Corrective action and AFDC dynamics: An empirical study in six jurisdictions

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Corrective Action and AFDC Dynamics: An Empirical Study in Six Jurisdictions

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Preface

This report presents the results of an eighteen month investigation of quality control and corrective action in the Aid to Families with Dependent Children (AFDC) program in six jurisdictions. The motivation for this study comes from a continuing set of concerns about the efficiency and equity of this, the nation's largest public assistance program. These questions have been directed primarily at how well such a large and complex system has been able to manage a myriad of federal guidelines, individual state options for program eligibility and payment levels, and various social, political, and fiscal crises.

Inevitably, with the growth of the AFDC program came the concerns with fraud, abuse, and effective management. The one central focus for addressing these concerns and for restoring public confidence in the administration of the program has been the quality control efforts of the Department of Health and Human Services (HHS). This study examines how individual jurisdictions have attempted to improve the "quality" of their AFDC programs under HHS guidance and fiscal sanction policy, and how these various state efforts have affected caseload and expenditure levels and overall program dynamics.

The Quality Control Program was initiated in the early 1960s. The most ambitious phase of the program, however, did not begin until the early 1970s. Its objectives were to reduce administrative and client error and to eliminate what was perceived to be a significant amount of fraud in the AFDC program. These objectives were to be achieved through a multi-faceted program of error identification and increased managerial control. The Quality Control Program involved, and to this day maintains, a continuous or circular flow process, consisting of three basic elements:

1) Error identification
2) Data analysis
3) Corrective action planning and implementation

The error identification process has several components: selection of a representative sample of AFDC households for quality control review; the quality control review itself; the generation of quality control data; and the derivation of QC "error rates." Data analysis consists of evaluating the statistical reports that are produced during the error identification process. The objective is to identify sources of error in the program so that the third component, corrective action planning and implementation, can begin. In this study, corrective actions will be defined as any activity initiated by public assistance administrators to improve program management and/or to reduce error.

The Quality Control Program has had an interesting and politically volatile history. During the initial period of the program (1963-1970), some states fully complied with the specific requirements of the program. Other states, however, found the process cumbersome and their efforts fell short of what quality control proponents in the Department of Health, Education, and Welfare (HEW) expected. Consequently, in April 1973 HEW adopted a new, and much tougher, posture toward the quality control program. Regulations were announced that threatened financial penalties for states reporting error rates in excess of prescribed levels. By and large, these threats produced acceptable and responsive plans for corrective action. Although the plans differed substantially between jurisdictions, the goals remained the same -- to reduce fraud, abuse, and administrative error, and to mitigate the possibility of incurring fiscal penalties.

By the late 1970s, measured error rates had declined in virtually all jurisdictions, and in some jurisdictions dramatically. However, it remained unclear precisely how specific corrective actions had affected AFDC caseload and expenditure levels, if at all. It was generally recognized that a variety of factors interact to generate AFDC caseload levels and expenditures; that these factors vary between AFDC jurisdictions; and that individual factors produce different impacts on the components of AFDC caseloads and expenditures -- openings, closings, and average payments -- in different jurisdictions. What was needed was more detailed information on the specific impact of corrective actions on each of these components. To what extent, for instance, have corrective actions acted to reduce the number of applications received, to raise the number of applications rejected, or to increase the number of active cases closed?

In order to determine the impact of corrective actions on AFDC caseload and expenditure dynamics, the Public Assistance Data Analysis Laboratory at the Social Welfare Research Insitutute (SWRI) undertook a series of studies involving six AFDC jurisdictions: New York City, Upstate New York, the California counties of Los Angeles, Alameda, and San Diego, and the entire state of Florida. Through the use of both qualitative and quantitative methods, the research staff has attempted to isolate and measure the independent impact of quality control induced corrective actions on the caseloads and expenditures in these jurisdictions.[*] Detailed econometric models of AFDC caseload and expenditures were constructed; corrective action impacts were estimated; and a variety of program simulations have been used to identify the component sources of change in AFDC.

The rationale for and results of these analyses are presented in five major sections. In section I, Chapter 1 presents a summary of the research design, while Chapter 2 provides a brief history of quality control in AFDC. In Chapter 3 the specific research methodology is fully developed. Section II presents the results of our analysis in New York State, with separate chapters devoted to an overview of the New York AFDC program, and the empirical results for the two New York models. Section III provides an introduction to the AFDC program in California, with explicit attention focused on

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[*] The sites were chosen in cooperation with the Division of Family Assistance Studies, Office of Research and Statistics, Department of Health and Human Services, the funding agency.

corrective action activities. The section continues with individual chapters dedicated to the analysis of AFDC dynamics in the three counties studied. In Section IV the results of our research in the state of Florida are reviewed. Finally, in Section V we present some summary comparisons and a review of the study's major findings.

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Overview and Research Design

Econometric studies of complex transfer programs such as AFDC involve a variety of research issues and methodological choices. Some of the research issues are qualitative in nature, as in the selection of jurisdistions; many of the methodological choices focus on quantitative problems, relating to data availability, model specification, and estimation technique. This chapter is devoted to summarizing these issues, with special emphasis on a "caseload components approach" to corrective action evaluation.

Selection of Sample Jurisdictions

There are many factors which reinforce our belief that each jurisdiction's AFDC program is unique. Underlying demographic, economic, political, and administrative characteristics differ substantially, not only between states, but between counties and cities as well. Because economic/industrial environments and, therefore, labor market opportunities can vary so dramatically between specific areas of a given state, it is crucially important to conduct an analysis at the level of the local labor market for which adequate data are available. Moreover, the distinction between state-supervised and state-administered AFDC programs is a major factor in the decision to construct county or state specific models.

If resources were unlimited, it would be advantageous to study corrective action policy in a large number of individual jurisdictions. From each one we could presumably obtain valuable new insights into the effects of various corrective actions on AFDC dynamics. However, since the SWRI methodology is both data rich and analytically intensive, it was necessary to choose a small number of areas in which to conduct in-depth analysis. After completing a preliminary review of AFDC program characteristics and data availability in several states, six jurisdictions in three states were finally chosen to participate in the study:

1) New York - Separate models for New York City and the remainder of the state

2) California - Separate models for the counties of Alameda, Los Angeles, and San Diego

3) Florida - Statewide model

The selection of these six specific areas was based on several criteria shown in the past to be adequately sensitive to the goal of evaluating AFDC dynamics:

1) Existence of adequate data to permit a comprehensive analysis of caseload and expenditure dynamics consistent with SWRI's modeling methodology

2) Assurance of full cooperation from state welfare and labor departments

3) Significant "success" of the state or local area in reducing their measured error rates

4) Geographic diversity of states included in the research study

5) Administrative diversity of states (i.e., state-supervised versus state-administered programs)

First, and of paramount importance, was the existence of adequate data. While the SWRI methodology is general, the actual time series for each jurisdiction must of necessity be relatively complete and specific to the state or area. Monthly time series data for all caseload components (e.g., applications, rejections, and closings), as well as information on changes in employment, unemployment, earnings, benefit levels, and administrative policy are the foundation of a good evaluation model. The quality of these data, therefore, was of the utmost importance.

Complete access to this information had to be assured before a state was given final consideration. This was our second criterion; such assurance was determined on the basis of conversations with federal and state welfare administrators.

The third criterion was the degree of variance in an index of QC activity, reported Quality Control error rates. In order to evaluate the impact of QC-induced corrective actions it was necessary to study states which (a) had experienced significant success in reducing their error rates over time, and (b) had attributed that success in general to corrective action activities. All three states met this requirement.

The initial phase of the quality control study involved detailed interviews with AFDC administrators who have been intimately involved with the corrective action process and the accumulation of error rate data. These interviews provided information about the characteristics of the various corrective actions and administrative methods implemented in each of the specific jurisdictions. As will be seen throughout this report, these QC related activities range from expanded review and recertification of the existing caseload, such as in the case of California's monthly income and eligibility reporting system, to increased training of both intake and supervisory personnel, a process which virtually all the jurisdictions utilize extensively.

Geographic diversity was also considered in the final selection. The differences between regions, in terms of economic conditions and labor market opportunity, make it highly desirable to study states in different areas of the country. Since labor market related variables (i.e., wages and employment levels) were expected to play a crucial role in the development of state and county specific models, it was desirable to select states that would reflect these dissimilar environments.

The final criterion involved administrative diversity. In a state-administered system a "single state agency" is designated to execute the responsibilities associated with the program. In a state-supervised system the counties are authorized to administer the program and are required to pay for part of the total welfare expense, including both benefit and administrative costs. This is an important distinction if the more autonomy a local community (county) has with respect to its AFDC program, the more stringently it will administer its caseload. This may result in the development and implementation of stricter and more rigorous corrective actions, as well as the more rigid application of state-mandated corrective action policies.

California and New York both have state-supervised programs. Florida's program is state-administered.

The selection criteria for individual counties in the State of California were similar to those used in assessing the desirability of the selected states. In addition, the guidance and suggestions of state welfare administrators in California were key factors in the choice of counties to be modeled. Existence of adequate data and assurance of county level cooperation were major considerations. Second, the three counties chosen represented approximately one-half of the state's AFDC caseload; a priori, this would suggest that our results would be at least somewhat representative of the entire state. And finally, the fact that each county contained a major metropolitan area played a role in the selection process. It has often been argued that it takes greater effort to control the incidence of error in urban areas than in rural ones (implying the need for more comprehensive and far-reaching corrective action measures). This is due to a high residential population density among other things.[*]

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[*] In a statement prepared for a Congressional subcommittee, Herbert Rosenzweig of New York City's Human Resources Administration maintained that,

> In states with large cities, the welfare population resides in high-density ghetto areas. In these areas people are relatively anonymous. Information about changes in the circumstances of recipients such as a husband returned to home, child left the home or a recipient went to work - it is not common knowledge to the neighbors. These changes are more likely to become common knowledge in small towns and in rural areas.... The smaller the community, the more likely the investigator is able to find out about changes in the lives of recipients from neighbors, merchants, local banks, etc.

Choice of Methodology

There are two classes of estimation techniques which could be used to reveal the underlying determinants of AFDC caseload and expenditure dynamics: (1) "micro" simulation and (2) "macro" regression analysis. Each method has its particular strengths and weaknesses.

Construction of micro-simulation models requires a massive effort. A suitable model must be capable of simulating a wide range of events for each family in a given population sample. Given economic, demographic, or administrative changes, the model would "forecast" how various factors would influence the probability that a family would turn to welfare for income maintenance. By simulating the impacts of all potential changes on a large sample population, it is theoretically possible to estimate changes in the demand for welfare and thus predict growth trends in caseloads and expenditures.

While micro-simulation is a potentially powerful analytic tool, its cost of construction, maintenance, and use is usually substantial. The sheer volume of data on individual family units that must be collected and analyzed requires years of careful computer study. Regional, state, and county differences cannot be easily isolated. Moreover, micro-simulation models tend to give inadequate attention to the impact of macroeconomic factors on caseload dynamics. No satisfactory way has yet been found to integrate macroeconomic relations in a probabilistic model of individual family units.

"Macro" regression analysis is done on a much smaller scale, although a large amount of data must still be gathered. Rather than focusing on changes in individual sample families, macro modeling begins with more aggregated information on population characteristics, economy-wide variables such as unemployment rates, and specific changes in administrative policy. Macro modeling usually involves time series regression analysis where some aggregate factor such as the AFDC caseload (or some component of AFDC such as "openings" or "closings") is "explained" statistically by a set of exogenous or predetermined variables. Its fundamental strength lies in its relative simplicity and in its ability to isolate the independent impact of several determining factors, such as corrective actions, on a given dependent variable, such as case openings, closings, or average payments.

The main reasons, then, for relying on macro regression analysis in this study are the following:

1) these models can be produced at a small fraction of the cost of micro-simulation research;

2) macro models can fully incorporate and evaluate the impact of macroeconomic factors, population dynamics, and specific administrative policies; and

3) their low cost and relative ease of construction permits the development of individual county, state, and regional models.

A Brief Review of Alternative Theories of Caseload Dynamics

Regression modeling of AFDC dynamics requires proper specification of a variety of factors likely to affect caseload and expenditure levels over time. These factors include changes in benefit levels, economic and employment opportunity conditions, and most important for this research, changes in administrative factors, including corrective actions. The most useful feature of the SWRI models has been their ability to statistically isolate and measure the individual and combined impacts of factors precisely like QC-induced corrective actions.

To measure the net impact of corrective actions on the caseload, it is necessary to isolate the effects of these activities from all other factors influencing the caseload. The SWRI methodology does this by accounting for as many of the other factors as possible. It is useful, therefore, to distill these various factors into three general categories, each of which is associated with a general hypothesis of caseload dynamics. These are:

1) the alternative income hypothesis
2) the economic opportunity hypothesis
3) the institutional hypothesis

The <u>alternative income</u> hypothesis suggests that AFDC caseload trends can be explained in terms of families' "voluntary" decisions regarding work and welfare. According to this hypothesis, which is based on neoclassical economic theory, families will make a choice between the benefits available from public assistance (e.g., cash, medical care, food stamps) and the "benefits" available in the labor market (e.g., wages, fringe benefits). This choice, theory suggests, will be made with the objective of maximizing the family's utility. Utility is evaluated in terms of an optimal bundle of goods derived from work and welfare. If potential benefits derived from public assistance increase relative to potential labor market earnings, more families will choose public assistance over the labor market. Implicit in this hypothesis (at least in its strict formulation) is the assumption that the work/welfare trade-off is unconstrained by employment availability or by restrictions imposed by welfare authorities. Jobs are assumed to exist at some given market wage and the opportunity to apply for and receive welfare benefits is limited only by explicit program regulations.

The employment opportunity theory amends the unconstrained market assumption of the neoclassical hypothesis. It postulates that the lack of adequate job opportunities at a sufficiently high level of earnings or a sufficiently stable rate of employment deprives many families of a real choice between work and welfare. Economic recessions, combined with "structural" unemployment decrease market options so that many families are forced to turn to public assistance for economic survival, at least on a temporary basis.

This argument is particularly useful for analyzing the potential choices of women and non-white minorities who face discrimination in "human capital" and labor markets. Limited access to education and skills deny minority workers sufficient "human capital" to qualify for jobs which offer wages high enough to maintain economic self-sufficiency. Occupational discrimination adds to this problem by limiting access to those jobs for which many potential or actual welfare recipients are qualified. Together these two forms of discrimination create a large sub-population of families which cannot survive over long periods of time without periodic recourse to public assistance. Welfare becomes the "surrogate male earner" in the household.

The health of a state economy and the degree of discrimination — particularly within individual labor markets — is therefore presumed to be a major determinant of caseload and expenditure levels. There is one principle implication of the employment opportunity hypothesis for understanding AFDC dynamics: if basic labor market opportunity is not available, then marginal changes in welfare benefits or average wages may have little impact on the size of the caseload.

Institutional theories focus on the impact that changes in public assistance laws, welfare department regulations (particularly with respect to corrective action), and political factors have on AFDC application rates, acceptance policy, and terminations. The critical issue is not necessarily the degree to which economic factors affect the number of families who require public assistance; rather it is how many of these families actually apply for AFDC benefits and subsequently participate in the welfare system. Institutional theories attribute the explosion in AFDC during the late 1960s primarily to more liberal welfare policies, a growing awareness of eligibility, changing social mores and a host of other cultural and political factors. The same theories trace the slowdown in caseload growth in the 1970s to a rapidly spreading political and fiscal conservatism, increased emphasis on verification of eligibility factors, more frequent and thorough reviews of existing caseloads, and the impact of other QC induced corrective actions.

An observed reduction in the AFDC caseload can therefore be due to any of a number of competing factors: a relative decline in benefit levels, growing employment opportunity, or various quality control induced corrective actions. The task, then, is to decipher a variety of relevant information about caseload behavior so as to isolate the effect of each of these factors. Only in this manner can the independent impact of corrective action be determined.

Model Results and Policy Prescriptions

Analyzing AFDC caseloads and expenditures in terms of these three theories is particularly worthwhile for policy purposes. If the alternative income hypothesis best explains caseload trends, then controlling future caseload levels obviously depends on a policymaker's ability to affect either the level of public assistance benefits or labor market earnings. Since government normally has little discretionary power over private sector wage policy, the only "controllable" factor, short of comprehensive training or public employment programs, is the public assistance benefit structure. Consequently, acceptance of the alternative income hypothesis as the basis for policy almost inevitably leads one to consider lowering or otherwise restricting benefits to limit caseload and expenditure growth.

The employment opportunity theory suggests an altogether different policy approach, one which admittedly is much more difficult to implement. In this case, changes in benefits will have a minimal impact on the size of the caseload, and therefore, states can allow benefits to rise without fear of setting off another welfare "explosion." However, according to this theory, either rising unemployment or a long-run decline in stable job opportunities will lead to expanding caseloads and expenditure levels. The AFDC caseload can be limited only by broad economic policies designed to increase the supply of jobs and the level of earnings in the private and public sectors. This is probably an impossible task for welfare administrations or even for state governments. However, it does suggest that the federal government must explicitly consider the impact of its economic policies on public assistance costs. Affirmative action and other anti-bias measures may also be an important part of a reasonable welfare policy to the extent that they ameliorate those conditions which force some families to rely on AFDC benefits.

The institutional hypothesis, by contrast, places the power to influence caseload levels directly within the purview of federal, state and local government policy. Changes in program regulations, quality control corrective action activities, and "employables" policies are examples of measures which may affect the caseload level. Federal, state, and local governments' effect on the caseload is in turn a function of such factors as the political climate of the country, the fiscal health and political stability of local governments, welfare rights activity, judicial review, and specific policies to minimize error rates. This research places explicit emphasis on the independent impact of corrective actions subsumed in the institutional hypothesis.

<u>Caseload Components Model</u>

Most early attempts by social scientists to uncover the determinants of welfare caseload trends relied on aggregate caseload equations. These single-equation models could only encompass a few factors and, therefore, could reveal only limited information about the internal dynamics of the caseload process. Later models focused on the <u>change</u> in the caseload, disaggregating this change into its primary components: "openings" and "closings." These attempts benefited from the introduction of asymmetrical relationships in the model, as more knowledge about the operative factors in the system could be ascertained. The SWRI model takes the disaggregation process one step further. Individual regression equations are estimated for each of the following components of the "caseload identity:"

(1) Applications Received

(2) Application Processing Rate

(3) Acceptance (Rejection) Rate

(4) Closing Rate

With this methodology, the determinants of the process of caseload change can be estimated, wherein administrative policy and corrective action are but two of the determining factors. This permits us to provide quantitative estimates of the impact of these activities on the separate components. We are then able to reconstitute the "identity" and simulate the caseload. In this manner, the ability to model the dynamics of the AFDC process is greatly enhanced. A larger number of variables can enter the model and each corrective action can be statistically evaluated.

The Estimation Technique

The basic econometric technique used throughout this analysis was conventional ordinary least squares (OLS) regression on time series data. Monthly observations on all variables were used. We opted for a monthly, rather than a quarterly or annual model, for the following reasons:

1) There are significant seasonal variations in the caseload and its components, in employment conditions, and in many administrative policies. A monthly model provides a richer, more detailed analytical tool than a quarterly or an annual one because it can be used to describe, simulate, and then predict these seasonal patterns.

2) Monthly data provides better statistical estimates of coefficients than annual or quarterly data. Because monthly data captures the seasonal statistical variation that annual data disguises, and provides more data on which to estimate relationships (more degrees of freedom), the estimated regression coefficients have the statistical property of being more efficient.

3) A monthly model allows for better specification of administrative policies, with respect to the time period in which they are operative. These policies are usually not congruent with calendar (or fiscal) years. Because many policies have only short-term "impact" effects, and other policies are of a periodic nature and of short duration (such as specific recertification programs) monthly models are preferable to quarterly or annual ones.

4) Monthly data allows for better specification of the dynamics of the welfare system. Some policies which directly affect one component of the system also have indirect feedbacks on other components. The lags between the direct and indirect effects are often of one or two months duration.

Simulations and Counterfactuals

The ultimate goal of this research was to evaluate the net impact of various quality control corrective actions. To accomplish this goal it was necessary to develop a computer simulation program which reconstitutes the caseload identity from its estimated component parts. Once the regression equations have been estimated, the caseload can be simulated, and then the simulation results can be compared with the actual historical caseload series to determine how well the overall estimation model works.

One further step is necessary to evaluate the impact of the various corrective actions. This step involves a series of "counterfactual" simulations. These simulations, in effect, remove the corrective action variables from the equation system altogether. The output from this process yields a new set of (counterfactual) caseload and expenditure estimates which can be compared against simulated results which include the impact of corrective actions. The difference between the estimates generated in the actual and counterfactual simulations provides the analyst with the information necessary to evaluate both the individual and combined impacts of the corrective actions being studied. This methodology produces, we believe, the best estimates available of the independent effect of corrective actions on caseload and expenditure levels. This methodology will be developed more fully in Chapter 3. Before turning to the specific research methodology, however, Chapter 2 provides a brief history of the Quality Control program in AFDC.

Chapter 2

A Brief History of Quality Control in AFDC

The origins of Quality Control (QC) in public assistance programs can be traced back to the early 1960s. Senator Robert Byrd of West Virginia, then Chairman of the Subcommittee for the District of Columbia, became concerned with rising welfare caseloads and expenditures in the District. His Subcommittee requested that a study be conducted to determine the degree of ineligibility in the AFDC caseload. The study, based on a five percent sample of the AFDC population in the city, concluded that two-thirds of all cases were ineligible. Although many questioned the validity of the sampling procedures and the final results, members of the Subcommittee began to question the "integrity" of AFDC caseloads in other large urban centers. The fact that they had previously been advised by the Department of Health, Education, and Welfare that ineligibility in the national caseload was approximately two percent added even more to their concern.

In June 1962 Senator Hill of the full Senate Appropriations Committee requested that HEW conduct a nationwide review of the AFDC caseload to determine the degree of ineligibility throughout the country. That undertaking, referred to as the National Eligibility

Review, included local, state, and federal personnel working in a unified effort to fulfill the Committee's request.

