Virginia Staffing Demonstration

Final Report

A Federal- and State-Funded Research Demonstration

Division of Child Support Enforcement
Virginia Department of Social Services

August 2000

This page intentionally left blank.

Virginia Staffing Demonstration

Final Report *

Prepared by:

Donald W. Myers, D.B.A., Principal Investigator
Virginia Commonwealth University, Richmond, VA

T. Vernon Drew, Jr., Principal Investigator
President, Center for the Support of Families, Chevy Chase, MD

Todd W. Areson, Ph.D., Project Manager
Division of Child Support Enforcement
Virginia Department of Social Services

August 2000

- *This report supersedes "The Small Office Study," March 1999.*

This page intentionally left blank.

Table of Contents

Index of Tables

Executive Summary:
The Virginia Staffing Demonstration

Objective/Introduction

- Federally funded in fall 1993 and performed between 1994 and 1998, this Virginia Child Support Staffing Demonstration (the Staffing Demonstration) was designed to determine the role staffing standards play in the performance of local child support offices.
- The Staffing Demonstration employed the Delphi technique to establish time standards for six discrete child support functions: performing customer intake, locating the non-custodial parent, establishing paternity and/or a support obligation administratively, establishing child support judicially (paternity establishment and/or support obligation), enforcing obligations, and providing customer service.
- Virginia is an administrative-process state with 22 district (i.e., local) offices; 18 are state-run and four are run with contracts with private vendors. It meets customers' needs using a functional (e.g., Locate, Enforcement), not generic, organizational structure. The fiscal year (FY) 1998 statewide caseload was 415,000, of which approximately 25 percent were Temporary Assistance to Needy Families (TANF) cases and 27 percent were Interstate cases.

Research Questions

1. Are staffing standards and optimal caseloads[1] for child support functions feasible and desirable?

2. How do the recommended staffing standards and optimal caseloads affect staffing levels and operational efficiency?

[1] Caseload standards are currently being developed for the two experimental offices. They should be available in early 2001.

3. Do the recommended staffing standards and optimal caseloads improve productivity and quality of service?

4. Are the recommended standards and caseloads cost-justified?

Experimental Design

The research design involved two experiments, one testing the impact of staffing standards in a small district office and the other in a large district office. District offices are the local delivery point for child support services in Virginia. The table below shows the small and large office designs and identifies experimental and control offices.

	Experimental Office - Treatment	Control Office
Small Office (< 13,000 cases)	Fredericksburg – Additional Staff	Charlottesville
Large Office (> 22,000 cases)	Roanoke – Macros Roanoke – Additional Staff	Newport News Richmond[2]

Findings, Conclusions, and Recommendations

The Delphi Technique

Findings

The Delphi technique involves experienced staff who estimate time standards for the major tasks that comprise each child support function. In the Small Office study, panel members represented all six "small" offices in Virginia. In the Large Office study, panel members were from the experimental office only.

[2] Richmond received macros but not additional staff, thus served as a control for the effects of the additional employees hired in Roanoke.

Conclusions and Recommendations

- The Delphi technique was determined to be a valid methodology for establishing staffing standards for local child support operations, and it is relatively easy to use.
- Benefits of the Delphi technique include the fact that written feedback is given to group members *separately*, assuring anonymity while precluding peer influence via communication, informal status, and the like.
- Using the Delphi technique and the staffing standards approach from this project, local offices can develop their own staffing standards without a full study.

Additional Staff

Findings

Using the Delphi technique, the small experimental office (Fredericksburg) was determined to be 33 percent understaffed and the large experimental office (Roanoke) was found to be 28 percent understaffed.

Conclusions and Recommendations

- Additional staff in the Fredericksburg office had a positive effect on six major indicators of office performance—locates, paternities, wage withholdings, administrative obligations, dollars collected, and the benefit/cost ratio—as well as on both employee and customer satisfaction.
- Additional staff in the Roanoke office had a positive effect on four major indicators of office performance—locates, paternities, dollars collected, and the benefit/cost ratio—as well as on both employee and customer satisfaction.
- Management improvements may *not* be necessary prior to developing and implementing staffing standards.
- The Delphi methodology is sufficiently flexible for use in offices whose caseloads range from less than 13,000 to 27,000 cases.

Performance Indicators

Findings

Additional staff in the Fredericksburg office produced some positive results in performance, compared to the control office: 1,214 (73 percent) more locates, 276 (1,500 percent) more paternities established, an increase of 74 (44 percent) in administrative obligations, 699 (633 percent) more wage withholdings, $1.08 million (61 percent per employee) more dollars collected, and a $1.80 increase in the benefit/cost ratio.

Additional staff in the Roanoke office also produced some positive results in performance, compared to the control office: 2,713 (87 percent) more locates, 720 (121 percent) more paternities established, $66,144 (2½ percent per employee) more dollars collected, and a $0.17 increase in the benefit/cost ratio.

Conclusions and Recommendations

- Three factors were important to performance outcomes when employing the additional staff: How additional staff were used, employee acceptance of proposed management improvements, and the presence of the local (district) manager throughout the study.

Employee Satisfaction

Findings

Overall employee satisfaction (*"Overall, how satisfied are you with working here?"*) increased 19 percent in the Fredericksburg office compared to the control office. Comparably in Roanoke, overall employee satisfaction increased 21 percent compared to its control office. Employees in the Fredericksburg and Roanoke experimental offices were satisfied with the number of additional employees added in the Experimental (also known as the "Staffing") Period of the study.

Customer Satisfaction

Findings

Similar to employee satisfaction, customer satisfaction is an important variable in evaluating the performance of a district office. The implementation of staffing standards also had a positive influence on customer satisfaction in both experimental offices, although more so in Fredericksburg than in Roanoke.

Comparison of Results for the Large and Small Experimental Offices

Table 1 below contains comparative results for the key variables tracked during the demonstration.

Table 1: Net Results of Differences in Fredericksburg and Roanoke District Offices Compared to Their Control Offices: Post-Experimental (minus) Base Periods

Performance Variables	Fredericksburg		Roanoke	
	# per employee	Total	# per employee	Total
Locates	6.6* more (73%)	1,214 more	6.4* more (87%)	2,713 more
Paternity Establishments	1.5* more (1,500%)	276 more	1.7 more (121%)	720 more
Administrative Obligations	0.4* improvement (44%)	74 more	-1.6* fewer (-177%)	678 fewer
Court Obligations	-0.7* fewer (-70%)	129 fewer	No change	No change
Wage Withholdings	3.8* more (633%)	699 more	-6.0* fewer (-171%)	2,544 fewer
Dollars Collected	$5,881* more (61%)	$1.08 million more	$156* more (2.5%)	$66,144 more
Other Variables	**Fredericksburg**		**Roanoke**	
$ Benefits/$ Costs	$1.80* increase in ratio		$0.17* increase in ratio	
Employee Overall Satisfaction[3]	19% higher		21% higher	
Customer Satisfaction: Case handled in timely manner[4] Staff courteous[5] Staff helpful[6]	 Increased by 9 percentage points Increased by 7 percentage points Increased by 10 percentage points		 Increased by 15 percentage points Increased by 23 percentage points Declined by 6 percentage points	

* Significant at the .05 level

Customer Satisfaction: Each question shows the change in percentage points from first to last measurement.

[3] Overall, how satisfied are you with working here?
[4] Was your case handled in a timely manner?
[5] Are you treated courteously when you phone or visit the office?
[6] Have child support staff been helpful?

- Adding staff to the Fredericksburg and Roanoke experimental offices resulted in increases—compared to their respective control offices—in the number of locates, paternity establishments, dollars collected, benefit/cost ratio, and both employee and customer satisfaction. The Fredericksburg office also achieved increases in the numbers of administrative obligations and wage withholdings; the latter two variables declined in Roanoke. Court obligations declined in Fredericksburg and remained the same in Roanoke.
- Adding staff to the Roanoke experimental office did not reach the level of success achieved in the Fredericksburg experimental office. Three plausible reasons for this outcome are: (1) employee dissatisfaction in Roanoke with the computer-based macros, intended to improve operational efficiencies; (2) the periodic, part-time absence of the Roanoke district manager to manage another office, several times during the demonstration; and (3) the approach that Roanoke management used to deploy the additional staff hired during the Experimental Period of the study—that is, assigning somewhat more than half (12 of 22) to work a caseload from the beginning.

Staffing and caseload standards are a continuing issue in the child support enforcement program. As states and local agencies struggle to provide effective services to an ever more demanding customer base, managers need guidance on the correct number of staff, the best placement of those staff, and the number of cases (likely, by type of case) that individual staff members can manage. This study sheds light on many of these issues. It shows that staffing does have an impact on performance and that the Delphi methodology is a good way to develop the standards. The results also show that it is possible and relatively easy to determine the correct number of staff for a local office and that the process does not have a negative impact on the office during the development cycle. Finally, this study shows that *where* staff are deployed is equally as important as the *number* of staff employed in the office.

♦ ♦ ♦

This page intentionally left blank.

Introduction

Child support enforcement agencies in the United States are faced with the onerous burden of a growing demand for assistance from single parents with custodial responsibility for children who do not receive financial or medical assistance from the non-custodial parent. There are three major reasons for this problem:

- The number of children born out-of-wedlock
- The failure of the parent who has custody of a child (i.e., custodial parent) to obtain an award authorizing her/him to receive child support
- The failure of the parent who does not have custody of his/her child (i.e., non-custodial parent) to pay support

Out-of-Wedlock Births

Approximately 32 percent of the births in the U.S. are out-of-wedlock.[7] An unknown but presumably large proportion of the children born to unwed parents will ultimately need the assistance of an enforcement authority to receive the financial support that they require. Without enforcement assistance, many of these children will live in poverty.

Failure of Custodial Parents to Obtain Awards for Child Support

The number of children who live with only one parent represents about 25 percent of all children under the age of 18. Unfortunately, many custodial parents fail to obtain awards for child support, which would obligate the non-custodial parent to provide financial support. According to the Congressional Budget Office, approximately 13 million women who have sole custody of their children are eligible to receive child support, but only 53 percent of them have awards authorizing support

[7] Ventura, Stephanie, *Statement on Reducing Nonmarital Births*, testimony before House Ways and Means Subcommittee on Human Resources, (June 29, 1999).

payments from the non-custodial parent.[8] Enforcement assistance is needed to locate the non-custodial parent, establish an obligation to provide support, and ensure that the support is provided.

Failure of Non-Custodial Parents to Pay Child Support

Another problem is the failure of non-custodial parents to pay child support to custodial parents who have awards. Only 81 percent of custodial parents who have awards actually receive support. Consequently, only 43 percent of the custodial parents who are eligible to receive child support do in fact receive support.[9] These statistics are a major reason why 20 percent of all children under 18 live in poverty.[10]

Need to Increase Efficiency of Child Support

Faced with a burgeoning workload caused by the problems discussed above, child support agencies are compelled to meet the demand through a combination of techniques, including the creation of more efficient methods of accomplishing their work. One of these methods involves the establishment of staffing standards within each function of child support, such as locating the non-custodial parent, establishing paternity, obtaining child support obligations, and enforcing those obligations to see that payments are made. Scientifically-determined staffing standards are a rarity in child support enforcement agencies, so there is little available evidence concerning the methodologies used to establish and maintain them. Less information is available about the cost-effectiveness of the staffing standards that have been used.

[8] Congressional Budget Office. *CBO Papers: The Changing Child Support Environment* (February 1995).
[9] This percentage is the product of the 53 percent of custodial parents who obtain awards from those who are eligible and the 81 percent of parents who have awards and actually receive payments.
[10] Congressional Budget Office. *CBO Papers: The Changing Child Support Environment* (February 1995).

Objective of the Staffing Demonstration

The objective of this federally-funded Virginia Child Support Staffing Demonstration (the Staffing Demonstration) was to determine the role that staffing standards play in the performance of district (i.e., local) child support enforcement offices. The Staffing Demonstration included establishing standards for each of the six discrete functions of child support enforcement, namely to:

(1) Perform customer intake;

(2) Locate the non-custodial parent;

(3) Establish paternity and/or a support obligation administratively;

(4) Administer judicial matters (paternity establishment and/or support obligation), as necessary;

(5) Enforce obligations; and

(6) Provide customer service.

Overview of the Staffing Demonstration

On September 30, 1993, the U.S. Department of Health and Human Services (DHHS), through the Administration for Children and Families (ACF), notified Virginia that it had been selected competitively for funding "… to develop and test a methodology to determine the appropriate staffing standards for Child Support offices … or discrete functions within a Child Support office." Immediately, the Division of Child Support Enforcement (DCSE), part of the Virginia Department of Social Services (VDSS), began the procurement process to hire two contractors to help in this research.

The first contractor would have to be knowledgeable about comparative child support programs in the U.S. and would provide technical assistance. The second would need to have expertise in evaluation design and research. Division staff began preparing RFPs (requests for proposals) to use in the respective procurements.

On March 29, 1994, the Commonwealth of Virginia, through DCSE/VDSS, entered into an Interagency Agreement (Agreement) with Virginia Commonwealth University (VCU) to evaluate the Staffing Demonstration. On June 1, 1994, the Commonwealth of Virginia, through DCSE/VDSS, entered into a contract with the Center for the Support of Families (the Center), Chevy Chase, MD, to provide the requisite technical assistance for this multiyear study.

In short, DCSE/VDSS established the following structure to implement the Staffing Demonstration:

(1) Project management – lodged in the DCSE with a DCSE Project Manager

(2) Technical assistance – provided through a third-party contractor (the Center), and its subcontractor, Omni Systems, Atlanta, Georgia

(3) Evaluation services – provided through a third-party contractor, the VCU School of Business, Richmond

(4) Project Oversight – lodged in a Department-wide Steering Committee of 13 members from VDSS; more than half represented divisions or offices other than DCSE.

This page intentionally left blank.

Research Questions

In accordance with its Agreement, VCU was required to recommend an evaluation plan, including the collection and analysis of data, which would address the following four research questions:

1. *Are staffing standards and optimal caseloads for child support functions feasible and desirable?*

2. *How do the study's recommended staffing standards and optimal caseloads affect staffing levels and operational efficiency?*

3. *Do the recommended staffing standards and optimal caseloads improve productivity and quality of service?*

4. *Are the recommended standards and caseloads cost-justified?*

Definition of Terms and Variables in Research Questions

Early in the Staffing Demonstration, it became apparent that it was necessary to standardize definitions for terms used in the research questions, such as "staffing standards," "operational efficiency," and "feasible." Some of the terms, such as "operational efficiency," imply an evaluation of qualitative and/or quantitative variables. Discussions were held with DCSE personnel, including the then Division Director, Michael Henry, as well as members of his top staff, to obtain a consensus on definitions for the terms. These discussions included identifying the types of quantitative and qualitative performance variables, as well as the availability of data for the variables, that could be used to address the four research questions. The agreed-upon definitions for the terms, derived from these discussions, are presented below in the context of the research question in which they appear.

1. *Are staffing standards and optimal caseloads for child support functions feasible and desirable?*

   "Feasible" = qualitative evaluation using the Delphi technique to establish child support specialist caseload standards for the Fredericksburg and Roanoke district offices.[11]

   "Desirable" = qualitative evaluation based upon determination of feasibility and analyses of operational efficiency, productivity, quality of service, and cost/benefit.

2. *How do the study's recommended staffing standards and optimal caseloads affect staffing levels and operational efficiency?*

   "Staffing levels" = the number of filled full-time positions.

   "Operational efficiency"(which is defined as more efficiently performing work) is measured through the following variables:

   - Employee job satisfaction
   - Employee turnover
   - Dollar collections per employee

3. *Do the recommended staffing standards and optimal caseloads improve productivity and quality of service?*

   "Productivity" (which is defined as increasing the number of units produced) is measured through the following variables:

   - Number locates per employee

[11] Fredericksburg was selected as the small experimental office and Roanoke as the large experimental office. Selection criteria are discussed in detail in the sections on Selecting the Experimental/Control Offices (page 40 for the small office and page 75 for the large office), and in Appendix 1: Criteria for Selecting Experimental Offices, page 143.

- Number paternities established per employee
- Number administrative obligations per employee
- Number court obligations per employee
- Number wage withholdings per employee

"Quality of Service" is measured through the following variables:

- Customer opinion survey
- Compliance with federal time frames

4. *Are the recommended standards and caseloads cost-justified?*

   "Cost-justified" is measured with the following variable:

   - Dollar collections per dollar costs (direct + allocated costs)

Hypotheses/Propositions: Small Office Study

Hypotheses

Following are the hypotheses that were used for the small experimental office to test the variables in the four research questions regarding the effects of standards on operational efficiency, productivity, and cost-justification:

- *H1* There are no significant differences in the mean number of locates per district employee after implementation of staffing standards.

- *H2* There are no significant differences in the mean number of paternities established per district employee after implementation of staffing standards.

- *H3* There are no significant differences in the mean number of cases administratively obligated per district employee after implementation of staffing standards.

- *H4* There are no significant differences in the mean number of judicially obligated cases per district employee after implementation of staffing standards.

- *H5* There are no significant differences in the mean number of wage withholdings per district employee after implementation of staffing standards.

- *H6* There are no significant differences in the mean number of dollars collected per employee after implementation of staffing standards.

- *H7* There are no significant differences in the mean rate of dollar collections to costs after implementation of staffing standards.

Propositions

Following are the propositions that were used for the small experimental office to test the variables in the four research questions regarding the feasibility of using the Delphi technique to establish standards and the effects of standards upon employee satisfaction, customer satisfaction, and case processing standards:

- *P1* The Delphi technique is a feasible method for establishing staffing standards.

- *P2* The implementation of staffing standards in the Fredericksburg district office is desirable.

- *P3* The numbers of full-time employees in the Fredericksburg district office are not different than those in the Charlottesville district office prior to the

implementation of staffing standards (Base Period) and during a Post-Experimental Period.[12]

- *P4* Additional staffing has a positive effect upon employee satisfaction.

- *P5* The turnover rate for the Fredericksburg district office is the same as the rate in the Charlottesville district office prior to the implementation of the staffing standards and is lower than Charlottesville after the implementation.

- *P6* Customer opinions of employee responsiveness, courtesy, and helpfulness in the Fredericksburg district office are better than those in the Charlottesville district office after implementation of the staffing standards.

- *P7* Compliance with federal case processing standards in the Fredericksburg district office is better than the compliance in the Charlottesville district office after implementation of the staffing standards.

Hypotheses/Propositions: Large Office Study

Hypotheses

Following are the hypotheses used to test the effects of the two treatments (macros and additional employees) on the variables in the research questions. Hypotheses 1 through 7 address the effects of the macros on the variables, and hypotheses 8 through 14 address the effects of the additional employees resulting from the implementation of the staffing standards. Since the second treatment involved the addition of employees, a hypothesis was formulated to test for any differences in the number of employees among the three offices during the study (see *H15* below).

- *H1* There are no significant differences in the mean number of locates per district employee after implementation of macros.

[12] Charlottesville was selected as the control office.

- *H2* There are no significant differences in the mean number of paternities established per district employee after implementation of macros.

- *H3* There are no significant differences in the mean number of cases administratively obligated per district employee after implementation of macros.

- *H4* There are no significant differences in the mean number of judicially obligated cases per district employee after implementation of macros.

- *H5* There are no significant differences in the mean number of wage withholdings per district employee after implementation of macros.

- *H6* There are no significant differences in the mean number of dollars collected per employee after implementation of macros.

- *H7* There are no significant differences in the mean rate of dollar collections to costs after implementation of macros.

- *H8* There are no significant differences in the mean number of locates per district employee after implementation of staffing standards.

- *H9* There are no significant differences in the mean number of paternities established per district employee after implementation of staffing standards.

- *H10* There are no significant differences in the mean number of cases administratively obligated per district employee after implementation of staffing standards.

- *H11* There are no significant differences in the mean number of judicially obligated cases per district employee after implementation of staffing standards.

- *H12* There are no significant differences in the mean number of wage withholdings per district employee after implementation of staffing standards.

- *H13* There are no significant differences in the mean number of dollars collected per employee after implementation of staffing standards.

- *H14* There are no significant differences in the mean rate of dollar collections to costs after implementation of staffing standards.

- *H15* There are no significant differences in the numbers of full-time employees in the Roanoke, Richmond, and Newport News district offices in the Base, Macros, Experimental (Staffing Standards), and Post-Experimental (Post-Staffing Standards) Periods.

Propositions

Following are the propositions that were used in the large experimental office (i.e., Roanoke) to test the variables in the four research questions regarding the feasibility of using the Delphi technique to establish standards and the effects of standards upon employee satisfaction, customer satisfaction, and case processing standards:

- *P1* The Delphi technique is a feasible method for establishing staffing standards.

- *P2* The implementation of staffing standards in the experimental Roanoke district office is desirable.

- *P3* The implementation of macros in the Richmond and Roanoke offices is desirable.

- *P4* Additional staffing has a positive effect upon employee satisfaction.

- *P5* The turnover rate for the Roanoke district office is the same as the rate in the Richmond and Newport News offices prior to the implementation of the staffing standards and is lower than those two offices after the implementation.

- *P6* Customer opinions of employee responsiveness, courtesy, and helpfulness in the Roanoke district office are better than those in the Richmond and Newport News district offices after implementation of the staffing standards.

Data Sources: Small and Large Office Studies

Several sources were used to collect data for testing the propositions and hypotheses for the small and large office studies.

- The first proposition (*P1*), regarding the feasibility of the Delphi technique for establishing standards, was tested through data obtained from focus groups of district office personnel, written comments from panel members, and observations of the Technical Contractor.
- The second proposition (*P2*), regarding the desirability of the implementation of staffing standards, was tested through a qualitative assessment of the overall results from implementing standards, such as employee and customer surveys, performance data, and effectiveness in meeting federal compliance standards (in the Small Office study only).
- The third proposition (*P3*) for the small office study, regarding the differences between the numbers of full-time employees in the Fredericksburg district office and those in the Charlottesville district office, was tested through comparisons of the staffing levels for a period prior to the implementation of staffing standards (Base Period) and during an eight-month Post-Experimental Period. The third proposition (*P3*) for the large office study, regarding the desirability of the implementation of macros in the Richmond and Roanoke offices, was tested from data collected through employee surveys, discussions with district office management, and observations by Center personnel.
- The fourth proposition (*P4*), regarding the effect of additional staffing on employee satisfaction, was tested with the results of employee opinion surveys.
- The fifth proposition (*P5*), regarding the similarity between the turnover rates for the experimental and control district offices, was tested using annual employee separation data and employee staffing levels.
- The sixth proposition (*P6*), regarding customer opinions of employee responsiveness, courtesy, and helpfulness, was tested using data obtained from customer questionnaires.

- The seventh proposition (P7), regarding compliance with federal case processing standards in the Small Office study, was tested using data obtained from a review of the transactions in a sample of cases.

The data for testing the hypotheses for the small and large office studies were obtained from Central Office reports. The data were obtained unobtrusively—that is, the employees in the district offices did not know what performance data were being collected or when they were collected.

This page intentionally left blank.

Research Review

The initial research review focused on obtaining information about states' use of staffing standards in child support enforcement, the methods used in establishing such standards, and the effectiveness of the standards. In addition, since the Delphi technique was to be used in establishing standards in the experimental offices in the Staffing Demonstration, a review was also conducted of research studies reporting use of this technique in establishing standards. The literature review also included a brief review of the history of child custody, and the leading theories for nonpayment of child support (see Appendix 8: Background/Child Support History, page 188).

States' Use of Staffing Standards Prior to 2000

As noted above, a survey of states was conducted to determine what experience child support enforcement agencies had with staffing or caseload standards. In summary, the following information was obtained in the survey:

- Approximately 12 states had, either then (i.e., at the time the survey was conducted) or in the past, staffing or caseload standards.
- There were significant deficiencies in the standards in most states that had them.
- No evidence existed to measure whether caseload standards for child support enforcement programs were feasible or effective.

In the spring of 2000, another survey of the states was conducted. Figure 1 provides an overview of which states had staffing standards in place at the time of this survey. Table 2 provides further detail and summarizes the recent survey information for all states.

Figure 1: States with Staffing Standards in Place as of Spring 2000

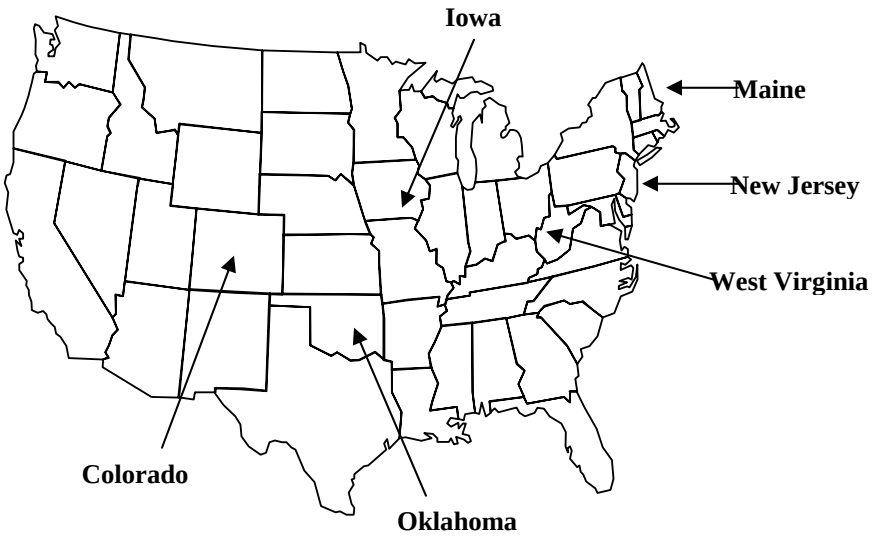


Table 2: State Staffing/Caseload Standards Information: Spring 2000 Survey

State[13]	Staffing Standards?	Caseload Standards?	Notes
Alabama	No	No	
Alaska	No	No	
Arizona	No	No	
Arkansas	No	No	
California	No	No	CA recently enacted legislation that requires the state to develop caseload to staffing ratios.
Colorado	Yes	Yes	CO currently has staffing standards in place, but the formula is almost obsolete. Through a Multiple Initiatives federal grant, CO has a contract to develop a new formula. The final product will be ready by July 31, 2000.
Connecticut	No	No	While CT did a study about 10 years ago, it was limited in scope. With significant changes to the CS program, information gained from it is now out-of-date.
Delaware	No	No	

[13] "State" column also includes territories that responded to this survey.

State[13]	Staffing Standards?	Caseload Standards?	Notes
District of Columbia	No	No	DC used a contractor to conduct a simple staffing study to justify current staffing.
Florida	No	No	
Georgia	No	No	GA has a current contract with a sister agency to conduct staffing & testing standards.
Guam[14]	No	No	
Hawaii	No	No	
Idaho	No	No	At various times Idaho has recommended staffing and caseload standards, but never officially adopted them.
Illinois	No	No	
Indiana	No	No	
Iowa	Yes	Yes	IA's Bureau of Collections has staffing and caseload standards, however, they are not formal ones. Regional Collections Administrators use the standards in a more informal and intuitive way, looking at the caseload per full-time employee, as well as other considerations, and then determining how to reallocate staff.
Kansas	Yes	No	The standards allocate staff for all social services programs. Management reports that the methodology is more complex than needed.
Kentucky	No	No	
Louisiana	No	No	
Maine	Yes	No	Maine has no caseload/staffing standards per se. Historically, caseload statistics have been utilized to justify funding/FTE requests to the legislature. Additionally, Maine has been utilizing the findings of its Model Office staff competency study initiated in 1994 to determine recommended staffing, based on type of case and staff competency levels. The caseload is divided into paying and non-paying cases. Technicians (paraprofessional level) handle the more administrative actions while agents (professional level) handle the enforcement actions. The results of the project have been so successful that this approach has been expanded statewide.
Maryland	No	No	
Massachusetts	No	No	
Michigan	No	No	
Minnesota	No	No	
Mississippi	No	No	
Missouri	No	No	

[14] At the time of printing, there had been no response from two other territories.

State[13]	Staffing Standards?	Caseload Standards?	Notes
Montana	No	No	The Montana CSED has never performed an empirical study that would formally define staffing or caseload standards for its IV-D program. Historically, it has been assumed that an appropriate caseload for 1 full-time employee (FTE) should be somewhere between 400 to 500 cases.
Nebraska	No	No	
Nevada	No	No	
New Hampshire	No	No	
New Jersey	Yes		The State of NJ currently uses staffing standards for the county welfare agencies.
New Mexico	No	No	
New York	No	No	.
North Carolina	No	Yes	But not currently
North Dakota	No	No	
Ohio	No	No	
Oklahoma	Yes?	Yes?	OK has approx. 140,000 active cases and 39 CSE offices. It has various tools to help determine staffing in the current offices, the need for new CSE offices, and if any parts of the state are being under-served. The tools help them establish goals for the program and offices but are not considered mandatory. The tools include Projected Population for 2000, Population Per Office, Cases per Office, Ratio of Cases Per Population, Allocated FTE Per Office, Cases Per Allocated FTE. Their goal is less than 350 cases per FTE in each office. However, the FTEs are not all case workers, so the actual numbers of cases per case worker will be higher.
Oregon	No	No	
Pennsylvania	No	No	While Pennsylvania has no statute or regulation that establishes either caseload or staffing standards, they recommend 250 cases per worker.
Rhode Island	No	No	

State[13]	Staffing Standards?	Caseload Standards?	Notes
South Carolina	No	No	
South Dakota	No	No	
Tennessee	No	No	
Texas	No	No	
Utah	No	No	
Vermont	No	No	
Virginia	No	No	
Washington	No	No	
West Virginia	Yes	Yes	
Wisconsin	No	No	
Wyoming	No	No	

This page intentionally left blank.

Research Design

Developing Staffing Standards for the Staffing Demonstration

The Center proposed using the Delphi technique to develop the staffing standards for the district offices selected for participation in the Staffing Demonstration.

Delphi Technique

The *Delphi Technique* is a method of securing opinions about a topic from a panel of experts. The Delphi technique is the most widely used method of estimating economic and technology trends in business.[15] The Delphi technique was developed by the Rand Corporation for use in obtaining consensus from a panel of experts about various topics, such as the likelihood that specific events would occur.[16] The experts could be from different or the same fields. For example, a Delphi technique could be used with a group of experts from such diverse fields as demography, epidemiology, and political science to estimate the world's population at a future date. An example of using the Delphi technique with experts within the same field might be a group of purchasing managers within the automotive industry estimating the demand for new tires.

