness of the Mississippi waiver demonstration were employed. The first involved a comparison of program investment costs with longer-term and bottom-line costs. The second involved examining costs in relation to outcomes. (Given the truncated nature of the demonstration, the design of these may be of greater general interest than the data analysis.)

1. Investment and Longer-Term Costs

Design. The goal of this phase of the cost analysis sought to determine the relationship between the initial financial investment in waiver cases and longer-term and bottom-line CPS costs that might be associated with them through an extended follow-up period. It is an appropriate analysis for a longitudinal demonstration project, but in the present case was limited by the suspension of the demonstration.

Two periods of time were distinguished: Period 1 involved the time of initial contact with the family, that is from the point of waiver assignment through the end of the case when CPS intervention was discontinued. Period 2 began the day after period 1 ended and extended throughout the follow-up period and until data collection ended. Costs associated with period 1 included any service costs incurred (these are the costs included in the previous analysis) plus any costs associated with out-of-home foster care. Costs associated with period 2 were incurred only if there was a subsequent maltreatment report made on the family during the follow-up period and the county CPS office again became involved with the family and children.

If a program is successful in keeping cases from coming back into the system you would expect to find lower period 2 costs. Costs during period 1 represent the system's investment—costs associated with services provided when a case initially entered the system. If the service intervention had a preventative effect you would expect to find a reduction in period 2 costs because fewer cases would reenter the system. If costs from both periods are added together you get total system costs.

The design for the study, which involved the aggregation of costs for all experimental and control cases in the study population during the two periods, can be understood with reference to the following matrix.

	Period 1	Period 2	Total
Experimental families	<i>a</i>	<i>b</i>	<i>c</i>
Control families	<i>x</i>	<i>y</i>	<i>z</i>
<i>Difference</i>			<i>z-c</i>

Mean costs associated with experimental families are represented by “*a*” for period 1 and “*b*” for period 2. The total of these costs is represented by “*c*”. Similarly, mean costs associated with the sample of control families are represented by “*x*” for period 1 and “*y*” for period 2. The total of these costs is represented by “*z*”. The final cell contains the bottom line: the difference between total mean costs incurred by experimental cases (*n*=346) and control cases (*n*=321).

Data. Table 27 shows the cost data for experimental and control cases for the two time periods. It may be useful to go through each cell individually.

Table 27. Mean Costs Associated with Experimental and Control Cases during the Initial Case (Period 1) and Subsequent Follow-up (Period 2)

Service Costs	<i>Period 1</i>	<i>Period 2</i>	<i>Total</i>
Experimental	\$838.90	\$0.76	\$839.66
Control	\$607.50	\$2.80	\$610.30
Placement Costs			
Experimental	\$2,710.24	\$187.21	\$2,897.45
Control	\$2,540.16	\$49.90	\$2,590.06
Total Costs			
Experimental	\$3,549.14	\$187.97	\$3,737.12
Control	\$3,147.66	\$52.70	\$3,200.36

Period 1. The figure shows that mean service (non-placement) costs for period 1 were \$838.90 for experimental families and \$607.50 for control families. As noted above, a difference between the two groups in this direction was expected since the waiver allowed IV-E funds to be provided with flexibility on experimental families.

Mean costs associated with foster care were \$2,710 for experimental cases and \$2,540 for control cases. Total period 1 costs for experimental families averaged \$3,549.14 compared to \$3,147.66 for control families.

Period 2. Period 2 costs could only be incurred if there was a subsequent maltreatment report after period 1 that brought the case back into the system. As noted earlier there were only 12 cases altogether that returned to the child protection system during the follow-up period. When total costs associated with these cases are averaged across all cases in the study population, the mean costs for experimental cases was 187.97 and for control cases it was \$52.70.

Total Costs. When costs for both periods are combined and all costs aggregated, the bottom line is that costs for experimental families averaged \$3,737 while total mean costs for control families was \$3,200. These results are not in the expected direction. However, there are problems with the figures for both study periods.

As has been noted, the experimental group included a larger proportion of cases with children already in placement at the time of waiver assignment (28.2 percent vs. 23.7 percent). The data in Table 28 removes this bias by considering only those cases

Table 28. Mean Costs Associated with Experimental and Control Cases in which Children were not in Placement at Waiver Assignment during the Initial Case (Period 1) and Subsequent Follow-up (Period 2)

Service Costs	<i>Period 1</i>	<i>Period 2</i>	<i>Total</i>
Experimental	\$451.03	\$0.87	\$451.90
Control	\$329.47	\$4.49	\$333.96
Placement Costs			
Experimental	\$498.24	\$52.70	\$550.94
Control	\$793.45	\$34.17	\$827.61
Total Costs			
Experimental	\$949.27	\$53.57	\$1,002.84
Control	\$1,122.92	\$38.65	\$1,161.58

in either group in which there were no children in placement at the time of waiver assignment. The data is from 216 experimental cases and 200 control cases, 62 percent of all cases in each group. As will be noticed, mean costs associated with service costs during period 1 were greater for the experimental group, as would be expected. At the same time, mean costs associated with placement costs were

greater for the control group, as hypothesized. Total costs during period 1, the initial case period, were greater for the control group by \$173.65 per case, 15 percent more than mean costs for the experimental group.