To accomplish the objectives of the review, samples of the AFDC caseloads in all 50 states were drawn "according to nationally uniform directions" for the months of January, February, and March of 1963. The number of families involved in the review totaled 21,085, or approximately two percent of the nation's total caseload.

To minimize the potential for bias in the final results several precautionary measures were taken:

1) Reviewers were assigned to areas and to caseloads for which they normally had no responsibility.

2) Completely random samples were chosen with no deletions, substitutions, or advance disclosure of cases in the sample.

3) Uniform training materials and instructions were used nationwide to assure a common base of understanding and to fulfill the need for accuracy and objectivity.

4) Federal staff were assigned to each state to participate in the review by directly observing all review processes, checking cases reviewed by state staff, and conducting independent field investigations of some of the sample cases.

The results of the review were released in July 1963. They indicated an average nationwide ineligibility rate of 5.4 percent; that is, 5.4 percent of families in the sample were found to be not eligible for the AFDC program, given state and federal eligibility criteria. The variation between states was substantial. Eleven states reported rates below two percent; Kansas and Massachusetts were lowest with 0.8 percent ineligibility; California was second lowest with 1.2 percent. Two states reported ineligibility rates over 15 percent: West Virginia, at 17.3 percent and Georgia at 16.4 percent.

The study concluded that ineligibility was lowest in states where caseloads per worker were lowest, where reinvestigations of the family's eligibility were more frequent, and where payment levels most closely approached a realistic minimum standard of living.

As a result of these findings, HEW moved to implement specific measures to ensure proper and efficient administration of the public assistance plans in all states. Among these measures was a federal requirement calling for the redetermination of the eligibility of each family receiving public assistance every six months. The previous schedule required redetermination every twelve months. Second, HEW called for the development of a new nationwide system to strengthen the administration and supervision of eligibility decisions in AFDC. This was dubbed the Quality Control system. It required a continuing program to test the quality and accuracy of decisions on eligibility and payments. The objective of the system was to ensure the validity of the caseload as well as to identify problem areas so that corrective action could be taken. Finally, HEW undertook comprehensive reviews of individual state AFDC programs to determine if they were, in fact, being properly and efficiently administered.

Although the earliest QC program was partially designed to test the validity or "integrity" of individual state caseloads, its primary emphasis was on assuring the quality of overall agency "performance." The specific focus was on caseworkers and the quality of their decisions. The review process, therefore, looked for errors in the methods and procedures used in determining eligibility and benefit amounts. If improper procedures were used, errors were cited, regardless of whether or not the error resulted in incorrect eligibility or payment.

Under HEW requirements each state was to operate its own individual quality control program, following uniform policies and methods established by the Department. However, for the remainder of the decade many states were admittedly lax in organizing and implementing the required QC programs. Generally speaking, the system itself was not viewed as the priority issue HEW had intended it to be.

The less-than-vigorous approach to QC displayed by many of the states prompted a reassessment of the program in the late 1960s. This reappraisal was intended to strengthen QC and to make it more effective as a management tool geared to improving public assistance administration. However, concurrent with this reassessment several new programs and regulations were introduced into AFDC which would drastically affect error rates and consequently quality control efforts. One such change, the "simplified method of eligibility," required that eligibility be based on a simple declaration by the potential recipient that the information he/she provided was accurate and reflected the family's true circumstances. The caseworker was expected to accept the recipient's statement as de facto evidence of circumstances. Under this method the procedural requirements of verification placed upon the worker were significantly reduced.

A second program change, the "30 and 1/3" earnings disregard provision, was designed to provide an incentive for AFDC recipients to work by disregarding a certain portion of earned income in the calculation of the benefit amount. With the introduction of this provision, more information and more complex calculations were necessary to determine the correct amount of payment. Thus, a greater probability of error was incurred.

A third change in the AFDC program that occured at this time was a "separation of services." This administratively severed the delivery of cash benefits from that of social services. The separation of services concept was based on the assumption that the income maintenance function of intake and eligibility workers required less education and work experience than did the provision of social services. Therefore, less experienced workers could be assigned the income maintenance responsibility.

All of these changes were made with specific, though very different, objectives in mind. Simplified eligibility was introduced to reduce the verification requirements on the worker; it also reflected a less punitive approach to the recipient. The income disregards were designed to provide an incentive to work by allowing recipients to retain more of their earnings without dollar-for-dollar benefit reductions. And finally, separation of services was instituted to assure the most effective provision of social services. However, each of these program changes could increase the frequency of error through both deterioration in the quality of work (as in the simplified eligibility and separation of services) and the complication of payment calculations ("30 and 1/3" income disregard). In light of these changes, the determination of valid and accurate rates of ineligibility and overpayment became a priority issue, and the fledgling quality control program was revised to take these changes into account.

In October, 1970, after a total reassessment of the quality control program, new guidelines were issued by HEW. New requirements imposed upon the states included:

1) an increased sample size to yield a requisite degree of reliability and accuracy of conclusions about a state's total caseload;

2) the establishment of tolerance levels of 3 percent on ineligibility and 5 percent on overpayments;

3) the identification of specific factors leading to error in eligibility determination or benefit amounts;

4) a distinction between agency caused errors and those errors resulting from inaccurate information supplied by the client;

5) a formalized federal monitoring program of state QC systems; and

6) a greater federal emphasis on data analysis for the purpose of developing and implementing appropriate corrective action.

Several states, however, still did not respond with the resolution that the Department was seeking. Many jurisdictions had difficulty in organizing and implementing their QC programs; others were not compiling the sample sizes required; and still others were not submitting QC reports at all. In early 1973, 19 states did not have fully operational QC programs. Importantly, many of them were the larger states that contained a high proportion of the total AFDC caseload.

HEW faced a dilemma: not all states had fully complied with the guidelines and QC had to achieve its stated objectives. It was resolved that some type of incentive for the states to implement and maintain effective QC programs was needed. This eventually evolved into two HEW policy directions. First, HEW issued regulations on April

6, 1973, calling for a more comprehensive QC program to assure more reliable detection and elimination of the causes of error, and establishing "reasonable" targets for error reductxion. Second, and most important, HEW instituted a policy that tied fiscal sanctions directly to rates of ineligibility and overpayment in AFDC. Specifically, the regulations provided for the exclusion of federal financial participation in erroneous payments (i.e., payments to ineligibles and overpayments to eligibles). Under the plan, states were expected within six months to reduce by one third the amount by which their six month base period (April 1 - September 30, 1973) error rate exceeded the applicable tolerance limits (3 percent for ineligibility and 5 percent for overpayments). In the two subsequent QC periods (January - June 1974, and July - December 1974) states were required to reduce their error rates another one third of the difference between the base period error rate and the tolerance levels, at which point they were to maintain those rates for all following QC periods. If the required improvements were not made and the error rate targets not met, HEW threatened to withhold federal matching funds.

The regulations released in April 1973 reflected the increased level of commitment and the intensified emphasis that HEW was placing on error reduction. As well as imposing fiscal sanctions, the Department required that states begin to do their QC sampling on a continuous basis. That is, once the appropriate sample size had been determined the sample cases would be distributed over the six month QC period so that an equal number of cases would be reviewed each month. Moreover, the new guidelines stated that HEW would perform a complete re-review of a subsample of each state's QC sample to determine the validity and accuracy of reported findings. The threat of fiscal sanctions combined with close federal monitoring led state agencies to finally accept the program as the priority issue which HEW had originally intended it to be.

Although the fiscal disallowances were originally intended to go into effect immediately following the compilation of error rates from the first QC period, they were consistently delayed as HEW kept extending the time frame for required error reduction. The results of the second QC period indicated that few states had achieved significant reductions in their error rates. Several of the states argued that little progress had been made because corrective actions that had been implemented had not been given enough time to be effective. States therefore requested that they be permitted more time to allow corrective actions to produce error reduction as well as to allow them the opportunity to measure their error rates more carefully.

In October 1974, HEW revised the basis for applying the fiscal sanctions. The new basis allowed for the base error rate to be determined by combining the results of the first and second QC periods. States would now incur sanctions if they did not proportionally reduce their error rates toward the three and five percent tolerance levels during the third and fourth reporting periods.

The Department also established a five percent tolerance level for underpayments in AFDC to emphasize HEW's commitment to the proposition that individuals participating in AFDC should receive the full amount of assistance for which they were eligible. Since underpayments do not constitute misuse or misallocation of federal funds, however, no potential fiscal consequences were tied to this specific tolerance limit.

In accord with the October 1974 changes, the first sanctions were to be reflected in the federal grant awards for the first quarter of 1975. These were to be made in April. However, in March of 1975 HEW decided to again delay the actual disallowances until after July 1, 1975. This was followed by another decision, just prior to July, to provide still another grace period so that states could achieve greater error reduction. This delay was granted in recognition of the increased financial strains on the states because of the deepening recession and unusually high unemployment rates. In accordance with this extension sanctions were to be imposed in those states with error rates exceeding 3 percent and 5 percent based on the results of the July through December 1975 reporting period. By this time, however, several states decided to challenge in Federal District Court HEW's authority to invoke this type of fiscal penalty. Fiscal sanctions were postponed once more.

By May 1976, 17 jurisdictions (16 states and the County of Los Angeles) had filed three different court actions against the Secretary of HEW challenging the legality of the fiscal disallowance regulation. The primary contention in each suit was that the provision unfairly penalized the states for errors that they could not reasonably be expected to correct and that the demands of the regulations were unfair and arbitrary.

In that same month the U.S. District Court for the District of

Columbia reached a decision in the case of Maryland versus Matthews, a suit brought by the state and fourteen other jurisdictions. The Court decision was rather comprehensive: the Quality Control standards in force at that time were "arbitrary and capricious, an abuse of discretion, contrary to and inconsistent with the act, and invalid."

The Court did agree, however, that HEW had the authority to set standards for ineligibility and overpayments and to penalize states for not meeting those standards, but it ruled that any tolerance levels imposed must be reasonable and supported by a factual base. In essence, the Court decided that prescribed tolerances had to be based on sound empirical evidence. The Court further noted that there was no justification, statistical or otherwise, for the standards that had been imposed to date, and therefore it enjoined HEW from taking any disallowances in the plaintiff states based on those tolerance levels. Over the next six months, U.S. District Courts in Ohio and Georgia reaffirmed the Maryland Court's decision.

In March of 1977, as a result of these court actions and the Maryland decision which cited the lack of an empirical basis for the tolerances, HEW revoked the existing fiscal disallowance provision contained in its QC regulations. Following the withdrawal of the sanctions the Department undertook to develop a new disallowance policy through extensive discussions with several state and local governments.

In order to develop "reasonable" and acceptable revisions to QC regulations, HEW began extensive negotiations with representatives of a number of state and local governments through the New Coalition (composed of the National Conference of State Legislators, the National

Governors Association, the National Conference of Mayors, and the National League of Cities) and the American Public Welfare Association. These discussions focused on improving the AFDC-QC program and on designing an appropriate fiscal disallowance provision. The Department hoped to develop jointly with state and local governments a set of QC principles that could be implemented consistently, insofar as practicable, within the program.

The negotiations that took place during 1977 and 1978 had as their primary objective the development of basic principles for a QC sanctions policy. These would specify that sanctions should be reasonable, based on the empirical evidence of states running the programs, be enforceable, practical, and administratively flexible. The principles to emerge from the discussions were the following:

1) Fiscal sanctions should be imposed where states had not reduced errors to established improvement targets.

2) Targets should be based on achievement of some established rate of reduction toward a national standard such as the mean or median error rate of all states. This would effectively recognize differences in state circumstances.

3) The goal for payment error rate should be 4 percent, which was the target that Congress set in the 1977 Social Security Amendments for states to qualify for incentive payments in AFDC.

4) HEW must be flexible and prepared to modify its QC goals up or down as experience and additional information dictated.

5) The Department must continue to provide technical assistance to the state administrators to enhance their ability to detect and eliminate errors, recognizing that better, more efficient public assistance programs are the real goal of QC policy.

Following the declaration of these principles the Department published a "Notice of Proposed Rulemaking" (NPRM) in July of 1978, and subsequently modified its proposed rules based on public comment. Final regulations for quality control were then issued on March 7, 1979.

The new regulations stated that in order to avoid a disallowance a state was required to meet the national standard (mean of all states) or the target improvement factor which had been established, whichever required less error reduction. The error rate improvement factor was set at 6.4 percent per year rather than the average 18 percent national improvement rate that had been suggested in the NPRM. Several states had voiced objections over the proposed use of 18 percent, which was based on the actual improvement factor of the first two years of QC data (1973-75). The argument against the 18 percent factor was based on the law of diminishing marginal returns; i.e., as error rates had declined over the first four QC periods the most easily corrected errors were eliminated with the least costly corrective actions. Virtually all states maintained that it had become more and more difficult and expensive to achieve significant error reduction. HEW took these objections into consideration and subsequently chose to base the improvement factor on more recent QC data (January 1976 - December 1977), resulting in the 6.4 percent improvement factor.

For states that did not meet either the national standard, or the target improvement factor of 6.4 percent, the amount of disallowance was to be the difference between federal matching funds for the benefits actually paid and federal matching funds that would have been paid had the state met one of the standards. The regulations also provided for the exemption of states from the disallowances if within 65 days they were able to show good cause, usually external circumstances, for not meeting their error reduction rate. States were also given the option to appeal a disallowance decision through the Grant Appeals Board of HEW. Finally, the Department provided for a review of the regulations two years from the date of their issue to determine whether revision of the required improvement rate or of the definition of the national standard was warranted.

States were to be initially subject to disallowances for errors in the period April - September 1979. The national standard (weighted mean of all states) for this and the following period was to be established with respect to an initial base period (April - September 1978). Subsequently, national results from each April to September reporting period were to be used to calculate the national standard for the program for the second and third reporting periods.

On September 25, 1979, HEW again published an NPRM in the Federal Register. The regulations proposed at that time were necessary to fulfill a directive of Congress which was issued during action on the 1979 Supplemental Appropriations Bill. In effect, the Congressional directive (commonly known as the Michel Amendment) removed the disallowances from the sole realm of HEW regulation and introduced them as statutory law, with the Department responsible for the development of new regulations that would be consistent with Congressional intent.

The new regulations, which were released in January 1980 and became effective in October of the same year, reflected the determination of the House and Senate to legislate "an ambitious error reduction campaign." Congress directed the Secretary of HEW to issue regulations that would substitute an overall target rate of 4 percent for erroneous payments (to be met by September 30, 1982) in place of the 6.4 percent annual improvement factor promulgated in the March, 1979 regulations. The regulations provide for a phased reduction of one-third of a state's base period error rate in excess of 4 percent for the three fiscal years 1980, 1981, and 1982. As in the March 1979 regulations, matching funds will be reduced for failure to meet the target error rate.

Although the regulations actually require that a state error rate in excess of 4 percent be reduced by one-third by September 1980 and two-thirds by September 1981, the states would not be accountable for the interim targets until October, 1980 - September, 1981 for the first goal, and October, 1981 - September, 1982 for the second goal. The Department allowed this additional time because it felt that it would be unfair to hold a state to a standard for a calendar period if the target did not have to be met until the end of that period. Therefore, states would not be required to meet the 4 percent standard until the October, 1982 - September, 1983 annual assessment period. In determining a state's compliance with the error rate target to be achieved by a calendar date, the Department used a weighted average of the state's estimated error rate for the two six month reporting periods following the target date.

What most clearly distinguished the latest quality control regulations from previous regulations is that they were issued under the directive of Congress. The new standards reflected the desire to legislate rather than merely regulate tolerance levels for erroneous expenditures in AFDC. During negotiations between HEW and state and local governments and Congressional hearings concerning the development of an appropriate sanctions policy, one of the key issues debated was the question of placing quality control guidelines into law as opposed to keeping them in regulatory language. Public welfare associations and state and local administrators claimed that framing QC policies in statutory language would only serve to undermine the flexibility required by federal and state administrators for effective program management. Thus, they argued that QC policies would be better left in regulation where they could be modified routinely as more was learned about the quality control/corrective action process. A concerned Congress ultimately rejected this approach, believing that the HEW regulations did not reflect a sufficiently serious committment to error reduction. As a result, it chose to legislate ambitious error reduction standards which all states were expected to meet.

It should be clear from the preceding review, that, at least from an historical perspective, there has been great variation in the way that states have responded to federal quality control initiatives. Until 1973, when the fiscal sanction provisions were released, there were at least 19 states that did not have effective QC programs in operation. In contrast, there were other jurisdictions that viewed quality control and corrective action as a primary component of management control. Given that there have been no national guidelines with respect to corrective action policy, states (and counties) have proceeded since 1973 to analyze their own specific problem areas, and to implement the appropriate, and at times very different, corrective action measures. Given these various program initiatives, in addition to at least 51 AFDC programs, it becomes especially important to model an analysis of AFDC corrective action activities at a most-local-level of program administration. The specific research methodology utilized in these area-specific evaluations is presented in the next Chapter. Beginning with Chapter 4, we turn to detailed analyses of corrective action programs in our six jurisdictions.

Chapter 3

Specific Research Methodology

The purpose of this chapter is to present an "eclectic" foundation for the SWRI model of caseload and expenditure dynamics. As the first step in this process, the chapter provides a transition from theory and hypothesis to a testable statistical form. The econometric and mathematical procedures used to evaluate the impact of corrective actions are discussed as well.

The chapter has been divided into five sections:

a) a concise review of the alternative theories of caseload dynamics underlying the SWRI methodology

b) an introduction to the SWRI model

c) a testable model

d) the simulation methodology

e) the data

We take up each section in turn.

a) Alternative Theories of Caseload Behavior - A Concise Review

Theories of caseload behavior can be categorized into three broad areas: (a) alternative income, (b) employment opportunity, and (c) institutional theories. SWRI's earlier modeling of AFDC dynamics demonstrated that no single theory clearly dominates as an explanation of caseload dynamics. This in turn suggested that any empirical study which attempted to determine the impact of various independent factors on caseload and expenditure levels should have an "eclectic" foundation that encompasses aspects of all three hypotheses.

As briefly noted in Chapter 1, the alternative income hypothesis is derived directly from neoclassical labor supply theory. It assumes that individuals are rational, possess complete information about wage rates, benefit levels, and employment opportunities, and compete in the short-run in markets where labor demand is infinitely elastic at existing wage rates. Within this framework each utility maximizing individual is faced with a free, though constrained, choice between work and welfare. The individual's work choice is constrained only by the maximum number of hours he or she can physically work and by the going market wage. The simple objective of the individual is to choose that combination of work and welfare that maximizes utility.

The neoclassical work-welfare decision is based on an individual's subjective preference for income (work) and "leisure" (all non-work activity, including all household chores). A given level of income or benefits may be weighed differently in the utility functions of different individuals. The wage and benefit levels can be assigned a utility value only if the price of all arguments in the utility function are known. Consequently, in the two dimensional work-welfare case, <u>relative</u> wages and monetized benefits are the primary criteria on which consumption decisions are based. Under a simplified set of assumptions, the neoclassical theory further suggests the direction of the response to changes in relative prices under "normal" conditions: If, for example, benefits rise relative to wages (i.e., if the value of "leisure" rises relative to its opportunity cost) a rational individual may choose to increase the consumption of welfare relative to work. Conversely, if wages increase relative to benefits, an individual may choose to increase work activity relative to welfare.

The essence of the alternative income theory is the transition from this <u>microeconomic</u> work-welfare decision to the derivation of implications concerning an <u>aggregate</u> caseload. To accomplish this it is necessary to assume that individuals, as a group and on average, behave as micro theory would have them behave. Hence, a rising average benefit/wage ratio will induce more individuals to opt for welfare in place of work. Those individuals on the margin between work and welfare will be most affected by a marginal change in relative wages and assistance levels.

The magnitude of the aggregate response to a change in relative benefits will, therefore, be a function of:

a) the proportion and number of families on the work-welfare margin,

b) the legal and economic factors that condition the potential combination of welfare and work, and

c) the size of the change in either benefits, wages, or both.

It is impossible to assess the subjective value of benefits and wages. For practical empirical purposes, then, the caseload is made a function of the ratio of the potential monetary value of public assistance benefits to the potential market wage rate. It takes only one more step to hypothesize that as this ratio rises, more families will approach and surpass the margin leading to a larger aggregate public assistance caseload.

The employment opportunity theory also assumes individuals are utility maximizing. But individuals face specific constraints as to the number and types of jobs available to them. The restrictions arise from either the "supply" or the "demand" side of the labor market.

The employment opportunity theory (or "structuralist" framework — due to the important role of labor market structure) describes each worker and each job in the economy in terms of a bundle of attributes and requirements. In this context, a "state of employment" exists when there is a successful matching of the attributes of a given worker to the requirements of a given job. Like the alternative income hypothesis, the employment opportunity theory originates at the microeconomic level. Nevertheless, it too can be translated into a macroeconomic hypothesis which can yield several important implications for the behavior of the aggregate caseload. Combined with the known attributes of individuals who participate in the welfare program, this theory suggests that employment in certain low wage, low skill industries should have a differentially strong impact on the size of public assistance rolls. The larger the number of jobs with requirements no greater than the corresponding attributes of individual job seekers, the less restrictive the labor market. Conversely, as the structure of employment "slots" diverges further from the attribute sets of job seekers, the relevant labor market becomes more restrictive. In terms of neoclassical theory, fewer families will be on the work-welfare margin and employment opportunity variables, such as change in low-wage employment, will consequently replace the benefit/wage ratio as statistically powerful determinants of caseload size.

Furthermore, the employment opportunity theory can be combined with the concept of Keynesian or "deficient demand" unemployment. This theoretical perspective suggests that caseload dynamics should also be related to general macroeconomic conditions. This is consistent with a microeconomic expectation that the human capital and ascriptive attributes of the "typical" welfare recipient will affect her ability to find a job; and consequently welfare participaton will be highly sensitive to the level of aggregate unemployment.