The typical process used with the Delphi technique begins with the formulation of a research question or a group of research questions, such as "What will be the world's population in the year 2005?" or "What will be the demand for new automobile tires in the year 2002?" Often, a series of questions are posed that address various points related to the primary question, such as "What will be the

[15] Dessler, G. *Managing Organizations: In an Era of Change* (Fort Worth, TX: The Dryden Press, 1995).
[16] Daft, R.L. *Understanding Management* (Fort Worth, TX: The Dryden Press, 1995). See also N. Delkey, *The Delphi Method: An Experimental Study of Group Opinion* (Santa Monica, CA: Rand Corporation, 1969).

population in Africa in the year 2005?" or "What will be the change in population in the year 2005 in the U.S. due to immigration?" Sometimes a study with the Delphi technique will also involve specific "What If" scenarios. For example, a panel of experts who sell computers might be asked their opinions for the demand for notebook computers that contain specific features, such as "What would be the demand in 2001 for notebook computers that have voice response capabilities?"

After selecting the research questions, a list of names of experts within the field of research is compiled. The experts are contacted to see if they will agree to serve as members of the Delphi panel. The experts are informed that their opinions will be given independently of other panel members and that their anonymity will be maintained. Other information, such as the purpose of the study, the procedure used in the Delphi technique, and the time commitment to participate, are also explained to the experts to assist them in deciding whether they want to participate.

A survey instrument with the research questions is prepared. The instrument is pre-tested with a small sample of experts who agreed to participate in the study. Corrections are made in the instrument for any problems identified in the pre-testing.

The final version of the survey instrument is prepared and transmitted to the experts. The results are tallied after the opinions of the experts are received. Next, the aggregated results are transmitted back to each expert who participated in the first round. The entire range of responses is included in this transmission so the experts can individually compare their opinions with those of the entire panel. The experts are informed that they have the freedom to change their opinions based upon the results from the first round. The information gained from the aggregated opinions of other experts motivates each expert to reevaluate her/his opinion given in the first round. This reevaluation typically results in a gradual convergence or consensus of opinion on the research question. The results are again tallied after the experts' opinions from this second round are received. These results are transmitted back to those experts who participated in the second round, and the evaluation process is again initiated by each expert. Through subsequent iterations of the process, a final

result is obtained. Studies suggest that the maximum concurrence is received after three iterations.[17]

Using the Delphi Technique to Develop Staffing Standards

Johnny Weismuller and P.R. Jeanneret, two experts in task and job analysis, were contacted regarding the validity of using the Delphi technique in developing staffing standards. Weismuller was involved in U.S. Air Force studies in which the Delphi technique was used to determine the time spent by job incumbents in performing job tasks. In these studies, the results of the Delphi panels were highly and significantly correlated with actual time studies when the experts were first exposed to a task analysis, so they clearly understood what tasks were involved in the job.[18] Weismuller found that other studies with the Delphi technique that were not preceded by a task analysis did not result in significant correlations with actual time studies. Jeanneret was not aware of any studies in which the Delphi technique was used to determine the amount of time spent performing tasks, but he felt the idea had merit.[19] Jeanneret did not feel it was necessary to precede a Delphi study involving time approximations with a task analysis, because he felt most experts who perform job tasks on a regular basis understand the time requirements to perform the tasks.

The literature review did not produce any research on the use of the Delphi technique in developing staffing standards in child support enforcement. However, Delphi panels produced valid results in a simulated time study that estimated the costs and benefits of a work measurement program[20] and in the establishment of social worker caseloads in social service agencies.[21]

[17] Woudenberg, Fred. "An Evaluation of Delphi," *Technological Forecasting and Social Change,* (Vol. 40, 1991); pp. 131-50.
[18] Telephone call with Johnny Weismuller, Sensible Systems, Inc., San Antonio, Texas, May 6, 1994.
[19] Telephone conversation with P.R. Jeanneret, Jeanneret and Associates, Inc., May 6, 1994.
[20] Adams, S. Keith and McGrath, Timothy J. "A Procedure for an Economic Comparison of Word Measurement Techniques, Part I: The Model," *AIIE Transactions* (September 1979), pp. 229-36.
[21] Dalton, Graham L. and Morelli, Paula. "Casemix and Caseload: Measurement of Output of Social Work Agency," *Administration in Social Work* (December 1988), pp. 81-92.

Other Methods for Developing Staffing Standards

The initial review of states' use of staffing standards identified the following three methods used to develop standards: peer/supervisory committees, time studies, and linear regression. Following is a discussion of the peer/supervisory committee and time studies methods, and a comparison of them with the Delphi technique for setting staffing standards in child support enforcement jobs. The process of using linear regression or other mathematical models to develop staffing standards is not discussed since such models are not currently in use by any state.

Peer/Supervisory Committees

The most common method for developing staffing standards is ad hoc committees of child support personnel. Usually, the members of these committees represent various child support enforcement functions and organizational responsibilities, such as district (i.e., local) managers, child support enforcement specialists, and supervisors of specialists. The members of the group are temporarily assigned the task of developing standards by the responsible official in the organization, such as the agency's director of child support enforcement. Sometimes, a coordinator is selected to lead the activities of the group. The coordinator performs various functions, such as convening the committee, assigning tasks, giving guidance, obtaining information the committee requires to reach decisions, and preparing a final report. Usually, the coordinator develops a process for the members to render their opinions about the number of personnel needed—typically, the number required to handle various caseloads. Group consensus about the number of personnel needed is obtained through discussions of members' opinions.

Typical problems with this process include, for example, the possibility that some members of the group might dominate the discussions while other members may neither offer an opinion nor thoroughly explain the opinions that they do offer. The failure to provide input in the discussions may be due to such reasons as intimidation by superiors or others present or, simply, an insufficient opportunity to make a contribution.

The Delphi technique is superior to an in-person group process of decision-making since each member of the Delphi panel is given the opportunity of rendering a thoughtful opinion. In addition, unlike in-person group discussions, the personalities and communication skills of panel members cannot influence judgments of other members. Also, the anonymity of the panel members' opinions helps ensure honest opinions. Finally, the organized method of written feedback in the Delphi technique gives panel members an opportunity to consider their initial opinions carefully, compare them to the opinions of others, and make changes they feel necessary.

Time Studies

The use of time studies is a proven method of establishing the amount of time necessary to accomplish various tasks in many fields of work, including child support enforcement. The process typically involves either work sampling or random-moment sampling by a person who is charged with the responsibility of recording what work is being performed by employees at various times during the workday. The information collected from this sampling is used to make calculations of the percentages of time spent by employees while performing various tasks in a job, such as establishing a financial obligation in a child support case. The total time necessary in a district office to do this task is obtained by multiplying this percentage by the number of cases requiring the establishment of a financial obligation. This same process is used for all other tasks child support enforcement personnel perform in their jobs. The number of personnel needed for a particular caseload is the product of the total of all the times and cases requiring the performance of the tasks (the product is derived from an algorithm using the sum).

In spite of the proven record of using time studies to develop workload standards, there are major problems with the method. First, extensive sampling is needed to develop standards that are valid. Furthermore, the method has historically been met with employee opposition. Employees are generally opposed to time studies because they are suspicious of using samples of timed recordings to project the total time needed to perform job tasks. Employees also tend to feel that random

time recordings of their work are somewhat intrusive. And, since the recordings are unannounced and random, individual employees are often apprehensive about what they will be doing if and when a time study employee appears to record their tasks. Finally, staffing standards developed through time studies require an extensive investment of time and, as a result, they can be expensive.

Validity Concerns: Peer/Supervisory Committees, Time Studies, and the Delphi Technique

The issue of validity is a principal concern in the development of many types of standards affecting work, be they time standards for piece-rate pay systems or staffing standards to determine the number of personnel needed to accomplish a stipulated workload satisfactorily. In simplest terms, *validity* means that a test, procedure, or technique used in a particular setting produces results that improve decision-making. When numbers are involved in decision-making situations, sometimes statistics can be calculated to test the level of validity. For example, a *statistically significant* relationship means that the correlation coefficient of two datasets is different from zero at some alpha level.

The term *validity* must be viewed in the context in which it is used. For example, a test given by employers to detect illegal drug use by employees must be extraordinarily valid—that is, it must be virtually 100 percent error-proof, since decisions made from the test results can have grossly adverse consequences on those employees who fail them. A major problem affecting validity is the potential for error involved in the method.

All methods of developing staffing standards have potential for error. The source of error varies with the method. For example, since time studies involve measurements of time, the potential error component in the time that is measured could be due to the diligence with which the time is recorded or the representativeness of the sample of times that were selected. The potential for error is also present in developing staffing standards established through peer/supervisory committees or panels of experts using the Delphi technique. Some potential sources

of error in these situations could include experience with the subject being measured and the ability to make estimations of time.

The potentiality that error is inherent in a particular method of developing staffing standards does not mean that the method is useless. The ultimate test of the method depends upon several important factors. One important factor, for example, is whether implementing the results of a particular method of developing staffing standards results in improvement, such as an increase in the dollar collections per employee. Another key factor is the cost of applying the method of determining staffing standards. Still another important factor is employee acceptance of the method, and a fourth factor is the ease of developing staffing standards using the method.

Research Design

To test the four research questions for this Staffing Demonstration, the Center was tasked to "make preliminary recommendations to streamline [case processing], improve management effectiveness, and determine appropriate staffing levels ... [including] the number and type of staff, qualifications of staff, deployment of staff, and management staffing" at two experimental sites within the state.

VCU was tasked to provide an evaluation that would include "a written assessment of the results of each stage of the Staffing Demonstration ... [including] ... an assessment of the pre-project base level of performance in the experimental offices, compared with performance after the demonstrations are implemented. Also, ... a comparison of performance after implementation of the management experiment in the experimental offices to the performance of a comparable office over the same period." Data to be analyzed in the comparisons included "... resources used versus accomplishments, including the number of paternities established, collections received, successful locates, and the cost and quality of services provided." Also, the evaluation was to assess the transferability of the staffing standards developed and

recommended in the Staffing Demonstration to other child support offices, both inside and outside Virginia.

Transferability of Standards

The term "transferability of standards" can be interpreted at least two ways. First, it can be interpreted to mean the transfer of staffing standards developed for the two experimental district offices in Virginia to child support enforcement offices in other states. This interpretation was discussed extensively with DCSE, the Center, and VCU staff involved in the Staffing Demonstration. The consensus of these individuals was that states have significant differences, including differences regarding methods of organization, operating procedures, and automated information systems. Consequently, it was concluded that staffing standards developed for the two experimental offices in this study could not be generalized and transferred to other states. This decision was formalized in a letter from the Center and VCU to DCSE, dated August 8, 1994.

Second, "transferability of standards" can also be interpreted to mean the documentation of the method used to establish standards in Virginia, with the goal being to transfer the methodology to other states. This approach was also discussed extensively among DCSE staff, the Center, and VCU. It was concluded that the methodology used in the development of the staffing standards, as well as other interventions and procedures involved in the Staffing Demonstration, would be evaluated for transferability. This decision was also formalized in the August 8, 1994 letter noted above.

Experimental and Control Offices: Small Office Study

Discussions among representatives of the Center, VCU, the Department Steering Committee, and DCSE focused on which of the district offices would be possible candidates as experimental and control offices for the small office study. The Winchester district office was omitted as a possible site since it had only recently been established. After obtaining agreement from the Steering Committee for the experimental and control district offices' treatment design, a series of meetings between DCSE staff, VCU, and the Center focused next on the variables to use in selecting the experimental office.[22]

The following five categories of information, including variables within each, were used in deciding which of the six small district offices to select for the experimental and control offices.

I. Demographic

A. Total Population
B. Rural Population as Percentage of Total Population
C. Labor Force
D. Unemployment Rate
E. Median Household Income
F. Out-of-Wedlock Births as Percentage of Total Births
G. Female Householder as Percentage of Total Householder

II. Operational Efficiency

A. Number of Positions
B. Position Turnover
C. Cases Obligated as Percentage of Total Cases
D. Percentage of Obligated Cases Paying

[22] See Table 33: Experimental and Control District Offices: Treatment Design (page 149).

E. Paternity Cases Judicially Established as Percentage of Total Paternity Establishment Cases

III. Productivity

A. Total Cases

B. Interstate Cases as Percentage of Total Cases

C. Public Assistance Collections as Percentage of Total Collections

D. AFDC (i.e., now TANF) Recovery Rate

E. Number of Locates

F. Number of Paternities Established

G. Number of Paternities Established as Percentage of Cases with Paternities to be Established

H. Number of Wage Withholdings

IV. Quality of Service

A. Customer Complaints

B. Dollar Refunds as Percentage of Collections

V. Cost-Justified

Benefit/Cost Ratio (ratio of total dollars collected to total dollars expended)

Selecting the Experimental/Control Offices

Data from all six small offices for the variables in the five categories noted above were collected. The data were analyzed, and recommendations were made to the DCSE Director and selected members of his staff. The recommendations were also presented to the Department Steering Committee for concurrence and approval. As a result of these discussions, the Fredericksburg and Charlottesville district offices were selected as the experimental and control offices, respectively.

Project Implementation

Developing Standards

In fall 1994, staff with Omni Systems—a subcontractor to the Center—worked with the Technical Assistance and Evaluation contractors and Project staff to

develop and refine a flow chart for developing staffing standards for a "small" office in the Virginia DCSE system. At the time, the Virginia DCSE system had 20 "district" offices around the state, and six of them were classified as "small" (Total Caseload < 13,000). The primary objectives of this portion of the research were fourfold:

1. To develop a comprehensive understanding of the Virginia DCSE delivery system, service categories, and casework tasks in the small offices across the state

2. To define DCSE case workers' job responsibilities, performance expectations, and training needs in a framework of desired client outcomes

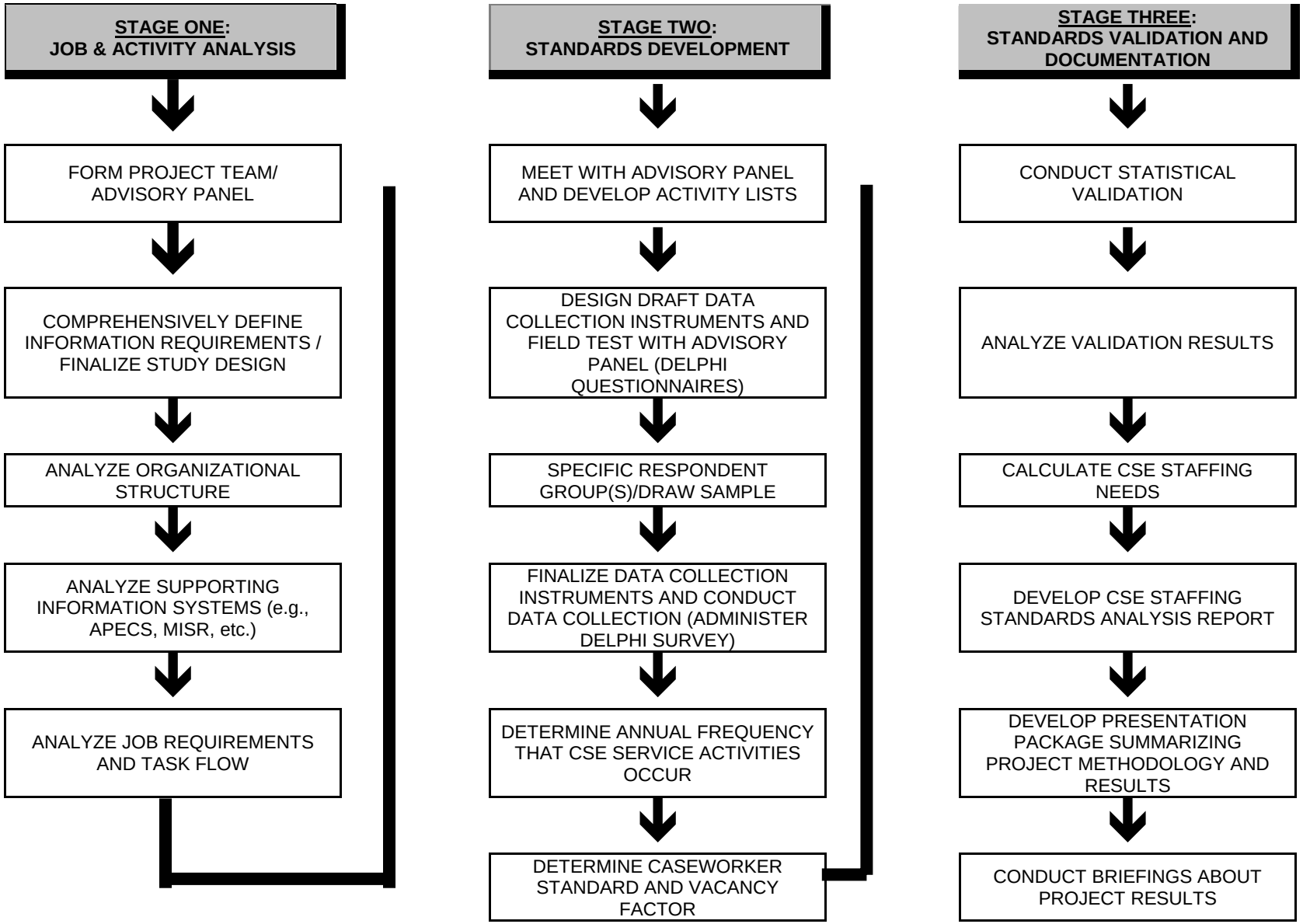
3. To determine how many case workers are needed to provide effective and efficient services at an appropriate level of quality, while achieving the desired impacts on clients

4. To conduct this research within acceptable standards of statistical reliability and validity[23]

The flow recommended to and adopted by the state, through the Department Steering Committee, is presented below in Table 3: Overview of Technical Approach to Develop CSE Staffing Standards.

[23] From chart in *Overview of Staffing Standards Methodology* (1-9-96). Presented at state Department of Social Services, Richmond, on 1/31/96.

Table 3: Overview of Technical Approach to Develop CSE Staffing Standards



Omni and Project staff also created an Advisory Panel of child support specialists who represented the six small offices and all six of the functions or specialties for which Omni was to develop standards—that is, Customer Services, Intake, Locate, Establishment (both Paternity and Obligation), Enforcement, and Judicial Support.[24]

Members of the Advisory Panel met several times in Fredericksburg to discuss and develop separate lists of tasks and activities for each specialty. These lists were then formatted and pre-tested in questionnaires before being administered to all specialists in the six small offices who had at least six months of on-the-job experience in the given specialty.

Using the Delphi technique, the questionnaires were administered twice to all specialists in written form (see below, Table 4: Implementation of the Delphi Method). For the second-round questionnaires, Omni provided all specialists with the times (in rank order) that their colleagues had provided for *each* task or activity on the first-round questionnaire.

Regardless of task/activity, the fundamental question posed on the six questionnaires was stated as follows: *How much time is needed to perform [the listed task or activity] at an acceptable level of quality?* "Quality" in this instance meant that the task/activity, once performed, would meet existing federal compliance and state policy standards. The primary intent in the development of the staffing standards was to provide adequate time for case workers to meet all state and federal service requirements at acceptable levels of quality—that is, levels that achieve successful outcomes for clients (see Objective #3 in Developing Standards above, page 41).

[24] The Virginia CSE program operates as a "specialist" or division-of-labor system. That is, specialists are assigned to handle one portion of a client's case (e.g., Intake, Establishment).

Table 4: Implementation of the Delphi Method

THE DELPHI METHOD WAS IMPLEMENTED IN THE VIRGINIA CSE PROGRAM BY COMPLETING THE FOLLOWING STEPS:

- COMPLETE AN *ORGANIZATIONAL ANALYSIS* OF THE CSE PROGRAMS AND DEVELOP A *TAXONOMY* OF ACTIVITIES. THIS WAS DONE BASED ON DOCUMENTS REVIEW, DISCUSSION WITH STATE LEVEL PROGRAM STAFF AND MEETINGS WITH DISTRICT ADVISORY PANELS. THE TAXONOMY WAS ORGANIZED UNDER THE FOLLOWING SIX FUNCTIONS:
  - INTAKE
  - CUSTOMER SERVICE
  - LOCATE SERVICES
  - ESTABLISH PATERNITY +/OR A SUPPORT OBLIGATION
  - ENFORCEMENT
  - JUDICIAL SUPPORT
- DEVELOP AND *FIELD-TEST* (WITH A GROUP OF CSE WORKERS AND SUPERVISORS) QUESTIONNAIRES THAT SPECIFY EACH CSE CASE-RELATED ACTIVITY. A SEPARATE QUESTIONNAIRE WAS DEVELOPED FOR EACH FUNCTION.
- SPECIFY RESPONDENT GROUPS AND DRAW A *SAMPLE* (WITH A 95% $\pm$ 1.96 STANDARD DEVIATIONS LEVEL OF PRECISION AND RELIABILITY) FROM A UNIVERSE OF *EXPERIENCED CSE WORKERS* WITH AT LEAST *SIX MONTHS* OF PROGRAMMATIC EXPERIENCE AND WHO CURRENTLY SPEND AT LEAST *24%* OF THEIR TIME PROVIDING SERVICES IN EACH SPECIFIC CSE FUNCTION STUDIED.
- COLLECT DATA:
  - *Round One*: A questionnaire for each function was distributed, completed by respondents, returned, analyzed, and feedback of fellow respondents (i.e., a printout of all responses for each service activity) was developed for distribution with round two questionnaires.
  - *Round Two*: Repeat the previous step and provide first round feedback to the respondents, attempting to obtain acceptable range of consensus, while identifying disparate responses that may indicate problems in activity definitions.
- DETERMINE HOW MUCH *TIME* IS *NEEDED* TO PERFORM EACH CSE SERVICE ACTIVITY AT AN *ACCEPTABLE LEVEL* OF *QUALITY* (STANDARD TIME).
- *ANALYZE* THE RESULTS WITH THE DISTRICT ADVISORY PANEL AND *CALIBRATE* THE RESULTS. THIS INVOLVED *DELETING* ANY TIME ESTIMATES THAT *DUPLICATE TIME* REPORTED IN ANOTHER ACTIVITY TIME ESTIMATE, *MODIFYING* ANY TIME *ESTIMATES* THAT THE ADVISORY PANEL FOUND DID NOT ACCURATELY REFLECT THE TIME NEEDED TO COMPLETE THAT SERVICE ACTIVITY, and *COMBINING* ANY SERVICE ACTIVITIES THAT HAD SIMILAR TIME ESTIMATES FOR WHICH SEPARATE FREQUENCY ESTIMATES COULD NOT BE DEVELOPED.
- DETERMINE THE *FINAL ACTIVITY TIMES*.
- DETERMINE HOW OFTEN EACH SERVICE ACTIVITY WILL BE PERFORMED DURING THE COURSE OF A YEAR (*FREQUENCY*).
- *CALCULATE* AND *VALIDATE* STATEWIDE *STAFFING NEEDS* FOR WORKERS TO PROVIDE CSE SERVICES. THIS INVOLVED MULTIPLYING EACH ACTIVITY TIME ESTIMATE BY THE FREQUENCY THAT THE ACTIVITY WILL BE PERFORMED DURING A YEAR. EACH ACTIVITY TIME ESTIMATE WAS VALIDATED BY USING A STATISTICAL ANALYSIS WITH A SPECIFIED LEVEL OF PRECISION AND RELIABILITY.
- *CALCULATE STAFFING NEEDS* FOR WORKERS TO PROVIDE CSE SERVICES IN SMALL DISTRICT OFFICES.

After summarizing the time standards on the second-round questionnaires by task/activity for each of the six specialties, Omni staff met with groups of specialists to review and "calibrate" the second-round Delphi standards. Calibrating the standards meant determining whether, in these specialists' judgments, each standard accurately reflected "the time required to perform the service activity at a prescribed level of quality for an average case." These judgments were made with the explicit assumption that sufficient support staff would be available to handle normal support staff duties.

The next step of the process required determining the annual frequency for each task/activity (see Step #3 in Table 5: Seven Key Steps below). Project staff worked with Fredericksburg (the small experimental office) staff to determine these frequencies for calendar year 1994 (January to December) for each of the six questionnaires.[25]

Table 5: Seven Key Steps

THE STAFFING STANDARDS STUDY INVOLVED COMPLETING THE FOLLOWING SEVEN KEY STEPS:

1. *DEFINE EVERY* CSE *SERVICE ACTIVITY* A CSE WORKER PERFORMS.
2. DETERMINE HOW MUCH TIME IS NEEDED TO PERFORM EACH CSE SERVICE ACTIVITY AT AN ACCEPTABLE LEVEL OF QUALITY (*STANDARD TIME*).
3. DETERMINE HOW OFTEN EACH CSE SERVICE ACTIVITY WILL BE PERFORMED DURING THE COURSE OF A YEAR (*FREQUENCY*).
4. DETERMINE HOW MANY HOURS A WORKER HAS AVAILABLE EACH YEAR TO PROVIDE DIRECT CASE-RELATED CSE SERVICES (*CASEWORKER STANDARD*).
5. *CALCULATE* AND *VALIDATE STATEWIDE STAFFING NEEDS* FOR WORKERS TO PROVIDE CSE SERVICES.
6. CALCULATE HOW MANY CSE WORKER POSITIONS ARE VACANT ON AN AVERAGE DAY (*VACANCY FACTOR*).
7. CALCUATE *STAFFING NEEDS* FOR WORKERS TO PROVIDE CSE SERVICES IN *EACH SMALL DISTRICT OFFICE*.

[25] At this stage, no attempt was made to account for trends in caseload growth from year to year.

Omni staff then worked with Project staff to determine both the Case Worker Standard (see Step #4 in Table 5 above—the total annual hours per case worker devoted to case-related work only) and the Fredericksburg Position Vacancy Rate (see Step #6 in Table 5—the percent of total staff missing on an average day). Documentation for these rates is included below in the footnotes to Table 6 (see footnotes 27 and 28, respectively).

Table 6: Summary of Total Person-Hours and Total Positions Required for Case-Related Work Only – Fredericksburg[26]

[1] FUNCTION	[2] TOTAL PERSON HOURS REQUIRED	[3] CASE WORKER STANDARD[27]	[4] TOTAL WORKERS REQUIRED (2/3)	[5] VACANCY RATE[28]	[6] TOTAL POSITIONS REQUIRED (4 x 1.08)
Intake	3,702.3	1372	2.70	0.08	2.92
Customer Services	16,949.8	1372	12.35	0.08	13.34
Locate	2,239.0	1372	1.63	0.08	1.76
Establishment	1,397.5	1372	1.02	0.08	1.10
Enforcement	2,854.7	1372	2.08	0.08	2.25
Judicial Support	4,392.7	1372	3.20	0.08	3.46
TOTALS	31,536.00	1372	22.98	0.08	24.83

[26] These numbers represent the number of person hours and positions required to provide the case-related child support enforcement service activities defined in the Delphi questionnaires. These estimates are based on the assumption that sufficient support staff are available to provide all filing, copying, and similar support activities.

[27] The Fredericksburg standard for total hours worked, case-related *and* non-case-related, is 1586. Case-related work comprises 86.5% of the 1586 hours, or 1372 hours. *Independent Sources*: Evaluation Team, Fredericksburg office, DCSE personnel.

[28] For Fredericksburg office only. *Source*: data from Fredericksburg records.

Total Staff

To determine the *total* number of positions required to demonstrate optimal staffing in a small district office, however, additional calculations were necessary. A full complement of district office staff includes managers/supervisors, fiscal and computer technicians, and operations support staff *as well as* the case-related workers determined through Omni's analysis. This meant developing ratios for the district office's experience with Managerial Span of Control (1:5-6), for All Support Staff to Case-Related Specialists plus Managers/Supervisors (3 or 4:10), for Fiscal to Specialist Staff (1:4), and for Fiscal to Total Staff (1:5 or 6). Based on these ratios and their review by the Fredericksburg management team, Project staff proposed the following staff complement for the Fredericksburg Demonstration office:

Table 7: Proposed Complement of Staff for Fredericksburg Demonstration Office

25	Case-Related Workers (Omni research)
5	Management (1 District Manager + 4 Supervisors)
1	Accountant Senior
7	Fiscal Technicians
1	Computer Technician
1	Executive Secretary
2	Operations Support Staff
42	***Total Staff***

Twenty-eight of the 42 positions were filled at the time of this analysis.

Table 8: Positions Filled (Fredericksburg) at the Time of Analysis

3	Management (1 District Manager + 2 Supervisors)	Grade 14; Grades 12
13	Specialists	Grades 9, 10
5	Fiscal Technicians (1 Senior)	Grades 6, 7
5	Office Service Specialists (1 a Supervisor)	Grade 5
2	Program Support Technicians	Grade 6
28	***Total (effective 11-1-95)***	

Consequently, Project staff recommended that 14 additional staff be added to the Fredericksburg office. The new and/or reshuffled positions recommended are shown in Table 9.

Table 9: Recommended Staff Additions (Fredericksburg)

1	Management/Supervisor	Grade 12
11	Specialists	Grade 9, 10
2	Fiscal Technicians	Grade 6, 7
1	Accountant Sr.	Grade 12
1	Computer Network Technician	Grade 9
-2	Operations Support Staff	Grade 5, 6
14	***Total Additions***	

Since the research design gave discretion to the district office and its management team to decide *how* to use the additional positions, the 14 positions were recruited for and filled during June 1996, as shown below in Table 10.

Table 10: Actual Staff Additions (Fredericksburg)

1 Program Supervisor	Grade 12
7 Support Enforcement Specialists	Grades 9, 10
1 Fiscal Technician	Grade 6
5 Operations Support Staff	Grades 5, 6
14 Total Additions	

Implementing Standards

Placement Process

The internal decision-making process involved in both the placement of the Demonstration staff and the hiring process was left to the discretion of the Fredericksburg district manager and his supervisors. The management team in the district assessed the strengths and weaknesses of the current staff and the backlog of existing cases in each functional activity. In addition, the management team assessed the district's ability to comply with current state and federal audit criteria as well as the state performance standards. Specifically, the district management team was aiming to meet the state goals for paternity establishment, implementation of new enforcement techniques, and performance on interstate cases.

After the internal assessment of the office organization and permanent staffing configuration, the decision was made to make minor changes in the office organization prior to the hiring of the 14 authorized Staffing Demonstration positions. This process was conducted in conjunction with the final development of the standards.