Mean CPS-related costs incurred by experimental and control families during period 2 were low and heavily affected by the truncated nature of the demonstration. Period 2 costs could only be incurred if there was a subsequent maltreatment report after period 1 that brought the case back into the system. As noted earlier there were only 12 cases altogether that returned to the child protection system during the follow-up period. Such a small number of cases, of course, are subject to severe skewing based on costs associated with one or two families and provide no useful information, unfortunately.

However, based on impact results that found a reduction in subsequent maltreatment reports we have reason to hypothesize that period 2 costs for experimental children would be lower than those for control children if an adequate follow-up were conducted. In addition, placement avoidance among experimental children found in the impact study also suggests that period 2 costs associated with these children could be expected to be lower than costs for control children. (In a recent longitudinal analysis of Missouri data, we found that among families with a prior history with CPS but no prior removal of a child, 15.0 percent had one or more children removed over a five-year follow-up period. Among families with a prior history and one or more prior removals, 36.8 percent had a child removed over the same period.)

2. Costs vs. Outcomes

The issue for cost effectiveness is not simply the relative cost of doing things differently, but the cost of achieving desired outcomes using different approaches to CPS. As just noted, the impact analysis revealed two significant outcomes of the demonstration: a reduction in subsequent maltreatment reports and a reduction in out-of-home placements among children not in placement at the time of waiver assignment. We can examine program costs in relation to these outcomes.

Recidivism. One of the key goals of CPS is to reduce recidivism or the recurrence of future maltreatment reports. We know from the impact study that the waiver demonstration was somewhat successful at doing this. The recurrence of new reports of maltreatment after contact with CPS had ceased was found to be 19.7 percent for control children and 14.5 percent for experimental children. Stated positively we can say that for every 100 cases the goal of recurrence avoidance was achieved in 85.5 of the experimental cases compared with 80.3 of the control cases through the shortened follow-up period. What were the costs of achieving this outcome?

The following table shows cost and case length data for the children in the two study groups. (Note that data in the previous two tables (Table 27 and 28) was based on cases (families) not children). As can be seen both the mean cost and the mean case length were greater for experimental children. These, of course, may not be unrelated. The longer a case is open, the longer the period during which costs may accumulate. Costs shown in the table include costs for purchased services and costs for foster care. They do not include administrative costs, which, based simply on case length and nothing else, we might assume also to be greater for experimental children. (It was an imbalance in administrative costs between the two groups that produced the cost neutrality problem that led to the suspension of the waiver.)

Table 29. Costs and Case Length of Children in the Study Population

	Experimental	Control	<i>difference</i>
Children	777	772	5
Case Days	318,452	293,912	24,540
Mean Case Days	409	380	29
Placement Costs	\$937,744	\$815,391	\$122,352
Service Costs	\$288,725	\$195,008	\$93,717
Total Costs	\$1,226,469	\$1,010,400	\$216,070
Cost per Child	\$1,578	\$1,309	\$270

Disregarding administrative costs, to which the evaluators did not have full access, we could conclude, from combining data in Table 29 with findings on maltreatment reports, that *it cost an average of \$270 more per child to produce a reduction of 5.2 percent in subsequent reports of maltreatment.*

As noted in the previous analysis, the difference in placement costs between the two study groups was affected by differences in the proportion of children already in placement at the time of waiver assignment. We might expect that this difference would have shrunk and the two groups become more equivalent in this regard had the demonstration continued, but we will never know. An indication of what might have happened was seen above in the difference between the figures in Table 27 and Table 28. We can see this again in the analysis that follows.

Placement Avoidance. The impact analysis of placement avoidance was limited to the subset of children not in placement at the time they were assigned to the waiver, 62 percent of experimental and control children. Program costs and case length data for these children are shown in the following table (Table 30). Again we see that the cases of experimental children stayed open somewhat longer (17 days). And, again, mean (non-placement) service costs were higher for experimental children (\$196 vs. \$133). However, fewer were placed in foster care, and mean placement costs were lower for experimental children than control children (\$221 vs. \$321). The savings on placement more than offset the extra costs for services by an average of \$37.

Table 30. Costs and Case Length of Children not in Placement at Waiver Assignment

	Experimental	Control	<i>difference</i>
Children	488	495	-7
Case Days	152,780	146,689	6,091
Mean Case Days	313	296	17
Placement Costs	\$107,619	\$158,690	-\$51,071
Service Costs	\$95,888	\$65,895	\$29,993
Total Costs	\$203,507	\$224,585	-\$21,078
Service Cost per Child	\$196	\$133	\$63
Placement Cost per Child	\$221	\$321	\$100
Total Cost per Child	\$417	\$454	-\$37

Again disregarding administrative costs, we can conclude, from combining data in Table 30 with findings on placement avoidance, that *it cost an average of \$37 less per*

child using the approach tested in the demonstration to produce a reduction of 5.0 percent in placement in foster care during the shortened follow-up period, this despite all the limitations and problems encountered in implementing and operating the program. And, as above, we would be more comfortable predicting that future savings would have increased not decreased given the findings on maltreatment reports and placement data. Whether these savings would offset higher administrative costs due to the length of waiver cases (and perhaps, greater worker effort) cannot be known. This is particularly true in an environment in which the determination of IV-E eligibility appears to be problematic.