In summary, then, both the aggregate unemployment rate and the employment levels in specific industries that normally hire large numbers of relatively low-skilled workers will affect the probability of individual families turning to welfare and, therefore, the aggregate size of the welfare population.

The last broad category of caseload behavior theory is termed "institutional." In the course of this research it was precisely the institutional factors, specifically corrective actions, that were to be evaluated, <u>all other factors held constant</u>. Most of the institutional theories of caseload behavior are concerned with the degree of limitation placed on an individual's "free" work-welfare choice. The primary limitation involves restricting the supply of welfare "slots." Other institutional theories are concerned with a changing demand for public assistance due to alterations in the size of population subgroups (e.g., the number of female headed households).

Unlike the alternative income and employment opportunity theories, most of the factors associated with the institutional hypothesis operate directly at the macroeconomic level. For our purposes the most important institutional factors are the corrective actions that have arisen in response to periodic threats of fiscal sanctions by the federal government. It is often these activities that are most important in the eligibility determination process and in the overall accessibility of welfare programs. Specific factors that may influence these institutional processes include the number and specialization of welfare office personnel, the frequency and intensity of caseload reviews, changes in the procedures used by welfare authorities to determine the eligibility of new applicants (e.g., increased verification and documentation of factors affecting eligibility), and even the quality and extent of personnel training.

In addition, there are a large number of important social and demographic factors thay may affect the size and behavior of the aggregate caseload. These include the changing degree of family instability, migration, urbanization, and the intensity of welfare rights activities. Many of these factors indirectly influence the caseload by altering the characteristics or behavior of low income households. Others increase the welfare participation rate of existing eligible families. It is not a straightforward exercise to evaluate the importance of factors associated with the institutional theory. Since most are qualitative rather than quantitative in nature, statistical variables must be carefully constructed to proxy for each constraint. Careful specification, of course, is required to test the implications and hypotheses of all three theories of caseload dynamics.

b) The SWRI Model of Caseload Dynamics

During the mid-1970s SWRI developed a monthly, time series, multiple equation, AFDC Dynamics model which could be used in virtually any AFDC jurisdiction to evaluate the underlying determinants of change in public assistance caseload and expenditure levels. While the SWRI methodology is general, the time series estimator is data-rich and specific to each jurisdiction. Thus, the model is able to incorporate many of the complex administrative factors like corrective actions that are indeed unique to individual areas.

The theoretical model of the caseload and benefit determination process developed by SWRI identifies a number of "filters" or "screens" through which each family in the population explicitly or implicitly flows in the determination of welfare participation.[*] According to this model, one screen determines eligibility; another,

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[*] For a detailed discussion of the theoretical model of the AFDC caseload and benefit determination process, as well as the development of the structural equation system, see Barry Bluestone and James Sumrall, "AFDC Caseload and Benefit Dynamics: New York City," Social Welfare Research Institute, July 1977.

the family's probability of applying for assistance; and others, the probability that their application is processed, the probability that the processed application is accepted, and finally the probability that a participating family's AFDC case would be closed.

The SWRI model can be formally translated into a set of mathematical identities which describe the AFDC system and how caseload and total expenditures change over time. The model begins with a basic caseload identity: AFDC caseload in the current period (viz., period "t") equals AFDC caseload from the previous period, plus cases opened in the current period, plus current period transfers in, minus cases closed in the current period, minus current period transfers out. Mathematically the identity becomes:

[3-1] CASES(t) = CASES(t-1) + CA.OPEN(t) + TRAN.IN(t)

- CA.CLO(t) - TRAN.OUT(t)

Openings [CA.OPEN(t)] are disaggregated with an openings identity: openings in the current period are equal to the sum of applications received in the current period and applications pending from the previous period times a processing rate and an acceptance rate. Again, in mathematical notation:

[3-2] CA.OPEN(t) = [AP.REC(t) + PEND(t-1)] * PROC.RT(t)

* [1-REJ.RT(t)]

where [3-3] PROC.RT(t) = AP.DISP(t) / [AP.REC(t) + PEND(t-1)]

[3-4] REJ.RT(t) = AP.REJ(t) / AP.DISP(t)

[3-5] AP.DISP(t) = CA.OPEN(t) + AP.REJ(t)

Closings [CA.CLO(t)] are defined in terms of a closing rate: cases closed are equal to the closing rate times the sum of the caseload in the previous period and cases opened in the current period, or

[3-6] CA.CLO(t) = CLO.RT(t) * [CASES(t-1) + CA.OPEN(t)]

where [3-7] CLO.RT(t) = CA.CLO(t) / [CASES(t-1) + CA.OPEN(t)]

The caseload identity in [3-1] can be reassembled using the rates in [3-3], [3-4], and [3-7] and the number of applications received. This is done in [3-8]. The product of the three terms inside the square brackets is equal to openings; thus openings plus the previous period's caseload times the "continuing rate" (1-CLO.RT) equals the caseload in the current period.

[3-8] CASES(t) = (1-CLO.RT(t)) * {CASES(t-1) + [(AP.REC(t)
+ PEND(t-1)) * PROC.RT(t) * (1-REJ.RT(t))]}
+ TRAN.IN(t) - TRAN.OUT(t)

The complete "components" model is specified as a set of four linear stochastic equations, one for applications received and one for each of the rates. Each component equation incorporates exogenous and/or pre-determined (i.e., lagged one or more periods) variables related to one or more of the hypotheses which explain caseload and expenditure dynamics. This methodology allows identification of individual determining factors in each component and, in the present case, identification of the impact of corrective actions.

Variants on the "Full Components" Model

The preceding disaggregation of the caseload identity suggests that there can be several variants of the SWRI components model. In practice, the richness of existing data in each jurisdiction

Glossary of Caseload Terms

CASES(t)	:	Caseload at the end of period t
CA.OPEN(t)	:	New and Reopened Cases
TRAN.IN(t)	:	Cases transferred in during period t
CA.CLO(t)	:	Cases closed during period t
TRAN.OUT(t)	:	Cases transferred out during period t
AP.REC(t)	:	Number of applications received during period t
AP.DISP(t)	:	Number of total applications processed (disposed) in period t
PEND(t-1)	:	Number of pending applications from all previous periods
PROC.RATE(t)	:	Processing rate
REJ.RATE(t)	:	Rejection rate
CLO.RATE(t)	:	Closing rate

determines which variant can be used.

In this research it was in fact necessary to rely on a less disaggregated model for two of the six areas studied — Alameda and San Diego Counties. The variant used in these two jurisdictions was an Openings Level/Closing Rate model. At the first level of disaggregation we have the simple caseload identity:

$$CASES(t) = CASES(t-1) + CA.ADD(t) - CA.CLO(t)$$

where

$$CA.ADD(t) = [CA.OPEN(t) + TRAN.IN(t)]$$

$$CA.CLO(t) = [CA.CLO(t) + TRAN.OUT(t)]$$

As in the case with the full components model, cases closed can be defined in terms of a closing rate, yielding:

$$CASES(t) = CASES(t-1) + CA.ADD(t) - \{CLO.RT(t) * [CASES(t-1) + CA.ADD(t)]\}$$

Stochastic equations for cases added in period t [CA.ADD(t)] and the closing rate in period t [CLO.RT(t)] are generated for this model. Although this variant does not allow us to determine which factors, and especially which corrective actions, affect each of the separate components of the full model (viz., the processing and rejection rates could not be estimated), it does allow different sets of variables including corrective actions to affect additions to and subtractions from the caseload. It therefore remains a valuable tool for evaluation purposes.

c) <u>A Testable Model</u>

The theoretical base for the caseload model suggests which types of variables should enter each of the regression equations. The number of applications received in a given month, for example, is a function of variables originating from all three theories. These include economic conditions, benefit levels in relation to potential labor market earnings, and the methods used to determine eligibility.

The processing and rejection rates should, according to theory, be determined by institutional (administrative) factors alone. However, economic variables (e.g., the unemployment rate) may also affect the rigidity or leniency with which eligibility criteria are applied by intake workers. The closing rate equation could contain many of the variables that appear in the applications equation: for example, benefit levels in relation to labor market earnings and economic conditions affect the rate at which voluntary terminations occur. However, institutional factors, especially corrective actions, are often important since individual welfare administrations have the discretion to alter existing activities and to implement totally new programs as well. In the following section we present the theoretical foundations and the functional forms of both the component equations and the explanatory variables that can be expected, in light of the three theories of caseload dynamics, to influence the dependent variable of each equation.

Applications Received

Applications received by a welfare service office take the form of a flow; caseload, on the other hand, is a stock. Presumably, however, a steady state level of applications exists even when there are no current changes in the levels of any of the factors which determine the number of applications filed. Although the size of the relevant sub-populations may remain constant, some AFDC families find employment or become married; such cases could be closed. At the same time other families become eligible as a result of divorce, desertion, childbirth, or loss of income; new cases would open. Hence, the caseload level, or stock, can remain constant, while the flow of applications, openings, and closings will be a positive number in each time period.

Welfare "cycling" is another form of turnover which argues for a non-zero steady state level of applications when caseload size is constant. Welfare "cyclists" are families that use welfare on an intermittent basis to bring their incomes up to a given level. Thus, the cyclists are opening and closing their cases, sometimes on a fairly regular basis.

The actual levels of explanatory variables can be used to estimate the steady state number of applications received. There are also "shocks" to the level of applications due to changes in the independent variables. When employment opportunities in the labor market are reduced, for example, applications may increase more than proportionately for several periods, then return to a new steady state level. This mechanism works in the following manner: as the labor market becomes slack, unemployment rises. The number of eligible families who are potential applicants consequently increases. A certain percentage of these new eligible families will apply immediately and the level of applications will rise sharply. As these new applications are processed, the pool of newly eligible families is again exhausted. New applications will then fall, returning to a new, higher steady state level consistent with the new set of economic and demographic characteristics of the population. The new level of applications will be once more defined by the new levels of the explanatory variables.

Based on this approach, an empirically testable applications received equation (AP.REC) might include any or all of the following types of variables suggested by each of the major caseload hypotheses:

$$\begin{aligned} AP.REC(t) = {} & \beta_0 + \beta_1(B/Z) + \beta_2 UR + \beta_3 \Delta UR + \beta_4 EMP + \beta_5 \Delta EMP \\ & + \beta_6 CACL\text{-}1 + \beta_7 FHF + \beta_8 \Delta FHF + \sum_{i=9}^{n} \beta_i ADM_i \\ & + \varepsilon(t) \end{aligned}$$

Alternative Income Hypothesis

The first term in the applications equation, B/Z, is used to test the alternative income hypothesis. The construction of the "benefit-wage" ratio takes into account benefit stacking[*] in both the numerator and the denominator. This ratio applies to families, "at the margin," who are making the decision whether to work or enroll in AFDC. Their decision is based on the relative returns to alternative income flows. Consistent with the neoclassical assumptions associated with this hypothesis, we assume that these families believe that both options are open to them with equal

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[*] "Benefit stacking" refers to the total potential value of transfer programs including cash assistance, the bonus value of food stamps, and the actuarial value of medicaid.

probability.

The maximum benefit (B) varies with family size, and is specific to each jurisdiction. The calculation of B begins with a hypothetical family of four. The resulting standard is then adjusted by average family size in the relevant jurisdiction. The payment amount a family receives from the AFDC program is not necessarily the full "standard of need." The final grant equals the standard (minus any "rateable reduction") minus some portion of any income the family receives from other sources.[*] However, the appropriate minimum figure for B is the standard (corrected for rateable reduction) because this is the potential public assistance income a family can choose to obtain, if no other income source is available.

Medicaid provides comprehensive medical coverage for AFDC recipients. The imputed value for medical care used in this study is based on an estimated premium for the most comprehensive insurance offered in the private health system. The bonus value of food stamps is also an important element in the potential benefits available to a poor family; this value is calculated by the U.S. Department of Agriculture for various family sizes and income brackets. The estimated value of food stamps is taken to be the bonus value imputed to a family of four, again adjusted for the average number of recipients per AFDC case and constrained by the income level that they are guaranteed by the maximum cash benefit.

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[*] The impact of the "30 and 1/3" earnings disregard is explicitly included in one or more formulations of the B/Z ratio. Various methods by which this is done are explained in the data section.

The denominator, Z, of the (B/Z) ratio represents an alternative market wage plus available income supplements. These may include the imputed value of medical benefits and food programs. Medicaid is available to non-public assistance recipients in most states, provided their income falls below a certain percentage of the standard of need. The relevant wage for Z is a weighted average of wages in a selected set of industries where we would expect to find workers with characteristics similar to those of AFDC recipients. These industries include non-durable manufacturing and service where employees are predominantly female and jobs are characterized by low training levels, high turnover, and weak job attachment. Where the wage is low, the worker and the family may also qualify for Medicaid (state law permitting) and food programs. In this event, imputed values for these programs are included in Z as well.

Employment Opportunity Hypothesis

The number of applications received in any given month should also be affected by the current state of the labor market. UR in the AP.REC equation above represents the seasonally unadjusted unemployment rate in the jurisdiction being modeled. This variable is used to proxy changes in the overall level of employment due to seasonal and cyclical factors. The use of the level suggests that at higher unemployment rates the steady state applications rate is persistently greater due to, for example, larger amounts of welfare "cycling." The change in the unemployment rate (ΔUR) may also enter the applications equation to account for short-run deviations from the steady state during rapid fluctuations in the economy.

The "structural" employment theory of AFDC caseloads may also be applied directly to the applications received equation. To proxy employment opportunities we rely on EMP, the number of workers employed in specific industries, both non-durable manufacturing and service, characterized by low training, high turnover, and weak job attachment. These industries include (1) food and kindred, (2) apparel and other textile products, (3) hotels and motels, and (4) eating and drinking establishments. Variables were constructed to reflect actual employment levels in each jurisdiction in each of the industries, individually as well as in combination to reflect employment levels in both manufacturing and service sectors.

Institutional Hypotheses

Legal, political and demographic variables also influence the trend in welfare applications. The most important of these are factors which relate to the size of the "eligible population." As we noted earlier, there are no reliable time series on this population sub-group. We therefore had to rely on proxy variables which bear some relationship to the "true" number. Chief among these variables is an interpolated series on the number of female headed families with children under 18. These were derived from various Census of Population counts. In its present functional form, FHF can enter as either a level or a first difference. As a level it proxies for the hypothesis that out of any eligible pool there will be a given steady state number of applications: the larger the eligible pool, the greater the steady state level. As a first difference, FHF suggests that as the eligible pool grows in the short-run, there will be a direct and immediate response in the form of additional applications above the old steady state level.

Administrative variables can also affect the number of applications filed, although we might expect that these factors are better suited to the processing, rejection, and closing rate equations. Nonetheless, among the ADM variables, we might list such factors as: "simplified eligibility," which reduces the "hassle" involved in applying for AFDC; the number of workdays in a month, which proxies for the accessibility of welfare service offices to the population; and other factors, including corrective actions such as an applicant pre-screening mechanism, which contribute to a more restricted or liberalized applications procedure. Changes in these laws and regulations are probably closely tied to the relative "liberalness" of political attitudes. They also proxy for an administration's desire to make quality control performance, as reflected by an area's error rate statistics, a high-level priority.

Some aspects of the changes in political sentiment can be captured in the applications equation by a specially constructed Congressional voting index on economic issues. This was specially prepared with data from Americans for Democratic Action (ADA), a Washington-based lobbying group.

Proxies for information diffusion, which may also affect the number of applications, are hard to come by. The diffusion of information may arise as the result of Welfare Rights Organization

(WRO) activity or outreach programs originating in the welfare service office itself. More importantly, the diffusion of information may also arise as the result of personal contacts between welfare participants and members of the eligible population not yet on welfare. This is typically proxied by linear or non-linear forms of the AFDC participation rate and/or a lagged acceptance rate.

Another institutional factor which often affects the flow of applications during a given month is the number of cases closed in a previous month. This variable may take the simple form of the number of cases closed with a one period lag (CACL-1), or possibly even a two or three period lag structure, depending upon the dynamics of the reapplication process in a specific jurisdiction. This factor became especially pronounced in some jurisdictions during the early 1970s when corrective action policies involving comprehensive recertification activity became prevalent. Many recipients that had their cases closed for administrative reasons, but who were otherwise categorically eligible, returned to the welfare service office in subsequent months to reapply for public assistance.

All of the three key theories can therefore affect the applications equation. How much of the total variance in applications is explained by each theory is summarized in the empirical analyses presented in Chapters 5, 6, 8, 9, 10, and 11.

Processing Rate

After applying for AFDC, applicants are filtered through a "processing" screen. Whether an application is accepted in the current period or placed in the pending file depends on the rate at which applications are processed by a welfare service office. The key variables which determine the speed at which cases are processed should be a function primarily of administrative and perhaps political factors. To estimate the processing rate (PROC.RT) we might use an equation with the following variables:

$$\text{PROC.RT}(t) = \beta_0 + \beta_1\text{WDAYS} + \beta_2\text{RECSYS} + \beta_3\text{STRIKE} + \beta_4\text{WRKLOD}$$
$$+ \beta_5\text{UR} + \sum_{i=6}^{n} \beta_i\text{ADM}_i + \varepsilon(t)$$

The number of business days in a month that welfare service offices are open (WDAYS), for example, directly affects the number of applications processed, particularly in light of regulations regarding the length of time applications may be kept pending. In some months (e.g., November and December) there are more holidays than in others. During these months we expect the processing rate to be lower because there is less time available to process given flows of applications.

The conversion from a manual filing system to computerized record keeping (RECSYS) is another factor that might affect the speed at which applications can be processed. Additionally, exogenous shocks to the system, such as a social worker strike (STRIKE), can significantly slow the processing of new applications. An unexpected flow of new applications may so overload WSO's that the processing rate actually declines. This may be accounted for by a proxy variable for the size of the monthly workload (WRKLOD).

Economic conditions, on the other hand, may have an indirect impact. A higher unemployment rate may be cause for speeding up the disposition of applications in order to get financial assistance to the needy as rapidly as possible. Use of the UR term may therefore be warranted in this otherwise institutionally determined function.

ADM represents a series of dummy variables to proxy legal restrictions on pending applications and other changes such as simplified eligibility. If legal restrictions on the length of time an application may remain pending become more strict, we would expect the processing rate to increase. Simplified eligibility mandates that an applicant's word must be trusted when documentation is unavailable to support his/her application. Thus, less time will be spent processing an application under simplified eligibility, although more time may be spent reviewing active cases to screen out the ineligible cases which might result. Such reviews are proxied with other ADM terms, which are sensitive to the individual jurisdiction being modeled.

Rejection Rate

As in the case of the processing rate, we also expect the rejection rate to be highly responsive to changes in administrative policy. But the probability of rejection should also be a function of the proportion of eligible families that are already receiving aid, some political variables, and possibly even economic factors that affect short-run eligibility. Consequently, it is possible that both employment opportunity and institutional variables will enter the rejection rate equation. For example:

$$\mathrm{REJ.RT}(t) = \beta_0 + \beta_1\mathrm{ADDVER} + \beta_2\mathrm{ADAIX} + \beta_3\mathrm{UR} + \beta_4\mathrm{EMP} + \beta_5(\mathrm{C/FHF}) + \sum_{i=6}^{n} \beta_i\mathrm{ADM}_i + \varepsilon(t)$$

There are a number of specific administrative variables that could affect the rejection rate. Additional verification and documentation of factors affecting a potential recipient's eligibility (ADDVER), for example, allow more intense perusal of applications and may lead to higher rejection rates. WIN referral policy may also increase the rejection rate, due to a larger number of non-compliance cases. Additionally, the use of comprehensive training programs may lead to a more thorough and structured application of eligibility critera by intake personnel, thus affecting the rejection rate.

During politically conservative periods, marginal cases may run a high probability of rejection; during more "liberal" times, the balance may swing in favor of accepting more applicants. To proxy for this type of general political sentiment, the Americans for Democratic Action (ADAIX) index is a prime candidate for the rejection rate equation. The use of UR or one of the other employment opportunity variables (EMP) might also be included to proxy for the response of welfare agency personnel to changing economic conditions.

Finally, it is possible to model the "exhaustion" of the eligible pool through the use of estimated AFDC participation rates similar to those mentioned in the discussion of the applications received equation. During periods when the participation rate (C/FHF) is small, but growing, this variable may be able to proxy for the information diffusion process. However, at very high participation rates it is possible that the rate has just the opposite effect. Instead of leading to a greater number of applications, it could lead to a higher rejection rate. It is also possible that very high participation rates proxy for a larger number of categorically ineligible families applying for welfare. If this is so, we can expect that the rejection rate would increase after C/FHF reached some fairly high ratio.

Closing Rate

The last equation in the caseload identity is the closing rate. We expect the closing rate to have a fairly constant steady state value associated with levels of variables which determine the eligible population. When there are changes in employment structure, changes in the relative attractiveness of AFDC, or changes in the eligibility criteria, the closing rate can jump sharply and then return to historical levels. Therefore, both levels and changes in the levels of explanatory variables are entered into this equation, similar in spirit to the AP.REC function.

In many respects, the closing rate equation should bear a "mirror image" likeness to the applications equation. The alternative income hypothesis variables, such as the relative benefit/wage ratio, should have an impact on case closings as well as new applications. The employment opportunity terms should enter as well, for the decision to leave AFDC is conditioned on the ability to obtain suitable employment. Finally, the institutional hypothesis variables may enter to proxy administrative changes and corrective actions, such as California's Monthly Income Reporting Form (CA-7) and other types of recertification policy.