As discussed in the Developing Standards section above (page 40), district and state management determined the grade levels and position types for the 14 Staffing Demonstration positions. Within the constraints of the labor categories and grades, the district was free to use the staff as its caseload and demographics dictated. Because the staff was only going to be temporary—that is, for the 15-month period of

the Staffing Demonstration—and because the management team determined that the performance goals could be met more successfully with "clean, ready to work cases," these temporary positions were devoted to supporting the specialists who managed child support enforcement cases in the district and to special projects, rather than being assigned specific cases within the district's caseload. Specific functions for which Staffing Demonstration personnel were responsible included:

- Cleaning and building viable, workable cases
- Obtaining information such as location in order to support paternity establishment
- Performing activities on "hard-to-work" establishment cases
- Reviewing and adjusting obligations
- Supporting interstate initiating cases

The ultimate placement of Staffing Demonstration personnel resulted in an allocation of the approved positions as shown in Table 11.

Table 11: Final Functional Allocation of Demonstration Staff (Fredericksburg)

Function	***Number of Positions***	***Type of Position***
Systems Management	2	Grade 5
Intake	1	Grade 5
Customer Service	1	Grade 6
Locate	2	Grade 9
Judicial Establishment	1	Grade 5
Paternity	2	Grade 9
Interstate	2	Grade 9
Review and Adjustment	1	Grade 9
Fiscal	1	Grade 6
Supervisor (Operations)	1	Grade 12

Hiring Process

Every effort was made by the Fredericksburg office to expedite the hiring process, since the 15-month Staffing Demonstration period began the day of the first hire, rather than the day on which the entire complement of the 14 positions was

filled. Staff were hired to begin work during one of two payroll cycles during the month of June 1996.

The two primary recruitment vehicles were the Virginia Employment Commission (VEC) and the internal VDSS, DCSE channels. The VEC provided some candidates, but the district reported that the most qualified candidates came from the internal communication of openings to former DCSE staff and contacts of DCSE staff with others in the community. The most qualified staff were deemed to be four former DCSE personnel (three from Fredericksburg and one from another Northern Virginia district office) who had retired under the Governor's Workforce Transition Act (WTA) of 1995.

One of the issues in the hiring process was sensitivity to the ongoing morale of the office staff. The requirements for hiring the Staffing Demonstration personnel provided that permanent staff could not be promoted into the Staffing Demonstration positions. The only way to have a permanent staff person fill a position at a higher level would be for that person to resign and be hired under the provisions of a temporary staff person. Current permanent staff members were somewhat concerned that new staff would be hired as temporary to supervise them. This was largely avoided and only one supervisory position was filled with a temporary staff person. That person had previously been employed in the Fredericksburg office and was well respected by her former co-workers.

In addition, the Fredericksburg management staff made special efforts to promote a sense of teamwork among permanent and Staffing Demonstration personnel. The management team and staff report that this feeling of teamwork was enhanced by the small size of the office, which allowed for ongoing communication regarding the purpose and nature of the new hires, the plan to reduce disruption when the staff left, the placement of staff, and other related issues.

Training of Demonstration Staff

As staff were hired, they were given the regular DCSE training for new staff. This training was arranged to coincide with the staff hiring date. While this was

deemed very desirable by the staff and the management team, it is not usually possible for staff to be trained in the first month of their employment with DCSE. The DCSE in-service training consists of one week of training designed to introduce the participants to the child support enforcement program, the organization of the DCSE, general policy of child support, and the statewide automated system (APECS). (See Appendix 2: DCSE 5-Day Training Outline, page 161, for an outline of topics covered.)

The bulk of training received by the Staffing Demonstration personnel was conducted by the Fredericksburg management team and consisted of small-group sessions with lecture and hands-on exercises, demonstrations of APECS functionality, and discussions of policy and procedures. The training was characterized as being very focused on the tasks that the Demonstration staff members were assigned, heavily reliant on questions and answers, and practical.

The small-group sessions were followed by one-on-one sessions in which the Demonstration staff worked directly with the supervisor and/or permanent staff whom they were supporting. Again, these sessions were directly related to the tasks assigned and focused on issues encountered in the work performed to date (either new material supplementing the previous training, remedial material, or material from related functions). The learning curve was longer because the Staffing Demonstration coincided with the implementation of a new automated system. In addition, training for the Staffing Demonstration personnel was hindered due to lack of available training space. The conference room formerly used for in-house refresher and policy update training had been converted to office space for the Staffing Demonstration personnel. While the public library was available, its use was problematic since most update training requires hands-on access to APECS, and this was not possible at the library.

Various lessons were learned from this training experience. For example, selected staff working in the interstate case processing function received Uniform Interstate Family Support Act (UIFSA) training in February 1997. While this training

was considered beneficial, management and staff had reported the need for more interstate training at the start of the Staffing Demonstration (i.e., summer 1996). In addition, fiscal staff received both in-service training and on-the-job training (OJT), but no formal financial training was provided for the Fiscal Unit staff, and this was identified as a disadvantage.

Project Time-Line

Initially, the two phases of the small office study were the *Base Period* (7/95-5/96) and the *Experimental* (or *"Staffing Standards"*) *Period* (6/96-8/97). A third phase, the *Post-Experimental* (or *"Post-Staffing Standards"*) *Period*, was added when it became apparent that some improvements from the additional staffing in the Fredericksburg office appeared to have longer term effects. Due to the need to prepare a report on findings from the Staffing Demonstration, however, this third phase was confined to the period from September 1997 through April 1998.

The Small Office study was thus divided into the following three time periods.

1. The *Base Period*, July 1995 through May 1996, was the period in which baseline data were collected for use in comparing the effects of the implementation of staffing standards. This was also the period in which the Center used the Delphi technique to determine additional staffing needs for the Fredericksburg district office.

2. The *Experimental Period* (also, the "Staffing Standards Period") June 1996 through August 1997, was the period during which the 14 additional staff recommended as a result of the Delphi technique were hired and worked full-time in the Fredericksburg district office. All 14 employees were hired in June 1996. While there was some turnover among these 14 additional employees, there were seldom fewer than 12 employed, with the following exceptions: In November 1996 and July 1997, there were 11 and 10 employees, respectively, and in the last month (August 1997), only five of the temporary employees were still employed. Data were also collected in the Experimental Period to determine the effects of the additional staffing on office performance.

3. The *Post-Experimental Period* (also, the "Post-Staffing Standards Period") was from September 1997 through April 1998. The purpose of collecting data in this period was to determine any experimental and post-experimental effects of the additional staffing on performance.

Evaluation Plan

The Center, VCU, and the DCSE Project Manager developed an evaluation plan for the small office study to investigate and test the four research questions. This plan, shown in Appendix 3: Evaluation Plan: Charlottesville and Fredericksburg District Offices (page 163), identifies the research questions, the data obtained that were relevant to the research questions, the hypotheses/propositions that were tested, and the methods used to test them.

Data Collection Plan

The Center, VCU, and the DCSE Project Manager developed a separate collection plan to obtain the data used to test the research propositions and hypotheses for the small office study. Appendix 5: Data Collection Plan: Charlottesville and Fredericksburg District Offices (page 170) identifies the data that were collected, explains the terms describing the data, and presents the collection schedule observed for the study. Most of the data were collected monthly from July 1995 through April 1998.

Small Office Results

The results are shown below for the seven hypotheses and the seven propositions for the Small Office study.

Testing the Hypotheses

Table 12: Results of Hypothesis Testing for Interoffice Comparisons in Charlottesville and Fredericksburg District Offices in Base, Experimental, and Post-Experimental Periods, 1995-1998 (see following page) shows the level of performance for the seven variables in both the Charlottesville and the Fredericksburg offices and results of comparisons of differences in performance between the two offices for the three periods. Tests were conducted of both intra- and inter-office comparisons of the seven variables using the Tukey method for the analysis of variance. The assumptions were that the means of the data were the same for both district offices for all comparisons. Any statistically significant (i.e., "significant") differences are also shown.

Table 12: Results of Hypothesis Testing for Interoffice Comparisons in Charlottesville and Fredericksburg District Offices in Base, Experimental, and Post-Experimental Periods, 1995-1998

Hypotheses 1-6	Charlottesville (Control Office) (# per employee)			Fredericksburg (Experimental Office) (# per employee)			Differences per employee: [Fredericksburg (minus) Charlottesville]			Net Results
	Base 7/95-5/96	Exprmtl 6/96-8/97	Post 9/97-4/98	Base 7/95-5/96	Exprmtl 6/96-8/97	Post 9/97-4/98	Base 7/95-5/96	Exprmtl 6/96-8/97	Post 9/97-4/98	Fredericksburg had for Post (minus) Base periods[1]:
H1: Locates	13.7	16.5	14.2	17.5	15.2	24.6***	3.8 (27%)	-1.3 (8%)	10.4* (73%)	1,214 more locates
H2: Paternity Establishments	2.0	1.9	1.6	1.9	2.5	3.0	-0.1 (5%)	0.6 (31%)	1.4* (87%)	276 more pat. estab.
H3: Administrative Obligations	1.8	1.8	1.3	0.9	1.2	0.8	-0.9* (50%)	-0.6* (50%)	-0.5* (38%)	74 more admin. oblig.
H4: Court Obligations	1.6	2.1**	2.5***	1.6	1.6	1.8	0.0 (0%)	-0.5* (23%)	-0.7* (28%)	129 less court oblig.
H5: Wage Withholdings	8.4	10.2**	10.8***	7.8	8.8	14.0***	-0.6 (7%)	-1.4* (13%)	3.2* (43%)	699 more wage w/hldg.
H6: Dollars ($) Collected	$23,302	$32,319**	$35,594***	$32,801	$29,385	$50,974***	$9,499* (40%)	-$2,934 (9%)	$15,380* (43%)	$1.08 million more coll.
Hypothesis 7	**Base 7/95-5/96**	**Exprmtl 6/96-8/97**	**Post 9/97-4/98**	**Base 7/95-5/96**	**Exprmtl 6/96-8/97**	**Post 9/97-4/98**	**Differences**			**Net Results**
							Base	**Exprmtl**	**Post**	**Fredericksburg had:**
H7: $ Benefits/$ Costs	$4.60	$5.10	$5.80	$6.50	$5.70	$9.50	$1.90* (41%)	$0.60 (11%)	$3.70* (63%)	$1.80 higher benefit/cost [Post (minus) Base]

Base period = July 1995 through May 1996
Experimental period in which additional staffing was provided in Fredericksburg only = June 1996 through August 1997
Post-Experimental period after the removal of the additional staffing = September 1997 through April 1998

* Inter-office comparisons of Base, Experimental and Post periods in which the difference is significant at the .05 level
** Intra-office comparison of Base and Experimental periods, in which the difference is significant at the .05 level.
*** Intra-office comparison of Base and Post periods, in which the difference is significant at the .05 level.

[1][Post (minus) Base] x 23 employees x 8 months

The comparisons in Table 12 for the Base Period show the level of performance prior to implementation of the 14 additional staff in the Fredericksburg office. Any significant differences are also shown. These comparisons represent the baseline conditions existing prior to initiation of the Experimental Period, which involved the addition of the 14 employees identified as being needed by the Delphi technique.

As noted previously, care was taken to select a control office (Charlottesville) that was similar to Fredericksburg. Nevertheless, there still may have been differences in the two offices, and it was necessary to determine the presence and magnitude of such differences. In addition, it was important to secure baseline information on performance for the seven variables in the Fredericksburg office. This information could then be used to gauge the effects the 14 additional staff might have had on Fredericksburg's performance. Without intra- and inter-office baseline data, determining the effects of the additional employees upon Fredericksburg's performance would be largely conjectural.

Data were also obtained regarding the performance of both offices during the Experimental Period. The purpose of collecting this information was to track any intra- and inter-office changes in performance that may have occurred during the period in which the 14 additional staff were being integrated into the Fredericksburg office.

Finally, data were collected for the Post-Experimental Period to determine any differences between the performance of the variables that may have resulted from the addition of the 14 employees. This post-experimental information was essential in testing the seven hypotheses.

H1 **There are no significant differences in the mean number of locates per district employee after implementation of staffing standards.**

Compared to Charlottesville, Fredericksburg had an average of 3.8 more locates per employee in each month during the Base Period. While this amounted to

a difference of 27 percent more, it was not statistically significant. This means that there was no statistically significant difference in the mean number of locates per employee for each month during the Base Period—that is, before the Experimental Period began. Consequently, while there were differences in this performance variable in the two offices, it was not significant.

During the Experimental Period, the average number of locates per employee in the Charlottesville office increased while the number in Fredericksburg decreased. The difference in the two offices was that Charlottesville averaged 1.3 more locates per employee each month during the 15 months of the Experimental Period. This difference, which was approximately eight percent, was not statistically significant. The decline in performance in Fredericksburg was not surprising. Often, the initial effect of introducing an experimental treatment in an employment setting results in a decline in performance. Usually, the extent of the decline in performance depends upon how dramatically a treatment changes the workplace environment. In this experiment, the change was a major one.

As noted earlier, the Delphi technique phase—that is, the Base Period—of the Staffing Demonstration determined that 14 additional employees were needed in Fredericksburg to handle the volume of work satisfactorily. Consequently, 14 temporary additional staff were employed in the Fredericksburg office during the Experimental Period. This addition increased the number of employees from 28 to 42.

During the 15 months of the Experimental Period, the numbers of both permanent and temporary employees varied somewhat, as shown earlier. Permanent staffing gradually declined from 28 employees to 23. This reduction was due to a hiring freeze implemented by the Governor of the Commonwealth of Virginia. In addition, the number of temporary employees authorized by the staffing study varied from 14 to 11. In most months, the number of temporary employees was approximately 13. The assimilation of the 14 temporary employees, which in effect increased the total employment level in Fredericksburg by 50 percent, required some

changes in the operation of the office. In view of these changes, it is not surprising that several of Fredericksburg's performance indicators, including the average number of locates, initially declined.

In the eight-month Post-Experimental Period, there was a change in the average number of locates per employee per month. For Charlottesville, the number declined, but for Fredericksburg, the number dramatically increased from 15.2 to 24.6. On an intra-office basis, this increase for Fredericksburg was significant. Furthermore, compared to Charlottesville, the difference in the mean number of locates was 10.4 per employee, representing a 73 percent difference. As a result of these data, *H1* is rejected—that is, there were significant differences in the mean number of locates per Fredericksburg district employee after implementation of staffing standards.

H2 **There are no significant differences in the mean number of paternities established per district employee after implementation of staffing standards.**

In the Base Period, the number of paternity establishments per employee each month for both Charlottesville and Fredericksburg was approximately the same, since it was 2.0 and 1.9, respectively. This 0.1 difference was not significant. In the Experimental Period, Charlottesville had 1.9 paternity establishments and the Fredericksburg office increased to 2.5 paternity establishments per employee. This difference of 0.6 was also not significant.

In the Post-Experimental Period, the number of paternity establishments per employee for Charlottesville declined to 1.6, while the number for Fredericksburg increased to 3.0. This additional 1.4 paternity establishments per employee was significant, representing an 87 percent difference.

As a result of these data, *H2* is rejected—that is, there were significant differences in the mean number of paternities established per Fredericksburg district employee after implementation of staffing standards.

H3 **There are no significant differences in the mean number of cases administratively obligated per district employee after implementation of staffing standards.**

In the Base Period, Charlottesville had 1.8 administrative obligations established per employee per month and Fredericksburg had 0.9 administrative obligations established per employee. This 0.9—or 50 percent—difference was significant. An analysis of this difference included discussions with the district managers in both offices. Part of this difference was due to differences in the mix of TANF/Non-TANF caseloads. Non-TANF cases typically have child support obligations established before the case is assigned to the child support district office. Since the Charlottesville office has a proportionately larger number of TANF cases, that office has a better chance of establishing administrative obligations than does the Fredericksburg office.

During the Experimental Period, the average number of administrative obligations established per employee in Charlottesville remained constant at 1.8 from the Base Period. The average number for Fredericksburg rose from 0.9 in the Base Period to 1.2. The difference of 0.6—or 50 percent more establishments in the Charlottesville office—was significantly greater.

In the Post-Experimental Period, the number of administrative obligations established per employee declined in both offices. The figure was 1.3 in Charlottesville and 0.8 in Fredericksburg. The difference of 0.5 obligations per employee—or 38 percent greater in Charlottesville—is significant.

As a result of these data, *H3* is rejected—that is, there were a significantly larger mean number of cases administratively obligated per Charlottesville district employee after implementation of staffing standards. Fredericksburg made substantial improvement in administrative obligations from the Base to the Post-Experimental Periods, so the difference between Charlottesville and Fredericksburg declined by 74.

H4 **There are no significant differences in the mean number of judicially obligated cases per district employee after implementation of staffing standards.**

Comparisons in the mean number of judicially obligated cases between the two district offices prompted an analysis similar to the one discussed above, regarding administrative obligations. This analysis also included discussions with the district managers in both offices.

As a result of this analysis, it can be concluded that part of this difference, like the difference in administrative obligations, is due to differences in the mix of TANF/non-TANF caseloads. Establishing judicial obligations is more typical with TANF cases. Since the Charlottesville office has a proportionately larger number of TANF cases, it should be expected that, compared to Fredericksburg, a larger number of Charlottesville's cases would have judicial obligations established. In addition, non-TANF cases usually have divorce decrees that stipulate child support obligations, negating the need to obtain a court obligation.

In the Base Period, the number of judicial obligations was the same for both Charlottesville and Fredericksburg, at 1.6 obligations established per employee per month. During the Experimental Period, however, the number of judicial obligations for Charlottesville increased to 2.1, while the number for Fredericksburg remained constant at 1.6. The 0.5 increase—or 23 percent more—judicial obligations for Charlottesville was significant.

During the Post-Experimental Period, the difference in the mean number of judicial obligations for the two offices widened. The rates were 2.5 and 1.8 for Charlottesville and Fredericksburg, respectively. This 0.7 more judicial obligations per employee per month is also significant.

As a result of these data, *H4* is rejected—that is, there were significant differences in the mean number of judicially obligated cases per Charlottesville district employee after implementation of staffing standards.

H5 **There are no significant differences in the mean number of wage withholdings per district employee after implementation of staffing standards.**

Wage withholdings, part of the enforcement function of taking positive action to collect child support payments from non-custodial parents, require employers to withhold stipulated amounts from paychecks due employees who owe child support payments and to forward those amounts to the appropriate child support district office for distribution to the employees' children. In the Base Period, the Charlottesville district office prepared an average of 8.4 wage withholdings per employee per month. This number exceeded by 0.6 withholdings the average number (7.8) prepared per employee in the Fredericksburg office. This difference was not significant.

During the Experimental Period, the employees in the Charlottesville office increased the rate of withholdings to 10.2, while the number per employee in the Fredericksburg office increased to 8.8. The difference in the two rates, which is 1.4 per employee, was significant. In the Post-Experimental Period, the Charlottesville rate increased slightly to 10.8, but the rate in the Fredericksburg office rose to an average of 14.0 wage withholdings per employee for each month. The difference of 3.2 withholdings per employee is significant.

As a result of these data, *H5* is rejected—that is, there were significant differences in the mean number of wage withholdings per Fredericksburg district employee after implementation of staffing standards.

H6 **There are no significant differences in the mean number of dollars collected per employee after implementation of staffing standards.**

A critically important performance indicator in child support enforcement is the number of dollars collected. Child support payments are largely, but not entirely, a function of the customer population. District offices with a larger proportion of non-welfare cases (non-TANF) generally have larger collections, since the non-custodial parents usually have regular jobs and higher incomes, resulting in larger support obligations. As noted above, since the Charlottesville district office has a

larger portion of customers with TANF cases, the dollars collected in that office would be expected to be less per case than in the Fredericksburg office. In a comparison of rates for this performance variable in the Base Period, the results of the differences in the TANF/non-TANF cases in the two offices are apparent. The collections in the Charlottesville office were an average of $23,302 per employee per month, while the rate for Fredericksburg was $32,801. The difference of $9,499 per employee per month was significant.

In the Experimental Period, the dollar collections per employee in each office changed quite dramatically. The rate for Charlottesville increased to $32,319, while the rate for Fredericksburg declined to $29,385. The resulting difference of $2,934 between Charlottesville and Fredericksburg is not significant.

During the Post-Experimental Period, however, the changes in this rate in the two offices were even more dramatic. In the Charlottesville office, there was a steady increase to $35,594 per employee per month. The rate for Fredericksburg rose to an average of $50,974 per employee for each month. The difference of $15,380—or 43 percent greater in Fredericksburg—was significant.

As a result of these data, *H6* is rejected—that is, there were significant differences in the mean number of dollars collected per Fredericksburg district employee after implementation of staffing standards.

H7 **There are no significant differences in the mean rate of dollar collections to costs after implementation of staffing standards.**

Like the variable for the dollars collected, the variable for the rate of dollars collected per dollars expended in a district office is an important, bottom-line measure of performance. The relationship between these two factors is referred to as the benefit/cost ratio. The *benefit* component of the ratio is the total dollars collected. The *cost* component is the total costs incurred in the district office plus an allocated portion of all other (e.g., Central Office) costs supporting the operation of the DCSE.

Since the mean dollars collected per employee are significantly higher in the Fredericksburg office, as noted in the discussion of the tests for *H6*, it should be assumed that the benefit/cost ratio would be more favorable in that office, if the costs of the two offices were relatively similar. Indeed, in the Base Period, Fredericksburg's benefit/cost ratio was $1.90 higher than that for Charlottesville. This difference is significant. In the Experimental Period, the costs in the Fredericksburg office increased appreciably without a commensurate increase in the dollars collected, which was undoubtedly due to the addition of the 14 employees. As a result, the benefit/cost ratio for Fredericksburg declined to $5.70. In the same period, the ratio in the Charlottesville office rose to $5.10. The difference between the two offices was 0.60, with Fredericksburg being higher. This difference is not significant.

In the Post-Experimental Period, progress was made by both offices. The Charlottesville ratio rose to $5.80. The Fredericksburg ratio rose even higher to $9.50, resulting in a difference of $3.70 between the two offices. This difference is significant.

As a result of these data, *H7* is rejected—that is, there were significant differences in the Fredericksburg mean rate of dollar collections to costs after implementation of staffing standards.

Testing the Propositions

P1 The Delphi technique is a feasible method for establishing staffing standards.

This proposition, involving the feasibility of using the Delphi technique to establish staffing standards, was tested through qualitative assessments of the results of input from various individuals. Members of focus groups, the district manager of the Fredericksburg office, and others were interviewed for their opinions concerning this proposition. The results from the focus groups affirmed the fact that the Delphi methodology was a valid process to collect and analyze data for the establishment of

staffing standards. Data collection methodologies allowed for an accurate reporting of task, time, and frequency of staff actions. In addition, the assessment validated the use of the Delphi technique to analyze data correctly to determine appropriate staffing standards for a child support office. Based upon these results, *P1* is supported.

P2 **The implementation of staffing standards in the Fredericksburg district office is desirable.**

This proposition, involving the desirability of using the Delphi technique to develop staffing standards, was analyzed through the results of the hypothesis testing. This involved making a determination about whether the additional staff identified through the Delphi technique appeared to have the desired effect upon the performance variables, such as the number of locates achieved and the number dollars collected.

Results from applying the standards developed by the Delphi methodology strongly support *P2*, as demonstrated in the analysis and discussion of the hypotheses presented above. The positive impact is seen in operational efficiency, productivity, quality of service, and cost-effectiveness variables.

P3 **The numbers of full-time employees in the Fredericksburg district office are not different than those in the Charlottesville district office prior to the implementation of staffing standards (Base Period) and during a Post-Experimental Period.**

To test this proposition, an analysis was conducted of the full-time positions in both offices during an eleven-month period prior to the implementation of the staffing standards (i.e., Base Period) and an eight-month period after culmination of the additional staffing (i.e., Post-Experimental Period). Table 13 below contains the results of the analysis.

The numbers of full-time positions in the earlier period were virtually the same for both offices. A similar result occurred during the Post-Experimental Period.

This leads to a conclusion that supports *P3*—that is, there were no differences in the staffing levels between the two offices during the two time periods.

Table 13: Comparison of the Staffing Levels in the Charlottesville and Fredericksburg District Offices Prior to (Base Period) and After Conclusion (Post-Experimental Period) of the Experimental Period of the Staffing Demonstration

District Office	Base Period Number of full-time employees (average no. during 7/95-5/96)	Post-Experimental Period Number of full-time employees (average no. during 9/97-4/98)
Charlottesville	27.5	22.5
Fredericksburg	27	23

P4 **Additional staffing has a positive effect upon employee satisfaction.**

To test this proposition, four employee job satisfaction surveys were conducted. One survey was conducted during the Base Period, prior to implementation of the additional staffing. The other three surveys were conducted during the Experimental Period. The results are shown below in Table 14.

The level of employee satisfaction in the Base Period was identical at 3.24 points (on a 5.0 scale). During the Experimental Period, however, employee satisfaction increased, ranging from about 1/3 of a point to 3/4 of a point increase. These results support *P4*—that is, the addition of staffing had a positive effect upon employee job satisfaction.

Table 14: Responses to Employee Opinion Survey Question:
***Overall, how satisfied are you with working here*?**

(Scale: 5 = Very Satisfied; 1 = Very Dissatisfied)

Date	Charlottesville (Control Office)		Fredericksburg (Experimental Office)		Differences: Fredericksburg (minus) Charlottesville	
	Base 7/95 - 5/96	Exprmtl 6/96 - 8/97	Base 7/95 - 5/96	Exprmtl 6/96 - 8/97	Base 7/95 - 5/96	Exprmtl 6/96 - 8/97
July 1995	3.24		3.24		0.00	
September 1996		2.80		3.57		0.77
January 1997		3.24		3.59		0.35
June 1997		3.10		3.71		0.61

P5 **The turnover rate for the Fredericksburg district office is the same as the rate in the Charlottesville district office prior to the implementation of the staffing standards and is lower than Charlottesville after the implementation.**

To test this proposition, an analysis was conducted of the turnover rates in both offices during the eleven-month Base Period and the eight-month Post-Experimental Period. Table 15 below contains the results of the analysis. There was little difference in the turnover rates for both offices in the Base Period. There was no turnover of employees in full-time positions in the Post-Experimental Period. These data partially support *P5*—that is, there were no differences in the turnover rates between the two offices in the Base Period; however, they do not support the proposition that the turnover rate for Fredericksburg would be lower in the Post-Experimental Period.

Table 15: Comparison of the Turnover Rate in the Charlottesville and Fredericksburg District Offices Prior to (Base Period) and After Conclusion (Experimental Period) of the Staffing Phase of the Staffing Demonstration

District Office	Base Period Turnover rate (7/95-5/96)	Post-Experimental Period Turnover rate (9/97-4/98)
Charlottesville	.12	.0
Fredericksburg	.09	.0

Note: Annualized Base Period turnover rate = no. of employees leaving. [(Number employees at the beginning of the period + number employees at the end of the period) divided by 2] x 5/6.

P6 **Customer opinions of employee responsiveness, courtesy, and helpfulness in the Fredericksburg district office are better than those in the Charlottesville district office after implementation of the staffing standards.**

To test this proposition, customer opinion surveys were conducted during three phases in the Experimental Period in both the Charlottesville and Fredericksburg district offices. Three questions were selected for comparison:

1. *Was your case handled in a timely manner?*

2. *Are you treated courteously when you phone or visit the office?*

3. *Have child support staff been helpful?*

Table 16 below contains the results of these three questions. The last three columns in the table contain the percentage point differences in responses to the questions. These results support *P6*—that is, customer opinions of employee responsiveness, courtesy, and helpfulness were more positive in the Fredericksburg district office.

Table 16: Responses to Customer Opinion Survey Questions Administered During Selected Months in the Experimental Period in Charlottesville and Fredericksburg Child Support Enforcement District Offices

(Percent responding "Usually" or "Always")

Question	Charlottesville (Control Office)			Fredericksburg (Experimental Office)			Percentage Point Differences: [Fredericksburg (minus) Charlottesville]		
	Nov. 1996	Jan. 1997	May 1997	Nov. 1996	Jan. 1997	May 1997	Nov. 1996	Jan. 1997	May 1997
1. Was your case handled in a timely manner?	42%	44%	42%	59%	52%	68%	17	8	26
2. Are you treated courteously when you phone or visit the office?	85%	63%	85%	84%	90%	91%	-1	27	6
3. Have child support staff been helpful?	78%	53%	78%	82%	80%	92%	4	27	14

P7 **Compliance with federal case processing standards in the Fredericksburg district office is better than the compliance in the Charlottesville district office after implementation of the staffing standards.**

To test this proposition, analyses were conducted of sample cases handled in the two district offices during three different months in the Experimental Period. The results are shown below in Table 17. The percentage point differences in the compliance in the three periods are shown in the last three columns. The substantial differences in the results support *P7*—that is, the Fredericksburg district office was

better in complying with federal standards after adding the additional staff during the Experimental Period of the Staffing Demonstration.

Table 17: Percentage of Cases in Compliance with Case Processing Standards in Selected Months in the Experimental Period in Charlottesville and Fredericksburg Child Support Enforcement District Offices

	Charlottesville (Control Office)			Fredericksburg (Experimental Office)			Percentage Point Differences: Fredericksburg (minus) Charlottesville		
	June 1996	Jan. 1997	Aug. 1997	June 1996	Jan. 1997	Aug. 1997	June 1996	Jan. 1997	Aug. 1997
Percent in compliance	39%	45%	53%	66%	62%	67%	27%	17%	14%

Small Office Findings

This portion of the Staffing Demonstration, designed to test various dimensions of the introduction of staffing standards in a small district office of the DCSE in Virginia, was highly successful. While some obstacles were encountered during the study, such as an administrative freeze on hiring full-time personnel, such things invariably occur in quasi-experimental studies. The high degree of cooperation, commitment, and assistance from DCSE personnel, however, was outstanding in overcoming these and other obstacles.

The two offices in this part of the Staffing Demonstration—the Fredericksburg (experimental) office and the Charlottesville (control) office—were not identical but were similar in many ways. With reference to *P3*, the two offices began the Staffing Demonstration with almost identical numbers of employees. Furthermore, with reference to *P4*, the level of employee overall satisfaction with their jobs was identical in the Base Period. Also, the employee turnover rates were similar, as stated in *P5*.

For the performance variables that were identified to test the hypotheses in the Base Period, there were significant differences between the two offices in three variables: administrative obligations, dollars collected, and the benefit/cost ratio. All three of these differences were in part due to the TANF/non-TANF customer populations. As noted above, since the Charlottesville office has a larger TANF customer base, this office has more cases that lend themselves to administrative obligations. Consequently, this office would be expected to have a higher rate of administrative obligations per employee than Fredericksburg.

In addition, a non-TANF customer typically has a larger financial support obligation per child. Since the Fredericksburg office has a proportionately larger non-TANF customer base, as noted earlier, this office should be expected to have a statistically significant larger rate of dollars collected per employee and benefit/cost ratio, when compared to Charlottesville.