Part V

What If?

The state faced a number of significant challenges in implementing and operating its IV-E child welfare waiver demonstration. These included a lengthy delay at the start of the project and serious staffing problems throughout. Neither of these was within the control of administrators of the state agency, but both had a crippling effect on the project. But the expressed reason the waiver was abandoned had to do with cost neutrality problems, specifically, administrative cost overruns.

The project's cost neutrality limit for experimental cases (for maintenance and administrative costs combined) was determined by first determining mean title IV-E costs for control group cases and then multiplying this average by the number of experimental cases. While this simple formula did not appear to be a problem at the start of the waiver, it was a minefield for the unsuspecting administrators in Mississippi.

The criteria for selecting cases for the waiver were based on the level of risk to the child and the child's custody status. However, IV-E eligibility was not considered. In a state that ranked first in child poverty according to the 2000 census, this was not expected to be a problem. But it was.

Consider this: If 90 percent of cases screened for the waiver were IV-E eligible (90 percent of the control cases and 90 percent of the experimental cases), and the average costs of control cases was \$1000, then the average amount that could be spent on waiver cases would be \$900. This is because all waiver cases would be considered IV-E for purposes of capturing federal dollars, but only 90 percent of control cases would be. And so, if 80 percent of control cases were determined to be IV-E eligible (and the average costs were \$1000), there would then be a maximum average of \$800 to spend on waiver cases. However, because the project was expected to achieve its programmatic goals, such as placement reduction, this was not seen as a potential problem. Placement is the most expensive service you can provide a child and, in turn, you can provide a lot of other services for the cost of out-of-home care.

Nonetheless, the cost neutrality formula put the state on a sliding scale that required two things: 1) that impact goals were met and a sufficient number of waiver cases were kept out of placement, and 2) that a relatively high percentage of control cases were determined to be IV-E eligible, or, at least, that all those who were eligible in terms of family income were actually determined to be eligible for cost reporting purposes.

In fact, however, a high percentage of foster care cases in Mississippi are not determined to be IV-E eligible. Between 1999 and 2002, according to the Green Book, the percent of foster care cases determined to be IV-E eligible was quite low: 31 percent in 1999, 31 percent in 2000, 26 percent in 2001, and 19 percent in 2002.

Now, if 20 to 30 percent of the control cases were determined to be eligible for IV-E reimbursement, then the state would have just 20 to 30 percent of what was spent on control group children to pay for services for waiver children. To be cost neutral in this environment would require an extraordinary level of program impact.

The bottom-line problem for the waiver was that, while Mississippi ranked first in child poverty among the 50 states in 2000, first in the percent of families in poverty, first in the number of households headed by single women, and 47th in median household income, it was, at the same time, 42nd in the percent of foster care cases determined to be eligible for IV-E. In 2001 it ranked 46th in the percent of IV-E eligible foster care cases and in 2002 it ranked 48th. Even if DFCS had not experienced severe staffing shortages while the waiver was being operated and was a resource rich service environment, it would have been hard pressed to survive the cost neutrality test with this level of IV-E eligibility.

Whether or not interim administrative overruns would have diminished if the demonstration had been allowed to continue will never be known now. Two areas of cost offsets were possible. If experimental cases re-entered CPS less frequently than control cases and if experimental cases spent less time in foster care, as suggested in the abridged impact analysis, this would have produced savings in both maintenance and administrative costs. At the same time, however, experimental cases tended to stay open longer, suggesting higher administrative costs. Whether differences in administrative costs would have evaporated with fewer experimental cases re-entering the system due to new maltreatment reports will never be known, nor will the overall relationship between maintenance and administrative costs for the two groups across a 60-month period.

A project that begins with optimism and achieves some measure of success despite significant obstacles and is then abandoned prompts many questions that begin with "What if?"

What if cost neutrality procedures had been more promptly agreed to and there had been no delay in implementation – and no separation between training and operation – and the program had been given a chance to build up some momentum before the economic downturn and staff losses began.

What if either the cost neutrality formula or the waiver screening criteria had taken into account the state’s low level of IV-E eligibility determination despite its level of poverty?

What if the two coordinators could have operated as planned, facilitating family team conferences and supporting county staffs?

What if the business manager had been hired as planned?

What if the state more fully staffed its child protection system?

What if the project had continued: Would positive impact findings have continued through a full 60 months? Would statistical trends have become significant? Or would these positive results have ultimately collapsed from lack of support and insufficient staffing? And, could the apparent positive programmatic outcomes and cost effects ever hope to overcome the crippling consequences of the cost neutrality formula and the dilemma of high poverty with low IV-E eligibility?

Such speculative questions strain the bounds of public policy research and require a philosopher more than an evaluator.