Some of the independent variables from the processing rate equation should also be included since closing a case depends on caseworkers and their workloads. Based on these comments, the testable equation for the closing rate may assume the form:

$$CLO.RT(t) = \beta_0 + \beta_1(B/Z) + \beta_2 UR + \beta_3 EMP + \beta_4 \Delta EMP + \beta_5 WDAYS + \beta_6 STRIKE + \beta_7 CA\text{-}7 + \sum_{i=8}^{n} \beta_i ADM_i + \varepsilon(t)$$

With the functional specification of the closing rate equation, the equation system for the AFDC caseload is complete. One should note at this point that the development of a caseload components model provides the opportunity for testing a much richer array of explanatory variables than permitted by earlier simple single equation models. This is, above all else, the real value of such an evaluation tool.

d) Simulation Methodology

Each of the component equations provides a rich source of detail about several aspects of AFDC program dynamics. To determine the ultimate impact of corrective actions on caseload and expenditure levels, however, it is necessary to reassemble the individual components. This involves three steps: First, it is necessary to use the parameter estimates of the structural equations and the exogenous data to obtain predictions of the component flows. Second, the components must be reconstituted through the caseload and expenditure identities. And third, the identities must be simulated to generate aggregate caseload level and total expenditures.

The simulation procedure generates a caseload estimate solely from the exogenous data and the initial values of caseload and applications pending. By choosing a given set of exogenous data and then observing the resulting impact on the caseload, we can use the simulations to evaluate the impact of corrective actions. The remainder of this chapter presents how the reconstitution of the identities is accomplished, as well as the specific techniques used in estimating the corrective action impacts.

Reassembling the Caseload and Expenditure Identities

This chapter began with the simple caseload identity:

$$CASES(t) = CASES(t-1) + CA.OPEN(t) - CA.CLO(t)$$

where CA.OPEN = cases opened in month t

CA.CLO = cases closed in month t

Disaggregation of this identity has also been presented. We have shown how theory guides the regression estimation process. In this section we reverse the process and reconstitute the caseload (and expenditure) identity.

The actual reconstitution can be accomplished in two ways. The "simple" method treats each of the independent variables, including the participation rate C/F-1 (in the rejection and closing rate equations) and the lagged cases closed variable CACL-1 (in the applications equation), as exogenous. In this case the actual values for C/F-1 and CACL-1 are used in the simulations and counterfactuals.

The rationale for this procedure, in addition to simplicity, is that these variables are proxies for some qualitative factor rather than a direct measure of program participation or reapplication dynamics.

A more sophisticated approach, and the one used in the actual simulations in this research, views these two factors as jointly determined variables. Instead of using the actual values for C/F-1 and CACL-1, the simulation procedure calculates lagged values for these variables using the full caseload identity to estimate the former and the closing rate equation to estimate the latter. This procedure provides a "feedback" model in that previous period values are fed back into the equation system to generate current period caseload and expenditure estimates.

Mathematically the reconstitution is as follows:

$$\text{(1)} \quad \text{CA-}\widehat{\text{OPEN}}(t) = [\text{AP.}\widehat{\text{REC}}(t) + \widehat{\text{PEND}}(t-1)]*[\widehat{\text{PRO.RT}}(t)]*[1-\widehat{\text{REJ.RT}}(t)]$$

$$\text{AP.}\widehat{\text{REC}}(t) = \Sigma_i \beta_i x_{it}$$

$$\widehat{\text{PRO.RT}}(t) = \Sigma_j \beta_j x_{jt}$$

$$\widehat{\text{REJ.RT}}(t) = \Sigma_k \beta_k x_{kt}$$

After the initial period, the number of pending applications [PEND(t-1)] is calculated internally as the residual of applications received plus pending applications from month t-1 less applications disposed (processed) in month t.

$$\text{(2)} \quad \widehat{\text{PEND}}(t) = [\widehat{\text{AP.REC}}(t) + \widehat{\text{PEND}}(t-1)]*[1-\widehat{\text{PRO.RT}}(t)]$$

The number of closings is calculated by applying the estimated closing rate to the current month caseload.

$$(3) \quad CA.\hat{CLO}(t) = [CLO.\hat{R}T(t)]*[CAS\hat{E}S(t-1) + CA.\hat{O}PEN(t)]$$

Following this step the caseload identity can be reconstructed.[*]

$$(4) \quad CA\hat{S}ES(t) \equiv CA\hat{S}ES(t-1) + CA.\hat{O}PEN(t) - CA.\hat{C}LO(t)$$

Finally, monthly estimates for total expenditures are generated from the actual average expenditure per case and the estimated value of caseload.

$$(5) \quad EXP.\hat{T}OT = [EXP/CASE(t)]*[CA\hat{S}ES(t)]$$

In this complete set of simulation equations there are but two predetermined values — the size of the caseload and the number of pending applications in the month immediately preceding the first simulation period. Once these two values are plugged into the simulation, the only factors that can influence the estimated size of the caseload or total expenditures are the exogenous (Xi) variables. These Xi variables determine the estimated number of applications received, the estimated processing rate, and the estimated rejection rate. These in turn determine the number of new case openings (and the size of the pending file carried forward to the next month).

Another set of Xi factors determine the estimated closing rate.

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[*] Alan Matthews designed and wrote the simulation program for reconstructing the caseload identity.

When multiplied by last month's estimated caseload plus this month's estimated new openings, the closing rate yields this month's number of closings. Further, subtracting this month's estimated closings from this month's new openings gives the net change in the caseload in the present period. Finally, adding the net change to last month's caseload yields this month's estimated caseload.

The caseload simulation "loops" through this routine for each month in the simulation period. Total expenditures are computed by simply multiplying the caseload estimate by the actual average expenditure per case.

The Simulations

Once the estimated component equations for each jurisdiction have been finalized, the next step in the evaluation strategy involves the preparation of several simulations. Three of these are referred to as the basic simulations. Comparison of the caseload and expenditure estimates resulting from these alternative simulations allows us to parcel out (a) the effects that any structural changes in the caseload generating function have had on caseload and expenditure levels over time, and (b) the gross impact of corrective action activities on caseloads and expenditures.

The three basic simulations used in the evaluation strategy are named and defined as follows:

1) Present Structure Simulation (PSS)
2) Pre-QC/CA Structure Simulation (Pre-QC/CA)
3) PSS-No QC/CA Structure Simulation (PSS-No QC/CA)

The initial, or Present Structure Simulation (PSS), is used to obtain the best possible econometric estimate of the caseload. It is based on the estimated regression coefficients in each of the component equations. These coefficients are obtained from running regressions over the entire period for which we have data on dependent and independent variables in each jurisdiction.[*] The PSS equation system, therefore, represents the "best" model that could be constructed; the PSS system includes all corrective action variables as well as all structural variables (e.g., unemployment rates, benefit wage ratios, etc.). Since the individual component equations used in the PSS are fitted over the full period, the simulated caseload should track the actual historical caseload series very accurately. This is one indicator of how well the overall model works.

The second simulation is referred to as the Pre-QC/CA Structure Simulation (Pre-QC/CA). This simulation uses estimated regression coefficients obtained from regressions that are run over a shorter period of time than the PSS equations.

The Pre-QC/CA simulations are relevant for statistical analysis and caseload simulation. The statistical purpose is to control for changes in the structural regime of the caseload generating function during the period of quality control activity. These changes are

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[*] Because data availability at the time of our site visits varied, the full regression period in each model varied as well. The New York models use data beginning in January 1960 and ending in December 1978; in San Diego County the applicable time frame is January 1964 through June 1979; in Los Angeles County, April 1964 through September 1979; in Alameda County, January 1964 through December 1979; and finally, in Florida, February 1966 through December 1979.

attributable to two sources: (a) the effects of changing responses to factors like the unemployment rate, changing levels of employment in specific sectors, and changes in the benefit/wage ratio; and (b) the impacts due to implementation of intensive quality control programs that began in the early 1970s. As relationships between caseload and its determinants change over time, we expect the relative impacts of different economic and institutional factors to change as well; the estimated regression coefficients should take on different values.

Isolation of these shifts in statistical regimes is accomplished by running regressions over the period that ended at the time quality control activity began. In a simulation context, then, these short period regressions are used to forecast caseload (i.e., components). These forecasts are based on actual data during the regression period and actual data over the period of the forecast (post-quality control activity). In essence, this Pre-QC/CA simulation indicates what AFDC caseload, openings, closings, and expenditures would have been had the earlier structure continued to the present and corrective action not been undertaken.

These two simulations — PSS and Pre-QC/CA — provide the initial framework for the evaluation of corrective actions. The difference in the estimated caseload and its components based on simulations (1) and (2) indicates the combined effects of changes in underlying structural responses to economic opportunity and alternative income variables as well as the effects of corrective actions. The Pre-QC/CA simulation indicates what the caseload would have been in 1978 or 1979 had there been no changes in any of the pre-1973 structural relationships, and no corrective actions had been initiated. In contrast, the PSS accounts for both the changes in "structural" relationships that have actually occurred since the early 1970s, and the effects of corrective actions.

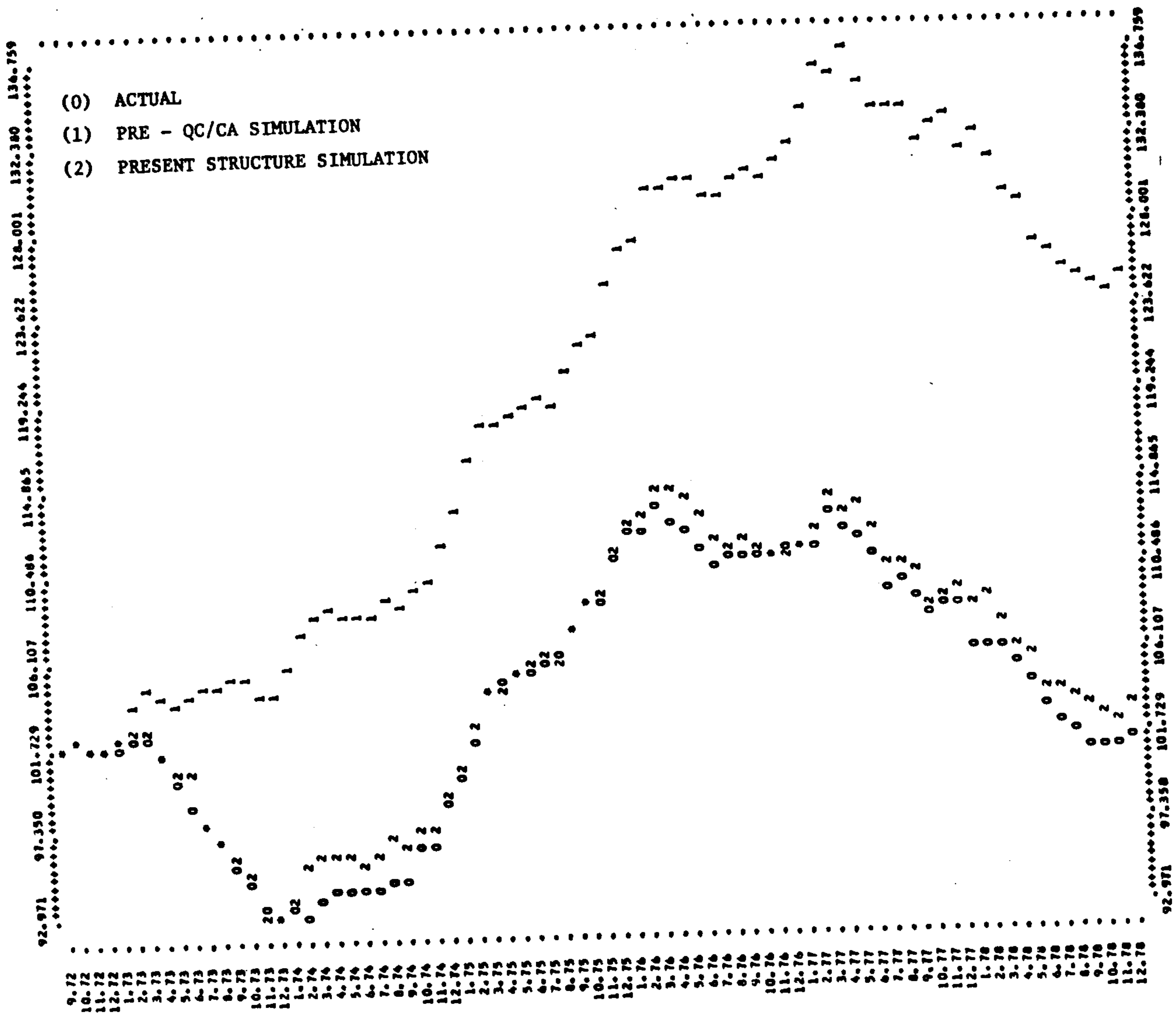
Figure 3.1 illustrates the difference between two simulations over the period January 1973 (1.78) to December 1978 (12.78). Simulation (0) is actual caseload each month. Simulation (1) represents caseload estimates based on the Pre-QC/CA structure using coefficients from short period regressions (i.e., 1960 to 1972). Simulation (2) represents caseload estimates based on the PSS simulation using coefficients from the full period regressions (i.e., 1960 to 1978).

The figure indicates that the PSS (2) tracks the actual caseload (0) very accurately, as it should. It is, after all, based on coefficients obtained from full period regressions. The Pre-QC/CA simulation (1), however, indicates that if the parameters of the short period regressions had remained unchanged from their 1960-1972 estimates, caseload over the period 1973-1978 would have been significantly higher than both the actual and the PSS estimate. The difference between simulation (1) and simulation (2), therefore, indicates the total impact of structural change and corrective action on the level of the caseload.

It should be noted that the Pre-QC/CA estimate of caseload need not be higher than the PSS estimate. The relative position of caseload estimates based on these two simulations is totally dependent on the direction of any changes in the caseload generating function in

Figure 3.1

AFDC Caseload Simulations versus Actual



each individual jurisdiction. In one jurisdiction, for example, the applications received component of the caseload identity may become less sensitive to the aggregate unemployment rate over time (as indicated by a smaller positive coefficient in the PSS equation relative to the Pre-QC/CA equation). In this case, a one point increase in the unemployment rate after 1972 would result in fewer applications than would have been the case in a Pre-QC/CA applications equation. Precisely the opposite may occur in another jurisdiction, however. Applications may become more sensitive to the unemployment rate, resulting in more applications, and, ceteris paribus, the caseload would be higher in the PSS simulation relative to the Pre-QC/CA simulation.

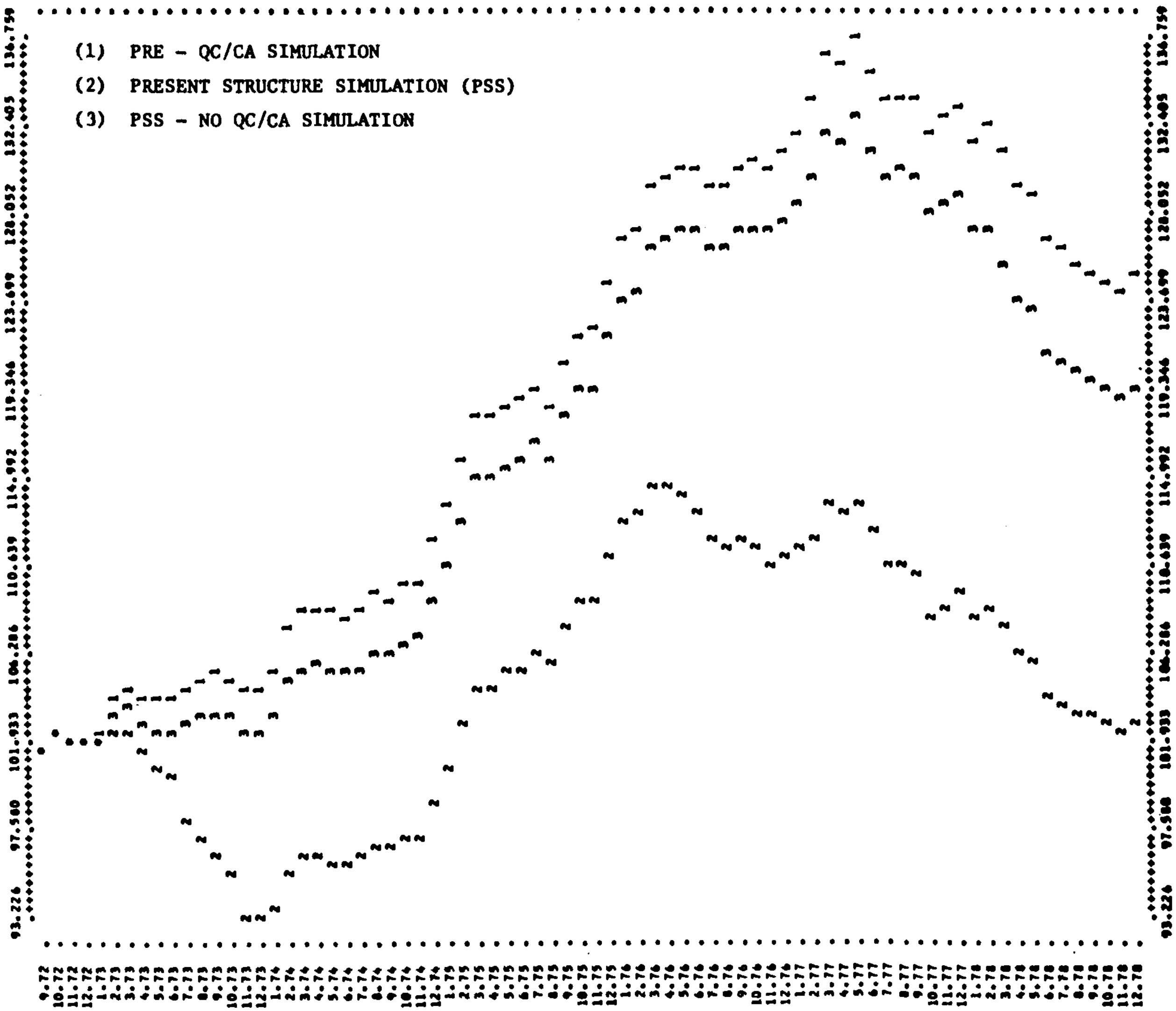
A third simulation based on the Present Structure Simulation with all corrective action related variables removed from the equation system (PSS-No QC/CA). It is based on full period PSS estimated regression coefficients, but all corrective action variables are "turned off" in the entire multi-equation system. That is, all corrective action (QC/CA) coefficients in the PSS-No QC/CA simulation are, in effect, set to zero, while all "structural" coefficients maintain their estimated values. Comparison of caseload and expenditure estimates resulting from the PSS and PSS-No QC/CA simulations, therefore, allows us to estimate the impact of corrective action alone, i.e., what caseload, expenditures and other model components would have been had corrective action not existed during an otherwise identical PSS regime.

There is one additional comparison which identifies the independent impact of "structural" change. It is the difference between the Pre-QC/CA and PSS-No QC/CA simulations, i.e., (2) and (3). This simulation produces estimates of the difference in cases receiving assistance (or openings, closings, and expenditures) due to these structural changes in the caseload generating function that are not related to corrective action. By construction, the Pre-QC/CA simulation stipulates no corrective action; the PSS-No QC/CA simulation turns off all corrective action. This comparison, therefore, isolates structural effects by controlling for corrective action variables over the simulation period.

In Figure 3.2 the three simulations are presented graphically. Simulation (1) represents monthly Pre-QC/CA estimates of what the caseload would have been had no structural change in the underlying parameters of the model taken place and no corrective actions been undertaken. Simulation (2) represents the PSS estimate of caseload -- based on the best model that could be constructed. Finally, simulation (3) represents the PSS-No QC/CA estimate. The difference between simulations (1) and (2), as shown in Figure 3.1, indicates the total impact of all structural changes and all corrective actions. The difference between simulations (1) and (3) represents the proportion of this total change that can be attributed to structural change alone. And finally, the differential between simulations (3) and (2) -- the PSS-No QC/CA and PSS simulations -- indicates the proportion of the total difference in caseload that is solely attributable to corrective action.

Figure 3.2

AFDC Caseload Simulations



Which Corrective Actions Did the Most?

The preceding discussion indicated that through various comparisons of the three basic simulations, we can estimate the combined impact of structural change and corrective actions, the impact of structural change alone, and the gross impact of corrective actions alone. For the purposes of this report, of course, the most important aspect of this analysis involves estimating the impact of corrective actions on caseload and expenditure levels. However, the methodology presented thus far only allows identification of the total impact of all corrective action variables on these levels.