In sum, with the exception of the three performance variables associated with the type of customer base, the two offices were very similar, as noted in the comparisons of baseline information of number of employees, turnover rates, level of employee job satisfaction, and mean rates per employee of performance in locates, paternity establishments, court obligations, and wage withholdings.

Hiring the additional 14 employees identified by the Delphi technique had major positive effects upon the Fredericksburg office, compared to the Charlottesville office. All of the propositions were supported by an analysis of the Post-Experimental Period results.

The 14 additional employees also had a positive effect upon five of the performance variables. Compared to Charlottesville, the Fredericksburg office had a significantly larger rate per employee of the mean number of locates, paternity establishments, wage withholdings, and dollars collected. In addition, Fredericksburg had a $3.70 higher benefit/cost ratio, which was significantly greater than the ratio in Charlottesville. Consequently, for all five of these variables, the data support rejection of the respective hypotheses and result in the conclusion that the higher results for the Fredericksburg office were significant. As noted previously, the customer TANF/non-TANF mix partially accounts for some of the differences in the dollars collected and the benefit/cost ratio. Finally, comparisons of the rates per employee involved with the establishment of obligations—namely, court and administrative obligations—result in data that support a rejection of the respective hypotheses and the conclusion that the rates for both court and administrative obligations were significantly higher in the Charlottesville office. As noted earlier, however, Fredericksburg employees made more progress in administrative obligations than Charlottesville employees did from the Base to the Post-Experimental Periods. This improvement was not significant.

In more practical terms, the addition of the 14 employees in the Fredericksburg office produced tangible results, and the net results of the differences in the two offices for the Post-Experimental Period minus the Base Period can be

calculated (see Table 12 above, page 56). For the eight months in the Post-Experimental Period, the Fredericksburg office, in comparison to the Charlottesville office, located 1,214 more non-custodial parents, established 276 more paternities, improved by 74 administrative obligations from the Base Period, completed 699 more wage withholdings, collected $1.08 million dollars more, and improved the benefit/cost ratio by $1.80. The other results attained during the Experimental Period for the Fredericksburg office were a 19 percent increase in employee satisfaction, a 7 to 10 percentage point increase in customer perception of employee performance, and a better rate of compliance with federal standards by 20 percentage points.

This page intentionally left blank.

Experimental and Control Offices: Large Office Study

Selecting the Experimental/Control Offices

The procedure that was followed in selecting the Large Office study experimental and control offices was the same as the one used for the Small Office study. The data and a summary of the analysis used in the selection process are shown in Appendix 1: Criteria for Selecting Experimental Offices (page 143). The data were analyzed and recommendations made to the DCSE Director and selected members of his staff. The recommendations were also presented to the Department Steering Committee for concurrence and approval.

As discussed previously, two treatments were used in the Large Office study.[29] The first treatment was the introduction of computer macros to facilitate case management. The second treatment was additional staffing. Roanoke was selected as the experimental office to receive both the macros and the additional personnel. Richmond was selected to receive the macros and provide a control for the additional personnel. Newport News was selected to provide a control for the macros and, thus, did not receive either treatment.

Project Implementation

Developing Standards

In spring, 1996 staff with Omni Systems (subcontractor to the Center) worked with the Technical Assistance and Evaluation contractors and Project staff to refine a flow chart for developing staffing standards for a "large" office in the Virginia DCSE system (based on the work done in fall 1994 to develop standards for the Small Office

[29] See Table 33: Experimental and Control District Offices: Treatment Design (page 149).

study). At the time, the Virginia DCSE system had 20 district offices around the state, seven of which were classified as "large" (Total Caseload > 22,000).[30]

The primary objectives of this portion of the research were fourfold:

1. To develop a comprehensive understanding of the Virginia DCSE delivery system, service categories, and casework tasks in one "large" office in Virginia

2. To define DCSE case workers' job responsibilities, performance expectations, and training needs in a framework of desired client outcomes

3. To determine how many case workers are needed to provide effective and efficient services at an appropriate level of quality, while achieving the desired impacts on clients

4. To conduct this research within acceptable standards of statistical reliability and validity[31]

The flow recommended to and adopted by DCSE, through the Department Steering Committee, was presented previously for the small office portion of the demonstration (see Table 3: Overview of Technical Approach to Develop CSE Staffing Standards, page 42).

Like the procedure followed in Fredericksburg and based upon that work, Omni and Project staff created an Advisory Panel of child support specialists representing all six functions or specialties for which Omni was to develop standards—Customer Services, Intake, Locate, Establishment (both Paternity and

[30] Incorporated into the research design, district offices with "medium" caseloads (Total Caseload between 13,000 and 22,000) were considered to be similar enough to "large" offices that staffing standards developed for a large office could serve as the prototype for standards for medium offices as well.
[31] From chart in *Overview of Staffing Standards Methodology* (1-9-96). Presented at state Department of Social Services, Richmond, on 1/31/96.

Obligation), Enforcement, and Judicial Support.[32] Unlike the procedure in Fredericksburg, however, these specialists were selected exclusively from the Roanoke office.

Members of the Roanoke Advisory Panel started with the separate lists of tasks and activities for each specialty developed for the small offices and adjusted them in minor ways to fit operations in Roanoke. These lists were then formatted and pre-tested in questionnaires, before being administered to all specialists in the Roanoke office with at least six months of on-the-job experience in the given specialty.

Next, using the Delphi technique (illustrated previously in Table 4: Implementation of the Delphi Method, page 44), the questionnaires were administered twice to all specialists in written form. For the second-round questionnaires, Omni provided all specialists with the times (in rank order) that their colleagues had provided for *each* task or activity on the first-round questionnaire.

Regardless of task/activity, the fundamental question posed on the six questionnaires was stated as follows: *How much time is needed to perform [the listed task or activity] at an acceptable level of quality?* "Quality" in this instance meant that the task/activity, once performed, would meet existing federal compliance and state policy standards. The primary intent in the development of the staffing standards was to provide adequate time for case workers to meet all state and federal service requirements at acceptable levels of quality—that is, levels that achieve successful outcomes for clients (see Objective #3 in this section, page 76).

[32] As noted in the small office portion of this report, the Virginia CSE program operates as a "specialist" or division-of-labor system: Specialists are assigned to handle only one phase of a client's case (e.g., Intake, Enforcement).

After summarizing the time standards on the second-round questionnaires by task/activity for each of the six specialties, Omni staff met with groups of specialists to review and "calibrate" the second-round Delphi standards. Calibrating the standards meant determining whether, in these specialists' judgments, each standard accurately reflected "the time required to perform the service activity at a prescribed level of quality for an average case." These judgments were made with the explicit assumption that sufficient support staff would be available to handle normal support staff duties.

The next step of the process required determining the annual frequency for each task/activity (see Step #3 in Table 5: Seven Key Steps, page 45). Project staff worked with Roanoke (the large experimental office) staff to determine these frequencies for state fiscal year 1996 (July 1995 – June 1996) for each of the six questionnaires.[33]

Omni staff then worked with Project staff to determine both the Case Worker Standard (see Step #4 in Table 5—the total annual hours per case worker devoted to case-related work only) and the Roanoke Position Vacancy Rate (that is, the percent of total staff missing on an average day). Documentation for these rates is included below in the footnotes to Table 18 (see footnotes 35 and 36, respectively).

[33] At this stage, no attempt was made to account for trends in caseload growth from year to year.

Table 18: Summary of Total Person-Hours and Total Positions Required for Case-Related Work Only -- Roanoke [34]

[1] FUNCTION	[2] TOTAL PERSON HOURS REQUIRED	[3] CASE WORKER STANDARD[35]	[4] TOTAL WORKERS REQUIRED (2/3)	[5] VACANCY RATE[36]	[6] TOTAL POSITIONS REQUIRED (4 x 1.08)
Intake	5814.32	1396	4.16	0.08	4.49
Customer Services	8174.05	1396	5.86	0.08	6.33
Locate	23,806.50	1396	17.05	0.08	18.41
Establishment	11,444.99	1396	8.20	0.08	8.86
Enforcement	18,272.67	1396	13.09	0.08	14.14
Judicial Support	3474.67	1396	2.49	0.08	2.69
TOTALS	70,987.20	1396	50.85	0.08	54.92

[34] These numbers represent the number of person hours and positions required to provide the case-related CSE service activities defined in the Delphi questionnaires. These estimates are based on the assumption that sufficient support staff are available to provide all filing, copying, and similar support activities.

[35] The statewide standard for total hours worked, case-related *and* non-case-related, is 1586. In Roanoke, case-related work comprises 88% of the 1586 hours, or 1396 hours. *Independent Sources*: Evaluation Team; DCSE personnel.

[36] For Roanoke office only. *Source*: data from Roanoke records and Evaluation Team.

Total Staff

To determine the *total* number of positions required to demonstrate optimal staffing in a large district office, additional calculations were necessary—just as they were for the small district office. A full complement of district office staff includes managers/supervisors, fiscal and computer technicians, and operations support staff as well as the case-related workers determined through Omni's analysis. This meant developing ratios for the district office's experience with Managerial Span of Control (1:5-6); for All Support Staff to Case-Related Specialists plus Managers/Supervisors (3 or 4:10), for Fiscal to Specialist Staff (1:4), and for Fiscal to Total Staff (1:5 or 6). Based on these ratios and their review by the Roanoke management team, Project staff proposed the following staff complement for the Roanoke Demonstration office.

Table 19: Proposed Complement of Staff for Roanoke Demonstration Office

55	Case-Related Workers (includes 1 Customer Services Supervisor)
7	Management (1 District Manager + 6 Supervisors)
1	Accountant Sr.
8	Fiscal Technicians
1	Executive Secretary
4	Operations Support Staff
76	***Total Staff***

Fifty-four of the 76 positions were filled at the time of this analysis, as shown below.

Table 20: Positions Filled (Roanoke) at the Time of Analysis

5	Management (1 District Manager + 4 Supervisors)	Grade 14; Grades 12
30	Support Enforcement Specialists	Grades 9, 10
8	Fiscal Technicians (including 1 Acct. Sr.)	Grades 5, 6, 8, 11
10	Operations Support Staff	Grade 5-7
1	Executive Secretary	Grade 6
54	***Total (effective 11-1-96)***	

Consequently, Project staff recommended that 22 additional staff be added to the Roanoke office. The new and/or reshuffled positions that were recommended are shown below in Table 21.

Table 21: Recommended Staff Additions (Roanoke)

2	Management (Supervisors)	Grade 12
- 4	Support Enforcement Specialists	Grade 9, 10
24	Operations Support Staff	Grade 5, 6
22	***Total Additions***	

Since the research design gave discretion to the district office and its management team to decide *how* to use the additional positions, the 22 positions were recruited for and filled during December 1996 – January 1997, as shown below in Table 22.

Table 22: Actual Staff Additions (Roanoke)

1	Supervisor	Grade 12
12	Support Enforcement Specialists	Grades 9, 10
1	Fiscal Technician	Grade 6
8	Operations Support Staff	Grades 5, 6
22	***Total Additions***	

Implementing Standards and Management Improvements

Placement Process

The internal decision-making process involved in both the placement of the Demonstration staff and the hiring process was left to the discretion of the Roanoke district manager and his supervisors. The management team in the district assessed the strengths and weaknesses of the current staff and the current performance of the district relative to the state performance measures. In addition, the management team assessed the district's capacity to comply with the current state and federal audit criteria. Specifically, the district management team was aiming to meet the state goals in each program area and to improve interstate case processing.

After the internal assessment of the office organization and permanent staffing configuration, the decision was made to add Demonstration staff as Program Support Technicians and Specialists to existing units and to create a new team for initiating interstate case processing, review and adjustment, and system management support. During the Staffing Demonstration, the person filling the supervisor position for this unit resigned and the work and the corresponding staff were reassigned to other units in the district office. This process was conducted in parallel with the final

development of the standards, while the district manager and DCSE Project Manager determined appropriate supervisor to staff ratio and appropriate clerical staffing for the office.

District and DCSE management also determined the grade levels and position types for the Staffing Demonstration positions. Within the constraints of the labor categories and grades, the district was free to use these staff as its caseload and demographics dictated. All staff were hired as temporary staff rather than as contract or restricted permanent employees. The ultimate placement of Demonstration staff resulted in an allocation of the 22 approved positions shown in Table 23 below.

Table 23: Final Functional Allocation of Demonstration Staff (Roanoke)

Function	*Number of Positions*	*Type of Position*
Customer Service	4	Grades 5(2), 6(2)
Locate	3	Grades 6(2), 9(1)
Judicial Establishment	1	Grade 9
Enforcement	4	Grades 6(1), 9(3)
Interstate	5	Grade 9
Review and Adjustment	3	Grades 5(1), 9(2)
Fiscal	1	Grade 6
Supervisor	1	Grade 12

Hiring Process

Every effort was made by the Roanoke office to expedite the hiring process, since the Staffing Demonstration period began the day of the first hire, rather than the day on which the entire complement of positions was filled. After Department approval of the staffing positions, the positions were advertised with VEC for two weeks and, during the same time, district staff notified persons who had expressed interest in employment previously. The quality of the candidates offered by VEC was rated high by the district management team.

One of the issues in the hiring process was sensitivity to the ongoing morale of the office staff. No permanent staff competed for the temporary positions, including the supervisor position. The District Manager made it clear that all staff could compete for promotions in the project, but he made sure that the lack of benefits and the temporary nature of the jobs were clearly communicated.

The management team split the interview process and used a scoring system to evaluate all persons interviewed. After the interviews, the management team met to review all the applicants and made hiring decisions. After the decisions were made, two persons offered jobs did not accept and alternates from the list were selected. Some final decisions on placement were made after the initial training. This allowed supervisors to assess staff during the training.

In addition, the Roanoke management staff made special efforts to promote a sense of teamwork among permanent and Demonstration staff members. The management team and staff report that this feeling of teamwork was enhanced by including Demonstration staff as a regular part of all office functions and by assigning caseloads to them in the same way caseloads were assigned to permanent staff.

Training of Demonstration Staff

As staff were hired, supervisors from the district developed an intensive one and a half-week training curriculum that reviewed all CSE policy and procedures. The DCSE manual was the basis of this training. The training consisted of small-group sessions with lecture and hands-on exercises, demonstrations of APECS functionality, and discussions of policy and procedures. The training was characterized as focused on the tasks that the Demonstration staff members were assigned, heavily reliant on questions and answers, and practical.

The Demonstration staff were then given the regular DCSE training program for new staff. This training was arranged to coincide with their hiring date. While this was deemed very desirable by the staff and the management team, generally it is not possible for staff to be trained in the first month of their employment with DCSE.

DCSE in-service training consists of one week of training designed to introduce the participants to the child support enforcement program, the organization of the DCSE, general policy of child support, and the statewide automated system (APECS). (See Appendix 2: DCSE 5-Day Training Outline, page 161, for topics covered.)

These small-group sessions were followed by one-on-one sessions in which Demonstration staff worked directly with the supervisor and/or permanent staff performing the function(s) assigned to them. Again, these sessions were directly related to the tasks assigned and focused on issues encountered in the work performed to date (either new material supplementing the previous training, remedial material, or material from related functions).

Additional training was provided in Locate and Financial Matters for Non-Financial Staff by the DCSE training unit. Staff assigned to the initiating interstate function received special UIFSA training that focused on determination of the controlling order. Other training was designed by district staff and covered review and adjustment, systems, medical support, and the use of computer-based macros (see discussion that follows).

In summary, various lessons were learned from this training experience. The learning curve was longer because the Staffing Demonstration coincided with the implementation of a new automated system, introduced statewide in spring 1994. Also, selected staff working in the interstate case-processing function received UIFSA training in February 1997. While this training was considered beneficial, management and staff had reported the need for more interstate training at the start of the Macros phase of the Staffing Demonstration (i.e., in summer 1996).

Implementing Core Macros

The management improvements selected by the state and demonstration offices were a set of core macros designed to supplement the reporting, case management, and documentation capabilities of the statewide automated system known as APECS.

Macro Design and Training

The Richmond district office staff had previously developed a set of macros. These were supplemented and improved, then used as the core macros for implementation in two demonstration sites. Staff in the Richmond and Roanoke district offices and the state systems team met in a series of design sessions to customize the macros for the Staffing Demonstration, to create new macros, and to make final selection of a core set of macros. The final categories of macros used in the demonstration are included below as Table 24. See Appendix 7: Description of the Core Macros Used in the Demonstration (page 177) for a definition of the macros listed below.

Table 24: Categories of Core Macros Used in the Demonstration

GENERAL. The following provides a listing of MACROS and the unit or team they have been developed to support. Refer to the MACROS definitions (*handout*) for identification.

The MACROS are loosely defined for teams or processing units. This is necessary to insure that all actions are performed before a case is considered to be in compliance or can be referred to the next processing step.

While the macros are defined by processing steps, they are placed with the staff who perform the function, regardless of the team they are assigned to. Example: If the receptionist takes care of logging cases entering and leaving the office, the central files MACROS would be placed on her PC.

CATEGORIES & MACROS	
a. CENTRAL FILES. MACROS are used to track case folders moving in and out of central files to include cases transferring in and out of the district office.	
CASETOCF CASETOTM CUSTCON CUSTRESP	TRFIN TRFOUT CASEINV

CATEGORIES & MACROS	
b. CUSTOMER SERVICE. MACROS are used to record all contacts made for cases assigned to the district and include telephone calls, walk-ins, and correspondence. They are also used to send customer requests or problems to staff within the office.	
ARREARS	CSETRF
ATTYCP	DISREGRD
ATTYNCP	EMPLOYER
CSEQRYAP	EMPLYNCP
CSEQRYCP	NCPUPDTE
CSEUPDTE	PYMTCP
CSUOTHER	PYMTNCP
CSUREF	TAXNCP
c. INCOMING MAIL PROCESSING. MACROS are used to record correspondence received from CPs, NCPs, or other interested parties, concerning case-specific information. They are not used to record receipt of forms or documents requested by district staff.	
CSEUPDTE	LTRDM
CUSTCON	LTRREF
CUSTRESP	LTROTHER
d. PAYMENT RECEIPT. MACROS are used to record walk-ins making payment. Part of this processing is to identify the amount of payment received, which can be used to reconcile daily deposit statements. Where payments are not involved but a CP or NCP comes in to discuss a payment question that can be resolved by staff taking payment, these contacts are also recorded.	
1STPYMT	CUSTRESP
CSEUPDTE	NCPCKPMT
CUSTCON	CSPPYMT
e. RECEPTIONIST. The receptionist may carry several roles in recording customer contacts, thus she/he has a larger number of MACROS to use—generally including all of the customer service MACROS if assisting customer service in taking calls. The payment MACROS are used to record walk-ins, with and without appointments. The list below includes only the MACROS for walk-ins.	
CPVISIT	NCPVISIT
CSEUPDTE	WALKINAP
CUSTCON	WALKINCP
CUSTRESP	*PLUS CSU MACROS
f. ADMINISTRATIVE STAFF. The District Manager, Executive Secretary, and Assistant Secretary will use MACROS to record all contacts with CPs, NCPs, attorneys, and other parties with questions about district cases. They also record contacts received from the regional and central offices. MACROS assigned are taken from the CSU and the receptionists. No new MACROS are created for this purpose.	
g. INTAKE. Intake will record all actions completed on cases they process for AFDC and NAFDC. Cases added to APECS will have the Intake review MACRO plus the case referral MACRO applied, the latter showing which processing steps the case has completed.	
CASETOCF	
CASETOTM	LOCATE
CLOSECSE	OPENRPT
CPINTV	REFERRAL
CSEUPDTE	SANCTION
CUSTCON	UIFSA
CUSTRESP	UNWRKREV
GCSVC	UPDTREPT
INTREV	

CATEGORIES & MACROS	
h. PATERNITY. Paternity processing will record the actions required to establish paternity. Where paternity and order establishment are completed by the same staff member, only the paternity review MACRO is required.	
CASETOCF	LOCATE
CASETOTM	PATNITY
CLOSECSE	PATREV
CPINTV	REFERRAL
CSEUPDTE	SANCTION
CUSTCON	UIFSA
CUSTRESP	UNWRKREV
i. ESTABLISHMENT. Establishment will record cases brought into compliance, show wage assignments completed and the next processing unit for the case.	
CASETOCF	ESTREV
CASETOTM	LOCATE
CLOSECSE	PATNITY
CPINTV	REFERRAL
CSEUPDTE	SANCTION
CUSTCON	SPTORD
CUSTRESP	UIFSA
ENFIWE	UNWRKREV
j. JUDICIAL. MACROS will be used to record completed case actions, interviews with CPs, and referral of cases to the next processing unit.	
CASETOCF	LOCATE
CASETOTM	LUMPSUM
CLOSECSE	OCCUPLIC
CPINTV	PATNITY
CSEUPDTE	REFERRAL
CUSTCON	SANCTION
CUSTRESP	SPTORD
DMVLIC	UIFSA
ENFIWE	UNWRKREV
JUDREV	
k. IV-A OFFICE. Where the district office has staff in the IV-A office, MACROS will be used to record interviews conducted, including “companion” cases updated.	
10MSTWNT	
CASETOCF	LOCATE
CASETOTM	LOCREV
CLOSECSE	PATNITY
CPINTV	REFERRAL
CSEUPDTE	SANCTION
CUSTCON	UIFSA
CUSTRESP	UNWRKREV
IVAINTV	
l. LOCATE. Locate will use MACROS to record cases in compliance and the referral of cases to other processing units.	
10MSTWNT	IVAINTV
CASETOCF	LOCATE
CASETOTM	LOCREV
CLOSECSE	PATNITY
CPINTV	REFERRAL
CSEUPDTE	SANCTION
CUSTCON	UIFSA
CUSTRESP	UNWRKREV

CATEGORIES & MACROS	
m. ENFORCEMENT. Enforcement will use MACROS to show cases in compliance, wage assignments completed, and the referral of cases to other processing units.	
10MSTWNT	LUMPSUM
CASETOCF	OCCUP0LIC
CASETOTM	OBLREVA
CLOSECSE	OWDENF
CPINTV	OWDLUMP
CSEUPDTE	REFERRAL
CUSTCON	REVOBL
CUSTRESP	SANCTION
DMVLICRV	SAFEREV
DMVLIC	SPTORD
ENFREV	UIFSA
LIEN	UNWRKREV
LOCATE	WAGEWH
n. SUPERVISORS. MACROS have also been created for supervisors for specialized purposes. These serve the functions required to review and monitor case actions.	
CASEREV	CTAPROVE
CSEUPDTE	DELPYMNT
CSUREV	DELWKLL
CSURTN	DELWKLOW
CUSTCON	DELWKLLX
CUSTRESP	RTNREVEW

A training team from the state systems group, the Richmond district office, and the Technical Assistance contractor provided initial training on macros and use of these tools with APECS. Additional technical support was provided on a limited basis by the Technical Assistance contractor, the Richmond office staff, and staff in the state Division of Information Systems. No readily available, nearby technical assistance was available to the Roanoke office, generally.

Project Time-Line

Initially, the three phases of the Staffing Demonstration were the *Base Period*, the *Macros Period*, and the *Experimental* (also, *Staffing Standards) Period*. The fourth phase, for data collection, was added when it became apparent that some improvements from the additional staffing in the district office appeared to have longer term effects and would require further analysis. Given a customary lag in the submission of reports from the district offices, as well as the time required to conduct

appropriate statistical testing and prepare reports, it was necessary to stop initial data collection after October 1998.

The Large Office study was thus divided into the following four time periods:

(1) The *Base Period*, July 1995 – July 1996, was the period in which baseline data on all performance variables were collected for use in comparing the effects of the two treatments—the macros and additional staffing. This was also the period in which the Center used the Delphi technique to determine additional staffing needs for the Roanoke district office. Data on performance variables were collected during the other three periods, as well.

(2) The *Macros Period,* August - November 1996, was the period when a number of computer-based macros were introduced into the Richmond and Roanoke offices to facilitate case management. The macros covered a variety of functions that affected the six specialties for which the staffing standards were developed.[37]

(3) The *Experimental Period* (also, the "Staffing Standards Period") December 1996 – February 1998, was the period during which the 22 additional staff recommended as a result of the staffing analysis were hired and worked full-time in the Roanoke district office. During this 15-month period, the full complement of 22 employees was employed for only three months (April and May 1997 and February 1998). Eighteen employees were hired in December 1996. That increased to 21 for January through March 1997. It was not until April that the full complement reached 22. This number remained constant for one more month (May). From June till February 1998, the last month, the number

[37] In the initial design of the project, this period was intended to incorporate more extensive management interventions, to ensure that operations were "state of the art" *before* the introduction of additional employees. The Center made several alternate proposals along these lines. While they were discussed extensively, none was adopted by the Departmental Steering Committee.

fluctuated from a low of 18 (in August 1997) to a high of 21 (in January 1998). In February 1998, the full complement of 22 employees was again reached.

(4) The *Post-Experimental Period* (also, the "Post-Staffing Standards Period") was from March through October 1998.

Evaluation Plan

The Center, VCU, and the DCSE Project Manager developed an evaluation plan to investigate and test the four research questions for the large office study. This plan, shown in Appendix 4: Evaluation Plan: Newport News, Richmond, and Roanoke District Offices (page 166), identifies the research questions, the data obtained that were relevant to the research questions, the hypotheses/propositions that were tested, and the methods used to test them.

Data Collection Plan

The Center, VCU, and the DCSE Project Manager developed a separate collection plan to obtain the data used to test the research propositions and hypotheses. Appendix 6: Data Collection Plan: Newport News, Richmond, and Roanoke District Offices (page 173), identifies the data that were collected, explains the terms describing the data, and presents the collection schedule that was observed.

This page intentionally left blank.

Large Office Results

Below are the results for and discussion of the fifteen hypotheses and six propositions for the Large Office study.

Testing the Hypotheses

As discussed previously, the purpose of the study was to determine the effects of additional staffing on district office performance. Table 25: Results of Hypothesis Testing for Interoffice Comparisons in Newport News, Richmond and Roanoke District Offices in Base, Macros, Experimental, and Post-Experimental Periods, 1995-98 (see following page) shows the level of performance for the seven variables in all three offices.

Prior to increasing the number of employees, macros were introduced to improve the manner in which cases were being handled. As discussed previously, hypotheses *H1* through *H7* address the effects of the macros on the operational efficiency, productivity, and cost-justification variables in the research questions. The macros were implemented in both the Richmond and Roanoke offices, although they were implemented in Richmond during the Base Period and in Roanoke in the Macros Period. For the Macros phase of the study, the experimental office was Richmond and the control was Newport News. Table 26: Net Results of Differences in Newport News and Richmond District Offices: Post (minus) Base Periods (see page 95) shows the differences in performance between Newport News and Richmond during the four periods.

Table 25: Results of Hypothesis Testing for Interoffice Comparisons in Newport News, Richmond and Roanoke District Offices in Base, Macros, Experimental, and Post-Experimental Periods, 1995-98

Hypotheses 1-6 & 8-13	Newport News (Control Office) (# per employee)				Richmond (Control Office with Macros) (# per employee)				Roanoke (Macros & Staffing Standards) (# per employee)			
	Base 7/95-7/96	**Macros 8/96-11/96**	**Experimental 12/96-2/98**	**Post-Exper. 3/98-10/98**	**Base 7/95-7/96**	**Macros 8/96-11/96**	**Experimental 12/96-2/98**	**Post-Exper. 3/98-10/98**	**Base 7/95-7/96**	**Macros 8/96-11/96**	**Experimental 12/96-2/98**	**Post-Exper. 3/98-10/98**
H1 & H8: Locates	7.8*	7.5*	6.8*	6.8	10.9*	13.5*	10.6*	8.4	18.2*	19.3*	19.1*	22.1*
H2 & H9: Paternity Establishments	3.0	2.1	2.2*	1.9	3.2	2.2	1.9*	1.8	1.8*	1.7*	1.3*	2.1
H3 & H10: Administrative Obligations	1.3	1.6	1.5	1.8***	1.5	1.4	1.9*	2.2***	2.4*	2.0*	1.7	1.5***
H4 & H11: Court Obligations	1.3	0.8*	1.1	1.3	0.9	1.1	1.0	1.2	1.5	1.5	1.1	1.8
H5 & H12: Wage Withholdings	11.2*	11.9	12.8	15.4	6.4*	6.7*	13.4	14.4	9.9*	11.0	8.5*	11.9*
H6 & H13: Dollars ($) Collected	$27,347*	$28,682*	$35,817**	$38,605*	$15,848*	$15,719*	$20,804**	$24,593*	$21,992*	$22,364*	$19,634**	$30,893*
Hypotheses 7 & 14												
H7 & H14: $ Benefits/$ Costs	4.99*	5.06*	6.19**	8.28*	2.92*	2.77*	3.64**	5.38*	3.91*	3.84*	4.17**	6.54*

*Significant at .05 level

**Difference between Newport News and Richmond and between Newport News and Roanoke; no difference between Richmond and Roanoke.

***No difference between Newport News and Roanoke; also no difference between Newport News and Richmond; there is a difference between Richmond and Roanoke.

Table 26: Net Results of Differences in Newport News and Richmond District Offices: Post (minus) Base Periods

Hypotheses 1-6	Differences: Newport News minus Richmond (# per employee)				Net Results
	Base 7/95-7/96	Macros 8/96-11/96	Experimental 12/96-2/98	Post-Exper. 3/98-10/98	Newport News had for Post (minus) Base Periods:**
Hl: Locates	-3.1*	-6.0*	-3.8*	-1.6	540 more locates
H2: Paternity Establishments	-0.2	-0.1	0.3*	0.1	108 more paternity establishments
H3: Administrative Obligations	-0.2	0.2	-0.4*	-0.4	72 fewer administrative obligations
H4: Court Obligations	0.4	-0.3*	0.1	0.1	108 fewer court obligations
H5: Wage Withholdings	4.8*	5.2*	-0.6	1.0	1,368 fewer wage withholdings
H6: Dollars ($) Collected	$11,499*	$12,963*	$15,013*	$14,012*	$904,680 more collections
Hypothesis 7					
H7: $Benefits/ $Costs	$2.07*	$2.29*	$2.55*	$2.90*	$0.83 higher benefit/cost ratio

*Significant at .05 level.
**[Post (minus) Base] x 45 employees x 8 months.

For the Experimental Period of the study, additional personnel were added to the Roanoke office. The Richmond office was the control for this phase of the study. Hypotheses *H8* through *H14* address the effects of the additional staffing on the operational efficiency, productivity, and cost-justification variables in the research questions. Table 27: Net Results of Differences in Roanoke and Richmond District Offices: Post (minus) Base Periods (see below) shows the differences in performance between Richmond and Roanoke during the four periods. Since the second treatment involved the addition of employees, a hypothesis (*H15*) was formulated to test for any differences in the number of employees among the three offices during the study.