In order to estimate the impact of individual corrective actions it is necessary to run several separate counterfactual simulations, one for each variable that is judged to be corrective action related. We begin with two of the three basic simulations previously discussed:

1) Present Structure Simulation (PSS)

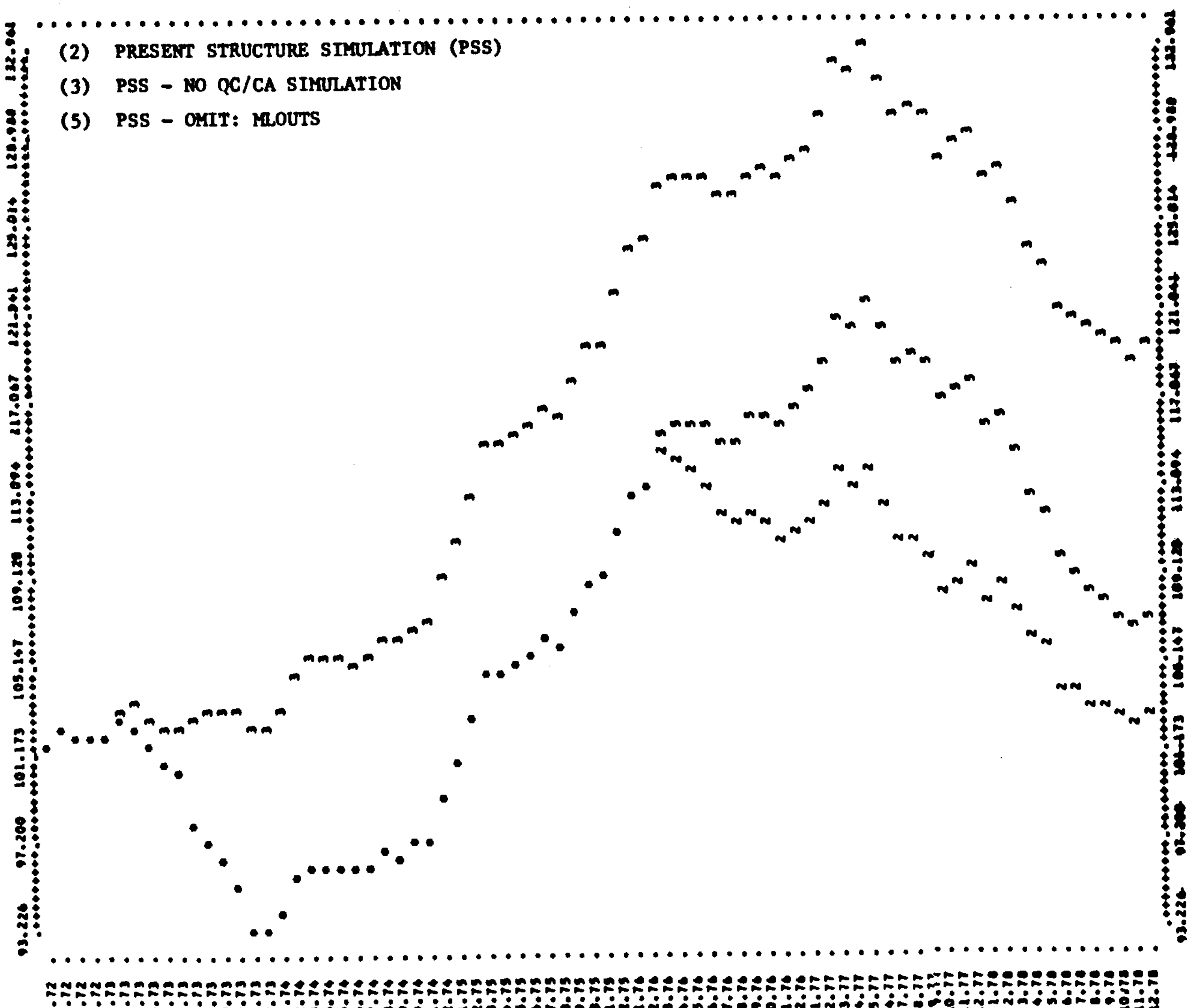
3) PSS-No QC/CA Simulation (PSS-No QC/CA)

A comparison of caseload and expenditure estimates resulting from these two simulations provides the total impact of corrective actions alone. The next objective involves dividing up this total impact and estimating each corrective action's contribution to the total. This is done by first running these two simulations — the PSS and the PSS-No QC/CA. Next, a simulation is run "turning off" only one corrective action variable in the multi-equation system; one corrective action coefficient is, in effect, set to zero, while all other coefficients including all other corrective action coefficients, maintain their estimated values. The caseload estimates resulting from this simulation indicate what the caseload would have been had all corrective actions except one been operative. A comparison of the full PSS caseload estimates and selective PSS-No QC/CA estimates therefore, indicates the impact of the one individual corrective action.

Let us once more illustrate this technique graphically. Figure 3.3 presents the three simulations just discussed. Simulation (2), which begins in 1.73, represents the PSS estimate of caseload, based on the best, most accurate model that could be constructed. Simulation (3) represents the PSS-No QC/CA estimate of caseload, i.e., what the caseload would have been in the absence of all corrective action activities. All corrective actions were therefore responsible for reducing the potential caseload from (3) to (2). Simulation (5) indicates what the caseload would have been had all corrective actions variables except a program called MLOUTS been operative. This variable was designed to capture the impact of a 1976-1978 policy which involved the mailing of questionaires to AFDC recipients in an effort to acquire information about changing circumstances. The effect of the MLOUTS variable was to reduce caseload from the level predicted in simulation (5) to the level in simulation (2). Or, in the absence of MLOUT, caseload would have been at a higher level (5) compared to our best estimate of the actual level (2) with the policy in place. The differential between simulations (5) and (3) represents the effect of the remaining corrective action variables on the number of cases receiving assistance. In subsequent simulations this differential is divided up and assigned to the remaining individual

Figure 3.3

AFDC Caseload Simulations



corrective action variables in the jurisdiction's equation system.

e) The Data

Most early studies of public assistance dynamics suffered from inadequate data. As a result, these models contained only a few variables, and often even these were crudely constructed. "Average cash payment per case," for example, was often used as an explanatory variable to proxy for the value of public assistance benefits. This is an inadequate measure for two reasons. First, the average benefit is determined by the level of the caseload. As an explanatory variable, the appropriate measure of potential benefits must be exogenous to caseload. Second, the average benefit cannot distinguish between the payment level for clients without other sources of income and that for clients receiving only supplementary support. It thus fails to account for benefit "stacking."

Most researchers were probably aware of such data problems but were constrained by the fact that data collection is a very costly endeavor. Moreover, if an AFDC model is devised solely for forecasting purposes, a small addition to accuracy may not justify the cost of collecting additional information. However, if an AFDC model is designed explicitly to evaluate the independent impact of various factors on caseload and expenditure levels, the limited set of variables that may perform adequately in a forecasting model will almost certainly not be sufficient. While a forcasting model requires a limited set of variables to proxy for many factors simultaneously, an evaluation model must specify variables carefully to proxy for each independent phenomenon. Only in this manner can a multitude of factors be accurately assessed.

Since the present research is primarily interested in the evaluation of various quality control induced corrective actions, the first step in the process was to develop the most extensive and accurate data files possible for the construction of SWRI component models for each jurisdiction being studied. These detailed data files took several months to compile and represent an enormous investment of time and effort.

Data Shortcomings and Data Collection Problems

A "best-possible" data set is never a perfect one. There are always problems in acquiring data, and some of the most desirable information is unavailable. For instance, no information exists on the size of the AFDC eligible pool over time. Therefore, it is impossible to directly model secular and cyclical changes in the size of the welfare eligible population as a function of demographic, economic and institutional variables. As a "best" alternative, rough estimates of the number of female headed households with children under 18 were used to proxy the number of AFDC Basic eligibles. These estimates were interpolated from Census data; we could not determine what proportion of female headed households were below a given income or asset level. Other segments of the potential pool of AFDC Basic eligibles, such as intact families with incapacitated parents, had no suitable estimator. Other important demographic data, such as a time series on gross migration by income level, were also non-existent or inestimable.

In general, the most difficult data to acquire are historical series, particularly complete <u>monthly</u> series. Welfare and labor department archives in individual states are potentially rich sources of such information, although data retrieval is often difficult and data quality is highly uneven. National sources also leave much to be desired, primarily due to differences in data reporting from individual states. All of these problems are compounded by the fact that the SWRI model requires monthly data going back to the early 1960s.

To acquire the "best possible" data set for each jurisdiction, it was necessary to work closely with various agencies in each jurisdiction: welfare, labor, finance, and agriculture. Caseload data and information of public assistance programs were gathered from state and county welfare offices; employment and unemployment data from labor departments at the federal, state, and local level. Careful review of historical records and in-depth interviews with welfare administrators in each jurisdiction allowed us to identify the existence and "timing" of specific corrective actions, allowing them to be incorporated into the models in the form of qualitative program variables. Many of the QC variables are the same; some are defined only in a given state model.

The final section of this chapter presents the basic variables used in the study. The caseload component variables are presented first, followed by the independent variables that were constructed to evaluate the three theories of caseload dynamics.

The Caseload Component Variables

Efforts to explain AFDC caseload dynamics generally use one of three methodological approaches. The simplest approach uses only a caseload equation; a more sophisticated approach uses separate equations for openings and closings; the most complex of the three approaches disaggregates caseload dynamics into smaller components for applications received, the processing rate, the rejection rate and the closing rate. The methodology of the components approach was used in most of the models reported in this study. Lack of full components data for San Diego and Alameda, however, precluded anything more elaborate than a monthly openings level/closing rate model. The major caseload component variables are defined as follows:

CA.REM	Caseload (Also CA.UCR = Cases Under Care at end of month - New York models) Cases Remaining at the end of the month.
CA.RA	Cases Receiving Assistance The number of cases receiving asssistance anytime during the month.
CA.ADD	Cases Added The number of cases added during a month.
CA.CLO	Closings (Cases closed) The number of cases closed during a month.
CLO.RT	Closing Rate CA.CLO (t) / [CA.REM(t-1) + CA.ADD(t)] where CA.CLO(t) = cases closed during the month and CA.REM(t-1) = total number of cases at the end of the preceding month.
AP.REC	Applications Received The number of applications received by the welfare agency in a month.

AP.DIS	Applications Disposed The number of applications processed in a month.
PROC.RT	Processing Rate AP.DIS / [AP.REC(t) + PEND(t-1)], where AP.DIS(t) = applications disposed in current month AP.REC(t) = applications received in current month PEND(t-1) = applications pending from all previous months.
REJ.RT	Rejection Rate [AP.REJ(t)] / [AP.DIS(t)] The ratio of applications rejected to applications disposed.
NET.EXP	Net Expenditures Net Expenditures for AFDC.
EXP/CA.RA	NET.EXP / CA.RA Net Expenditures per case receiving assistance.

The Independent Variables

The basic caseload dynamics model used in this study is decidedly "eclectic." It includes variables representing each of the three theories and can be used to show the relative importance of each theory in accounting for changes in AFDC caseloads. Variables used in one state are sometimes not precisely the same as those used in another. Data availability and data definitions vary from jurisdiction to jurisdiction, and thus, the functional forms of the component equations are in some instances unique to the specific area being evaluated. For ease in identification, we have listed all of the variables in this study in terms of the theory they are used to proxy. If variable construction is unique to a specific area, rather than consistent across jurisdictions, it will be noted as such.

Alternative Income Hypothesis Variables

The alternative income hypothesis is represented by variables that measure the relative level of public assistance benefits compared with potential expected wage income. In its generalized form, this is the "Benefit/Wage" (B/Z) ratio. A series of B/Z ratios were constructed. These varied from those using cash benefits alone as a measure of "B" to more complex forms which allow for the value of food stamps and medical assistance as well as for the "$30 and 1/3" income disregard provision.

The simplest measure of benefits (B) in the B/Z ratio is the maximum available AFDC cash benefit adjusted for family size. A more complex benefit level computation adds to this the bonus value of food stamps and the actuarial value of medical assistance. In this way we can account for the expected value of full "stacked" benefits.

The denominator of the B/Z ratio represents net benefits from paid work. The simplest denominator included only a measure of disposable income, while more complex denominators included a value of food stamps and an actuarial value of medical assistance if these programs were available to working poor families not on AFDC. Since the B/Z ratios were designed to test the "alternative income" hypothesis, disposable income reflects the level of earnings which the AFDC population could expect to achieve in the paid labor force. To measure this, data were gathered on wages and employment in "low-training" and "high-turnover" industries — the industries most likely to provide employment for AFDC clients. An average wage, weighted by employment in these industries, was calculated. Since the

AFDC caseload is largely comprised of female headed households, the calculated average wage was adjusted by a ratio of female/total average wages derived from specific industry wage surveys. To estimate disposable income, a "spendable earnings function" was devised that reduced the adjusted average wage to account for federal income and payroll taxes. The resulting measure of disposable income was called "female spendable monthly earnings" (FSME).

The components of the Benefit-Wage (B/Z) ratio and the variables using some form of this ratio used in the final regression equations for each model are listed below.

MAXGRANT R/C	Maximum Cash Grant - Maximum cash benefits for a family of four, adjusted for average case size. Calculated as maximum benefits for a 4-person family + (Recipients / Case - 4.0) * incremental benefit level.
BV.FS.R/C	Bonus Value of Food Stamps - Additional purchasing power resulting from the use of food stamps, adjusted for average case size and level of cash benefits, and controlling for "excess" rental payments (based on the rental component of the Bureau of Labor Statistics (BLS) low income budget).
MED	Actuarial Value of Medicaid - Represents the value of medical care available to public assistance recipients. Calculated as the premium rate for the most comprehensive Blue Cross coverage available for a female headed family in 1979, adjusted to 1964 by the medical component of the Consumer Price Index (CPI).
FSME	Female Spendable Monthly Earnings - A weighted average of wages in low-training, low wage industries (weighted by employment) adjusted for the ratio of female wages to total wages by industry, and reduced by the proportion of wages paid in average total federal income and payroll taxes.

30 + 1/3	"30 + 1/3" Dummy Variable - Has the value of 1.0 from July 1968 to the end of the regression period to account for existence of the income disregard program.
B/Z	Benefit/Wage Ratio - [MAXGRANT + BV.FS. + MED] / FSME Ratio of the value of all benefits available through public assistance to the value of potential labor market earnings.
B/Z*30 (or B/ZD)	Benefit/Wage Ratio after 30 + 1/3 - B/Z ratio times 30 + 1/3 dummy variable to account for impact of the income disregard program on the work/welfare choice.
B/ZM*30	Benefit/Wage Ratio with MED in Denominator - [MAXGRANT + BV.FS. + MED] / [FSME + MED]

"Economic Opportunity" Hypothesis Variables

The "economic opportunity" theory is represented by two sets of variables: those reflecting the general availability of jobs, and those reflecting conditions in specific industrial sectors most likely to provide employment for AFDC clients. The former type of variable includes general measures of unemployment, such as the seasonally unadjusted unemployment rate. The second set of variables includes measures of employment in the low-training and high-turnover sectors, including service and non-durable manufacturing industries.

The specific industries that comprise the low-training and high-turnover sectors are identical for the three California counties and Florida. Given that the New York models represent several years of ongoing research, the variables representing employment levels in key sectors have undergone a great deal of refinement. The New York employment terms will therefore be presented separately in the New York chapters.

The variables used to test the "economic opportunity" hypothesis in Florida and the three California counties are listed below. General measures of employment conditions are listed first, followed by measures of employment conditions in the industrial sectors in which AFDC clients are most likely to find jobs.

UNRTE	Unemployment Rate - The seasonally unadjusted unemployment rate within a jurisdiction.
D.UNRTE	Change in the Unemployment Rate - First difference of the seasonally unadjusted unemployment rate; i.e., UNRTE(t) - UNRTE(t-1).
DURT*30	Change in the Unemployment Rate * 30 + 1/3 Disregard - Has value of D.UNRTE after July 1968.
SIC20	Employment in SIC20 - The number of workers employed in Food and Kindred Products.
SIC23	Employment in SIC23 - The number of workers employed in Apparel and Other Textile Products.
SIC58	Employment in SIC58 - The number of workers employed in Eating and Drinking Establishments.
SIC70	Employment in SIC70 - The number of workers employed in Hotels and Motels.
SREMP	Employment in Service Sector - [SIC58 + SIC70]
MNEMP	Employment in Non-durable Manufacturing Sector - [SIC20 + SIC23]
D.SIC**	Change in Employment - First difference of employment levels in each ** industry above.

D.SREMP Change in Service Employment

D.MNEMP Change in Manufacturing Employment

"Institutional" Hypothesis Variables

The "institutional" theory is represented by variables that reflect legislative, administrative, and judicial alteration in AFDC regulation, including specific corrective action activities, as well as variables representing cultural, political, and demographic factors. The latter include such variables as female population, the number of female headed households, and the proportion of eligible families actually receiving assistance. On the administrative and legislative side are a host of variables that affect the ability or willingness of the social service agency to provide public assistance. These include changes mandated through legislative or judicial decisions on a national level, as well as individual state and county initiatives. Congressional changes cover such things as the advent of AFDC-UF, Medicaid, the Work Incentive Program, the Brooke Amendment, the Food Stamp Program, the Emergency Employment Act, and the development of the Supplementary Security Income Program. Another factor originating in the national arena was the decision to implement regulations threatening fiscal sanctions for states with error rates above specified tolerance levels.

On a state or county-wide level, each of the models includes variables reflecting the particular regulations and procedures that apply in each jurisdiction. Other factors apply to differences in the method of computing grants. One particularly interesting variable is the "ADA" voting record of each area's Congressional delegation which is used as a measure of political sentiment.

Some of the variables used to test the "institutional" theory are listed below. Because the "institutional" theory covers such a broad range of variables that are most often unique to individual jurisdictions, here we review only those variables that were constructed for the majority of jurisdictions involved in the study.

Variables relating to corrective action (and other unique area-specific institutional variables) are presented in the individual chapters for each jurisdiction.

Demographic and Cultural Variables

FEMPOP	Female Population Aged 18-54 - Monthly estimates of county female population aged 18-54. Provided by California Department of Finance.
DFEMPOP	Change in Female Population Aged 18-54 - First difference of FEMPOP.
FHF	Female Headed Families - Monthly estimates of an area's female headed families constructed from U.S. census data, including 1960 and 1970 Census, Current Population Surveys, and Survey of Income and Education.
DFHF	Change in Female Headed Families - First difference of FHF.
FHF-1	Lagged Female Headed Families - Female headed families with one period lag.
C/F (or PRT)	AFDC Participation Rate - Ratio of AFDC caseload in period t-1 to estimate of female headed families in

t-1.

2C/F (or SQPRT) — Squared Participation Rate - Squared value of C/F or PRT.

Now that the methodology and the data underlying this research have been presented, we turn to the actual empirical results. Section II begins with an introduction to the New York models, and continues with the regression and simulation results for both jurisdictions. Section III deals with the results for each of the counties studied in California. Finally, our work in the state of Florida is reviewed in Section IV.

Section II

The New York Models

Chapter 4

An Introduction to the New York Models

The New York AFDC Dynamics models represent several years of ongoing work and modification. When analysis of the New York AFDC program was originally undertaken in 1976 under HEW contract support, SWRI chose to analyze the state as two separate entities -- New York City and the Upstate region.[*] The basis for the distinction was that these two regions significantly differ in terms of many demographic, economic, and social characteristics. Although the formal legal and administrative framework in which the AFDC program operates is basically the same throughout the state, other factors including corrective action policies suggested that the two jurisdictions should be treated differently.

The type of "systems modeling" undertaken in our earlier efforts required detailed knowledge of the demographic, political, social, and economic environment within which an AFDC program operates. The same holds true for this evaluation. Understanding these factors is crucial for determining which variables should be included in the

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[*] The title "Upstate New York" denotes the whole state minus New York City proper.

regression models, and for ascertaining the proper structure of the equation system itself. For this reason, prior to the evaluation of each area's regression and simulation results, we present brief reviews of recent history, paying particular attention to trends in population characteristics, economic conditions, changes in administrative regulations, and especially corrective action activities.

Here we present brief historical descriptions of the AFDC programs, economic structures, and demographic characteristics of both the Upstate and City areas. Because it was necessary to focus additional attention on the impact of corrective actions, those which prompted this research from the very beginning, we have chosen to present the corrective action efforts of the New York welfare administration in an individual section following these historical reviews. A subsequent section presents data used in each of the New York models.

Upstate New York

Caseload and Expenditure Trends

The AFDC program in Upstate New York, as in the City, contains two segments: (1) the AFDC-R (Basic) program primarily designed to assist female headed families with dependent children; and (2) the AFDC-UF program which was established in 1961 to aid children deprived of parental support by reason of the father's unemployment. The UF program now serves families due to the unemployment of either parent.

The Basic program is by far the larger of the two; the following analysis is dedicated to this segment. The Upstate Basic program had an average monthly caseload of approximately 20,000 in 1960. Throughout the balance of the decade the caseload increased considerably, peaking at just over 100,000 cases for a brief period in late 1972 and early 1973. Caseload then receded to an average monthly level of about 94,000 in 1974, before spurting again to 111,000 cases in 1976. Throughout 1978 the caseload again fell sharply. It stood at about 101,000 in December of that year.

While the AFDC-Basic caseload increased about 500 percent between 1961 and 1974, total expenditures on the program rose at twice that rate. From a level slightly under $3 million in 1961, AFDC-Basic monthly expenditures in Upstate New York grew steadily to a level just below the $30 million mark by the end of 1974. Monthly expenditures reached a peak of about $40 million in November and December of 1977, before falling back to about $34 million per month during the latter half of 1978.

Demographic Characteristics

The population in Upstate New York has been characterized by steady growth in the recent past at a rate nearly identical to the national average. Between 1960 and 1975 the Upstate population grew from approximately 9 million to over 10.5 million for an average rate of greater than one percent per year.

The number of female headed families, the subgroup of the population most important to an analysis of the AFDC-Basic program, also grew substantially between 1960 and 1978. Over the period 1960 to 1970 this sugroup expanded by nearly 65 percent. From 1970 to 1978 the female headed family population grew by another 47 percent to 178,000.

Economic Characteristics

The structure of employment in Upstate New York underwent significant changes in size and composition during the 1960s. Growth in the labor force and total employment has not been uniform across all industrial sectors. In both relative and absolute terms the agricultural sector lost ground to the nonagricultural sector. Actual agricultural employment declined about 14 percent and nonagricultural employment grew about 29 percent during the period.

In the early part of the full period under study (1960-1964) the average annual unemployment rate ranged between 5 and 6 percent. Beginning in late 1965, the rate began to decline to levels of 3 to 4 percent, and remained in that area during most of the Vietnam War (1967-1970) before rising again. In late 1974, before the worst part of the national recession, Upstate unemployment swelled again. By February 1976 it had reached 10.5 percent. During the following three years the rate declined fairly consistently, reaching 5.8 percent by the end of 1978. Unfortunately, there is little information on how these aggregate levels reflect the employment experience of specific population groups in the Upstate New York population.

Legal and Administrative Characteristics of AFDC

The legal and administrative environment in which the AFDC program operates is potentially one of the most important determinants of caseload behavior. Historically, changes in the legal and administrative characteristics of the program have affected the size of the categorically eligible population, the level of benefits, and the ease with which one may gain entry to the program. Thus, changes in program operation can have a major impact on caseload and expenditure behavior. This was particularly true during the period between 1973 and 1978, when error rates and corrective actions were at the forefront of much of the discussion over welfare reform.

The manner in which the AFDC program is administered and financed in New York State differs from that of many other states. In New York the program is state supervised rather than state administered. The primary distinction here is that in New York the program is financed by federal, state, and local funds. In other states the local governments are often not involved in funding the program. The chief implication of this type of funding arrangement is that local welfare offices may likely exert tighter controls on caseload and expenditure growth.

For our purposes the first significant program change in AFDC was the introduction of the unemployed father segment (AFDC-UF) in May 1961. This program increased the eligible population by extending aid to intact families with an unemployed father.

The next major change in the program occurred in 1968 with the passage of federal legislation creating the "30 + 1/3" and Work

Incentive (WIN) programs. The former program was designed to provide financial incentives to induce AFDC parents to obtain employment through a lowering of the benefit reduction rate and the disregard of the first $30 and 1/3 of earned income in the benefit calculation. WIN was designed to encourage the employment of AFDC clients by providing training and employment referrals.

There were also two major program changes in 1969 that may have affected AFDC caseload and expenditure levels. The first was the creation of the Flat Grant payment system which consolidated "unscheduled" payments for exceptional needs into a single grant. In addition, in July of the same year the Omnibus Welfare Act was passed by the state legislature. The most notable aspect of this law was a prohibition of assistance to any applicant who refused employment in a job for which he or she was qualified. In mid 1970 the Department of Social Services began a food stamp outreach program which indirectly may have acted to increase the participation rate of families categorically eligible for AFDC. Although the state and local counties had been authorized to participate in the food stamp program since 1965, it was not until 1970 that actual statewide expansion of the program occurred. It appears that as families applied for this program at welfare offices, many discovered that they were also eligible for AFDC benefits.

June and July of 1971 marked a period of extensive change in program administration in Upstate New York. In June the state adopted "simplified eligibility" which, in most instances, required caseworkers to accept the claims of potential recipients at "face value." This procedural change removed much of the red tape involved in the application process and increased accessibility to AFDC. This liberalization of the eligibility determination process was followed only a month later by a host of restrictive measures designed to stem a swelling caseload. These measures included the creation of public works projects for "employable" welfare recipients, denial of payment to anyone who quit a job voluntarily, creation of the Welfare Inspector General's Office to investigate fraud, and the implementation of a photo I.D. program for welfare recipients.

Before turning to a review of the corrective actions that predominated during the period 1973 to 1978, a brief historical review of the AFDC program in New York City is presented. Because the corrective action activities undertaken in both jurisdictions are for the most part developed within the State Department of Social Services, they are reviewed together following this historical review of the City.

New York City

Caseload and Expenditure Trends

While the total AFDC caseload contains both regular and unemployed father segments, we have isolated the AFDC-Basic program, as we did in Upstate New York, for the purpose of this report. The overwhelming majority of AFDC families are participating in the Basic segment. The growth trend in this public assistance category can be divided into several periods. In the early years analyzed in this study (1960-1963), New York City's caseload growth was extremely slow. Only 6,000 net additional cases were reported during the 36 month period ending in December 1962. There followed a four year period of moderate growth so that by the end of 1966, the City's caseload reached over 100,000 for the first time in history. This was then followed by the well documented welfare "explosion" of the late 1960s and early 1970s. Beginning in 1967, the caseload rose almost steadily until the end of 1971. In that five year period, the number of AFDC families in New York City grew by more than 140,000, the total approaching the one-quarter million mark. This represented a quintupling of the caseload since 1959. The next two years, however, brought an abrupt halt to this trend. In fact the caseload actually fell by 2,000 cases between January 1973 and December 1974. There followed another short period of growth between December 1974 and December 1975, at which time the caseload actually reached 250,000. The next year witnessed a period of almost complete caseload stability, and then over the following two years about 20,000 cases were removed (net) from the rolls. The caseload stood at 230,000 cases in December 1978.

The caseload figures are naturally only part of the story. Those whose responsibility includes financing the program are obviously concerned with the fact that monthly AFDC-Basic expenditures increased nearly eleven-fold between 1959 and 1974. In the earlier period total monthly expenditures averaged $8 million. By December 1974 the monthly outlay approached $90 million, and remained within five or six million dollars of that amount through 1978. New York City itself is responsible for providing the revenue for about one-quarter of these benefits, a fact that inevitably affected the city's fiscal crisis in 1975-1976.

Demographic Characteristics

Demographic changes in the City played a role in creating the conditions for the welfare "explosion." While the total population in the five burroughs actually declined over the period (from 7.8 million to 7.5 million), the estimated number of female headed families grew rapidly. In 1959 there were approximately 140,000 such families living in the city; by the end of 1974, the number stood at over 240,000; and by the end of 1978, nearly 290,000.

The significance of the post World War II in-migration is pointed to by the fact that only 26 percent of the city's AFDC mothers in 1973 were born in New York State. Of the black AFDC mothers, more than three out of five (61.3 percent) were born in Southern states with South Carolina and North Carolina contributing the largest number. Almost 81 percent of the Puerto Rican mothers were born in Puerto Rico.[*] It is clear from these statistics that New York City inherited a large part of the "explosion" from less wealthy areas of the United States. The question of whether families migrated to the City to take advantage of welfare benefits cannot be definitively

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[*] "Characteristics of AFDC Families in New York State, Program Analysis Report," No. 55, New York Department of Social Services, August 1974, p. 55.

answered by existing data or this report, but there is evidence elsewhere suggesting that families moved to the City to take advantage of jobs. Only after a number of years in the City did families turn to AFDC, after jobs were lost or families broke apart.[*]

Economic Characteristics

Employment in New York City's private sector is distributed over many industries. Compared to many cities, New York has a very high percentage of its work force in service and FIRE (Finance, Insurance, and Real Estate) industries. Both the FIRE and service industries grew rapidly over the 18 year period ending in 1978. However, New York lost 266,000 manufacturing jobs between 1960 and 1970 alone. These jobs were primarily lower-skilled blue collar jobs in industries where women are prevalent.

The decline in these industries was generally not offset by increases in retail trade, a sector where women have traditionally found jobs. Because of the decline in the city's population, the number of retail jobs hardly expanded at all during the 1960-1974 period. Employment in eating and drinking establishments declined by almost 17,000 jobs or 13.7 percent between January 1960 and December 1974; employment in apparel and accessory stores fell by 12,700, or 19.5 percent over the same period, while employment in food stores remained relatively stable. On balance, then, the industries that

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[*] See Bluestone and Sumrall, "AFDC Caseload and Benefit Dynamics: New York City," Social Welfare Research Institute, July 1977, p. 42.

employ a large number of less skilled and lower-paid workers did not grow during the period under investigation. Indeed, many collapsed, presumably reducing employment opportunity for many workers.

Legal and Administrative Characteristics of AFDC

During the period under study, there have been a number of important events and new regulations which have probably affected the size and cost of the AFDC program. The fact that the percentage of applications actually accepted as cases rose from approximately 50 percent in the period 1960-1962, with about 5,000 applications per month, to a peak of 82 percent of the 10,000 applications received in October 1968, was no doubt responsible for a large part of the caseload growth. The dip in the rate to between 60 and 75 percent of the approximately 8,000 to 10,000 applications received per month in the 1970s is partly responsible for the caseload stability and subsequent decline during the decade.

The period 1968-1973 saw many new programs and regulations added to the AFDC program. The "30 + 1/3" provisions became effective in April 1968. The first WIN referrals were made in July of that year. In the same month Chapter 992 became law. It provided for emergency assistance to needy families with children. This covered migrant children and led to a greater number of AFDC applications.

In 1969 there was a turn toward more conservative welfare policy. Chapter 187 and Chapter 184 (the "Omnibus Welfare Act") were put into effect. Chapter 187 required social service officials to take steps to establish the paternity of out-of-wedlock children. Among other things, the "Omnibus Act" prohibited assistance to applicants who refused employment and reasserted the requirement of social service officials to search for parental support. Also, the flat grant replaced most of the "special needs" allotments that year. The impact of each of these changes on caseload dynamics was estimated in the course of our research.

Other new regulations came in the following years. In August 1971 a photo identification program went into effect. Several months later, in October 1971, simplified eligibility was instituted. As already noted, this regulation required the social worker to accept the information provided by the applicant and greatly accelerated the the processing procedure.

Over the years 1973 to 1978 the New York State Department of Social Services (DSS) placed great emphasis on corrective actions. Because approximately two-thirds of the AFDC-Basic caseload is centered in New York City, and therefore the City itself can dramatically affect the statewide error rate (the rate to be used by HHS in assessing fiscal penalties), it was the City that received the greatest attention with respect to corrective action and error reduction. DSS maintains, and justifiably so, that urban centers with large caseloads such as New York City, are by their very nature more error prone than their rural counterparts. This fact, it is argued, necessarily implies the need for a more comprehensive quality control process, including error identification, deliberate implementation of corrective actions to deal with problem areas, and ongoing evaluation of all corrective action activity. The major components of this process in New York State, with primary attention devoted to the City, are analyzed in the next section of this chapter. Following that, we present the economic opportunity and institutional variables, including corrective actions, that were constructed for the Upstate and City models. Finally, the regression equations and simulation results are presented for the two jurisdictions in Chapters 5 and 6.

New York State
Corrective Action Efforts

Corrective Action Panel

As with most of the jurisdictions studied, the New York State Department of Social Services established a Corrective Action Panel during the initial period of the HEW sanctions policy regarding excessive case and payment errors. The panel, which is still maintained today, included management personnel from various divisions within the Department. The purpose of this panel is to meet on a regular basis to discuss quality control findings and to formulate appropriate policies (corrective actions) to ensure necessary improvement in the administration of public assistance. By providing visibility to this committee in its initial stages it was hoped that the priority given to quality control activities by management would be conveyed to staff throughout the Department. The panel was instrumental in establishing new procedures and corrective actions to affect error reduction. These included expanded application / verification measures, face-to-face recertifications, absent parent investigations, mailed questionnaires, computer match programs, simplified budget preparation, and augmented staff training.

Expanded Application/Verification Procedure

In early 1973, prior to the release of federal guidelines regarding federal sanctions, the Income Maintenance Division of DSS implemented a new statewide application procedure which significantly increased the base of information utilized by local agencies in making eligibility determination. This process required that each applicant provide documentary evidence with respect to several factors, including identification, place of residence and shelter cost, family compositon, the amount and source of all income, and all resources available to the family. Under the new verification requirements eligibility workers were required to adequately identify the sources used in verifying eligibility, and to specifically cite those sources on the application form.

Face-to-Face Recertification

Effective July 1973, a new process for recertification of AFDC recipients was mandated statewide. This policy required that each case be recertified on a "face-to-face" basis three months after the initial eligibility determination had been made, and then every six months thereafter. In addition to requiring personal contact with the recipient, this policy required the documentation of all variable factors affecting eligibility. The form used was similar to that utilized in the application process. The motivation for the new policy was that most errors of ineligibility were being discovered within the first few months of aid. Therefore this process evolved to allow for a clarification and comparison of the information supplied by the recipient at the time of application and of recertification.

The DSS maintains that face-to-face recertifications have been the cornerstone of its corrective action effort. Department personnel believe that the requirement for a personal interview has proven to be an effective method in keeping ineligibles off the public assistance rolls and ensuring that recipients are receiving the correct amount of aid. Through case closing actions resulting from the interview itself, in addition to situations in which clients fail to report at all, it is said that ineligible recipients are detected much earlier than would otherwise be the case.

Systems for the Investigation of Absent Parents

Quality control audits in New York revealed that one of the primary causes of ineligibility in AFDC was the presence in the home of an allegedly absent parent. In order to address this problem, a policy directive was issued in October 1973 establishing a new procedure requiring local agencies to verify and document the absence of the parent in all cases in which the client contends that the whereabouts of the parent are unknown. Under this procedure, the inital period of assistance was limited to thirty days, during which time the local district was to verify the absence of the parent and immediately discontinue aid if the investigation indicated the parent was actually in the home.

In mid-1974 this policy was further expanded, putting strict emphasis on collateral documentation in the investigative process. Moreover, until confirmation of the absence was completed, such cases were placed in the cases pending category, and therefore were precluded from receiving aid. Phone calls and/or field investigations involving collateral sources (e.g., landlords, past or present employers, Post Office, neighbors) were made to verify that the parent was indeed absent. Additionally, if the investigation indicated that the parent was in the home, two further steps were suggested:

1) sending a registered letter to the home of the recipient addressed to the absent parent.
2) placing a phone call to the absent parent at the client's home.

If any two of the preceding components of the investigation confirmed the parent's absence, then the case application could be removed from the pending category and the family could be processed onto the regular caseload.

In dealing further with the absent parent problem and its corresponding implications for ineligibility rates, the Department of Social Services implemented various provisions of Title IV-D of the Social Security Act and required each social service district in the state to establish a Child Support Unit. This occurred in August 1975. These units are responsible for activities relating to the location of absent parents, establishing paternity, and collecting support payments. When the local Child Support Unit is unable to locate the absent parent, it is required to register the parent with the Department's Parent Locator Service. This agency conducts computer matches with files of other agencies (e.g., the State Department of Labor) in order to obtain potential addresses of the absent parent.

Since child support enforcement has been made a priority issue, the Department maintains that it has been able to continually upgrade its child support activities. This is measured in terms of the number of absent parents located, support orders established, and amount of child support collected. During the six month period ending in December 1977 local units had located over 34,000 absent parents and had collected $23 million of child support. By comparison, during the period January through June 1975, 23,000 absent parents were located with $13 million in support payments collected.

<u>Mail Questionnaires to AFDC Recipients</u>

In an attempt to acquire information relating to the changing circumstances of recipients, (e.g., changes in income, family composition, etc.) the DSS periodically conducted massive mailouts, with emphasis on the New York City caseload. The packets mailed to recipients contain questionnaires that focus on several primary factors affecting eligibility and the size of the grant. The motivation for the initial mailout emanated from a desire on the part of DSS to uncover those cases in which an allegedly absent parent was actually in the home. The first mailout conducted in March 1974 involved 230,000 questionaires to city AFDC recipients, and resulted in the initiation of 16,000 case closing actions.

Since the initial mailout there have been several projects similar in scope and magnitude which have utilized this mail canvas technique. In November 1975, and again in September 1976, approximately 300,000 questionaires were mailed to City recipients, and in both instances about 10,000 cases were terminated. In the Department's judgement this is a most effective type of corrective action, because it "cleanses the caseload on an interim basis while long-range solutions are developed."[*] It was judged so effective in New York City that in 1977 the Department implemented the policy on a semiannual basis, and in 1978 went to a triannual basis.

The mailout program is not without its problems, however. DSS' experience with these mailed questionnaires indicates that a high proportion of cases closed as a result of mailouts return to the welfare rolls soon after they are terminated. In fact, the Department's Eligibility Audit Report recognizes, "that the mailout has an unavoidable churning effect which results in many cases having to be reconsidered and reopened in a short period of time."[**] The impact of an individual mailout, therefore, is necessarily overstated in terms of the absolute number of cases closed. A significant number return to the rolls within one or two months following the termination. The amount of caseload recidivism due to mailout programs is investigated empirically in a following section.

Computer Match Programs

For the last several years New York's DSS has maintained an ongoing effort to detect unreported and under-reported income of

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[*] Eligibility Audit Report, July 1 - December 31, 1975, New York State Department of Social Services, Albany, New York, Office of Audit and Quality Control, p. 80.

[**] Ibid. p. 81.

recipients, through various computer matches. Recipient payment files are cross checked with benefit files of various government programs such as Supplemental Security Income (SSI) and Unemployment Insurance Benefits (UIB). Recipient file matches have also been made with county, city and state payrolls. In addition, in 1977 after extended negotiations with the Social Security Administration (SSA), an agreement was reached which allowed the DSS to match statewide AFDC files against SSA earnings data.

The most recent development in the recipient file match program culminated in an agreement between the Department of Social Services and the New York State Department of Taxation and Finance whereupon a Statewide Wage Reporting System was implemented. The new legislation mandating this system authorizes the Tax and Finance Department to collect (quarterly) the name, social security number, and gross wages of each employee who is employed or resides in New York State. The DSS is also authorized to use this information to verify eligibility and entitlement to public assistance, locate absent parents, and establish support collections.

The Department maintains that its ongoing matching programs are a very effective mechanism for detecting misreported income of recipients. Its continuing commitment to expanding the data bases used in recipient file matching provides clear evidence of its "belief" in the effectiveness of this type of program.

Budgeting Simplification

Recognizing that one method of reducing the probability of error in grant calculations is to implement policies of simplified budgeting, the DSS decided to change its policy regarding shelter costs. In late 1975 the Department simplified its shelter policy by establishing a shelter allowance schedule for each social service district. This schedule was based on the number of persons in the budget unit rather than the previously used criterion of number of rooms in the dwelling. Prior schedules had been locally established and reflected wide variation across the counties in the state. The new schedules provided an absolute administrative ceiling on shelter costs as well as a consistency in the use of the schedules throughout the state.

Staff Development and Training

The rules, regulations, and complex administrative policies that govern the application, income maintenance, and recertification processes are often found to be the source of errors in public assistance. In order to address this problem, increased emphasis has been placed on the development of worker skills and capabilities. This emphasis has taken many different forms including increased formal training activities as well as development of self-instruction materials to aid eligibility workers and supervisors alike in interpreting and applying the myriad of policies and procedures that originate in top management of the Department.

The list of specific training activities is far too extensive to review here. But the fact that new training programs are developed and fully implemented on a continuous basis indicates that the Department is thoroughly committed to enhancing the skills and effectiveness of agency staff across the state.

New York State

Model Variables

In order to estimate the regression equations comprising the caseload identities in Upstate New York and New York City it was necessary to construct statistical variables to proxy for each of these corrective action activities, as well as the basic employment and alternative income variables. The following section presents the expanded list of economic opportunity variables for New York and all the corrective action variables that appear in the final regressions.

At this point it should be noted that both New York models rely on a "full" components methodology to evaluate the impact of corrective actions on the caseload. The essence of this methodology involves taking the basic caseload identity:

$$CA.REM(t) = CA.REM(t-1) + CA.ADD(t) - CA.SUB(t)$$

and disaggregating it into its component parts, as shown in Chapter 3. The individual components resulting from this disaggregation are:

1) Applications Received (AP.REC)
2) Processing Rate (PROC.RT)
3) Rejection Rate (REJ.RT)
4) Closing Rate (CLO.RT)

Because AFDC-Basic and AFDC-UF applications are not separately identified in New York DSS statistics, it was not possible to generate an separate applications equation for the Basic program. This is of little significance due to the small size of the UF program. However, it does make it necessary to generate two processing rates, one for the Basic program (PRORR) and one for the UF program (PRORU), in order to simulate the Basic caseload. Both processing rate equations are presented in the regression results for each jurisdiction, with comments directed primarily at the Basic component.

The New York Models

Economic Opportunity Variables

SIC 200	Employment in Food and Kindred Products
SIC 210	Employment in Tobacco Manufacture
SIC 220	Employment in Textiles Mill Products
SIC 230	Employment in Apparel and Other Finished Products
SIC 310	Employment in Leather Products
SIC 320	Employment in Stone, Clay, and Glass Products
SIC 367	Employment in Electronic Components
SIC 530	Employment in General Merchandise Stores
SIC 540	Employment in Food Stores
SIC 560	Employment in Apparel and Other Accessory Stores
SIC 580	Employment in Eating and Drinking Establishments
LT	Total Low Training Employment - Sum of employment in SICs 200, 220, 230, 310, 320, and 367.
HT	Total High Turnover Employment - Sum of employment in SICs 530, 540, 560, and 580.

DLT*RT — Change in LT Employment * Reverse Time Trend - Change in LT * Reverse Time Trend to represent decline in impact of DLT over time.

XLT — Indexed Low Training Employment - LT indexed to value of LT in observation 1.

XHT — Indexed High Turnover Employment - HT indexed to value of HT in observation 1.

D.XLT — Change in Indexed Low Training Employment

D.XHT — Change in Indexed High Turnover Employment

AG — Total Agricultural Employment

XAG — Indexed Agricultural Employment

DXAG — Change in Agricultural· Employment

UNRTE — Unemployment Rate - Seasonally unadjusted unemployment rate

D.UNRTE — Change in the Unemployment Rate

LNURT — Natural Log of the Unemployment Rate

Upstate New York

Area-Specific Administrative and Institutional Variables

FSDMY	Food Stamp Announcement Dummy - Has value of 1.0 from 8/70 to 4/71 to account for impact of food stamp outreach program.
SPSER2	Separation of Services Dummy - Has value of 1.0 from 6/72 to 11/72 to account for impact of separation.
ADC.DY	Pre-AFDC-UF Dummy - Has value of 1.0 from 1/60 to 4/61 to proxy for period prior to implementation of AFDC-Unemployed Father program.
UR*ADC	Pre-AFDC-UF Interaction Term - Has value of UNRTE from 1/60 to 4/61 to account for differential impact of unemployment rate on applications before the UF program.
WNT*RT	Winter * Reverse Time Trend - Has non-zero values every December and January, beginning in 1960 and ending in 1974. Initial value equals 180 in 1/60 and declines linearly to 1.0 in 12/74.
WINTER	Winter Dummy - Has value of 1.0 in December, January, and February to account for lower rejection rate during winter months.
DECDUM	December Dummy - Has value of 1.0 in December of each year to account for increased applications.
REJHCL	Rejection Rate Housecleaning - Has value of 1.0 in April, May, June to account for increased rejections during spring season.

CLSHCL — Closing Rate Housecleaning - Has value of 1.0 in May and June from 1/60 to 6/65 to account for increased closings during the period.

USTRT1 — AFDC-UF Startup Dummy - Has value of 1.0 in 5/61 to account for impact of UF startup on rejection rate.

USTRT2 — AFDC-UF Startup Dummy - Has value of 1.0 from 5/61 to 7/61 to account for impact of UF startup on applications.

APREC1 — Applications Received Dummy (1) - Has value of 1.0 in 2/78 to account for extreme value in AP.REC time series.

APREC2 — Applications Received Dummy (2) - Has value of 1.0 in 4/78 to account for extreme value in AP.REC time series.

WRKLOD — Upstate Workload

exp. [(ΔAP.REC(t) + ΔAP.REC(t-1) + ΔAP.REC(t-2))] /
[(CA.UCR(t)/CA.UCR(1/60)]

Proxies for periods of unusually high workloadxs.