Tests of interoffice comparisons were conducted for the seven variables for *H1* through *H14*, using the Tukey method for the analysis of variance. The assumption was that the means of the data were the same for both (i.e., experimental

and control) district offices, for all comparisons. Any statistically significant ("significant") differences are shown.

Table 27: Net Results of Differences in Roanoke and Richmond District Offices: Post (minus) Base Periods

Hypotheses 8-13	Differences: Roanoke minus Richmond (# per employee)				Net Results
	Base 7/95-7/96	Macros 8/96-11/96	Experimental 12/96-2/98	Post-Exp. 3/98-10/98	Roanoke had for Post (minus) Base periods:**
H8: Locates	7.3*	5.8*	8.5*	13.7*	2,713 more locates
H9: Paternity Establishments	-1.4*	-0.5*	-0.6*	0.3	720 more paternity establishments
H10: Administrative Obligations	0.9*	0.6*	-0.2*	-0.7*	678 fewer administrative obligations
H11: Court Obligations	0.6	0.4	0.1	0.6	No change in court obligations
H12: Wage Withholdings	3.5*	4.3*	-4.9*	-2.5*	2,544 fewer wage withholdings
H13: Dollars ($) Collected	$6,144*	$6,645*	-$1,170	$6,300*	$66,144 more collections
Hypothesis 14					
H14: $Benefits/ $Costs	$0.99*	$1.07*	$0.53	$1.16*	$0.17 higher benefit/cost ratio

*Significant at .05 level.
**[Post (minus) Base] x 53 employees x 8 months.

H1 **There are no significant differences in the mean number of locates per district employee after implementation of macros.**

Compared to Newport News, Richmond had an average of 3.1 more locates per employee in each month during the Base Period. The results are shown above in Table 26. This difference was significant. During the period in which the macros were being implemented in Roanoke, Richmond had an average of six more locates per employee compared to Newport News. This difference was also significant. During the implementation of the staffing standards (during the Experimental Period) in Roanoke, the difference in the number of locates per employee declined somewhat, but Richmond still had 3.8 more per employee than Newport News. This difference was also significant. Finally, in the Post-Experimental Period, the difference in the

average number of locates per employee declined in Richmond but remained constant in Newport News. The net difference was 1.6 in favor of Richmond; however, this difference was not significant. As a result of these data, *H1* is rejected for the Base, Macro, and Experimental Periods since there is a mean difference in the number of locates in the two offices in those periods. The data support *H1* for the Post-Experimental Period since there was no significant difference in the number of locates in the two offices.

H2 **There are no significant differences in the mean number of paternities per district employee after implementation of macros.**

In the Base Period, the number of paternity establishments per employee each month for Newport News and Richmond was approximately the same (3.0 and 3.2, respectively). This 0.2 difference was not significant. In the Macros Period, Newport News had 2.1 paternity establishments and Richmond had 2.2 paternity establishments per employee. This difference of 0.1 was not significant. In the Experimental Period, Newport News had 0.3 more paternities than Richmond, a difference that was significant.

In the Post-Experimental Period, the number of paternity establishments per employee decreased to 1.9 for Newport News and to 1.8 for Richmond. This difference (0.1) was not significant. However, as shown above in Table 26, the spread between Newport News and Richmond narrowed from the Base to the Post-Experimental Periods, with the end result being that Newport News gained an additional 108 paternity establishments. These data do not support a rejection of *H2*.

H3 **There are no significant differences in the mean number of cases administratively obligated per district employee after implementation of macros.**

In the Base Period, Newport News had 1.3 administrative obligations established per employee per month and Richmond had 1.5 per employee. The difference of 0.2 was not significant.

During the Macros Period, the average number of administrative obligations established per employee in Newport News increased to 1.6, while the number in Richmond dropped slightly to 1.4. The difference in the two figures was not significant. In the Experimental Period, the number of administrative obligations decreased in Newport News and increased in Richmond. The difference (0.4) was significant. Finally, in the Post-Experimental Period, the average number of administrative obligations increased the same number of percentage points in both offices (0.3) from the Experimental Period. The difference in the two offices was not significant in this final period. As a result of these data, *H3* is not rejected.

H4 **There are no significant differences in the mean number of judicially obligated cases per district employee after implementation of macros.**

The average number of court obligations in Newport News in the Base Period was approximately 50 percent greater than the average in Richmond (1.3 and 0.9, respectively). The difference was not significant. In the Macros Period, the number decreased in Newport News but increased in Richmond. The difference (0.3) in favor of Richmond was significant. In the Experimental Period, the trend was reversed, since the number increased in Newport News but decreased slightly in Richmond. These differences were not significant. Finally, in the Post-Experimental Period, the number per employee increased the same percentage amount (0.2) in both offices. Once again, however, the differences in the two average amounts were not significant. As a result of these data, *H4* is not rejected. The mean number of judicial obligations established per employee per month in the two offices in the Post-Experimental Period was not significant. These data suggest that the implementation of the macros in Richmond had no effect on judicial obligations per employee.

H5 **There are no significant differences in the mean number of wage withholdings per district employee after implementation of macros.**

Wage withholdings, part of the enforcement function of taking positive action to collect child support payments from non-custodial parents, requires employers to withhold stipulated amounts from the pay due those employees and forward these

amounts to the appropriate child support district office for distribution to the applicable children. In the Base Period, the Newport News district office prepared an average of 11.2 wage withholdings per employee per month. This number substantially exceeded the 6.4 wage withholdings in the Richmond office. This difference was significant.

During the Macros Period, employees in Newport News increased the rate of wage withholdings to 11.9, while employees in the Richmond office increased them at a somewhat smaller rate. The difference of 5.2 per employee was significant. In the Experimental Period, the rate increased somewhat for Newport News, and the number in the Richmond office doubled, to 13.4. The difference in the two offices was not significant. In the Post-Experimental Period, the rates in both offices increased, somewhat more in Newport News than in Richmond. Again, the difference in the two offices was not significant. As a result of these data, *H5* is not rejected. There were no significant differences in the mean number of wage withholdings per employee in the Post-Experimental Period for the two offices.

H6 **There are no significant differences in the mean number of dollars collected per employee after implementation of macros.**

As noted earlier, a critically important performance indicator in child support enforcement is the number of dollars collected. Also, as discussed in the Small Office section of this report, child support payments are largely, but not entirely, a function of the caseload demographics. District offices with a larger proportion of non-welfare (non-TANF) cases generally have larger collections, since non-custodial parents usually have higher incomes, which result in larger support obligations. Since the Richmond district office has a larger portion of customers with TANF cases, the dollars collected would be expected to be less per case than the rate in Newport News. In a comparison of rates for this performance variable in the Base Period, the results of the differences in the TANF/Non-TANF mix in the two offices are apparent. Collections in the Newport News office average $27,347 per employee per

month. In Richmond, they average $15,848. The difference of $11,499 per employee per month was significant.

In the Macros Period, the collections per employee in each office changed somewhat. The rate for Newport News increased more than $1,300 per employee, while the rate for Richmond decreased $129 per employee. The resulting difference of $12,963 was significant. During the Experimental Period, changes in the two offices were even more dramatic. Collections in Newport News increased over $7,100 per employee, but changes in the Richmond office were about $5,100. Again, the differences were significant. Finally, during the Post-Experimental Period, Richmond gained somewhat, since the changes were about $3,800 per employee, compared to $2,800 per employee in Newport News. This difference was significant.

The net result in the Post-Experimental Period, shown above in Table 26: Net Results of Differences in Newport News and Richmond District Offices: Post (minus) Base Periods (see page 95) is that Newport News employees, compared to Richmond employees, collected about $904,680 more than they would have in the Base Period. As a result of these data, *H6* is rejected. The larger mean number of dollars collected per employee per month in Newport News during the Post-Experimental Period was significant. Therefore, implementation of the macros in the Richmond office—when compared to the control office, Newport News, which did not use the macros—did not positively influence the mean dollars collected per employee.

H7 **There are no significant differences in the ratio of dollars collected to dollars expended after implementation of macros.**

Similar to the dollars collected variable, the ratio of dollars collected per dollars expended in a district office is an important bottom-line measure of performance. The relationship of these two factors is referred to as the benefit/cost ratio. The *benefit* component of the ratio is the total dollars collected. The *cost* component is the total costs incurred in the district office plus an allocated portion of all other costs necessary to operate the division of child support enforcement.

Since the mean dollars collected per employee were significantly higher in Newport News, as noted in the discussion of *H6* above, it can be assumed that the benefit/cost ratio would also be more favorable in that office, if the costs of the two offices were relatively similar. Indeed, in the Base Period, the Newport News benefit/cost ratio was $2.07 higher than in Richmond. This difference was significant. In the Macros Period, the difference increased to $2.29, which was also significant. In the Experimental Period, the difference increased to $2.55, which, again, was significant. Finally, in the Post-Experimental Period, the difference increased yet again, to $2.90. This increase, as would be expected, was significant. As a result of these data, the hypothesis is rejected. There were significant differences in the mean ratio of dollars collected to dollars expended during the period after implementation of the macros. The higher mean rate of dollars collected to dollars expended for Newport News was significant.

H8 **There are no significant differences in the mean number of locates per district employee after implementation of staffing standards.**

As shown above in Table 25: Results of Hypothesis Testing for Interoffice Comparisons in Newport News, Richmond and Roanoke District Offices in Base, Macros, Experimental, and Post-Experimental Periods, 1995-98 (page 94), the Roanoke office averaged 22.1 locates per employee in the Post-Experimental Period—that is, after the additional employees who had been hired during the Experimental Period were terminated. This was a rather large increase over the 19.1 average during the Experimental Period. The trend for number of locates in the Roanoke office was a gradual increase throughout the study. Conversely, the trend for number of locates in the Richmond office varied somewhat, reaching a high of 13.5 employees in the Macros Period, and averaging 8.4 locates per employee during the Post-Experimental Period.

As shown above in Table 27 (page 96), the employees in the Roanoke office, compared to those in the Richmond office, averaged 13.7 more locates in the Post-Experimental Period. This difference was significant. The difference amounts to

2,713 more locates in the Roanoke office during the eight months in the Post-Experimental Period. As a result of these data, *H8* is rejected. The higher mean rate of locates for the Roanoke office was significantly different.

H9 **There are no significant differences in the mean number of paternities per district employee after implementation of staffing standards.**

The number of paternity establishments per employee in the Richmond office gradually decreased throughout the study. The trend was from a high of 3.2 establishments per employee in the Base Period, to a low of 1.8 in the Post-Experimental Period. Roanoke started at a lower rate than Richmond in the Base Period but remained relatively stable, with the exception of the Experimental Period. During the Post-Experimental Period, however, the average in Roanoke increased to 2.1, which was the only time during the entire study that the rate in the Roanoke office exceeded that of the Richmond office. The differences in the two offices from the Base to the Post-Experimental Period resulted in 720 more paternity establishments occurring in the Roanoke office during the last eight months of the study. This difference in rates, however, was not significant, and the data fail to support a conclusion to reject *H9*. There was no significant difference in the mean number of paternities established per employee in the Roanoke and Richmond offices after implementation of staffing standards.

H10 **There are no significant differences in the mean number of cases administratively obligated per district employee after implementation of staffing standards.**

The trends in the paternity establishments in the two offices were reversed in administrative obligations. As shown in Table 25 (page 94), the rate in Richmond increased from 1.5 in the Base Period, at the start of the study, to 2.2 at its conclusion. Conversely, the rate in Roanoke declined from a high of 2.4 in the Base Period to a low of 1.5 at the conclusion of the study. This difference, resulting in 678 fewer cases administratively obligated in the Roanoke office, is significant. These data do not support the hypothesis. The rate in the Roanoke office was significantly lower.

H11 **There are no significant differences in the mean number of judicially obligated cases per district employee after implementation of staffing standards.**

Again, as shown in Table 25, the difference (0.3) in the mean number of court obligations between the two offices was the same in both the Base and the Post-Experimental Periods. Furthermore, none of the differences in the rates in the two offices for any of the four periods was significantly different. Since there were no differences in the two offices, these data fail to reject *H11*. There were no significant differences in the mean number of judicially obligated cases per district employee after implementation of staffing standards.

H12 **There are no significant differences in the mean number of wage withholdings per district employee after implementation of staffing standards.**

As shown in Table 27 (page 96), the average number of wage withholdings per employee in the Richmond office more than doubled (6.4 to 14.4) from the Base to the Post-Experimental Period. While improvement in this variable also occurred in the Roanoke office, the results were less dramatic; the gain was from 9.9 in the Base Period to 11.9 in the Post-Experimental Period. The net effect was an average of 2.5 fewer wage withholdings per employee in the Roanoke office. This difference, which was significant, resulted in 2,544 fewer wage withholdings in Roanoke in the eight-month Post-Experimental Period. These data support a rejection of *H12*. There was a difference in the mean number of wage withholdings per district employee after implementation of staffing standards.

H13 **There are no significant differences in the mean number of dollars collected per employee after implementation of staffing standards.**

As shown in Table 27, the difference in the mean number of dollars collected per employee was greater during the Macros Period than during the other three periods. This difference of $6,645, in favor of Roanoke, was not exceeded in any other period. In the Experimental Period, the average was higher in Richmond by $1,170. With the exception of this period, the differences in the other periods were

significant. The differences from the Base to the Post-Experimental Periods resulted in $66,144 more collections in the Roanoke office. The data support a rejection of *H13*. There was a significant difference in the mean number of dollars collected per employee in Roanoke after implementation of staffing standards.

H14 **There are no significant differences in the ratio of dollars collected to dollars expended per employee after implementation of staffing standards.**

As shown in Table 27, Roanoke had a higher benefit/cost ratio in all four periods of the study. With the exception of the Experimental Period, the difference in the ratio between Richmond and Roanoke widened. The largest difference was in the Post-Experimental Period, when Roanoke benefits compared to costs were $1.16 better than in Richmond. For the Post minus the Base Period, Roanoke had a 17-cent higher benefit/cost ratio. With the exception of the Experimental Period, all differences between Richmond and Roanoke were significant. These data support a rejection of *H14*. There were significant differences in the ratio of dollars collected to dollars expended per employee in Roanoke after implementation of staffing standards.

H15 **There are no significant differences in the numbers of full-time employees among the Newport News, Richmond, and Roanoke district offices in the Base, Macros, Staffing, or Post-Staffing Periods.**

Table 28 below contains the numbers of employees in the three offices during the four periods of the study. All the differences in the numbers of employees among the three offices were statistically significant. These data support the conclusion to reject *H15* and lead to the conclusion that there was a significant difference in the number of full-time employees among the Newport News, Richmond, and Roanoke district offices in the Base, Macros, Experimental (i.e., Staffing Standards), and Post-Experimental (i.e., Post-Staffing Standards) Periods.

Table 28: Comparison of Numbers of Employees in Newport News, Richmond, and Roanoke District Offices in Base, Macros, Experimental, and Post-Experimental Periods

Period	Numbers of Employees in District Office*		
	Newport News	Richmond	Roanoke
Base (7/95 – 7/96)	50	68	55
Macros (8/96 – 11/96)	47	66	54
Experimental (12/96 – 2/98)	45	61	74
Post-Experimental (3/98 – 10/98)	45	58	53

**The numbers of employees among the three district offices in all four periods are significantly different.*

Testing the Propositions

P1 **The Delphi technique is a feasible method for establishing staffing standards.**

This proposition, involving the feasibility of using the Delphi technique to establish staffing standards, was tested through qualitative assessments of comments from employees who served on the Delphi panels, the Roanoke District Manager, Roanoke District Office employees, and the Technical Contractor. The opinions of panel members were obtained through focus groups. Generally, the panel members felt the data collection instruments used to elicit their opinions of the time requirements to perform various activities were acceptable, but they felt a more detailed listing of tasks would have been helpful.

Question #4 in Table 29: Employee Satisfaction Surveys (page 107) contains the responses of employees in the Roanoke district office to the question, "*How satisfied are you with the method that was used to develop staffing standards for the*

Roanoke district office?" This statement was addressed in surveys conducted in both January and December 1997.

As shown in the table, the average response was 3.0 in the January 1997 survey. The response increased slightly to 3.1 by December. Based on a scale of 5, where a 3 indicates neither satisfaction nor dissatisfaction, the employees were relatively indifferent to the use of the Delphi technique in establishing staffing standards.

The opinion of the district manager was combined with the opinions of supervisors in the district office. These individuals were asked to respond to the same question on the employee survey noted above. In the January survey, the average response of the five supervisors and the district manager was 3.2. In the December 1997 survey, the district manager was out of the office on another assignment, and only three supervisors completed the questionnaire. The average response for these three individuals was 3.0.

Table 29: Employee Satisfaction Surveys

Question	Newport News (Control Office)				Richmond (Control Office with Macros)				Roanoke (Macros & Staffing Standards)			
	Base 7/95-7/96	**Macros 8/96-11/96**	**Experimental 12/96-2/98**	**Post-Exper. 3/98-10/98**	**Base 7/95-7/96**	**Macros 8/96-11/96**	**Experimental 12/96-2/98**	**Post-Exper. 3/98-10/98**	**Base 7/95-7/96**	**Macros 8/96-11/96**	**Experimental 12/96-2/98**	**Post-Exper. 3/98-10/98**
1. Overall satisfaction.	3.32	3.45	3.60 (1/97) 3.20 (12/97)	n.a.	3.67	3.62	3.40 (1/97) 3.53 (12/97)	n.a.	3.31	3.48	3.80 (1/97) 3.88 (12/97)	n.a.
2. Number of staff.	n.a.	n.a.	1.60 (1/97) 1.70 (12/97)	n.a.	n.a.	n.a.	1.80 (1/97) 1.70 (12/97)	n.a.	n.a.	n.a.	2.40 (1/97) 2.20 (12/97)	n.a.
3. Satisfaction with Macros.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	3.30 (1/97) 3.20 (12/97)	n.a.	n.a.	n.a.	2.30 (1/97) 2.50 (12/97)	
4. Method to develop staffing standards.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	3.00 (1/97) 3.10 (12/97)	n.a.
5. Additional staff acquired from standards.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	3.40 (1/97) 3.80 (12/97)	n.a.

Survey Questions:

1. Overall, how satisfied are you with working here? (1 = very dissatisfied, 2 = dissatisfied, 3 = neither satisfied or dissatisfied, 4 = satisfied, and 5 = very satisfied).
2. For the work to be done do you feel the number of staff in the (name of office) is (1= very inadequate, 2 = inadequate, 3 = about right, 4 = overstaffed, and 5 = very overstaffed)
3. Overall, how satisfied are you with the Macros? (1 = very dissatisfied, 2 = dissatisfied, 3 = neither satisfied nor dissatisfied, 4 = satisfied, and 5 = very satisfied).
4. How satisfied are you with the method that was used to develop staffing standards for the Roanoke District Office? (1 = very dissatisfied , 2 = dissatisfied, 3 = neither satisfied nor dissatisfied, 4 = satisfied, and 5 = very satisfied)
5. How satisfied are you with the additional staff that resulted from the staffing standards? (1 = very dissatisfied, 2 = dissatisfied, 3 = neither satisfied nor dissatisfied, 4 = satisfied, and 5 = very satisfied)

Consequently, both management and employees were neither satisfied nor dissatisfied with the Delphi technique in identifying the number of additional personnel needed in the office. These opinions are particularly relevant since the employees in the office were also the panel members used by the Technical Contractor's consultant (Omni Systems) to develop staffing levels.

The Technical Assistance contractor stated that the Delphi technique was a feasible method for developing staffing standards because it did not require an inordinate amount of staff time. The contractor also felt the method would be applicable in other states, since inherent in its methodology is a consideration of local operating conditions. In sum, *P1* is supported, and the Delphi technique was determined to be a feasible method for establishing staffing standards, although employees in the office were generally indifferent to its utility.

P2 **The implementation of staffing standards in the Roanoke district office is desirable.**

This proposition involved determining whether the additional staff identified through the Delphi technique appeared to have the desired effect upon the performance variables, such as the number of locates and the dollars collected. The issue was addressed directly through the results of testing *H8* through *H14*. In addition, the subject was examined through employee surveys conducted in Roanoke. Generally, the additional staffing that resulted from the Delphi study had a positive influence upon employee satisfaction in Roanoke, compared to employees in Newport News and Richmond. For a full explanation of these effects, see the discussion below in *P4*.

P2 is supported, since the effects of the additional employees in Roanoke upon desired outcomes in the performance variables—when compared to the effects in Richmond, the control office—were positive. The net differences in Roanoke minus Richmond for Post-Experimental and Base Periods resulted in Roanoke having significantly more locates, fewer administrative obligations established, fewer wage withholdings, more dollars collected, and an improvement in the benefit/cost ratio.

While the number of paternity establishments increased, the change was not significant. There was no change in the number of court obligations. The staffing standards had a mixed effect upon customer satisfaction. This issue is addressed more fully in the discussion on *P6*.

P3 **The implementation of macros in the Richmond and Roanoke offices is desirable.**

This proposition was tested through a qualitative assessment of the results of testing *H1* through *H7*, through employee opinions of the use of the macros, and through the Technical Assistance contractor's assessment.

During the background study for the Staffing Demonstration, the Technical Assistance contractor observed that the Richmond office had introduced a number of macros to facilitate the work of employees. The use of these macros initially appeared to have promise and, consequently, they were recommended for implementation for the Roanoke office as a prelude to the introduction of additional staff. Unfortunately, due to a combination of factors, the macros were never well-received by the Roanoke employees. Table 29: Employee Satisfaction Surveys shows that in surveys conducted in both January and December 1997, the average response by Roanoke employees regarding satisfaction with the macros was 2.3 and 2.5, respectively. A value of 2.0 indicates dissatisfaction, so these responses indicate the employees tended to be dissatisfied with the macros. On the other hand, the employees in the Richmond office tended to be satisfied with the macros (3.3 and 3.2, respectively).

The macros had a significant effect upon the mean number of locates in the Richmond and Newport News offices (see Table 26 above). Conversely, the macros had no significant effect in the two offices on the mean number of paternities established, cases obligated administratively, cases obligated judicially, or wage withholdings. And, contrary to conventional wisdom, the macros had a negative effect upon dollars collected, since there was a significantly larger rate of collections in the Newport News office. Newport News also had a significantly more favorable

benefit/cost ratio. For this performance variable, then, the macros also showed a negative impact.

In sum, the implementation of macros in the Richmond office was not desirable, since their introduction did not result in any significant improvement except for locates, when compared to the Newport News control office. The macros did, however, have a generally favorable impact upon employee satisfaction in Richmond. This latter result did not occur in Roanoke. It is worth considering that the low level of acceptance of the macros by Roanoke employees may have had a negative impact on the introduction of the additional employees. That is, if the macros actually interfered with the job performance of the Roanoke employees as a group, this may partially explain why the additional staffing in Roanoke did not have as dynamic an impact upon the major performance variables as seen in the Fredericksburg (small) office results. Consequently, *P3* is not supported; the implementation of macros in Richmond and Roanoke was not desirable.

P4 **Additional staffing in the Roanoke district office has a positive effect upon employee satisfaction.**

To test this proposition, four employee job satisfaction surveys were conducted. One survey was conducted during the Base Period, prior to implementation of the additional staffing. The second survey was conducted during the Macros Period (during implementation of the macros in the Roanoke district office). And, two surveys were conducted during the Experimental Period, when additional employees were working in the Roanoke office. The survey questions and results from these surveys are shown in Table 29. In the Base Period, the response to the question, "Overall, how satisfied are you with working here?" was almost the same for Newport News and Roanoke (3.32 and 3.31, respectively). The average response for employees in Richmond was approximately ten percent higher, at 3.67. In the Macros Period, the level of satisfaction increased somewhat in both Newport News and Roanoke, 3.45 and 3.48, respectively. The response of Richmond employees decreased slightly, to 3.62.

In the Experimental Period, two surveys were conducted, one at the beginning and one at the end. The first question was the same as above and concerned overall satisfaction. A second question asked for opinions concerning the adequacy of the number of employees in the office available to accomplish their work. Table 29 shows that the additional employees added in Roanoke appeared to have a positive influence on overall employee satisfaction and on employee opinions about the adequacy of staffing levels. The average response of Roanoke employees regarding job satisfaction increased to 3.8, higher than either Newport News or Richmond. Their responses increased even more in the second survey, conducted toward the end of the Experimental Period. Conversely, the responses in Newport News declined, while those in the Richmond office increased somewhat more than Roanoke, but they still did not reach the higher responses in the Richmond office in either the Base or the Macros Periods.

In response to the question about the adequacy of staffing levels, Newport News and Richmond employees felt they were inadequate, in both surveys. Roanoke employees felt they were between "inadequate" and "about right." The responses of Roanoke employees were somewhat lower in the second survey. These opinions were possibly motivated by the realization that the additional employees added earlier in the year would be terminated when the project ended two months hence.

Two Chi Square tests were conducted on the data to test for statistical significance in levels of employee satisfaction. One test was conducted for all four employee surveys. No difference was found among any of the three offices in employee opinions of overall job satisfaction. The second test involved the results of the two surveys conducted during the Experimental Period and produced similar results. There was no significant difference among the three offices in employee opinions. Both tests were conducted at the 0.01 level.

In the Experimental Period, the two employee surveys administered in the Richmond and Roanoke offices contained a question about the level of satisfaction with the macros. In addition to this question, the surveys in the Roanoke office had

two other questions about the method used to develop the staffing standards and the additional employees resulting from its application. Employees in the Richmond office tended to be satisfied with the macros, while the Roanoke employees tended to be dissatisfied with them. Regarding the Delphi method, the Roanoke employees were neither satisfied nor dissatisfied with it as a way to develop staffing standards. This opinion increased 0.10 from the first survey in January to the second in December 1997 (from 3.0 to 3.1). Roanoke employees were satisfied with the additional employees resulting from the Delphi technique. Their responses to this question increased in the second survey from 3.4 to 3.8.

Overall, employees in all three offices were generally satisfied with their jobs. As might be expected, the satisfaction increased most in Roanoke, probably due to the introduction of the additional personnel. Also, while the employees in all three offices were generally dissatisfied with the number of employees available to do the work in their respective offices, the level of dissatisfaction was far less in Roanoke, undoubtedly due to the addition of employees in the Experimental Period (which was when this question was introduced).

As noted previously, employees in Richmond tended to be satisfied with the macros, while employees in Roanoke tended to be dissatisfied with them. Roanoke employees were satisfied with the additional employees resulting from using the Delphi technique to develop staffing standards (see responses to Question #4 in Table 29). Thus, while the Roanoke employees were indifferent to the use of the Delphi technique in developing staffing standards, they were pleased with the additional staff that resulted from its use. In sum, *P4* is supported since the additional staffing that resulted from this technique had a positive influence upon employee job satisfaction.

P5 **The turnover rate for the Roanoke district office is the same as the rate in the Richmond and Newport News district offices prior to the implementation of the staffing standards and is lower than those two offices after the implementation.**

The rationale for this proposition was that adding employees to an understaffed office should increase employee morale and, thus, reduce turnover. To test this proposition, turnover rates were computed for the three offices during the four periods of the Staffing Demonstration. Results are shown in Table 30 below.

Table 30: Comparison of the Turnover Rates in the Newport News, Richmond and Roanoke District Offices During the Base, Macros, Experimental, and Post-Experimental Periods

Period	Turnover Rates in District Office		
	Newport News	Richmond	Roanoke
Base (7/95 - 7/96)	8%	5%	7%
Macros (8/96 - 11/96)	4%	1%	0%
Experimental (12/96 - 2/98)	6%	11%	10%
Post-Experimental (3/98 - 10/98)	0%	1%	1%*

** Does not include employees separated (22) due to the end of the project.*

In the Base Period, the turnover rates of the three offices differed only slightly. Richmond had the lowest (five percent) and Newport News had the highest (eight percent). In the Macros Period, the rates were also comparable. The lowest was Roanoke, with no turnover, and the highest was Newport News, with four percent. In the Experimental Period, the rates of all three offices increased from the previous period. The highest was Richmond (at 11 percent) and lowest was Newport News (at 6 percent). The turnover data for this period for Roanoke did not include the turnover of the temporary additional personnel who were added during the period. In the Post-Experimental Period, the three rates were virtually the same. In sum, the rates of the three offices were remarkably similar in all four periods. These data

support *P5* to the extent that the rates were the same in the Base Period, but they do not support the contention that the rate was lower for Roanoke in the Post-Experimental Period. This conclusion is mitigated by the fact that a one percent turnover rate is extremely low by the standard of virtually any industry.

P6 **Customer opinions of employee responsiveness, courtesy, and helpfulness in the Roanoke district office are better than those in the Richmond and Newport News district offices after implementation of the staffing standards.**

To test this proposition, customer opinion surveys were conducted twice during the Experimental Period. Three questions were selected for review:

1. *Was your case handled in a timely manner?*

2. *Are you treated courteously when you phone or visit the office?*

3. *Have child support staff been helpful?*

Table 31: Customer Satisfaction (page 116 below) contains the responses. In the Macros Period, the difference in customer response to Question #1 (timeliness in handling cases) in Newport News and Roanoke was one percentage point in favor of Roanoke. For the survey conducted in December 1997, the difference was one percentage point in favor of Newport News. The net effect was a two percentage point improvement for Newport News.

For Question #2 (courteous treatment), the difference in the Macros Period was eight percentage points in favor of Newport News. In the December survey, the difference was 24 percentage points in favor of Roanoke. The net change was 32 percentage points in favor of Roanoke. For Question #3 (staff helpfulness), the initial difference was eight percentage points in favor of Newport News. This difference declined to three percentage points in the December 1997 survey, resulting in a net difference of five percentage points in favor of Newport News.

Newport News customers' perception of timeliness in handling cases was two percentage points better than Roanoke customers.' Customer perceptions for staff

courtesy were 32 percentage points better for Roanoke. For staff helpfulness, Newport News had a five percentage point better score than Roanoke. For two of the three questions, then, customers expressed greater satisfaction with Newport News.

Following the same approach, the differences from Base to Post-Experimental Periods in customer responses for Roanoke, compared to Richmond, were: timeliness in case handling (15 percentage points increase, in favor of Roanoke); staff courtesy (23 percentage points in favor of Roanoke); and, staff helpfulness (6 percentage points, in favor of Richmond).

P6 is thus supported for staff courtesy. The additional staff in Roanoke resulted in sizable improvements in customer perceptions of courtesy, compared to both control offices. The results for the other two questions, however—that is, case timeliness and staff helpfulness—do not support this proposition.

Table 31: Customer Satisfaction

Question	Newport News (Control Office)				Richmond (Control Office with Macros)				Roanoke (Macros & Staffing Standards)			
	Base 7/95-7/96	Macros 8/96-11/96	Exprmental 12/96-2/98	Post-Exper. 3/98-10/98	Base 7/95-7/96	Macros 8/96-11/96	Exprmental 12/96-2/98	Post-Exper. 3/98-10/98	Base 7/95-7/96	Macros 8/96-11/96	Exprmental 12/96-2/98	Post-Exp. 3/98-10/98
1. Case handled in timely manner	n.a.	53%	53% (4/97) 55% (12/97)	n.a.	n.a.	47% (4/97)	46% (4/97) 32% (12/97)	n.a.	n.a.	54%	64% (4/97) 54% (12/97)	n.a.
2. Courteous treatment	n.a.	77%	73% (4/97) 69% (12/97)	n.a.	n.a.	71%	68% (4/97) 72% (12/97)	n.a.	n.a.	69%	95% (4/97) 93% (12/97)	n.a.
3. Staff are helpful	n.a.	81%	72% (4/97) 66% (12/97)	n.a.	n.a.	63%	63% (4/97) 59% (12/97)	n.a.	n.a.	73%	73% (4/97) 63% (12/97)	n.a.

1. Case handled in a timely manner?
2. Treated courteously when phone/visit office?
3. Child support staff have been helpful?

(Scale: Never, Sometimes, Usually, Always). Scores presented are the sum of Usually and Always.

Large Office Findings

This portion of the Staffing Demonstration—that is, testing staffing standards in a large district office in Virginia—was also successful. The Delphi technique was effective in identifying additional staffing needs in the Roanoke office. The addition of personnel into the Roanoke office resulted in improvements in major performance indicators and had a positive influence on employee satisfaction and a mixed effect on customer satisfaction. These results occurred despite the fact that several events during this portion of the study may well have prevented even more positive outcomes.

Additional Staff: Delphi Technique Useful

The addition of employees in the Roanoke office had a positive effect upon four major indicators of district office performance (i.e., locates, paternities established, dollars collected, and the benefit/cost ratio) and upon employee satisfaction and, to a lesser extent, upon customer satisfaction. The office was understaffed and the use of the Delphi technique was helpful in identifying the numbers of additional employees that were needed. Results from focus group members who were asked about the viability of using the Delphi technique to develop staffing levels were very positive. In addition, when employees in the Roanoke office were asked about the use of the Delphi technique to develop standards (*"How satisfied are you with the method that was used to develop staffing standards in the Roanoke district office?"*), the response to the question averaged approximately 3.0 (on a scale of 5.0, with a 5.0 being "very satisfied").

Roanoke employees were generally pleased with the number of additional staff acquired from the outputs of the Delphi technique. In another vein on this same issue, however, they tended to be dissatisfied with the total number of staff in the office, even after additional employees were added. While the level of satisfaction on this question was higher in the Roanoke experimental office than in the Richmond

control office—2.2 and 1.7, respectively—this average indicates a tendency toward dissatisfaction with the number of staff. Consequently, the perception of staff was that the number of employees identified as necessary through the Delphi technique may have been underestimated. The Evaluation Consultant, Technical Consultant, and Project Manager do not share this view.

Improvement in Major Performance Indicators

The additional personnel in the Roanoke office produced some positive results in performance variables. These variables were tracked and comparisons were made from the 13-month Base Period to the eight-month Post-Experimental Period. The Post-Experimental period was after the additional staff were terminated. Compared to the Richmond office (see Table 27, page 96), the control office for the interval between the Base and Post-Experimental Periods, the Roanoke office had 2,713 more locates, 720 more paternities established, and $66,144 more in collections. Of these variables, the only one that was not statistically significant was the paternities established. Another significant improvement was in the benefit/cost ratio (the amount of benefit for each dollar of expense in the district office). The benefit/cost ratio improved by 17 cents. Thus, for each dollar expended for the operation of the district office, an additional 17 cents of benefits was obtained.

In percentage terms, comparing the differences in the Richmond and the Roanoke district offices between the Base and Post-Experimental Periods (see Table 1, page 6), the additional staffing resulted in an 87 percent increase in the rate of locates per employee in the Roanoke office, a 121 percent increase in the rate of paternities established per employee, and a 2½ percent increase in the dollars collected per employee. Conversely, the rate of administrative obligations declined 177 percent, and the rate of wage withholdings declined 171 percent. There was no change in the rate of court obligations established. Finally, the benefit/cost ratio, as noted above, improved by 17 percent.

Positive Influence upon Employee Satisfaction

Overall employee satisfaction (*"Overall, how satisfied are you with working here?"*) was 10 percent higher in the Roanoke office than in the control office toward the end of the Experimental Period.[38] Further, comparing the responses of employees to this same question in the Base and the Experimental Periods shows that average responses in the Roanoke office increased 16 percent, while average responses in the Richmond office decreased 5.6 percent. The spread in the differential from the Base Period to end of the Experimental Period then, was 21 percent in favor of the Roanoke office.

Employee responses to a question about the number of staff (*"For the work to be done, do you feel the number of staff in your office is _____? [Alternatives = very inadequate, inadequate, about right, overstaffed, and very overstaffed]*) were 31 percent more favorable in the Roanoke office, compared to the Richmond control office. Finally, employees in the Roanoke office were satisfied with the additional employees that were added as a result of the Experimental Period of the study. The question *"How satisfied are you with the additional staff that resulted from the staffing standards?"* yielded an average response of 3.8 on a scale of 5.0, with a 4.0 indicating "satisfied" and a 3.0 indicating "neither satisfied nor dissatisfied." There was an inadequate number of data points to conduct statistical testing of responses to this question.

In sum, the implementation of staffing standards had a positive influence on employee satisfaction. Specifically, the additional staff employed in the Roanoke office during the Experimental Period of the Staffing Demonstration had a positive influence upon employee job satisfaction, compared with employees in the Richmond control office.

[38] Note that a conscious decision was made not to conduct the employee surveys in the month that this phase of the study was concluding, because it was felt that the loss of the additional employees would unduly distort employee opinions.

Positive Influence upon Customer Satisfaction

Customer satisfaction is also an important variable in evaluating the performance of a district office. Three questions were asked of customers during the Macros and Experimental Periods of the study. For the first question—"*Is your case handled in a timely manner?"*— 47 percent of the customers responded with either "usually" or "always" in the Richmond office and 54 percent had the same responses in the Roanoke office, a difference of 7 percentage points in favor of the Roanoke office. Toward the conclusion of the Experimental Period, however, the difference in customer responses to this question increased to 22 percentage points (54 percent versus 32 percent) in favor of the Roanoke office. From the Macros to the Experimental Period, then, the net change was 15 percentage points. Results for Roanoke were not as positive in comparison to Newport News.

For the second question (*"Are you treated courteously when you phone/visit the office?"*), the initial difference was two percentage points in favor of the Richmond office. At the conclusion of the study, however, the difference was 21 percentage points, but in favor of the Roanoke office. The net difference from the Macros to the Experimental Period, then, was 23 percentage points. Similar positive results occurred in Roanoke compared to Newport News. And, finally, for the third question (*"Staff are helpful?"*), the initial difference was 10 percentage points in favor of the Roanoke office. This difference declined to four percentage points by the conclusion of the study. The difference in the two periods was a decline by six percentage points. In comparison to Newport News, there was a similar percentage decline for the same question. In brief, the additional staff added to the Roanoke office had a positive influence upon customer satisfaction for two of the three questions in comparisons with Richmond. Positive results comparing Roanoke with Newport News were obtained for only one of three questions.

Other Factors Influencing Outcomes

Several events occurred during the demonstration that may have adversely affected the outcome measures in the Roanoke office. These events were the introduction of computer-based macros, the required absence of the Roanoke district manager, and the manner in which the additional staff were deployed.

Implementing Computer-Based Macros

Determining the optimum number of employees to handle a given level of work is the goal of every organization. However, this goal is often elusive due, for example, to the fact that existing methods of work are not fully efficient and the manner in which work is delegated is cumbersome. For this and other reasons, staffing levels for an operation are usually established *after* procedures are refined and management improvements implemented, to ensure an optimum level of efficiency for existing employees.

This customary approach was applied only in the experimental design for the Large Office study. The design included analyzing existing procedures, delegating work, and making any necessary changes prior to determining how many additional employees were needed in the Roanoke office. Due to a combination of unfortunate factors, the only significant change made in the operation of the Roanoke office was the implementation of several sets of computer-based macros, intended to facilitate specialists' administration of their casework. The macros had already been implemented in the Richmond office, and employees generally were pleased with them. Undoubtedly, a major reason for employee acceptance there was that the architect of the computer-based macros was a supervisor in the Richmond office who was not only well respected within the office but also readily available to support their adoption.

A similar positive effect of the computer-based macros did not occur in the Roanoke office. This outcome can be traced to several factors. First, prior to the Staffing Demonstration, the statewide automated system supporting the child support

program in Virginia (APECS), was not being used to its fullest by Roanoke staff to document actions. In addition, staff did not have a thorough understanding of work lists, certain data fields, or the interrelationship of some data fields. Finally, learning APECS functionality was not a priority among the management team, so those staff who maximized APECS usage did so on their own initiative. These factors are significant because the macros were closely tied to full use of APECS.

Second, challenges seemed constant during implementation of the computer-based macros in Roanoke. The macros were not implemented as initially scheduled. And, once they were implemented, there was considerable staff resistance to their use. Several facts contributed to the resistance.

First, once the macros were installed in the Roanoke office, the response time of APECS when using macros was slowed significantly. Second, there was no on-site employee in Roanoke who could provide technical support when problems arose (as there was in the Richmond office). As a result, despite the best efforts of the Roanoke management team to train employees in the use of the macros, address existing reservations about their utility and/or use, and provide on-site assistance, staff dislike of the macros appeared to intensify during the Staffing Demonstration and abated somewhat toward the end of the study. (During the several times the Technical Assistance contractor was on-site providing assistance with the macros, however, staff anecdotally reported more enthusiasm for them.) Third, in under-resourced offices such as Roanoke, staff often cut steps in case processing in areas such as documentation or reporting. Since the macros were designed to assist in case processing, staff may instead have seen the macros as adding to their workload and, accordingly, increased their resistance to adopting them.

Employee opinions about the macros reflect the differences in the two offices toward their efficacy. At the start of the Macros Period, the average response of staff in the Richmond office to the question, “Overall, how satisfied are you with the macros?” was 3.3 (on a scale of 5.0, with a 5.0 being “very satisfied”). The average score for Roanoke staff was 2.3. At the conclusion of the Macros Period, the

respective averages were 3.2 and 2.5. This well-intended effort to improve efficiency prior to the implementation of additional staffing in Roanoke, then, was not appreciated by the employees and may, instead, have had an adverse effect upon the additional staffing.

Assigned Absence of District Manager

The Roanoke district manager was assigned to manage another district office part-time during the critical Experimental Period, when the additional employees were introduced into his office. During his absence, his duties were delegated to other management team members in the office. This arrangement undoubtedly had an adverse effect upon the office, since management team members were expected to accomplish their regular tasks, assume some tasks performed by the district manager, and, finally, train and integrate into the work setting the additional employees identified as needed through the Delphi technique. These responsibilities placed extra burdens on the management team during a critical period of the Staffing Demonstration.

Deploying the Additional Staff

Over one-half of the additional staff hired for the Roanoke office (i.e., 12 of 22) were hired as specialists. From the beginning, the management team in the Roanoke office chose to assign these specialists to caseloads. In hindsight, complicating their deployment was the fact that some were assigned to a newly created unit to handle interstate cases. The newly hired interstate specialists, then, were assigned to work *the* most difficult, most time-consuming, and most problem-driven cases in a child support caseload. In retrospect, it became clear that both factors—assigning newly hired specialists to work caseloads as well as assigning some of these newly hired specialists to work the most difficult type of child support case—likely delayed the attainment of more positive performance outcomes for the Roanoke office.

New case workers already face a steep learning curve, having to become intimately familiar with policy and procedures so that they can apply them

productively to their caseload. Assigning newly hired staff to work caseloads, with some working the most difficult cases in the caseload—that is, interstate cases—can only increase the time required to master the child support learning curve and begin showing dramatic results in performance outcomes.

The Staffing Demonstration: An Overview and Comparison of Small And Large Office Findings, Conclusions And Recommendations

Introduction

Objective

Funded in 1993 and performed between 1994 and 1998, this federal Staffing Demonstration was designed to determine the role that staffing standards play in the performance of local child support offices. The Staffing Demonstration, using the Delphi technique, established time standards for the following six discrete functions involved in enforcing child support:

1. Performing customer intake;
2. Locating the non-custodial parent;
3. Establishing paternity and/or a support obligation administratively;
4. Administering judicial matters (paternity establishment and/or support obligation), as necessary;
5. Enforcing obligations; and
6. Providing customer service.

Thumbnail Sketch of Virginia Child Support Enforcement

Virginia is an administrative-process state. Virginia has 22 district (i.e., local) offices, of which 18 are state-run; it meets customers' needs using a functional (e.g., Locate, Enforcement), not generic, organizational structure. It had a statewide caseload of 415,000 in FY 1998 (the last year of the study), of which approximately 25 percent were TANF cases and 27 percent were Interstate cases.

Research Questions

The Staffing Demonstration addressed the following four research questions:

1. *Are staffing standards and optimal caseloads[39] for child support functions feasible and desirable?*

2. *How do the recommended staffing standards and optimal caseload affect staffing levels and operational efficiency?*

3. *Do the recommended staffing standards and optimal caseloads improve productivity and quality of service?*

4. *Are the recommended standards and caseloads cost-justified?*

Experimental Design

In the Small Office study, only one treatment was involved: the introduction of additional employees into the Fredericksburg office (for a 15-month Experimental Period, June 1996 through August 1997). The control office was Charlottesville. The Virginia "small" office, handling a caseload up to 13,000 with a staff between 22 and 28, is typical of the size of local child support offices in many states.

In the Large Office study, two treatments were involved. One treatment was the implementation of computer-based macros in both the Richmond and Roanoke offices (tested for a four-month Macros Period, August through November 1996). The second treatment was the introduction of additional employees into the Roanoke office only (for a 15-month Experimental Period, December 1996 through February 1998). The control office for the introduction of the computer-based macros was Newport News, and the control office for the introduction of additional employees was Richmond.

[39] Caseload standards are being developed for the two demonstration offices currently. They should be available in early 2001.

Delphi Technique and Its Feasibility

Both studies involved the use of the Delphi technique, described below, to determine staffing levels during a Base Period (for the Small Office study, July 1995 through May 1996; for the Large Office study, July 1995 through July 1996). However, the method of selecting the members of the Delphi panels differed. In the Small Office study, the panel members represented all six offices defined as "small" in the Commonwealth. In Virginia, "small" offices are defined as those with caseloads under 13,000. In the Large Office study, the panel members were composed of employees solely from the Roanoke office. "Large" offices in Virginia are defined as those with caseloads over 22,000. Roanoke had more than 27,000 cases and a full-time staff of 56 during the Base Period of the study.

The Delphi technique was determined to be a feasible method for establishing staffing standards in these two offices. Employees who participated in the panels appeared to accept the technique as a practical method for determining standards. In addition, informal interviews with members of the management teams and employees in the two offices found general acceptance of the Delphi technique. These results were confirmed in focus groups of employees from the demonstration offices.

Findings, Conclusions, and Recommendations

The Delphi Technique

Findings

The Delphi technique was used to determine staffing time standards in two different ways. One approach was to select panelists from each of the child support functional areas representing the six "small" offices in Virginia. Once the time standards were developed by specialty for small offices as a group, staffing standards were developed for one small office (i.e., Fredericksburg).

In the Large Office study, the panel members who developed staffing time standards by specialty represented the large office (i.e., Roanoke) exclusively. The

remaining process to develop the staffing standards was the same as for Fredericksburg.

Conclusions and Recommendations

The Delphi technique offers a valid methodology for establishing staffing standards for local child support operations. Both approaches noted above developed time standards well, although the panels selected from a group of like-size offices had some benefits in terms of representation and in providing a cross-cutting perspective that allowed for more accurate estimates and less bias.

The Delphi technique is relatively easy to use and has significant advantages over staffing standards developed through peer/supervisory committees. Benefits include the following features:

- Written feedback is given to group members separately, allowing them the opportunity to consider their decisions by themselves, to compare them to the decisions of others, and to make changes as necessary
- Anonymity is ensured for group members
- Diverse personalities and communication skills are precluded from influencing the judgment of individual group members

A quick approach to developing office staffing standards: Based on the work in this study, a quick way to develop office staffing standards is as follows:

(1) Start with the time standards developed in this project, by task for each specialty;

(2) Determine whether, based on the way staff work cases, the Virginia time standards (from the staffing analysis) apply or need to be adjusted by task;

(3) Develop annual frequencies for each task of each specialty; and

(4) Conduct the analysis described below:

- Multiply the annual frequency by the time standard for each task of each specialty
- Add the total time to perform each specialty in the year
- Divide the total annual time to conduct that specialty by the case worker standard (i.e., the number of hours per year the average case worker applies to direct case-related work). This result gives the number of positions required per year to perform the given specialty.
- Repeat the process for each specialty.
- Account for the optimal staffing level for the office by developing operating ratios for managerial span of control, support staff to case-related staff, fiscal staff to case-related staff, and fiscal staff to total staff.

Additional Staff Needed

Findings

Using the Delphi technique, it was determined that the each office was understaffed to work the caseload at the optimal staffing level:

- The small office (Fredericksburg) was 33 percent understaffed, with 28 full-time employees (FTEs) (versus 42 needed).
- The large office (Roanoke) was 28 percent understaffed, with 56 FTEs (versus 78 needed).

Conclusions and Recommendations

- The experimental offices, both large and small, were significantly understaffed prior to the addition of personnel during the Staffing Demonstration.
- The addition of employees in the Fredericksburg office had a positive effect upon six major indicators of district office performance—locates, paternities, administrative obligations, wage withholdings, dollars collected, and the benefit/cost ratio—as well as upon both employee and customer satisfaction.

- The addition of employees in the Roanoke office had a positive effect upon four major indicators of district office performance—locates, paternities, dollars collected, and the benefit/cost ratio—as well as upon both employee and customer satisfaction, although the results for customer satisfaction were less favorable in Roanoke.
- Employees in both experimental offices were generally pleased with the number of additional staff acquired, based on the results of the Delphi technique.
- The experience in the experimental offices indicates that management improvements may not be a necessary precursor to developing and implementing staffing standards. This is welcome news, given the dynamic nature of the world of child support enforcement.
- The Delphi methodology is sufficiently flexible for use in offices whose caseloads range from less than 13,000 to 27,000 cases.

Performance Indicators

Findings

The additional personnel in the Fredericksburg office during the 15-month Experimental Period (June 1996 through August 1997) produced some positive results in performance, compared to the control office:

- 1,214 or 73 percent more locates
- 276 or 1,500 percent more paternities established
- 74 or 44 percent more administrative obligations from the Base Period
- 699 or 633 percent more wage withholdings
- $1.08 million more dollars collected or 61 percent more per employee
- $1.80 increase in the benefit/cost ratio

The additional personnel in the Roanoke office during the 15-month Experimental Period (December 1996 through February 1998) also produced some positive results in performance, compared to the control office:

- 2,713 or 87 percent more locates
- 720 or 121 percent more paternities established

- $66,144 more dollars collected or 2½ percent more per employee
- $0.17 increase in the benefit/cost ratio

Conclusions and Recommendations

- In Fredericksburg, six major performance measures (i.e., locates, paternity establishments, administrative obligations, wage withholdings, dollars collected, and the benefit/cost ratio) showed improvement after the additional staff were added.
- In Roanoke, four major performance measures (i.e., locates, paternity establishments, dollars collected, and the benefit/cost ratio) showed improvement after the additional staff were added.
- The impact of additional staff on performance is ongoing, as evidenced by the continued improvement in performance after staff left each experimental office.
- Several events occurred during the Large Office study that may have affected the outcome measures in the Roanoke office adversely. These events were:

  Implementing Computer-Based Macros

  Determining the optimum number of employees to handle a given level of work is the goal of every organization. This goal is often elusive, however, when existing methods of work are not fully efficient or the manner in which work is delegated is cumbersome. For reasons like these, optimum staffing levels for an organization are usually established *after* procedures are refined and management improvements implemented, to ensure an optimum level of efficiency in current operations.

  This customary approach was applied only in the experimental design for the large office study. Due to a combination of unfortunate factors, however, the only significant change that was made in the operation of the Roanoke office was the implementation of several sets of computer-based macros, intended to facilitate specialists' administration of their casework. These macros had already been implemented in the Richmond office, where employees were generally pleased

with them. Undoubtedly, a major reason for employee acceptance was that the architect was a colleague and supervisor in Richmond, well respected within the office and readily available to assist with their adoption.

The desired positive effect of the computer-based macros did not occur, however, in the Roanoke office, and is traceable to several factors:

- At that time, the Roanoke office did not use the statewide automated system (APECS) to its full extent
- Staff did not have a complete understanding of the features of the system designed to facilitate documentation and work assignment/priority (i.e., case events, work lists)
- Training on the year-old system and understanding its features were not the highest priority for the management team in Roanoke
- Challenges were almost always present during the implementation of the macros in the Roanoke office. These included the absence of continuous, on-site technical support (as in Richmond) and a lower response time on APECS once the macros were installed in Roanoke PCs.

Assigned Absence of District Manager

The Roanoke district manager was assigned to manage another district office part-time during the critical Experimental Period, when the additional employees were introduced into Roanoke. During his absence, his duties were delegated to other management team members in the office. This arrangement undoubtedly had an adverse effect upon the office since the management team was expected to accomplish its regular tasks, assume some tasks performed by the district manager, and also train and integrate into the office setting the additional employees identified as needed through the Delphi technique.

Deploying the Additional Staff

Over one-half the staff hired in the Roanoke office were hired as "specialists" (i.e., at the level of functional case worker), and management assigned these new

specialists to handle individual caseloads. Complicating this was the fact that some of these staff were assigned to a new unit handling interstate cases. As a result, some new staff were assigned to work the most difficult, most time-consuming, and most problem-driven cases in a child support caseload. These factors prevented or, at best, delayed the attainment of more positive performance outcomes, since many additional staff already faced a steep learning curve as case workers, and some new specialists had to wrestle with the most challenging caseload, interstate.

Employee Satisfaction

Employee satisfaction was tested in the five demonstration offices once during the Base Period and three times during the Experimental Period. All employees in each office were given the satisfaction questionnaire.

Findings

- Overall employee satisfaction (*"Overall, how satisfied are you with working here?"*) was 19 percent higher in the Fredericksburg office (than in the Charlottesville control office) toward the end of the period in which the additional personnel were employed.
- Comparably in Roanoke, overall employee satisfaction was 21 percent higher (than in the Richmond control office) toward the end of the period in which the additional personnel were employed.
- Employee responses to a question about the number of staff (*"For the work to be done, do you feel the number of staff in your office is _____? [Alternatives = very inadequate, inadequate, about right, overstaffed, and very overstaffed]*) were 31 percent more favorable in Roanoke (compared to the Richmond control office) toward the end of the Experimental Period (when employees were added).
- Employees in the Fredericksburg and Roanoke experimental offices were satisfied with the number of additional employees added in the Experimental Period of the study.

Conclusions and Recommendations

The implementation of staffing standards had a positive influence on employee satisfaction in both experimental offices.

Customer Satisfaction

A customer satisfaction survey was administered three times during the Small Office Experimental Period and once during the Large Office Macros Period plus twice during the Large Office Experimental Period. The survey was given to the first 100 walk-in customers from each office in each of the respective months.

Findings

- Similar to employee satisfaction, customer satisfaction is an important variable in evaluating the performance of a district office.
- For the question *"Is your case handled in a timely manner?"* the difference in customer responses for the Fredericksburg office (compared with the Charlottesville control office) increased by 9 percentage points in favor of Fredericksburg during the Experimental Period.
- For the same question and the same period, the difference in customer responses for Roanoke (compared with the Richmond control office) increased by 15 percentage points in favor of Roanoke. Compared to Newport News, however, there was a small decline in percentage points.
- For the question *"Are you treated courteously when you phone/visit the office?"* the difference in customer responses for the Fredericksburg office (compared with the Charlottesville control office) increased by 7 percentage points in favor of Fredericksburg during the Experimental Period.
- For the same question and the same period, the difference in customer responses for Roanoke (compared with the Richmond control office) increased by 23 percentage points. Similar results were obtained in comparisons with Newport News.

- Finally, for the question *"Have Child Support staff been helpful?"* the difference in customer responses for Fredericksburg (compared with Charlottesville) increased by 10 percentage points during the Experimental Period.
- For the same question and the same period, the difference in customer responses for Roanoke (compared with Richmond) declined by 6 percentage points. Comparisons with customers in Newport News showed similar results.

Conclusions and Recommendations

The implementation of staffing standards had a positive influence on customer satisfaction in both experimental offices, although more so in Fredericksburg than in Roanoke.

Comparison of Results for the Large and Small Experimental Offices

Table 32: Net Results of Differences in Fredericksburg and Roanoke District Offices Compared to Their Control Offices: Post-Experimental (minus) Base Periods (see below) contains results of a comparison for the key variables tracked during the demonstration for the Small and Large Office studies. These results have been discussed above. In brief, they are:

- The additional employees introduced into the Fredericksburg and Roanoke offices resulted in increases—compared to their respective control offices—in the number of locates, paternity establishments, dollars collected, benefit/cost ratio, and both employee and customer satisfaction. In addition, the Fredericksburg office achieved increases in the numbers of administrative obligations and wage withholdings. For the latter two variables, the numbers declined in Roanoke. The number of court obligations declined in Fredericksburg and remained the same in Roanoke.
- With the exception of customer satisfaction, the introduction of additional employees in the Roanoke experimental office did not reach the level of success achieved in the Fredericksburg experimental office. Three plausible reasons for

this outcome are: (1) the level of employee dissatisfaction with the computer-based macros, intended to improve operational efficiencies, in Roanoke; (2) the required, part-time absence of the Roanoke district manager for several periods during important phases of the demonstration; and (3) the approach that Roanoke management chose for deploying the additional employees hired during the Experimental Period of the study.

Conclusion

Staffing and caseload standards are a continuing issue in the child support enforcement program. As states and local agencies struggle to provide effective services to an ever more demanding customer base, managers need guidance on the correct number of staff, the best placement of those staff, and the number of cases (likely, by type of case) that individual staff members can manage. This study sheds light on many of these issues. It shows that staffing does have an impact on performance and that the Delphi methodology is a good way to develop the standards. The results also show that it is possible and relatively easy to determine the correct number of staff for a local office and that the process does not have a negative impact on the office during the development cycle. Finally, the study shows that, in a local office, *where* staff are deployed is equally as important as the *number* of staff employed.

Table 32: Net Results of Differences in Fredericksburg and Roanoke District Offices Compared to Their Control Offices: Post-Experimental (minus) Base Periods

Performance Variables	Fredericksburg		Roanoke	
	# per employee	Total	# per employee	Total
Locates	6.6* more (73%)	1,214 more	6.4* more (87%)	2,713 more
Paternity Establishments	1.5* more (1,500%)	276 more	1.7 more (121%)	720 more
Administrative Obligations	0.4* improvement (44%)	74 more	-1.6* fewer (-177%)	678 fewer
Court Obligations	-0.7* fewer (-70%)	129 fewer	No change	No change
Wage Withholdings	3.8* more (633%)	699 more	-6.0* fewer (-171%)	2,544 fewer
Dollars Collected	$5,881* more (61%)	$1.08 million more	$156* more (2.5%)	$66,144 more
Other Variables	**Fredericksburg**		**Roanoke**	
$ Benefits/$ Costs	$1.80* increase in ratio		$0.17* increase in ratio	
Employee overall satisfaction[40]	19% higher		21% higher	
Customer satisfaction: Case handled in timely manner[41] Staff courteous[42] Staff helpful[43]	 Increased by 9 percentage points Increased by 7 percentage points Increased by 10 percentage points		 Increased by 15 percentage points Increased by 23 percentage points Declined by 6 percentage points	

* Significant at the .05 level

Customer Satisfaction: Each question shows the change in percentage points from first to last measurement.

[40] Overall, how satisfied are you with working here?
[41] Was your case handled in a timely manner?
[42] Are you treated courteously when you phone or visit the office?
[43] Have child support staff been helpful?

This page intentionally left blank.

References

Adams, S. Keith and McGrath, Timothy J. "A Procedure for an Economic Comparison of Work Measurement Techniques, Part I: The Model." *AIIE Transactions*, September 1979, pp. 229-36.

Anon. "Getting What You're Due from a Deadbeat Dad." *Money*, April 1993, p. 15.

Belton, Valerie. "Project Planning and Prioritization in the Social Services—an OR Contribution." *Journal of the Operational Research Society*. February 1993, pp. 115-24.

Betts, Mitch. "Computers Crack Down on Child Support." *Computerworld*. December 2, 1991, p. 119.

Coltrane, Scott and Hickman, Neal. "The Rhetoric of Rights and Needs: Moral Discourse in the Reform of Child Custody and Child Support Laws." *Social Problems*. November 1992, pp. 400-20.

Congressional Budget Office. *CBO Papers: The Changing Child Support Environment* (February 1995).

Cooke, Robert A. and Szumal, Janel L. "Measuring Normative Beliefs and Shared Behavioral Expectations in Organizations: The Reliability and Validity of the Organizational Culture Inventory." *Psychological Reports*, Vol. 72, 1993, p. 129.

Daft, R.L. *Understanding Management*. Fort Worth, TX: The Dryden Press, 1995.

Dalton, Graham L., and Morelli, Paula. "Casemix and Caseload: Measurement of Output of Social Work Agency." *Administration in Social Work*, Vol. 12 (4), 1988, pp. 81-92.

Delkey, N. *The Delphi Method: An Experimental Study of Group Opinion*. Santa Monica, CA: Rand Corporation, 1969.

Dessler, G. *Managing Organizations: In an Era of Change*. Fort Worth, TX: The Dryden Press, 1995.

Ellwood, David T. "The Changing Structure of American Families." *Journal of the American Planning Association*, Winter 1993, pp. 3-8.

Goldfisher, Ken. "Modified Delphi: A Concept for New Product Forecasting." *The Journal of Business Forecasting*, Winter 1992-93, pp. 1299-1330.