ADAIX — Americans for Democratic Action Index - Specially constructed annually interpolated ADA congressional voting index, based on the voting record of Upstate's congressional delegation on key economic and welfare-related issues.

SIMPL4 — Simplified Eligibility Dummy - Has value of 1.0 from 6/71 to 9/71 to account for initial impact of this less restrictive verification policy on the number of applications received.

SIMPL7 — Simplified Eligibility Dummy - Has value of 1.0 from 10/71 to end of regression period to account for impact of "simplified eligibility" on processing rate.

7/71D — July 1971 Fitted Dummy - Has value of 1.0 in July 1971.

10/71D — October 1971 Fitted Dummy - Has value of 1.0 in October 1971.

1/78D — January 1978 Fitted Dummy - Has value of 1.0 in January 1978.

Corrective Action Variables

APTIT1 — Tightened Applications Policy (1) - Has value of 1.0 from 2/73 to 7/73 to account for initial period of tightened applications policy.

7/73D — July 1973 Fitted Dummy - Has value of 1.0 in July 1973 to account for extreme value of rejection rate during period of tightened applications policy.

APTIT3 — Tightened Applications Policy (3) - Has value of 1.0 from 11/73 to end of regression period to account for tightened application and verification policies.

REJTIT — Tightened Rejection Policy - Has value of .50 from 1/78 to 5/78 and 1.0 from 6/78 to 12/78 to account for increased rejection rate resulting from increased verification policies.

RECRT2 — Recertification Activity Dummy - Has value of 1.0 from 7/73 to 11/73 to account for period of intensified recertification activity.

MLOUTS — Mailout and Recertification Dummy - Has value of 1.0 from 3/76 to 11/76 to capture impact of intensified mailout and recertification activity.

New York City

Area-Specific Administrative and Institutional Variables

ADAIX — Americans for Democratic Action Index - Specially constructed annually interpolated ADA congressional voting index, based on the voting record of New York City's congressional delegation on key economic and welfare-related issues.

WDAYS — Workdays - Number of working days per month

WRKLOD — New York City Workload
exp. $[(\Delta AP.REC(t) + \Delta AP.REC(t-1) + \Delta AP.REC(t-2))] / [(CA.UCR(t)/CA.UCR(1/60)]$
Proxies for periods of unusually high workloads.

WNT*RT — Winter Dummy with Reverse Time Trend - WINTER*RT where RT = Reverse Time Trend. To proxy for lower rate of rejections and closings during winter months, but with diminishing effect over time.

SEPSER1 — New York City Separation of Services Dummy - Value of zero until April 1971 when separation of services was mandated to occur. From April 1971 on, this variable takes on the value of WRKLOD.

SWANTS — Anticipation of Strike Dummy - Has value of 1.0 in January of 1965, to account for decrease in applications received and decreased closings in anticipation of social worker strike to occur in following month.

SWSTRK — Social Workers Strike - Has value of 1.0 in February, March, and April 1965, when social workers went on strike.

CHP992 — Chapter 992 Liberalization Dummy - Has value of 1.0 in July 1968, .75 in August 1968, .50 in September

1968, .25 in October 1968, to account for changes in Chapter 922 of the state laws, liberalizing standards.

CH8784 — Restricted Eligibility Dummy - Dummy from April 1969 - March 1970 (with monthly values respectively 1.0, 1.0, 1.0, 1.25, 1.50, 1.75, 2.0, 1.65, 1.30, .95, .60, .125), to account for changes in Chapter 187 (effective date April 1969) and Chapter 184 (effective date July 1969) of state law, restricting eligibility.

CH811 — Chapter 811 Illegal Aliens Rule - Has value of 1.0 from 9/74 to 12/74 to account for ruling liberalizing the receipt of benefits by illegal aliens.

WINREF — WIN Referrals - Monthly number of WIN Referrals (Statewide)

DWNRF — Change in the Number of WIN Referrals - Monthly change in number of WIN referrals.

PHOTO — Photo Identification Dummy - Has value of 1.0 from July 1971 - January 1972, .75 in February 1972, .50 in March 1972, .25 in April 1972, to account for effect of legislation requiring recipients to have photo identification cards.

WRKFR1 — "Workfare" Job Registration Dummy - Has value of 1.0 from July 1971 to end of regression period, to account for requirement that AFDC-UF recipients register for job placement.

ACRAT-3 — Applications Acceptance Rate - Has value of (1-REJ.RT) lagged three months to account for information diffusion process among recipients.

CU/CR — AFDC-UF/AFDC-R ratio - The ratio of UF cases to regular cases to account for secular decline of UF program.

12/72D — December 1972 Dummy - Has value of 1.0 for December 1972 to account for extreme values in applications received and rejection rate components.

1/73D — January 1973 Dummy - Has value of 1.0 for January 1973 to account for extreme value in closing rate.

PRODMY — Processing Rate (Fitted) Dummy - Has value of 1.0 from 11/74 to 4/76 to account for elevated processing rate during the period.

Corrective Action Variables

PROOF — Proof of Identification Dummy - Has value of 1.0 in 7/73 and declines monthly by .083 until it reaches zero in 7/74. Accounts for initial impact of tightened application procedures and requirement that applicants have documentation of all factors affecting eligibility.

POL77 — 1977 Rejection Rate Policy - Has value of 1.0 from 7/77 to 4/78 to account for a new and explicit administrative directive which required automatic rejection of cases with insufficient documentation of eligibility, rather than their placement into the pending category.

RJ*P77 — Applications Rejected (t-1) * POL77 Interaction - Has the value of applications rejected from 7/77 to 4/78 to capture the impact of 1977 rejection rate policy on reapplication dynamics.

RCM — Recertifications and Mailouts - Has value of 1.0 in 1/73, 3/73, 4/74, 5/74, 2/75, 12/75, 3/76, 11/76, 3/77, 3/78, and 8/78 to account for specific recertifications and mailouts.

CC*RCM — Cases Closed(t) * RCM - Has value of cases closed in the periods of recertification and mailout activity only, to capture the impact of those closings on applications received.

CC*Q-1 — Cases Closed(t-1) * 4/73 - 12/78 Dummy - Has value of cases closed (t-1) from 4/73 to 12/78 to capture the average rate of reapplication for cases closed during the period of quality control/corrective action emphasis.

76/77D	1976 - 1977 Modified Dummy - Has value of 1.0 from 6/76 to 2/77 to account for an unidentified factor that raised applications above their historical value.
RECERT*	Generalized Recertification Dummy - Has value of 1.0 from 3/77 to 12/78 to proxy for existence of recertification activity.
TIT4D	Title IV-D (Child Support) Startup Dummy - Has value of 1.0 from 6/75 to 9/75 to account for impact of increased child support enforcement activity resulting from implementation of Title IV-D.
QCRTE	Quality Control Ineligibility Rate - Ineligibility rate in New York City as determined by quality control review.
7/77D	July 1977 Dummy - Has value of 1.0 in July 1977 to account for extreme value in closing rate.

Chapter 5

Upstate New York

The complete Upstate New York AFDC model contains equations for applications received, the processing rate (Basic), the processing rate (UF), the rejection rate, and the closing rate. Each of these regression equations is discussed in this section.[*]

Applications Received

The estimated equation for the combined Basic and UF applications received component of the Upstate model is presented in Table 5.1. The OLS regression explains almost 96 percent of the variance in monthly applications. The standard error (SEEBAR) is nine percent of the average 5,981 applications per month. The very large number of independent variables is due to the substantial number of institutional factors which proved statistically significant in the equation.

The first two variables appearing in the rho-corrected equation are the benefit/wage ratio (B/Z) and an interaction term between B/Z

---

[*] The Appendix to this report presents the short period regressions used in preparing the Pre-QC/CA simulations.

Table 5.1

Upstate New York AFDC-Basic: Final Applications Equation (1st Stage)

```
EQN NO.  1    225 OBSERVATIONS (    4-> 228)
DEP VAR(  8): APREC
INDEPENDENT VAR(S):  18
V(S) IN XPX= 71   M= 71
DETERMINANT=      0.2919232E-08
```

INDEP.VAR.		REGR.COEFF.	STD.ERR.	T-RATIO	MEAN
(8)					0.598063E+01
(1)	CONS	-0.575282E+01	0.747133E+00	0.769986E+01	0.100000E+01
(23)	B/Z	0.189587E+01	0.343314E+00	0.552226E+01	0.126594E+01
(24)	B/ZD	0.502493E+00	0.117114E+00	0.429064E+01	0.790266E+00
(55)	UNRTE	0.221770E+00	0.273496E-01	0.810871E+01	0.625435E+01
(53)	DXHT	-0.429102E+01	0.733093E+00	0.585331E+01	0.398400E-02
(54)	DXAG	-0.775490E+00	0.169133E+00	0.458509E+01	-0.149289E-02
(40)	UR*ADC	-0.191457E+00	0.238392E-01	0.803116E+01	0.406222E+00
(52)	WDAYS	0.823816E-01	0.274107E-01	0.300545E+01	0.209289E+02
(47)	FSDMY	0.250658E+01	0.198356E+00	0.126368E+02	0.400000E-01
(33)	SIMPL4	0.169391E+01	0.316357E+00	0.535443E+01	0.177778E-01
(37)	SPSER2	0.740815E+00	0.224770E+00	0.329588E+01	0.266667E-01
(39)	USTRT2	0.885632E+00	0.322024E+00	0.275021E+01	0.133333E-01
(60)	7/71D	-0.483505E+01	0.616252E+00	0.784591E+01	0.444444E-02
(61)	10/71D	-0.186040E+01	0.540119E+00	0.344443E+01	0.444444E-02
(45)	DECDUM	0.686041E+00	0.143680E+00	0.477478E+01	0.844444E-01
(25)	FHF	0.488320E-01	0.257603E-02	0.189563E+02	0.117578E+03
(68)	APREC1	-0.171266E+01	0.549819E+00	0.311496E+01	0.444444E-02
(69)	APREC2	-0.118278E+01	0.545783E+00	0.216713E+01	0.444444E-02

```
RSQBAR=   0.9544 RSQ=    0.9578    SEE= 0.5101788E+00 SEEBAR= 0.5318982E+00

TSS= 0.1388420E+04   RSS= 0.5856355E+02      FSTAT( 17, 207)= 0.2765022E+03

MBAR=  -0.7703       DW STAT:  1.5385       RHO:  0.23866818
```

Rho-corrected

```
EQN NO.  1    224 OBSERVATIONS (    5-> 228)
DEP VAR( 90): APREC
INDEPENDENT VAR(S):  18
V(S) IN XPX= 90   M= 71
DETERMINANT=      0.8522046E-08
RHO=      0.2386682E+00
Y( 228)=        0.0000000E+00
```

INDEP.VAR.		REGR.COEFF.	STD.ERR.	T-RATIO	MEAN
(90)					0.457560E+01
(72)	CONS	-0.603122E+01	0.757713E+00	0.795977E+01	0.761332E+00
(73)	B/Z	0.186156E+01	0.420985E+00	0.442191E+01	0.964788E+00
(74)	B/ZD	0.518300E+00	0.145216E+00	0.356917E+01	0.605608E+00
(75)	UNRTE	0.222115E+00	0.330015E-01	0.673045E+01	0.475823E+01
(76)	DXHT	-0.402702E+01	0.732179E+00	0.550005E+01	0.282908E-02
(77)	DXAG	-0.608304E+00	0.171641E+00	0.354405E+01	-0.268448E-02
(78)	UR*ADC	-0.193957E+00	0.306439E-01	0.632940E+01	0.279802E+00
(79)	WDAYS	0.998871E-01	0.239612E-01	0.416870E+01	0.159325E+02
(80)	FSDMY	0.236983E+01	0.237890E+00	0.996189E+01	0.305892E-01
(81)	SIMPL4	0.155644E+01	0.340912E+00	0.456551E+01	0.135952E-01
(82)	SPSER2	0.764622E+00	0.267002E+00	0.286373E+01	0.203928E-01
(83)	USTRT2	0.729005E+00	0.361847E+00	0.201468E+01	0.101964E-01
(84)	7/71D	-0.475506E+01	0.535264E+00	0.888358E+01	0.339880E-02
(85)	10/71D	-0.197574E+01	0.512791E+00	0.385292E+01	0.339880E-02
(86)	DECDUM	0.577264E+00	0.144973E+00	0.398187E+01	0.656427E-01
(87)	FHF	0.484541E-01	0.312615E-02	0.154996E+02	0.897741E+02
(88)	APREC1	-0.146643E+01	0.514349E+00	0.285104E+01	0.339880E-02
(89)	APREC2	-0.101965E+01	0.509725E+00	0.200040E+01	0.339880E-02

```
RSQBAR=   0.9291 RSQ=    0.9345    SEE= 0.4940831E+00 SEEBAR= 0.5152173E+00

TSS= 0.8348071E+03   RSS= 0.5468246E+02      FSTAT( 17, 206)= 0.1728758E+03

MBAR=  -0.7208       DW STAT:  1.8982       RHO:  0.05772958
```

and the "30 + 1/3" income disregard (B/ZD). The significant positive coefficients on these terms suggest that applications are indeed responsive to relative benefit levels. The coefficient on B/Z indicates that in response to a hypothetical ten percent increase in the benefit/wage ratio, about 235 additional applications would have been filed each month. The implementation of "30 + 1/3" added to the number of applications but its impact was small, approximately 41 additional applications with a ten percent boost in B/Z.

Several employment opportunity variables enter the regression, including the unemployment rate, the change in high turnover industry employment, the change in agricultural employment, and an interaction term between the unemployment rate and a pre-UF factor. All results seem to substantiate the employment opportunity hypothesis, i.e., as the economic environment worsens, there is clearly a greater demand for public assistance. The coefficient on UNRTE, for example, implies that with a one percentage point jump in the unemployment rate, 222 additional applications would be received by the welfare department each month.

The remaining variables in the equation originate in the institutional hypothesis. The coefficient on WDAYS indicates that an additional workday in a month results in about 100 additional applications, while a food stamp outreach program (FSDMY) raised the number of applications by a monthly average of over 2,300 between August 1970 and April 1971. We found that the initial impact of simplified eligibility (SIMPL4) was to increase applications by nearly 4,700 over a four month period, and separation of services (SPSER2) caused the number of applications to increase by an average of 764 more per month between June and November 1972. The start-up of the UF program in 1961 (USTRT2) resulted in an additional 2,200 applications over a three month period, while a seasonal term (DECDUM) indicates an average of 577 more applications during the month of December.

The final substantive variable in the equation is female headed families (FHF). Its coefficient suggests that on average 4.8 percent of increases in the total female headed family population applies for welfare each month. The final two terms, APREC1 and APREC2, are in the regression simply to capture two extreme data points in the applications received time series. No corrective action variables enter the AP.REC equation.

Processing Rate

As we noted in the introduction to this chapter, two equations are estimated for the processing rate, one for the Basic program and one for UF. They appear in Tables 5.2 and 5.3. In addition to the constant term four variables appear in each equation. After rho-correction each of the explanatory variables remains statistically significant and retains the correct sign.

As one would expect, the advent of simplified eligibility (SIMPL7) had a large impact on the rate at which Basic cases were processed. After implementation of the regulations, the processing rate for Basic averaged 26 percentage points higher than the 57 percent average. Additionally, the number of workdays in a given month is significantly correlated with the number of applications

Table 5.2

Upstate New York AFDC-Basic: Final Processing Rate (Basic Segment)

(1st Stage)

```
EQN NO.  1   210 OBSERVATIONS (  19-> 228)
DEP VAR(  9): PRORR
INDEPENDENT VAR(S):    5
V(S) IN XPX= 71  M= 71
DETERMINANT=      0.4383214E-04
```

INDEP.VAR.		REGR.COEFF.	STD.ERR.	T-RATIO	MEAN
(9)					0.571419E+00
(1)	CONS	0.532547E-01	0.497137E-01	0.107123E+01	0.100000E+01
(32)	SIMPL7	0.260963E+00	0.714317E-02	0.365332E+02	0.407143E+00
(36)	WRKLOD	-0.165316E-01	0.414783E-02	0.398561E+01	0.611098E+00
(51)	ADAIX	0.342049E-02	0.275823E-03	0.124010E+02	0.648593E+02
(52)	WDAYS	0.956427E-02	0.220464E-02	0.433825E+01	0.209286E+02

```
RSQBAR=   0.8873 RSQ=   0.8895   SEE= 0.4421409E-01 SEEBAR= 0.4475004E-01

TSS= 0.3713633E+01   RSS= 0.4105260E+00    FSTAT(  4, 205)= 0.4123591E+03

MBAR=  -0.0681        DW STAT:  0.5076       RHO:  0.74715655
```

Rho-corrected

```
EQN NO.  1   209 OBSERVATIONS (  20-> 228)
DEP VAR( 77): PRORR
INDEPENDENT VAR(S):    5
V(S) IN XPX= 77  M= 71
DETERMINANT=      0.2018978E-02
RHO=      0.7471565E+00
Y( 228)=       0.0000000E+00
```

INDEP.VAR.		REGR.COEFF.	STD.ERR.	T-RATIO	MEAN
(77)					0.145978E+00
(72)	CONS	0.110894E+00	0.543432E-01	0.204062E+01	0.252843E+00
(73)	SIMPL7	0.258630E+00	0.171602E-01	0.150715E+02	0.107011E+00
(74)	WRKLOD	-0.122155E-01	0.268689E-02	0.454633E+01	0.132897E+00
(75)	ADAIX	0.332414E-02	0.704216E-03	0.472035E+01	0.164879E+02
(76)	WDAYS	0.700543E-02	0.103632E-02	0.675993E+01	0.529278E+01

```
RSQBAR=   0.5712 RSQ=   0.5794   SEE= 0.2901112E-01 SEEBAR= 0.2936450E-01

TSS= 0.4182341E+00   RSS= 0.1759039E+00    FSTAT(  4, 204)= 0.7025905E+02

MBAR=   0.0717        DW STAT:  1.9525       RHO:  0.02429928
```

Table 5.3

Upstate New York AFDC-Basic: Final Processing Rate (UP Segment)

(1st Stage)

```
EQN NO. 1   120 OBSERVATIONS ( 109-> 228)
DEP VAR( 11): PRORU
INDEPENDENT VAR(S):   5
V(S) IN XPX= 71  M= 71
DETERMINANT=      0.8250188E-03
```

INDEP.VAR.		REGR.COEFF.	STD.ERR.	T-RATIO	MEAN
(11)					0.805225E-01
(1)	CONS	0.516981E-01	0.101926E-01	0.507214E+01	0.100000E+01
(28)	CU/CR	0.540625E+00	0.110676E+00	0.488475E+01	0.543092E-01
(34)	WNT*RT	0.979196E-03	0.150303E-03	0.651480E+01	0.365000E+01
(35)	WRKFR2	-0.574957E-01	0.813946E-02	0.706382E+01	0.750000E+00
(55)	UNRTE	0.591721E-02	0.130964E-02	0.451820E+01	0.659283E+01

```
RSQBAR=   0.7752 RSQ=   0.7827   SEE= 0.1989690E-01 SEEBAR= 0.2032484E-01

TSS= 0.2186362E+00   RSS= 0.4750638E-01   FSTAT(  4, 115)= 0.1035647E+03

MBAR=  -0.5246       DW STAT:  0.6866      RHO:  0.65951202
```

Rho-corrected

```
EQN NO. 1   119 OBSERVATIONS ( 110-> 228)
DEP VAR( 77): PRORU
INDEPENDENT VAR(S):   5
V(S) IN XPX= 77  M= 71
DETERMINANT=      0.3868592E-02
RHO=      0.6595120E+00
Y( 228)=      0.0000000E+00
```

INDEP.VAR.		REGR.COEFF.	STD.ERR.	T-RATIO	MEAN
(77)					0.265764E-01
(72)	CONS	0.706353E-01	0.164352E-01	0.429781E+01	0.340488E+00
(73)	CU/CR	0.288653E+00	0.158224E+00	0.182433E+01	0.181260E-01
(74)	WNT*RT	0.524912E-03	0.119866E-03	0.437917E+01	0.648183E+00
(75)	WRKFR2	-0.636334E-01	0.111632E-01	0.570027E+01	0.263054E+00
(76)	UNRTE	0.607904E-02	0.191812E-02	0.316927E+01	0.225243E+01

```
RSQBAR=   0.4289 RSQ=   0.4482   SEE= 0.1420394E-01 SEEBAR= 0.1451208E-01

TSS= 0.4351243E-01   RSS= 0.2400847E-01   FSTAT(  4, 114)= 0.2315277E+02

MBAR=  -0.1334       DW STAT:  1.4242      RHO:  0.29011361
```

disposed, though its impact is small. Over the entire observation range, an additional workday was responsible for increasing the processing rate by an average of .007, or the equivalent of 1.2 percent of the mean value of the processing rate.

The ADA index was included in the equation to test the hypothesis that liberal political attitudes might be positively correlated with the rate at which applications are processed. The result substantiates this theory, and suggests that a ten point increase in ADAIX boosts the processing rate by three full points. Finally, the exponential workload term (WRKLOD) indicates that a significant negative relationship exists between the processing rate and periods in which new applications are rapidly flowing in.

Rejection Rate

The final rejection rate equation for Upstate New York is presented in Table 5.4. The OLS version indicates that approximately 87 percent of the variance in the dependent variable is captured by the explanatory variables. In addition to the constant term, 10 other variables appear in the regression, the majority of which reflect institutional factors.

The participation rate enters this equation lagged [*] and

---

[*] For purposes of regression estimation, there is no need to use a lagged participation rate rather than the current month's rate. However, for purposes of simulation the participation rate and its square must enter the rejection rate lagged one month so that it can be endogenously determined along with the caseload and at the same time be predetermined for simulating the rejection rate.