Gustafson, David H.; Shukla, Ramesh K.; Delbecq, Andre; and Walster, G. William. "A Comparative Study of Differences in Subjective Likelihood Estimates Made by Individuals, Interacting Groups, Delphi Groups, and Nominal Groups." *Organizational Behavior and Human Performance*, Vol. 9, 1973, pp. 280-91.

Guiterrez, Oscar. "Experimental Techniques for Information Requirements Analysis." *Information and Management*, Vol. 16, 1989, pp. 31-43.

Hagen, Jan L. "Women, Word, and Welfare: Is there a Role for Social Work*?"* *Social Work*, January 1992, pp. 9-14.

Kass, Rochelle. "Feds to Take on Defaulting Fathers via New FEDI System." *Bank Systems and Technology*. August 1992, pp. 26, 28.

Kastein, Marcel R.; Jacobs, Max; Van Der Hell, Roelof H.; Luttik, Kees; and Touw-Otten, Fransje W.M.M. "Delphi, The Issue of Reliability*."* *Technological Forecasting and Social Change*, Vol. 44, pp. 315-23.

Lee, Raymond T. and Ashforth, Blake E. "A Further Examination of Managerial Burnout: Toward an Integrated Model." *Journal of Organizational Behavior*, Vol. 14, 1993, pp. 3-20.

Lindquist, Christopher. "County Gets Bullish on Tracking Child Support Evaders." *Computerworld*. January 11, 1993, p. 66.

Molloy, Maureen. "Michigan State Net to Boost Child Support Collections*."* *Network World*. April 15, 1991, p. 18.

Nuta, Virginia Rhodes. "Emotional Aspects of Child Support Enforcement." *Family Relations*. January 1986, pp. 177-81.

Peters, Lillian E.; Gouse, Allen S.; and Hettinger, Virignia A. "Federal Cost Recovery in Child Support Enforcement: Incentives for Improving Long-Term Effectiveness." *Public Budgeting and Finance*. Fall 1990, pp. 40-53.

Phillips, J.J. Jr., *Staffing and Organizing A Child Support Enforcement Program: A Workbook for Managers*. Menlo Park, California: Crain & Associates, 1979.

Robins, Philip K. "Why Did Child Support Award Levels Decline from 1978 to 1985?" *Journal of Human Resources*. Vol. XXXVII, pp. 362-79.

Ventura, Stephanie. *Statement on Reducing Nonmarital Births.* Atlanta: National Center for Health Statistics, Centers for Disease Control and Prevention, June 29, 1999. Also, testimony before House Ways and Means Subcommittee on Human Resources, June 29, 1999.

Wagner, D., Wiebush, R., Baird, C., Van Gheem, S., Aleman, T., and Konopacki, D. *Oklahoma Child Welfare Services: Workload Study, Final*. San Francisco: National Council on Crime and Delinquency, May 1993.

Woudenberg, Fred. "An Evaluation of Delphi." *Technological Forecasting and Social Change*, Vol. 40, 1991, pp. 131-50.

This page intentionally left blank.

Appendices

Appendix 1: Criteria for Selecting Experimental Offices

I. Demographic

A. Total Population

B. Rural Population as % of Total Population

C. Labor Force

D. Unemployment Rate

E. Median Household Income

F. Out-of-Wedlock Births as % of Total Births

G. Female Householder as % of Total Householder

II. Operational Efficiency

A. Number of Positions

B. Position Turnover

C. Cases Obligated as % of Total Cases

D. % of Obligated Cases Paying

E. Paternity Cases Judicially Established as % of Total Paternity Establishment Cases

III. Productivity

A. Total Cases

B. Interstate Cases as % of Total Cases

C. Public Assistance Collections as % of Total Collections

D. AFDC Recovery Rate

E. No. of Locates

F. No. of Paternities Established

G. No. of Paternities Established as % of Cases with Paternities to be Established

H. No. of Wage Withholdings

IV. Quality of Service

A. Customer Complaints

B. $ Refunds as % of Collections

V. Cost-Justified

The single variable considered in this category was the ratio of $ Collections to $ Expenditures.

Recommending Experimental Sites

The five types of variables considered in recommending experimental sites are shown above. Detailed information on the variables for each of the offices follows this discussion.

There are tradeoffs to consider in recommending the three sites—that is, the two large district offices and one small district office. There are clearly tradeoffs in evaluating potential sites.

Fairfax district office was not recommended since it is scheduled for privatization.

For one of the large sites, Roanoke was selected for the reasons discussed below. For the second large office site, there were several alternatives that were discussed.

Fredericksburg was recommended for the experimental small office site.

Evaluation of Roanoke for Experimental Site

Roanoke district was selected for one of the large offices for a number of reasons. The office serves an area with the second largest population in Virginia, has a percentage of rural population (39.8 percent) that exceeds the national average (26.4 percent), has an unemployment rate (5.1 percent) that is equivalent to Virginia's rate, and has an out-of-wedlock birth rate (27.3 percent) that is equivalent to the entire U.S. The Roanoke district has more filled positions than any other district office (as

of June 1994) and has the lowest turnover rate (9.1 percent) among the large offices and has a much lower rate of Cases Obligated as % of total Cases (55.4 percent), has the highest rate of Obligated Cases Paying (28.7 percent), and lowest rate (0 percent) of Paternity Cases Judicially Established as % of Total Paternity Establishment Cases.

Roanoke district has the fifth largest total caseload, has an interstate caseload as percent of total caseload (18.6 percent) which is less than both the estimated U.S. rate (30 percent) and the average in Virginia (24.5 percent), has a rate of Public Assistance Cases as a % of Total Cases (42.4 percent) which is somewhat less than both the U.S. rate (56.3 percent) and Virginia (51.1 percent), has an AFDC Recovery Rate (40 percent) which exceeds both the U.S. (12 percent) and Virginia (30 percent). The Number of Locates, and Number of Paternities Established as a % of Cases in Which Paternities are to be Established, and Wage Withholdings all appear favorable in comparison with other district offices. Among the large offices, Roanoke has the next to the lowest number (38) of Customer Complaints and the next to the highest rate of Refunds as % of Collections (61 cents for each $100 of collections).

In the cost-justified area, Roanoke has the next to the lowest rate for Collections/Expenditures ratio.

Selection of the Second Experimental Large Office Site

For the other large office, any of the four remaining offices, that is, Virginia Beach, Richmond, Norfolk, or Newport News, could have been selected. Each had different advantages. The perceived disadvantage to Newport News was the number of employees that left for employment with the privatized office. Except for this fact, Newport News had some distinct advantages. Either Richmond or Norfolk would have been logical candidates for a number of reasons, including the fact that the population in both districts is entirely urban.

Selection of Fredericksburg for the Experimental Small Office Site

We recommended Fredericksburg as the best candidate from the small offices. Again, there were trade-offs, but that office looked more representative from the standpoint of Unemployment Rate, Out-of-Wedlock Birth Rate, Position Turnover, Cases Obligated as % of Total Cases, Obligated Cases Paying, Interstate Caseload, Customer Complaints, Refunds/Collections, and Collections/Expenditures.

Definitions of Research Questions' Terms and Variables

I. Are staffing standards and optimal caseloads for child support functions feasible and desirable?

A. The terms related to this question are these:

(1) Child support functions: these six child support enforcement functions: 1) administer intake, 2) locate absent parents, 3) establish paternity, 4) establish support obligations, 5) enforce support orders, and 6) provide customer service.

(2) Desirable: 1) a positive and significant correlation with ***operational efficiency, improved productivity***, and ***improved quality of service***; and 2) ***cost-justified***.

(3) Feasible: capable of being created.

(4) Optimum caseload: the number of cases per child support enforcement worker in each of the six functions [1) intake, 2) locating absent parents, 3) establishing paternity, 4) establishing support obligations, 5) enforcing support orders, and 6) providing customer service] based upon implementing ***best practices*** followed by workload standards developed through a Delphi study.

(a) Best practice: a procedure, method, or improvement intended to improve ***operational efficiency***, and/or ***productivity***, and/or ***quality of service***, and/or is ***cost-justified***.

(b) Optimum caseload validation: the process of determining any significant differences in the ***operational efficiency***, and/or ***productivity***, and/or ***quality of service***, and/or cost measures (see ***cost-justified*** below), of workers with optimum caseloads in experimental district offices compared to workers with customary caseloads in the control district offices.

(5) Staffing standard: number of child support enforcement workers required for a given number of cases according to optimum caseload.

(a) It is not expected that the optimum caseloads or staffing standards developed in this study will be generalized to other states.

(b) It is expected that the methodology which has been documented and validated in this study can be used in other states with similar characteristics and should produce equivalent results.

II. How do the study's recommended staffing standards and optimal caseloads affect staffing levels and operational efficiency?

A. The terms related to this question are these:

(1) Operational efficiency: a composite measure of district office performance in these variables:

(a) Employee job satisfaction

(b) Employee turnover

1) Total

2) By job title

(c) # cases obligated/# total cases

(d) % obligated cases paying

(e) CSE worker travel time/total CSE worker time

(f) % cases worked in proper timeframe

(g) What was done as % of what had to be done

(h) Z-scores using actual work hours

(2) Recommend optimal caseloads: the number of cases per child support enforcement worker in each of the six functions based upon implementing best practices followed by work standards developed through the study.

(3) Recommend staffing standards: the number of child support enforcement workers in each of the six functions, determined through the study, required to handle the district's workload.

(4) Staffing levels: the number of positions filled or in the process of being filled (by job title).

III. Do the recommended staffing standards and optimal caseloads improve productivity and quality of service?

A. The terms related to this question are these:

(1) Productivity: a composite measure of district office performance in these variables:

(a) AFDC recovery rate
(b) $ collected/total work hours expended
(c) $ Non-PA collections
(d) $ PA collections
(e) # locates
(f) # paternities established
(g) # wage withholdings

(2) Quality of service: a composite measure of district office performance in these variables:

(a) % meeting federal audit standards
(b) # customer complaints/# cases handled
    1) Custodial parent
    2) Non-custodial parent
(c) Results of customer surveys
(d) $ refunds/$ collections

IV. Are the recommended standards and caseloads cost-justified?

A. The term related to this question is this:

(1) Cost-justified: a composite measure of district office performance in these variables:

(a) $ collections/$ expenditures

(b) $ collections/total work hours

The following table summarizes the design of the treatment for the entire Staffing Demonstration project.

Table 33: Experimental and Control District Offices: Treatment Design

Office Size	Control	Best Practices	Best Practices & Standards[44]	Standards Only
Large (L)	L_3	L_1	L_2	
Small (S)	S_2			S_1

The tables on the following pages show data based on the following criteria variables for the selection of the experimental sites:

- Demographic
- Operational Efficiency
- Productivity
- Quality of Service
- Cost-Justified

[44] Standards = time standards for optimum staffing level:
for L_2, developed with L_2 staff only
for S_1, developed with all S staff

Criteria Variables for Selection of Experimental Sites

Table 34: Demographic Variables

District Office	Rural Population	Urban Population	Total Population	Rural % of Total	Labor Force	Unemployed	Unemploy-ment Rate	Median Household Income	Out-of-Wedlock Births	% Out-of-Wedlock Births	Female Householder
Large Districts											
VA. Beach BO	44725	393108	437833	10.2	232757	12073	5.2	31540	1905	22.9	14629
Richmond DO		203056	203056	0	106718	6769	6.3	32497	2222	63.6	16511
Fairfax FO	19918	1109985	1129903	1.8	738531	23676	3.2	58907	3244	18.5	35477
Norfolk KO		261229	261229	0	98612	6307	6.4	29947	2340	43.1	13970
Newport News NO	49367	200996	250363	19.7	130523	6322	6.7	36897	1587	33.1	12300
Roanoke RO	186857	282999	469856	39.8	255708	13004	5.1	29171	1541	27.3	19111
Medium Districts											
Abingdon AO	265817	68844	334663	79.4	151052	15950	10.6	24975	929	23.3	12891
Portsmouth B1		103907	103907	0	4563	49660	9.2	29235	1017	50.2	7330
Henrico D1	85558	420967	506525	16.9	315746	12252	3.9	44556	1654	21.2	19507
Danville L1	222458	93069	315527	70.5	172829	16896	9.8	28362	1379	36.5	15158
Lynchburg LO	173102	127323	300425	57.6	159943	7808	4.9	28670	1282	33.7	12233
Petersburg PO	111338	84150	195488	57	98603	6925	7.1	30407	1381	46.5	10308
Small Districts											

District Office	Rural Population	Urban Population	Total Population	Rural % of Total	Labor Force	Unemployed	Unemployment Rate	Median Household Income	Out-of-Wedlock Births	% Out-of-Wedlock Births	Female Householder
Charlottesville CO	145412	81344	226756	64.1	175894	6725	3.8	37274	935	28.9	8454
Fredericksburg C1	154420	68852	223272	69.2	128306	5468	4.3	37075	1031	27.5	6804
Verona C2	140951	100886	241837	58.3	138357	5977	4.3	31840	740	24.3	8022
Manassas F1	106542	225340	331882	32.1	200991	7493	3.7	47282	1251	19.9	9074
Winchester F2	81430	84470	165900	49.1	106973	4367	4.1	43372	549	18.4	5180
Suffolk P1	50722	51886	102608	49.4	52643	3965	8.1	29339	653	42.3	5539
VA				30.6					28.5		
US				26.4					29.5		

Legend:

a. Population Data: Rural, Urban, Total – 1990 U.S. Census

b. Labor Force, Unemployment Data – for July, 1994; Virginia State Data Center, Richmond

c. Median Household Income – 1990 U.S. Census

d. Out-of-Wedlock Births – for 1992; Virginia Department of Health

e. *Female Householders, Total Householders – 1990 U.S. Census*

Table 35: Operational Efficiency Variables

District Office	# Positions	Position Turnover	Cases Obligated /Total	ESTJ/ (ESTA+ESTJ)
Large Districts				
VA. Beach BO	50	20	44.8	1
Richmond DO	54	11.1	40.4	0.5
Fairfax FO	51	23.5	38.2	0.3
Norfolk KO	49	30.6	43.9	1.8
Newport News NO	47	17	46.9	0.5
Roanoke RO	55	9.1	55.4	0
Medium Districts				
Abingdon AO	36	8.3	49.1	0.5
Portsmouth B1	34	29.4	47.9	1.8
Henrico D1	40	25	49.1	0.4
Danville L1	38	36.8	60.2	1
Lynchburg LO	37	21.6	49	0.7
Petersburg PO	39	20.5	41	1
Small Districts				

District Office	# Positions	Position Turnover	Cases Obligated /Total	ESTJ/ (ESTA+ESTJ)
Charlottesville CO	22	13.6	55	0.2
Fredericksburg C1	24	16.7	56.8	4.4
Verona C2	23	21.7	63.8	0.8
Manassas F1	22	13.6	46.5	1.8
Winchester F2	N/A	N/A	51.9	0.7
Suffolk P1	21	38.1	62.1	2.1
VA		28.7		
US				

Legend:

a. *# Positions, Position Turnover – June, 1994 "Position Turnover Report," Virginia Department of Social Services, Division of Human Resource Management*
b. *Cases Obligated/Total Cases = [(COLL + DELQ / TOTALS] – June, 1994 "Case Priority and Tracking Report," Virginia Department of Social Services, Division of Child Support Enforcement*
c. *ESTJ / (ESTA + ESTJ) = Judicially Determined Obligations/Total Obligations; see b.*

Table 36: Productivity Variables

District Office	Total Cases	Interstate Cases	Interstate/ TTL. Cases	PA/Total	$ PA Collections	ADC Recovery	NPA Collections	Locates	Paternities Est.	Pat. Est./ Pat. Status	Wage Withholdings
Large Districts											
VA. Beach BO	23221	7486	32.2	34.5	255677	24	1112924	337	125	3.3	331
Richmond DO	26061	3751	14.3	59.5	472303	23	748314	156	183	3	352
Fairfax FO	32695	11736	35.9	40.2	299272	13	1690967	531	79	1.4	240
Norfolk KO	27534	6101	22.1	51.4	448233	24	1004099	763	195	2.3	521
Newport News NO	21239	6250	29.4	43	204550	15	996188	385	136	2.6	378
Roanoke RO	22321	4165	18.6	42.4	439014	40	873399	584	107	3.8	435
Medium Districts											
Abingdon AO	16232	4482	27.6	40.5	290532	27	613677	163	64	2.7	288
Portsmouth B1	14263	2339	16.4	50.3	232844	27	587194	378	69	2.5	286
Henrico D1	17809	4676	26.2	35.6	230137	25	1098936	536	130	3.9	294
Danville L1	20138	4078	20.2	31.8	350292	48	1269144	262	96	2.8	384
Lynchburg LO	15569	2964	19	40	281843	38	660783	637	119	4.3	183
Petersburg PO	16074	3142	19.5	42.6	172477	19	567476	452	92	2.5	386

District Office	Total Cases	Interstate Cases	Interstate/ TTL. Cases	PA/Total	$ PA Collections	ADC Recovery	NPA Collections	Locates	Paternities Est.	Pat. Est./ Pat. Status	Wage Withholdings
Small Districts											
Charlottesville CO	9766	1930	19.7	42.6	199676	37	473382	111	43	2.8	134
Fredericksburg C1	10173	2928	28.7	35.4	206313	46	824620	346	94	7.2	249
Verona C2	9064	1632	18	33.8	197491	49	619077	93	40	4.5	167
Manassas F1	12142	4631	38.1	34.7	203381	21	1285940	363	84	3.8	240
Winchester F2	N/A	2277	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Suffolk P1	9583	1619	16.8	38	210039	49	606335	169	111	8	221
VA		76187	24.5	51.1		30					
US			30 (est)	56.3		12					

Legend:

a. *Total Cases – June, 1994 "Case Priority and Tracking Report," Virginia Department of Social Services, Division of Child Support Enforcement*
b. *Interstate Cases – June, 1994 "Monthly Interstate Statistical Summary Report," Virginia Department of Social Services, Division of Child Support Enforcement*
c. *PA Cases/Total Cases = [(ADC + ADCU + FC + ARRP) / Total Cases]; see a.*
d. *$ PA Collections – "Monthly Collections Report, June 1994 (3rd rev.)."*
e. *ADC Recovery % – "June 1994 Performance Scores," in* Statewide Monthly Statistical Report – June 1994, *Virginia Department of Social Services, Division of Child Support Enforcement.*
f. *$ NPA Collections – see d.*
g. *Locates (#) – "Combined ADC and Non-ADC Comparison Statistics for June '93 vs. June '94,"* in Statewide Monthly Statistical Report – June 1994, *Virginia Department of Social Services, Division of Child Support Enforcement.*
h. *Paternities Established (#) – see g.*
i. *Paternities Established/Paternity Status – (h.)/PAT Status, from a.*
j. *Wage Withholdings (#) – see g.*

Table 37: Quality of Service Variables

District Office	Customer Complaints	Refunds/ Collections
Large Districts		
VA. Beach BO	122	0.34
Richmond DO	55	0.26
Fairfax FO	99	1.03
Norfolk KO	35	0.56
Newport News NO	115	0.06
Roanoke RO	38	0.61
Medium Districts		
Abingdon AO	17	1.17
Portsmouth B1	20	0.62
Henrico D1	119	1.4
Danville L1	28	0.47
Lynchburg LO	58	0.45
Petersburg PO	56	0.06
Small Districts		

District Office	Customer Complaints	Refunds/ Collections
Charlottesville CO	37	0.39
Fredericksburg C1	50	0.34
Verona C2	48	0.68
Manassas F1	60	0.6
Winchester F2	49	N/A
Suffolk P1	21	0.35
VA		
US		

Legend:

a. *Customer Complaints – "Analysis of Complaints Received, by District Office: July 1, 1993 – June 30, 1994," in* June 1994 Customer Services Report, *Virginia Department of Social Services, Division of Child Support Enforcement.*

b. *Refunds/Collections – "Absent Parent Refund Summary Report," in June 1994 "RP" Refund Report," Virginia Department of Social Services, Division of Child Support Enforcement, and "Child Support Enforcement Collections for ADC and Non-ADC Cases by District, June 1994," in* Monthly Collections Report – June 1994 (3rd rev.), *Virginia Department of Social Services, Division of Child Support Enforcement.*

Table 38: Cost-Justified Variables

District Office	Collections/Expenditures
Large Districts	
VA. Beach BO	4.3
Richmond DO	2.8
Fairfax FO	5.2
Norfolk KO	3.8
Newport News NO	4
Roanoke RO	3.3
Medium Districts	
Abingdon AO	3.4
Portsmouth B1	3.8
Henrico D1	4.7
Danville L1	5.7
Lynchburg LO	3.5
Petersburg PO	3.1

District Office	Collections/Expenditures
Small Districts	
Charlottesville CO	3.6
Fredericksburg C1	5.3
Verona C2	4.6
Manassas F1	4.5
Winchester F2	6.6
Suffolk P1	4.7
VA	3.1
US	3.9

Legend:
a. $ Collections/Expenditures – "Benefit-Cost Ratios, Year-to-Date, June 30, 1994," Virginia Department of Social Services, Division of Child Support Enforcement.

Appendix 2: DCSE 5-Day Training Outline

Instructor's Agenda **9:00 AM to 4:30 PM**	
Day One	
9:00	Opening and Introductions
9:30	Overview of DCSE Program
10:30	Break
10:45	Overview of DCSE Program
11:00	APECS Overview
12:15	Lunch
1:15	Case Initiation
2:45	Break
3:00	Case Initiation
4:15	Review
Day Two	
9:00	Case Management
10:15	Break
10:30	Locate
12:30	Lunch
1:30	Case Management Exercise
1:50	Paternity
3:00	Break
3:15	Paternity
4:30	Adjourn for the day
Day Three	
9:00	Paternity
10:00	Break
10:15	Establishing Support Orders
12:15	Lunch

Instructor's Agenda 9:00 AM to 4:30 PM	
1:15	Ice Breaker Exercise
1:30	Administrative Appeals
2:15	Financial Management: Adding Support Orders
3:30	Break
3:45	Financial Management: Support Order Processing
4:30	Review, Adjourn
Day Four	
9:00	Financial Management: Batch Programs • Payment Processing Hierarchy • Account Statements
10:30	Break
10:45	Financial Management, continued
11:15	Enforcement: Administrative
12:15	Lunch
1:15	Ice Breaker Exercise
1:30	Enforcement: Administrative
2:30	Break
2:45	Enforcement: Court • Judicial Process
4:00	Review, Adjourn
Day Five	
9:00	Interstate Case Processing
10:00	Break
10:15	Time Management Exercise
11:00	Jeopardy Game – course review
11:45	Review Evaluations Wrap-up Adjourn

Appendix 3: Evaluation Plan: Charlottesville and Fredericksburg District Offices

	Research Question	Variable(s)	Hypotheses/Propositions	Hypothesis/Proposition Testing
1.	Are staffing standards and optimal caseloads for child support functions feasible and desirable?	"Feasible" = qualitative evaluation of using Delphi technique to establish child support specialist caseload standards at Fredericksburg district office. "Desirable" = qualitative evaluation based upon determination of feasibility and analyses of operational efficiency, productivity, quality of service, and cost/benefit.	Proposition 1: The Delphi technique is a feasible method for establishing staffing standards. Proposition 2: The implementation of staffing standards in the Fredericksburg district office is desirable.	Test Proposition 1 through discussions and written comments from Delphi panel members, District Manager, district office employees and the Technical Contractor. Test Proposition 2 with an overall assessment of the feasibility study and the measures of operational efficiency, productivity, quality of service, and cost/benefit.
2.	How do the study's recommended staffing standards and optimal caseloads affect staffing levels and operational efficiency?	"Staffing levels" = the number of filled full-time positions.	Proposition 3: The numbers of full-time employees in the Fredericksburg district office are not different than those in the Charlottesville district office prior to and after implementation of the staffing standards.	Test Proposition 3 by comparing the numbers of full-time employees in all occupations in the Fredericksburg and Charlottesville district offices before and after implementation of the staffing standards.
		"Operational efficiency" (which is defined as more efficiently performing work) is measured through these variables:	The percentage change between the periods before/after implementation of staffing standards within and between the Fredericksburg and Charlottesville district offices is not different for the following variables:	
		• Employee Job Satisfaction	Proposition 4: Employee job satisfaction	Test Proposition 4 through the results of employee opinion surveys.
		• Employee Turnover	Proposition 5: Employee turnover rate	Test Proposition 5 through a comparison of annual turnover rates.
		• $ Collections per Employee	Hypothesis 6: $ Collections per employee	Hypothesis 6 will be tested with a means-difference test.

	Research Question	Variable(s)	Hypotheses/Propositions	Hypothesis/Proposition Testing
3.	Do the recommended staffing standards and optimal caseloads improve productivity and quality of service?	"Productivity" (which is defined as increasing the number of units produced) is measured through these variables:	The percentage change between the periods before/after implementation of staffing standards within and between the Fredericksburg and Charlottesville district offices is different/is not different for the following variables:	
		• # Locates per employee	Hypothesis 1: # Locates	Hypotheses 1-6 will be tested with means-difference tests.
		• # Paternities established per employee	Hypothesis 2: # Paternities Established	
		• # Administrative Obligations per employee	Hypothesis 3: # Administrative Obligations	
		• # Court Obligations per employee	Hypothesis 4: # Court Obligations	
		• # Wage Withholdings per employee	Hypothesis 5: # Wage Withholdings	
		"Quality of Service" is measured through these variables:		
		• Customer Opinion Survey	Proposition 6: Customer Opinion Survey	Test Proposition 6 through Customer Opinion Surveys.
		• Compliance with Federal timeframes	Proposition 7: Federal Compliance	Test Proposition 7 through a review of selected actions in accordance with Federal compliance requirements.

	Research Question	Variable(s)	Hypotheses/Propositions	Hypothesis/Proposition Testing
4.	Are the recommended standards and caseloads cost-justified?	"Cost-justified" is measured with this variable:		
		• $ Collections per $ Costs (direct + allocated costs)	The percentage change between the periods before/after implementation of staffing standards within and between the Fredericksburg and Charlottesville district offices is different/is not different for the following variable:	
			Hypothesis 7: $ Collections per $ Costs (direct + allocated)	Hypothesis 7 will be tested with means-difference tests.

Appendix 4: Evaluation Plan: Newport News, Richmond, and Roanoke District Offices

	Research Question	Variable(s)	Hypotheses/Propositions	Hypothesis /PropositionTesting
1.	Are staffing standards and optimal caseloads for child support functions feasible and desirable?	"Feasible" = qualitative evaluation of using Delphi technique to establish child support specialist staffing standards at Roanoke district office "Desirable = qualitative evaluation based upon determination of feasibility and analyses of operational efficiency, productivity, quality of service, and cost/benefit.	Proposition 1: The Delphi technique is a feasible method for establishing staffing standards.	Test Proposition 1 through discussions and written comments from Delphi panel members, District Manager, district office employees, and the Technical Contractor.
			Proposition 2: The implementation of staffing standards in the Roanoke district office is desirable.	Test Proposition 2 through an overall assessment of the feasibility study and the measures of operational efficiency, productivity, and cost/benefit.
			Proposition 3: The implementation of macros in the Richmond and the Roanoke district offices is desirable.	Test Proposition 3 through an overall assessment of the feasibility study and the measures of operational efficiency, productivity, cost/benefit and the Technical Contractor's assessment of the improvements prior to and after the improvements were implemented.
2.	How do the study's recommended staffing standards and optimal caseloads affect staffing levels and operational efficiency?	"Staffing levels" = the number of filled full time positions.	Hypothesis 15: There are no significant differences in the numbers of full-time employees among the Newport News, Richmond, and Roanoke district offices in the Base, Macros, Experimental, or Post-Experimental Periods.	Test Hypothesis 15 using employment data for the four periods using means difference tests.

Research Question	Variable(s)	Hypotheses/Propositions	Hypothesis /PropositionTesting
	Operational efficiency" (which is defined as more efficiently performing work) is measured through these variables:	The percentage change between the periods before/after implementation of staffing standards within and among the Roanoke, Richmond, and Newport News district offices is different/is not different for the following variables:	
	• $ Collections per employee after implementation of Macros.	Hypothesis 6: There are no significant differences in the mean number of dollars collected per employee after implementation of macros.	Test Hypotheses 6 and 13 through means-difference tests.
	• $ Collections per employee after implementation of Staffing Standards.	Hypothesis 13: There are no significant differences in the mean number of dollars collected per employee after implementation of additional personnel.	
	• Employee Job Satisfaction	Proposition 4: Additional staffing has a positive effect upon employee satisfaction.	Proposition 4 will be tested through employee surveys.
	• Employee Turnover	Proposition 5: The turnover rate for the Roanoke district office is the same as the rates in the Richmond and Newport News district offices prior to the implementation of the staffing standards and is lower than those two offices after the implementation.	Test Proposition 5 through turnover data.
3. Do the recommended staffing standards and optimal caseloads improve productivity and quality of service?	"Productivity" (which is defined as increasing the number of units produced) is measured through these variables:		
	• # Paternities Established after implementation of Macros.	Hypothesis 2: There are no significant differences in the mean number of paternities per district employee after implementation of macros.	Hypotheses 2 and 9 will be tested with means-difference tests

Research Question	Variable(s)	Hypotheses/Propositions	Hypothesis /PropositionTesting
	• # Paternities Established after implementation of Staffing Standards.	Hypothesis 9: There are no significant differences in the mean number of paternities per district employee after implementation of staffing standards.	
	• # Administrative Obligations after implementation of Macros.	Hypothesis 3: There are no significant differences in the mean number of administrative obligations per district employee after implementation of macros.	
	• # Administrative Obligations after implementation of Staffing Standards.	Hypothesis 10: There are no significant differences in the mean number of administrative obligations per district employee after implementation of staffing standards.	Hypotheses 3 and 10 will be tested with means-difference tests.
	• # Court Obligations after implementation of Macros.	Hypothesis 4: There are no significant differences in the mean number of judicial obligations per district employee after implementation of macros.	Hypotheses 4 and 11 will be tested with means-difference tests.
	• # Court Obligations after implementation of Staffing Standards.	Hypothesis 11: There are no significant differences in the mean number of judicial obligations per district employee after implementation of staffing standards.	
	• # Wage Withholdings after implementation of Macros.	Hypothesis 5: There are no significant differences in the mean number of wage withholdings per district employee after implementation of macros.	Hypotheses 5 and 12 will be tested through means-differences tests.
	• # Wage Withholdings after implementation of Staffing Standards.	Hypothesis 12: There are no significant differences in the mean number of wage withholdings per district employee after implementation of staffing standards.	

Research Question	Variable(s)	Hypotheses/Propositions	Hypothesis /PropositionTesting
	• #Locates after implementation of Macros.	Hypothesis 1: There are no significant differences in the mean number of locates per district employee after implementation of macros.	Hypotheses 1 and 8 will be tested through means-differences tests.
	• #Locates after implementation of Staffing Standards.	Hypothesis 8: There are no significant differences in the mean number of locates per district employee after implementation of staffing standards.	
	"Quality of Service" is measured through this variable: • Customer Opinion Survey	Proposition 6: Customer opinion of employee responsiveness, courtesy, and helpfulness in the Roanoke district office is better than that in the Newport News or Richmond office after implementation of staffing standards.	Proposition 6 will be measured through customer opinion surveys.
4. Are the recommended standards and caseloads cost-justified?	"Cost-justified" is measured with this variable: • $ Benefits per $ Costs (direct and allocated costs) after implementation of Macros.	Hypothesis 7: There are no significant differences in the ratio of dollars collected to dollars expended after implementation of macros.	Hypotheses 7 and 14 will be tested with means-difference tests.
	• $ Benefits per $ Costs (direct and allocated costs) after implementation of Staffing Standards.	Hypothesis 14: There are no significant differences in the ratio of dollars collected to dollars expended after implementation of staffing standards in the Roanoke, Richmond, and Newport News district offices.	

Appendix 5: Data Collection Plan: Charlottesville and Fredericksburg District Offices

Treatment/Date	Data Collection					
	Evaluation Contractor				Technical Contractor	
	Performance Variables[a]	**Workhours Report[b]**	**Employee Opinion Survey[c]**	**APECS Events[d]**	**Customer Opinion Survey[e]**	**Aging Reports/ Compliance Samples[f]**
Base Period (7/95 – 5/96)	Monthly	8/95 & 12/95	8/95	2/96[g], 3/96 & 4/96	Baseline data from DCSE statewide survey	No data collected
Experimental (Staffing Standards) (6/96 – 8/97)	Monthly, with the last report for 8/97	6/96, 11/96, 3/97, 6/97 & 8/97	9/96, 1/97 & 6/97[h]	Monthly, with last report for 8/97	11/96, 1/97 & 5/97	6/96, 1/97 & 8/97
Post-Experimental (Post-Staffing Standards)[i] (9/97 – 4/98)	Monthly, with the last report for 4/98	No data collected, see Note i	No data collected, see Note i	No data collected, see Note i	No data collected, see Note i	No data collected, see Note i

See following pages for notes.

Notes for Appendix 5: Data Collection Plan: Charlottesville and Fredericksburg District Offices

[a] Performance variables (source of data is shown in parentheses):

- $ collections (Monthly Collections Report has the total figure and the separate figures for both TANF and Non-TANF)
  - Total $
  - TANF $
  - Non-TANF $
- # Paternities Established (SMSR)
- # Administrative Obligations (SMSR)
- # Court Obligations (SMSR)
- # Wage Withholdings (SMSR)
- # Liens Filed (SMSR)
- # Locates (SMSR)
- $ Refunds (ApecsMRR) ÷ Total $ Collections (Monthly Collections Report)
- Benefit/Cost Ratio [The "Benefit" in this ratio is total TANF and Non-TANF Collections and the "Cost" in the ratio is the Total Expenditures ("Benefit" data obtained from the Monthly Collections Report and "Cost" data obtained from Benefit Cost Analysis Report; **Note**: "Cost" data from the Benefit Cost Analysis Report is on a year-to-date basis so to get monthly data for a current month, the YTD expenditures figure for the current month must be subtracted from the YTD figure for the preceding month)].
- TANF Recovery Rate (SMSR)
- Total $ Collected ÷ Total Workhours = $ Collections per Workhour [(Data for Total $ Collected from Monthly Collections Report; Data for Total Workhours from ***Workhour Collection Form***.) This variable will be computed for the months in which workhours are collected.]

[b] ***Workhour Collection Form*** is being used to collect the data.

[c] ***Employee Opinion Survey Form*** is being used to collect the data.

[d] This report was developed to evaluate how effectively a district office is utilizing APECS. The variables are (1) Total Events Generated through APECS divided by Total Caseload, (2) Total Self-Generated Events divided by Total Events, and (3) Total Self-Generated Events divided by Total Caseload. Bill Trainor is supplying the report.

[e] The technical contractor will use the DCSE form and add some questions so we can compare the results with what the Division is receiving. The protocol will be that the first 100 customers who walk-in in each of the two districts during the month starting with the first working day, will be given the Questionnaire (with an envelope) by the receptionist who will tell the customer to complete it after the visit, put it in the envelope, and give it back to the receptionist prior to leaving the office. The receptionist will ensure that the questionnaire is returned and mailed to the Technical Contractor.

[f] Based upon a random sample of approximately 60 cases initiated within the respective dates of the two study periods and check the case processing for compliance with federal timeframes.

[g] This is a special report that was not started until 2/96. See endnote d for an explanation.

[h] These dates were selected so the new employees who were hired according to the staffing standards will be sufficiently knowledgeable to respond to the statements on the opinion questionnaire. We assume the employees will be hired by 6/96 and will be relatively proficient by 9/96. The final opinion questionnaire will be given in 5/97 since these employees will be terminated by 8/97 and we assume some of them, contemplating employment separation by 8/97, will be leaving voluntarily for other employment.

[i] Only data for the Performance Variables was collected during the Post-Experimental (Post-Staffing Standards) period. Data collection for a post staffing standards period was not in the agreed-upon Work Plan for either the Technical or the Evaluation Contractors. The original plan was to cease data collection at the conclusion of the staffing standards period. Due to unforeseen but positive trends in the performance variables, a decision was made to continue collecting data through April 1998. Data is still being collected for these variables but the final report analyzes data through April 1998 due to the need to complete a final report and the time lag in receiving information from the district offices and finalizing it in the Central Office.

Appendix 6: Data Collection Plan: Newport News, Richmond, and Roanoke District Offices

Treatment/ Date	Data Collection						
	Evaluation Contractor				Technical Contractor		
	Performance Variables[j]	**Workhours Report[k]**	**Employee Opinion Survey[l]**	**APECS Events[m]**	**Customer Opinion Survey[n]**	**Pre/Post Macros[o]**	**Aging Reports/ Compliance Samples[p]**
Base Period (7/95 - 7/96)	Monthly	8/95, 12/95, & 6/96	7/95	2/96[q], 3/96 & 4/96	Baseline data from DSCE state-wide survey	Assessment before macros implemented	6/96[r]
Macros (8/96 - 11/96)	Monthly	9/96 & 11/96[s]	9/96[t]	Monthly	11/96	Assessment after macros implemented 11/96	8/96 & 11/96
Experimental (Staffing Standards) (12/96 - 2/98)	Monthly	4/97, 7/97, 10/97, 12/97 & 2/98	4/97, 12/97 & 2/98[u]	Monthly, with the last report for 2/98	4/97 & 12/97	12/97	4/97, 7/97, 10/97, 12/97, & 2/98
Post-Experimental (Post-Staffing Standards) (3/98 - 10/98)	Monthly, with the last report for 10/98						

See following pages for notes.

Notes for Appendix 6: Data Collection Plan: Newport News, Richmond, and Roanoke District Offices

[j] Performance variables (Source of data is shown in parentheses):

- $ collections (Monthly Collections Report has the total figure and the separate figures for both TANF and Non-TANF)
  - Total $
  - TANF $
  - Non-TANF $
- # Paternities Established (SMSR)
- #Administrative Obligations (SMSR)
- #Court Obligations (SMSR)
- #Wage Withholdings (SMSR)
- #Liens Filed (SMSR)
- #Locates (SMSR)
- $ Refunds (ApecsMRR) ÷ Total $ Collections (Monthly Collections Report)
- Benefit/Cost Ratio [The "Benefit" in this ratio is total ADFC and Non-TANF Collections and the "Cost" in the ratio is the Total Expenditures ("Benefit" data obtained from the Monthly Collections Report and "Cost" data obtained from Benefit Cost Analysis Report; **Note:** "Cost" data from the Benefit Cost Analysis Report is on a year-to-date basis so to get the monthly data for a current month, the YTD expenditures figure for the current month must be subtracted from the YTD figure for the preceding month)].
- ADC Recovery Rate (SMSR)
- Turnover (Turnover Report)
- Total $ Collected ÷Total Workhours = $ Collections per Workhour
  - [(Data for Total $ Collected from Monthly Collections Report; Data for Total Workhours from ***Workhour Collection Form***). This variable will be computed for the months in which workhours are collected].

[k] ***Workhour Collection Form*** is being used to collect the data.

[l] ***Employee Opinion Survey Form*** is being used to collect the data. The Survey Form to be administered 9/96, 7/97, and 2/98 will include statements regarding the efficacy of the macros from the Macros Period. This information will be quantitatively analyzed and also will be compared with the qualitative information obtained by the Center (**See Pre/Post Macros** column). Also, the Survey Form for 7/97 and 2/98 will include statements regarding the development of the Staffing Standards.

[m] This report was developed to evaluate how effectively a district office is utilizing APECS, particularly to compare Roanoke with Richmond to aid determining when the two offices were somewhat comparable in the use of the macros. The variables are (1) Total Events Generated through APECS divided by Total Caseload, (2) Total Self-Generated Events divided by Total Events, and (3) Total Self-Generated Events divided by Total Caseload. Bill Trainor is supplying the report.

[n] The Technical Contractor will use the DCSE form and add some questions so we can compare the results with what the Division is receiving. The protocol will be that the first 100 customers who walk-in in each of the three districts during the month starting with the first working day, will be given the Questionnaire (with an envelope) by the receptionist who will tell the customer to complete it after the visit, put it in the envelope and give it back to the receptionist prior to leaving the office. The receptionist will ensure that the questionnaire is returned and then mail it to the Technical Contractor.

[o] The Technical Contractor will prepare a qualitative assessment of district operations in both Richmond and Roanoke prior to the implementation of the core macros, after the core macros have been implemented, and after the staffing standards have been implemented. A format, which will be consistently followed for all three reports, was discussed at the 6/26/96 meeting.

[p] Based upon a random sample of approximately 60 cases initiated within the respective dates of the three discrete study periods and checking the case processing for compliance with Federal time frames.

[q] This is a special report which was not started until 2/96. See Endnote m for an explanation.

[r] Aging reports for the functions of Case Initiation, Locate, and Establishment were done as early as 9/95. Reports for the functions of Paternity and Enforcement were done 4/96 but the first real good data on Paternity was not available until 6/96. The reports were restored as of 6/96.

[s] The 9-96 date for measurement of both Workhours and Employee Opinion could vary depending upon the projected date that staffing standards will be implemented.

[t] See endnote above.

[u] These dates were selected so the new employees who were hired according to the staffing standards, will be sufficiently knowledgeable to respond to the statements on the opinion questionnaire. We assume the employees will be hired by 1/97 and will be relatively proficient by 4/97. The final opinion questionnaire will be given on 12/97 since these employees will be terminated by 4/1/98 and we assume some of them, contemplating employment separation by 4/1/97, will be leaving voluntarily for other employment.

This page intentionally left blank.

Appendix 7: Description of the Core Macros Used in the Demonstration

1STPYMT

Used to take the worklists generated from the wage withholding MACRO, look at the financial screen, and identify those wage assignments that do not generate at least one payment. Where no payment is received, the worker (and his/her supervisor) initiating the wage withholding receives a worklist. Totally automated; requires clicking on the MACRO only to take all actions.

10MSTWNT

Used by Enforcement and Locate SES and Sr. SES reviewing cases to meet the criteria for the 10 Most Wanted List. Creates a case event, with notes providing compliance statements. Worklist is sent to Team Supervisor.

ARREARS

Call from NCP concerning arrears on case(s), resolved in CSU. Creates a case event and sends worklist to CSE Supv. *You have to be in the APECS case for the customer before starting this MACRO.*

ATTYCP

Call from CP's attorney concerning CP's case, resolved in CSU. Creates a case event and sends worklist to CSU Supv. *You have to be in the APECS case for the customer before starting this MACRO.*

ATTYNCP

Call from NCP's attorney concerning NCP's case, resolved in CSU. Creates a case event and sends worklist to CSU Supv. *You have to be in the APECS case for the customer before starting this MACRO.*

CASEINV

Used by all district staff to conduct a physical inventory of case folders they have in their office. Used to prevent lost cases. Creates a case event and sends worklist to central files or Operations Manager.

CASEREV

Used by Senior SES and Team Supervisors reviewing cases reported in compliance by staff assigned a caseload. Creates a case event; worklist sent to the Team Supervisor or District Manager. Can be used by DM for case reviews. Requires modification to identify worker, Team Supervisor, or District Manager to receive worklist. Requires modification to show which processing unit is considering the case reviewed for compliance.

CASETOCF

Used by all district staff to document case files returned to the central files. Creates a worklist to the user's supervisor. *You must be in the case summary before starting this MACRO.*

CASETOTM

Intended for staff working central files but can be used by all staff charging files out of central files. Creates a worklist to the user's supervisor or the Operations Manager.

CLOSECSE

Used by all staff with the capability to close a case on APECS. Requires responses to statements in the case event and sends worklists to the user's supervisor. Indicates that all appropriate actions have been taken on the case.

CPINTV

Used by all staff interviewing CPs. Where CP is an active participant, each staff member is required to apply this MACRO against all cases in APECS. Also provides means to secure updated information for NCPs and dependents, such as paternity documents or updated APECS information.

CPVISIT

Intended for receptionist to document visit of CP to district office. The system time of visit is recorded and added to worklist for the Customer Service Supervisor.

CSEQRYAP

Call from NCP with general case query questions. Creates a case event and work list to CSU Supv. Case event shows resolved in customer service.

CSEQRYCP

Call from CP with general case query. Creates a case event and sends worklist to CSU Supv. Case event shows call was resolved in Customer Service.

CSEUPDTE

Used by all staff to direct case-specific information to another DCSE staff member. Requires entry of worker number to receive the worklists and entry of case event notes, explaining the information provided. Worklists are created for the user's supervisor and the supervisor of the worker receiving the worklist.

CSUOTHER

Call received from someone other than CP, NCP or attorney for CP or NCP; resolved in CSU. Creates a case event and sends worklist to the CSU Supv.

CSUREF

Call received in CSU, requires further action; not resolved in CSU. Assumed: Staff member receiving this worklist is person assigned to case. (If information is required to go to someone other than assigned worker, use CSEUPDTE.) Requires information to be added to case event notes. Creates a worklist for receiver's supervisor and Customer Service Supervisor.

CSEREV

Used by supervisors to document review of Customer Service actions assigned staff. Indicates that review found no problems; creates worklist for next-level supervisor.

CSURTM

Used by supervisors to document review of Customer Service actions where a problem was identified and responsible worker did not receive credit for the action reviewed. Creates worklist for next-level supervisor.

CSUTRF

Used to document a call for responsible worker from Customer Service, for transfers via voice mail or telephone. Assumed: Call is referred to worker assigned the case. Worklist is created for worker receiving the call, that worker's supervisor, and the Customer Service Supervisor.

CUSTCON

Used by all staff outside of Customer Service to document a contact from a customer, telephone, walk-in or letter not referred from Operations staff. Requires identification of the type contact and notes in the case event explaining the contact and results. (Where a contact is resolved and no follow-up action is required, use CUSTRESP to indicate that contact was resolved.) Worklist is generated for user's supervisor.

CUSTRESP

Used by all staff outside CSU to document responses to customers where initial contact is resolved. Documents the contact, its resolution, and creates worklist for worker's supervisor and CSU Supervisor.

CTAPROVE

Used by Team Supervisors where approval of cases being referred to Judicial is required. Creates a case event showing approval of judicial action and sends worklist to Team Supervisor or District Manager. (APECS case referral *PF2* is completed by the approving level.)

DELPYMNT

Used to copy worklists from payment MACROS. Uniquely picks up the receipt number, amount of payment, payee's name, and SSN. Captures the same information required for the 531 (deposit form).

DELWKL

Used by supervisors to copy worklists to a text file in WINDOWS that can be accessed in MS WORKS. (*May prompt you to validate your password, if needed*.) Deletes worklists after copying them. Will copy only Priority 9 Mail worklists.

Accepts default date of APECS and copies the worklists for worker signing on to APECS.

DELWKLOW

Used by supervisors to copy worklists to a WINDOWS file. Prompts you to validate your password and to enter the worker code and date range to be copied. Will only copy Priority 9 Mail worklists. Can be used to copy other supervisors' worklists, in their absence.

DELWKLX

Used by supervisors to copy worklists that have a Priority 8 Mail code assigned. This MACRO will copy all notes entered. (Some MACROS permit free entry of case event notes, with anywhere from 1 to 15 lines of notes.) Prompts you to validate your password and to identify the worker code and date range to be copied.

DISREGRD

Call from CP concerning a disregard payment, resolved in CSU. Creates a case event and sends worklist to the CSU Supv. Case event shows that call was resolved in Customer Service.

DMVLICRV

Used by staff applying the driver's license suspension as an enforcement action. Requires response to several questions on a case event and creates a worklist for Team Supervisor.

DMVLIC

Intended to document contacts by customers with questions concerning driver's license suspension. Contact does not have to result in suspension of license.

EMPLOYER

Call from an employer concerning a wage assignment. Creates a case event and sends worklist to CSU Supv. Case event shows call was resolved in Customer Service.

EMPLYNCP

Call from CP concerning NCP employment. MACRO simply documents the contact. NCPUPDTE will follow, to send the information obtained (from CP) to worker responsible for the case.

ENFIWE

Used by Establishment staff to notify the Enforcement worker assigned to case that a wage withholding needs to be generated for a newly obligated case. Worklist is generated for Enforcement worker receiving the case, that worker's supervisor, and the Establishment Supervisor.

ENFREV

Used by Enforcement staff to record for case that all appropriate actions have been completed. Creates a case event, with notes that step the worker through a case review. Worklist sent to Team Supv.

ESTREV

Used by Establishment staff to report for case that all appropriate case actions have been completed. Creates a case event, with notes containing statements for a case review. Worklist sent to Team Supervisor.

GCSVC

Used by the individual responsible for requesting cases be returned from G.C. Services. Creates a worklist for supervisor.

INTREV

Used by Intake staff where all appropriate actions have been taken. Creates a case event, with notes containing compliance statements. Worklist is sent to Intake Supervisor.

IVAINTV

Used by DCSE staff interviewing AFDC clients in the IV-A office. Creates a case event, with notes containing information about the interview. Worklist sent to Sr. SES or Team Supervisor. *Requires you to be in the case before starting MACRO, so Fast Pathing can work.*

JUDREV

Used by Court Specialists to report a case where all appropriate actions have been completed. Creates a case event, with notes containing compliance statements. Worklist sent to Establishment Supervisor.

LIEN

Used by staff completing a lien to report the action completed to Team Supervisor. Worklist generated for Team Supervisor.

LOCATE

Used by all staff performing locate action to find an NCP. Requires the user to enter the number of locates to be credited, based on the locate action completed. Worklist sent to worker's supervisor.

LOCREV

Used by Locate staff where all appropriate actions have been taken. Creates a case event with notes containing compliance statements. Worklist sent to Sr. SES or Team Supervisor.

LTRDM

Letter forwarded to District Manager for action. Case event notes provide a brief description of the letter; worklist sent to District Manager. In event letter is marked Confidential or Personal (not to be opened), this information is added to case event.

LTRREF

Used by staff opening and distributing incoming mail. Intended to document letters from customers only; not for form letters generated from APECS or incoming UIFSA documents. Assumed: Letter is going to worker assigned the case. Requires brief description of the letter. Worklist sent to worker receiving the letter, that worker's supervisor, and Operations Manager.

LTROTHER

Letter for staff other than those identified in other MACROs. Case event identifies worker to receive the letter; worklist sent to his supervisor and Operations

Manager. Person processing mail must enter the code of staff member receiving the letter.

LUMPSUM

Used by all staff effecting a lump sum to be collected. Documents amount of the lump sum and worker to be credited for collection. Worker's supervisor receives worklist of the action.

NCPCKPMT

Used by staff taking checks from walk-ins. Worklist sent to Enforcement Team Supervisor, for potential OWD action, and Accountant Senior.

NCPPYMT

Noncustodial parent walks in and makes a payment by cash, check, or money order. Person accepting payment enters amount of payment. If NCP has more than one case, all cases will be checked yet entry appears on only one case. Worklist sent to Accountant Senior contains entry for total amount accepted, useful in reconciling cash payments.

NCPUPDTE

Used by Customer Service staff to send update information on NCP to worker assigned the case, once information is verified. Worker's supervisor and Customer Service Supervisor receive worklist for item.

NCPVISIT

Used by receptionist to document walk-in visits by NCPs. Records time of visit; sends worklist to Customer Service Supervisor.

OCCUPLIC

Used by Enforcement, Intake, Locate, and Establishment staff identifying cases that meet criteria for occupational license revocation. Creates a case event, with notes that contain compliance statements. Worklist sent to Sr. SES or Team Supervisor and to Enforcement Supervisor responsible for occupational license reporting to Regional Office.

OBLREVA

Used by Enforcement workers to show that a review and modification of an obligation has been started. Provides supervisors a means to track obligation reviews. Worklist sent to worker's supervisor.

OPENRPT

Used by Intake staff to document completion of a case on the Open Error report. Indicates the action taken and that all actions have been completed. Worklist sent to Intake Supervisor.

OWDENF

Used by Enforcement staff to document that an OWD has been sent to a financial institution. Worklist sent to Team Supervisor for statistical reporting.

OWDLUMP

Documents an OWD action that results in a lump-sum payment to satisfy arrears on a case. Creates worklist for Team Supervisor.

PATNITY

Used by all staff determining paternity for children. Requires entry of the number of paternities established and the method of establishing them. Creates worklist for Team Supervisor.

PATREV

Used by Paternity specialists completing cases and Sr. SESs, for all appropriate actions. Creates a case event, with notes containing compliance statements. Worklist sent to Sr. SES or Team Supervisor.

PYMTCP

Call from CP concerning a payment, resolved in CSU. A case event is created and worklist sent to CSU Supv.

PYMTNCP

Call from NCP concerning a payment, resolved in CSU. A case event is created and worklist sent to CSU Supv.

REFERRAL

Used to document a case referred to another processing unit. MACRO picks up the referral information and adds it to worklist for worker's supervisor.

REVOBL

Used by staff completing a review and modification case. Documents completion of the review and sends worklist to Team Supervisor.

RTNREVEW

Used by Team Supervisors to document cases or case actions reviewed and returned to responsible worker for further action. (Responsible worker does not receive credit for completed action.) Worklist sent next-level supervisor.

SANCTION

Used by staff interviewing AFDC CPs to document CP non-cooperation. Creates a brief case event and sends worklist to worker's supervisor. Worklist is used to track (sanction) action taken by IV-A staff.

SAFEREV

Used by Enforcement SES and Sr. SES to report cases identified for SAFE processing. Creates a case event, with notes containing compliance statements. Worklist sent to Sr. SES or Team Supervisor.

SPTORD

Used by staff documenting support orders. Worklist picks up amount, terms, and health care provisions of the order. Worklist sent to worker's supervisor.

TAXNCP

Call from NCP concerning tax intercept, resolved in CSU. A case event is created and worklist sent to CSU Supv.

TRFIN

Used by administrative staff responsible for receiving case folders from other districts. MACRO ensures that case file reaches worker responsible for review and that immediate action is taken for pending appeals and court appearances scheduled by the sending district. Requires entry of the case number for the case received.

TRFOUT

Used by administrative staff responsible for central files and forwarding case folders to other districts. Ensures that case folders do not leave the district unless organized and that APECS has been updated to agree with the case folder. Requires entry of case number for the case being forwarded.

UIFSA

Used by all staff to document that actions required for out-of-state cases have been completed. Creates worklist for worker's supervisor.

UNWRKREV

Used by Intake, Enforcement, Locate, Establishment, and Paternity staff to report cases made unworkable. Creates case event, with notes containing compliance statements. Worklist sent to Sr. SES or Team Supervisor. Requires entry of case number for the case reviewed.

UPDTREPT

Used by Intake staff to document they have worked a case on the Update Error report. Requires identification of the case type and corrections made. Worklist is sent to Intake Supervisor.

WAGEWH

Used by Enforcement staff to report a wage assignment sent an employer. Amount, frequency, and type of wage assignment are captured and reported to worker's supervisor.

WALKINAP

Used by receptionist to document NCP walk-ins assisted by the receptionist who do not need to see another staff member. Worklist is sent to receptionist's supervisor.

WALKINCP

Used by the receptionist to document CP walk-ins assisted by the receptionist who do not need to see another staff member. Worklist is sent to receptionist's supervisor.

Appendix 8: Background/Child Support History

Background

The literature review presented here includes a brief examination of the history of child custody, the major theories for the nonpayment of child support, and the measures taken to both prevent the problem of nonpayment of child support and to collect it when it is not voluntarily paid.

Knowledge of the history of child support enforcement, enforcement efforts to obtain support payments and medical benefit coverage for children, and public attitudes toward child support enforcement are fundamental to understanding the Staffing Demonstration's research questions. More specifically, essential to the Staffing Demonstration is the understanding that strategic planning, tactical methods, and the use of outcome measures to gauge child support enforcement success are significantly changing as a result of the increasing emphasis upon technology and the bottom-line in both private and public sectors of the economy.

Child Support History

Coltrane and Hickman reviewed the history of child support laws governing custody, visitation rights, and support payments.[45] English common law gave custody rights to the father. As America was colonized, this practice was extended to the New World. Gradually, courts in the U.S. changed and began favoring mothers in awarding custody. Starting in about 1970, divorce laws were liberalized and state courts began awarding custody for reasons other than gender . By the 1980s, joint custody was recognized in thirty-four (34) states.

Despite changing laws to achieve equity in divorce proceedings, bitter disputes often ensue over child custody. Unfortunately, chauvinistic representations of groups representing the respective interests of fathers and mothers have further

[45] Coltrane, Scott and Hickman, Neal. "The Rhetoric of Rights and Needs: Moral Discourse in the Reform of Child Custody and Child Support Laws." *Social Problems* (November 1992), pp. 400-20.

polarized the parties. Mothers' groups believe mothers are at a disadvantage in court regarding the issue of their "fitness" for custody, particularly if they are employed. Fathers' groups believe courts favor mothers because they are perceived as better care givers. These situations often lead to vindictiveness, with each spouse punishing the other. The children inevitably suffer in custody disputes by being emotionally manipulated by one or both parents. These children too often also suffer the loss of financial and medical support from the non-custodial parent.

There are several theories for this loss of support. One such theory is that the non-custodial parent does not pay support as an act of revenge for not being awarded custody of the child.[46] The implications for child support enforcement of this motive for the nonpayment of support are readily apparent. Perhaps a less acrimonious approach to the dissolution of marriages would reduce the frequency of this revenge motive and thereby reduce the need for child support enforcement.

Among the less-confrontational and somewhat popular alternatives for resolving marriages and child custody disputes is divorce mediation.[47] In 1981, California was the first state to mandate mediation for issues involving child custody and visitation rights. By 1985, 18 other states had followed California's lead. Despite its appearance of fairness, however, mediation has some detractors. Fathers' groups support this form of third-party intervention, but mothers' groups typically oppose it, arguing that it favors fathers.

In addition, initiatives from religious groups, government, self-help groups, and others providing social services could also help to make the dissolution of marriages less acrimonious and help resolve custody disputes, thereby furthering the objective of securing financial and medical support for the children of those marriages. These initiatives might also further other social objectives, such as reducing spousal abuse and other forms of family violence.

[46] Coltrane and Hickman (1992), and Nuta, Virginia Rhodes. "Emotional Aspects of Child Support Enforcement." *Family Relations* (January 1986), pp. 177-81.
[47] Coltrane, Scott and Hickman, Neal. "The Rhetoric of Rights and Needs: Moral Discourse in the Reform of Child Custody and Child Support Laws." *Social Problems* (November 1992), pp. 400-20.

While the revenge theory regarding nonpayment of child support may be addressed by working to make the breakup of marriages less acrimonious, this theory accounts for just one of the reasons for the nonpayment of child support. For example, while Nuta supports what he refers to as the theory of the *revengeful parent*, whom he posits has a need to control the family and therefore restricts child support payments to meet that need, he also hypothesizes four other reasons for the nonpayment of child support, each of which is attributed to a specific type of parent:[48]

1. The *parent in pain*: After having all relationships severed with the family, this parent distances himself or herself from the children. This non-custodial parent attempts to assuage the pain stemming from the loss of the family relationships by removing the cause ("out of sight, out of mind").

2. The *over-extended parent*: This parent is financially unable to meet child support obligations due to having inadequate income to pay support, being either temporarily or permanently unemployed and thus without any income, or having excessive financial or medical obligations which exhaust his/her spendable income. There is some evidence lending credence to this theory. Research findings indicate that about nine percent of non-custodial fathers who are 23 to 31 years of age have no income available for support payments.[49] Other research findings reveal that 27 percent of non-custodial fathers who paid no child support in 1990 were unemployed during some or all of the year.[50]

3. The *irresponsible parent*: This parent basically refuses to accept responsibility for his or her parental obligations. This individual typically has an immature personality and fails to assume the role of a mature adult. There is increasing evidence, given the rising birth rate of children born out-of-wedlock, that the numbers of this type of parent may be increasing.

[48] Nuta, Virginia Rhodes. "Emotional Aspects of Child Support Enforcement." *Family Relations.* January 1986, pp. 177-81.
[49] Congressional Budget Office. *CBO Papers: The Changing Child Support Environment* (February 1995).

4. *The egocentric parent*: This parent puts himself or herself above all others. This parent differs from the model of the irresponsible parent because s/he readily concedes having obligations to pay support but does not do so because s/he puts his/her personal needs above those obligations.

In addition to individual theories for the nonpayment of child support, there are some research findings from a macro-longitudinal perspective, supporting economic reasons for the nonpayment of obligated child support. Robins, for example, attributes the decline in child support payments during the 1978-85 period to a reduction in the increase in the real earnings of women, a decline in the real earnings of men, and increasing inflation.[51] Men with only a high-school education or less suffered significant real income loss during the 1979-85 period. Furthermore, this loss in real income was somewhat exacerbated during the period from 1986 to 1992.[52]

♦ ♦ ♦

Footnotes continued from previous page

[50] Congressional Budget Office. *CBO Papers: The Changing Child Support Environment* (February 1995).

[51] Robins, Philip K. "Why Did Child Support Award Levels Decline from 1978 to 1985?" *Journal of Human Resources* (Vol. XXXVII), pp. 362-79.

[52] The median income of men with less than four years of high school in 1985 was 88 percent of the income of those with the same education in 1979. This percentage declined to 84 percent for the period 1986 to 1992.