Table 5.4

Upstate New York AFDC-Basic: Final Rejection Rate (1st Stage)

```
EQN NO.  2   228 OBSERVATIONS (    1-> 228)
DEP VAR( 10): REJRT
INDEPENDENT VAR(S):  11
V(S) IN XPX= 71   M= 71
DETERMINANT=       0.7733963E-05
```

INDEP.VAR.		REGR.COEFF.	STD.ERR.	T-RATIO	MEAN
(10)					0.231685E+00
(1)	CONS	0.486954E+00	0.152731E-01	0.318831E+02	0.100000E+01
(26)	C/F-1	-0.114091E+01	0.683345E-01	0.166960E+02	0.508403E+00
(27)	2C/F-1	0.978767E+00	0.690660E-01	0.141715E+02	0.289635E+00
(57)	DLT*RT	0.445037E-02	0.663040E-03	0.671206E+01	-0.398070E-01
(43)	APTIT1	0.744190E-01	0.119501E-01	0.622747E+01	0.263158E-01
(41)	REJHCL	0.192411E-01	0.293000E-02	0.656693E+01	0.250000E+00
(38)	USTRT1	-0.102435E+00	0.187187E-01	0.547231E+01	0.438596E-02
(49)	7/73D	0.162288E+00	0.209400E-01	0.775013E+01	0.438596E-02
(44)	APTIT3	0.848304E-01	0.447981E-02	0.189362E+02	0.271930E+00
(29)	WINREF	0.454395E-02	0.105803E-02	0.429473E+01	0.212578E+01
(70)	REJTIT	0.410177E-01	0.715959E-02	0.572906E+01	0.416667E-01

```
RSQBAR=    0.8651 RSQ=     0.8710    SEE= 0.1799147E-01 SEEBAR= 0.1844184E-01

TSS= 0.5721573E+00    RSS= 0.7380200E-01        FSTAT( 10, 217)= 0.1465314E+03

MBAR=  -0.2133          DW STAT:  1.6125         RHO:   0.19653749
```

Rho-corrected

```
EQN NO.  2   227 OBSERVATIONS (    2-> 228)
DEP VAR( 83): REJRT
INDEPENDENT VAR(S):  11
V(S) IN XPX= 83   M= 71
DETERMINANT=      0.9935036E-05
RHO=       0.1965375E+00
Y( 228)=         0.0000000E+00
```

INDEP.VAR.		REGR.COEFF.	STD.ERR.	T-RATIO	MEAN
(83)					0.186265E+00
(72)	CONS	0.487680E+00	0.186738E-01	0.261158E+02	0.803463E+00
(73)	C/F-1	-0.114236E+01	0.833369E-01	0.137077E+02	0.409639E+00
(74)	2C/F-1	0.981139E+00	0.839301E-01	0.116900E+02	0.233752E+00
(75)	DLT*RT	0.377106E-02	0.694601E-03	0.542910E+01	-0.168434E-03
(76)	APTIT1	0.804410E-01	0.130601E-01	0.615928E+01	0.212369E-01
(77)	REJHCL	0.177612E-01	0.313937E-02	0.565757E+01	0.201750E+00
(78)	USTRT1	-0.104992E+00	0.178648E-01	0.587704E+01	0.353948E-02
(79)	7/73D	0.170896E+00	0.200774E-01	0.851187E+01	0.353948E-02
(80)	APTIT3	0.861832E-01	0.520541E-02	0.165565E+02	0.220314E+00
(81)	WINREF	0.416904E-02	0.117968E-02	0.353405E+01	0.171984E+01
(82)	REJTIT	0.395095E-01	0.851554E-02	0.463969E+01	0.344909E-01

```
RSQBAR=    0.8252 RSQ=     0.8329    SEE= 0.1761299E-01 SEEBAR= 0.1805590E-01

TSS= 0.4215178E+00    RSS= 0.7041933E-01        FSTAT( 10, 216)= 0.1076938E+03

MBAR=  -0.1840          DW STAT:  1.9304         RHO:   0.03723910
```

quadratically - the participation rate lagged one month (C/F-1) and the square of the participation rate lagged one month (2C/F-1). The quadratic specification of the participation rate indicates that rejection rates tend to rise more than proportionally as program participation reaches high levels. At high participation rates the pool of non-participating eligibles becomes increasingly exhausted, with the remaining applicants more likely to be only marginally eligible or ineligible for assistance. This naturally leads to a higher rejection rate.

In Upstate New York, at a moderate participation rate of 57 percent, an increase in participation of ten percentage points to 67 percent would increase the rejection rate by only one percentage point. However, an increase in participation of 20 points to 77 percent would increase the rejection rate by 4 percentage points.

The change in low-training industry employment with a reverse time trend (DLT*RT) is positively correlated with the rejection rate. As theory suggests, when more job opportunities appear in the labor market, rejection rate policy becomes more strict because those opportunities represent alternatives to the receipt of public assistance. The reverse time trend specification provides the best empirical fit of an impact that has grown weaker over time.

The coefficient on REJHCL indicates a statistically significant and fairly powerful impact of a seasonal factor on the rate at which applications are rejected. During the spring season (April-June), the rejection rate is an average 1.8 percentage points higher than it is during the rest of the year. This possibly suggests that the welfare administration feels that the spring season brings with it an increased number of alternatives to public assistance, and consequently it reacts with increased discretion in determining who is in fact eligible to receive AFDC.

The start-up of the AFDC-UF program in May 1961 (USTRT1) acted to decrease the rejection rate for a short time. Its impact in that one month was extremely powerful, as the coefficient suggests, a full ten percentage point decline. It is reasonable to suspect that the introduction of the new program opened up new options for the intake worker; that is, rather than rejecting an applicant on the basis of having a father in the home, the potential recipient might have been directed to apply for the UF program.

The number of WIN referrals statewide (WINREF) bears a positive relationship to the rejection rate. One thousand additional WIN referrals were responsible for boosting the rejection rate by .0045, or almost two percent of the mean value of the rejection rate during the period under consideration. One might hypothesize that with additional WIN referrals, more potential recipients may refuse to comply with the WIN registration requirements, therefore resulting in a higher rejection rate.

Three corrective action variables appear in the Upstate New York rejection rate equation. The introduction of an expanded application/verification procedure (APTIT1) during the period surrounding the announcement of the federal sanctions policy resulted in a rejection rate that was, on average, over eight percentage points higher than would have been expected in the absence of the new documentation of income and other resources proved to be a major factor in raising the rejection rate even higher during 1978. The coefficient on REJTIT indicates that during the first six months of 1978, the rejection rate rose an additional two percentage points, and during the second half of the year the increase was nearly twice that. The number of additional rejections directly resulting from this renewed emphasis on verification policy was over 2,700 for the entire year.

The empirical results indicate that, all else the same, the corrective actions implemented in response to the so-called "quality control campaign" have clearly had a significant impact on caseload dynamics, and specifically the rate at which applications were rejected in Upstate New York. However, it is also clear that the impact of the increased verification activity is overstated in terms of sheer numbers. It should be recognized that as a larger and larger proportion of disposed applications are rejected rather than accepted, (as indicated by a rising rejection rate) we should also expect to see the rejected applicants return to the welfare offices to reapply if alternative mechanisms for survival are not forthcoming. In other words, it is very likely that by rejecting a greater proportion of AFDC applicants, the DSS created a significant amount of churning within the program. In many instances, therefore, one applicant may indeed be more accurately associated with two or three individual rejections over a discrete period.

procedures. Moreover, in one month alone (July 1973) the rejection rate rose to its highest level in a 19 year period, a full 17 percentage points higher than average, even with the existence of the new verification policy. The initial direct impact of the additional requirements was to increase the number of applications rejected by nearly 4,000 over the six month period.

The new application procedures significantly increased the base of information utilized by local agencies in making eligibility determinations, as it required that each applicant provide documentary evidence with respect to several factors including family composition, place and cost of residence, and amount and sources of income. Apparently, by instituting more rigid verification requirements in the applications procedure the Department of Social Services hoped to reduce the number of ineligible recipients gaining access to AFDC, and therefore hoped to reduce its quality control error rates as well.

In addition to the initial impact of the new verification policy captured by APTIT1, a second variable, APTIT3, appears in the regression to proxy for the "ongoing" effect of the new requirements. Its coefficient suggests that the average impact of the expanded applications procedure over the period of November 1973 to December 1978 was to boost the rate at which applications were rejected by nearly nine percentage points, a clear reflection of a much more conservative acceptance policy. In 1976 alone, this increase of nine points translates into an additional 8,500 rejections.

Finally, renewed emphasis on more rigorous procedures for determining initial eligibility by more thorough investigation and

Closing Rate

The final closing rate equation for the Upstate model appears in Table 5.5. On average, over the entire period, about 5.1 percent of all AFDC-Basic cases were closed each month. Eight variables in addition to the constant term enter the regression, two of them representing corrective action activity.

As expected, the benefit/wage ratio with a "30 + 1/3" interaction (B/ZD) is negatively correlated with the rate at which cases are closed. Theory suggests that as AFDC benefits rise relative to potential labor market earnings, utility maximizing individuals will opt to retain AFDC eligibility rather than close their case, even if employment opportunity were to be unconstrained by market factors. The empirical results substantiate this hypothesis, but the coefficient indicates a very modest impact on the closing rate: a ten point increase in B/ZD would have induced a decline of one-third of one percentage point in the closing rate.

Two seasonal variables appear in the closing rate equation, one positively correlated with the dependent variable, and the other negatively correlated. A "spring housecleaning" term (CLSHCL) in effect during the early part of the regression period was responsible for raising the closing rate by an average of 1.3 percentage points. However, the coefficient on WINTER indicates a somewhat more lenient termination policy during the winter months, as the average closing rate was nearly one half of one percentage point lower during December, January and February of every year.

The ADA index also enters the closing rate. The negative

Table 5.5

Upstate New York AFDC-Basic: Final Closing Rate (1st Stage)

```
EQN NO.  3    228 OBSERVATIONS (    1-> 228)
DEP VAR( 16): CLORT
INDEPENDENT VAR(S):      9
V(S) IN XPX= 71   M= 71
DETERMINANT=         0.4574117E-04
```

INDEP.VAR.		REGR.COEFF.	STD.ERR.	T-RATIO	MEAN
(16)					0.510851E-01
(1)	CONS	0.163645E-01	0.100794E-01	0.162355E+01	0.100000E+01
(24)	B/ZD	-0.315975E-02	0.102618E-02	0.307913E+01	0.779868E+00
(42)	CLSHCL	0.141811E-01	0.298698E-02	0.474764E+01	0.526316E-01
(46)	WINTER	-0.441646E-02	0.153161E-02	0.288353E+01	0.250000E+00
(51)	ADAIX	-0.133738E-03	0.440224E-04	0.303795E+01	0.620393E+02
(52)	WDAYS	0.215897E-02	0.462505E-03	0.466799E+01	0.209254E+02
(48)	RECRT2	0.132300E-01	0.441194E-02	0.299868E+01	0.219298E-01
(67)	1/78D	-0.447495E-01	0.958482E-02	0.466879E+01	0.438596E-02
(71)	MLOUTS	0.617020E-02	0.227032E-02	0.271777E+01	0.921052E-01

```
RSQBAR=    0.3904 RSQ=    0.4119    SEE= 0.9287936E-02 SEEBAR= 0.9476862E-02

TSS= 0.3344226E-01    RSS= 0.1966859E-01      FSTAT(  8, 219)= 0.1917036E+02

MBAR=  -0.1177         DW STAT:  1.8159        RHO:  0.09371120
```

Rho-corrected

```
EQN NO.  3    227 OBSERVATIONS (    2-> 228)
DEP VAR( 81): CLORT
INDEPENDENT VAR(S):      9
V(S) IN XPX= 81   M= 71
DETERMINANT=        0.6202479E-04
RHO=       0.9371120E-01
Y( 228)=        0.0000000E+00
```

INDEP.VAR.		REGR.COEFF.	STD.ERR.	T-RATIO	MEAN
(81)					0.462986E-01
(72)	CONS	0.166777E-01	0.979479E-02	0.170271E+01	0.906289E+00
(73)	B/ZD	-0.319661E-02	0.112393E-02	0.284415E+01	0.710390E+00
(74)	CLSHCL	0.132177E-01	0.308436E-02	0.428539E+01	0.479095E-01
(75)	WINTER	-0.441100E-02	0.160141E-02	0.275445E+01	0.223578E+00
(76)	ADAIX	-0.138585E-03	0.490545E-04	0.282513E+01	0.563957E+02
(77)	WDAYS	0.216343E-02	0.443161E-03	0.488182E+01	0.189682E+02
(78)	RECRT2	0.126527E-01	0.474268E-02	0.266784E+01	0.199623E-01
(79)	1/78D	-0.456158E-01	0.949979E-02	0.480177E+01	0.399246E-02
(80)	MLOUTS	0.615927E-02	0.248281E-02	0.248077E+01	0.838417E-01

```
RSQBAR=    0.3654 RSQ=    0.3878    SEE= 0.9265413E-02 SEEBAR= 0.9454737E-02

TSS= 0.3183355E-01    RSS= 0.1948747E-01      FSTAT(  8, 218)= 0.1726395E+02

MBAR=  -0.1009         DW STAT:  2.0040        RHO: -0.00046971
```

coefficient indicates a small, but significant impact on the rate at which cases close. This is consistent with the hypothesis that more "liberal" political attitudes lead to less stringent AFDC termination policy. The coefficient implies that with a total caseload of 100,000 a ten point increase in ADAIX would decrease the number of closings by 140.

One more workday per month (WDAYS) was responsible for boosting the closing rate by an average of one-fifth of one percentage point, and the coefficient on a one period dummy variable (1/78D) indicates that the closing rate was almost five points higher than the historical average in January 1978 because of a data base conversion.

Two corrective action variables enter the closing rate equation in Upstate New York. Intensified recertification activity during 1973 (RECRT2) acted to increase the closing rate by an average of 1.3 percentage points over a five month period, as it was intended to do. By conducting intensive reviews of active cases the New York welfare administration was successful in raising the closing rate significantly, and thus, as the administration maintains, in reducing the ineligibility rate within the state as well.

The second corrective action variable appearing in the closing rate equation (MLOUTS) represents a period during 1976 of intensified mailout and recertification activity and renewed emphasis on reducing delays in the case closing process. This increased case review activity was responsible for raising the rate at which cases were closed by more than three-fifths of one percentage point above what would have been expected in its absence.

These five regressions (applications received, processing rate-Basic, processing rate-UF, rejection rate, and closing rate) constitute the complete equation system necessary for evaluating the impact of corrective actions on the Upstate AFDC-Basic caseload between 1973 and 1978. The regressions indicate that a full range of corrective actions had significant impacts on AFDC dynamics, particularly as they acted on the number of rejections and closings. But only by simulating the caseload through the full equation system can we fully analyze the caseload (and potential expenditure) impact of these corrective actions. It is to these simulations that we now turn.

Upstate New York

Simulation Results

Once the caseload component equations have been estimated through regression, the next step in the evaluation of corrective actions is the preparation of various simulations. As outlined in Chapter 3, there are three of particular value:

1) Present Structure Simulation (PSS)

2) PSS - No QC/CA Simulation (PSS-No QC/CA)

3) Pre - QC/CA Structure Simulation (Pre-QC/CA)

The present structure simulation (1) is based on the estimated regression coefficients reviewed in the last section and the actual values of all independent variables. The purpose of the PSS is to obtain the best possible econometric estimate of the caseload. This estimate is used as the measure against which alternative estimates from simulations (2) and (3) are compared.

Simulation (2) is also based on the estimated regression coefficients used in the present structure simulation. However, the PSS-No QC/CA simulation statistically removes the impact of corrective action variables from the PSS equation system. Finally, simulation (3) uses estimated coefficients obtained from regression equations run over a shorter period of time (i.e., over the period prior to the implementation of corrective actions). This Pre-QC/CA simulation is used to forecast the caseload and its components through December 1978. In essence, it indicates what the caseload would have been had the Pre-QC/CA structural relationships continued to the present.

The difference in the estimated caseload and its components between simulations (1) and (3) indicates the effects of both changes in caseload generating structural relationships and corrective action activity on all AFDC components (e.g., cases receiving assistance, openings, closings, and expenditures).

The difference in estimates between simulations (2) and (3) represents the change in cases receiving assistance (or openings, closings, or expenditures) solely due to structural changes in the caseload generating function that are not directly related to corrective actions. In this comparison changes in the measured response of a component such as the closing rate, due to explanatory variables such as the unemployment rate or the benefit/wage ratio, are derived by running regressions over different time periods and then comparing simulated estimates over the same period. In this manner the effect of structural changes unrelated to corrective actions can be traced in the simulations themselves.

To estimate the net impact of all corrective actions, estimates from simulations (1) and (2) are compared. Simulation (1) is based on regression coefficients obtained from the "best" model (PSS) that could be constructed, including corrective action variables. Simulation (2) is based on PSS regression coefficients, but with all corrective actions "turned off" in the multi-equation system; all corrective action (QC/CA) coefficents in simulation (2) are, in effect, set to zero, while all other coefficients maintain their estimated values. Comparison of estimates resulting from (1) and (2), therefore, allows us to estimate the impact of corrective action activity, i.e., what caseload, openings, closings, or expenditures would have been had corrective action not existed.

As the regression results for Upstate New York indicated, most of the corrective action policies were directed at reducing the number of openings in the AFDC program. In early 1973, the Income Maintenance Division of the Department of Social Services implemented a more stringent application procedure statewide. This new policy increased the amount of information required by the local welfare offices for making eligibility determinations. Documentary evidence with respect to several eligibility factors was required of each recipient. Again, as shown in the regression results, the impact of this new procedure was to raise the rejection rate significantly, thus reducing the number of cases added to the AFDC rolls.

The second type of corrective action implemented in the Upstate area was directed at increasing the number of cases closed. Although recertifications of the entire caseload were conducted routinely in New York City, in Upstate New York they were undertaken with less frequency and intensity. Nevertheless, the impact of the recertifications was fairly powerful, although not as great as the tightened acceptance policies. Quantitative estimates of these corrective actions are presented in the following sections.

Cases Receiving Assistance

Table 5.6 presents simulated estimates of cases receiving assistance at three points in time. The first comparison, between actual cases receiving assistance (simulation (0) in Figure 5.1) and

Table 5.6

Simulation Results

Upstate New York

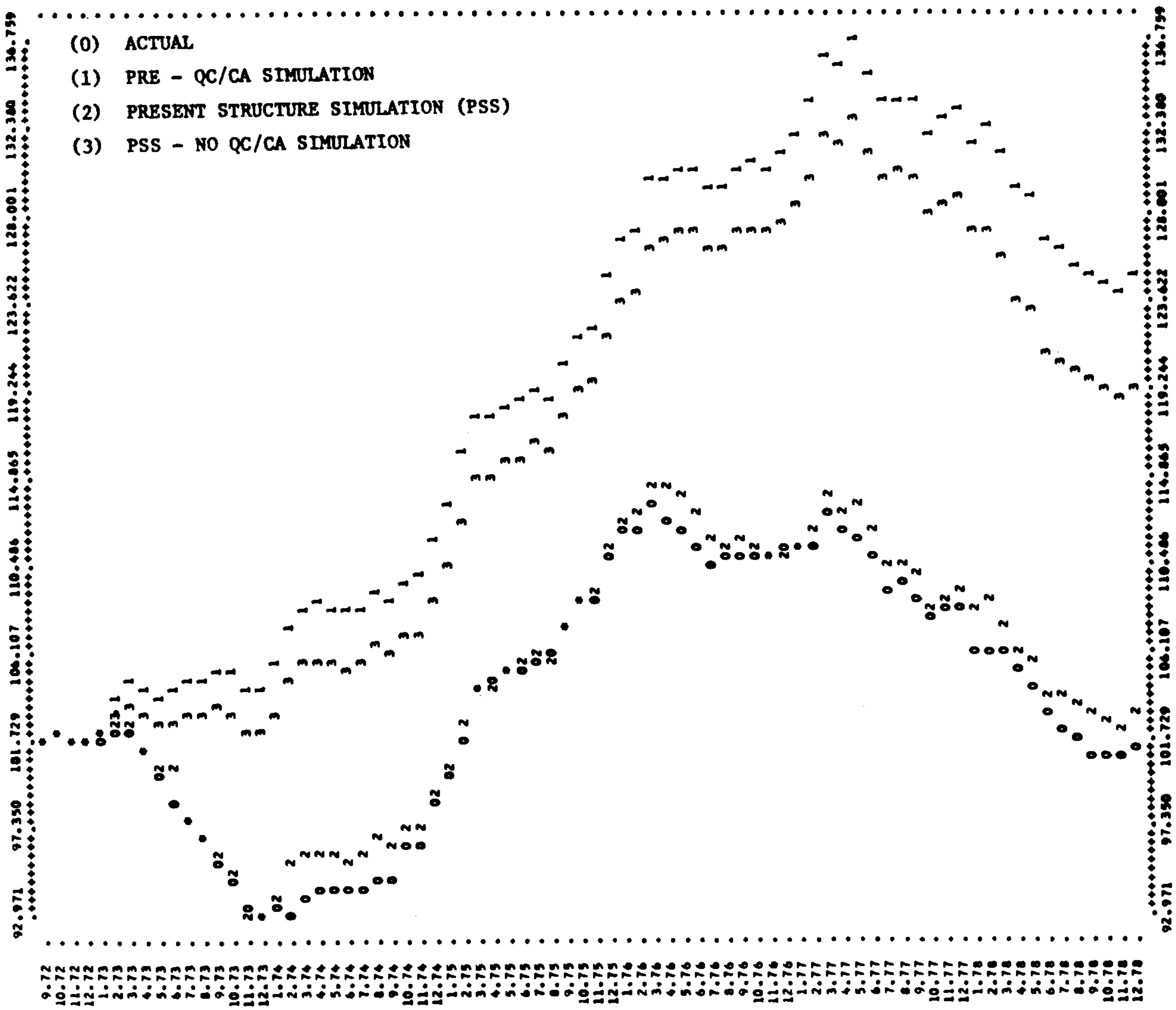
Cases Receiving Assistance

Simulation	at 12/74 (24 months)	at 12/76 (48 months)	at 12/78 (72 months)
Actual	98,983	111,446	101,400
Present Structure (PSS)	99,273	111,323	103,072
Pre - QC/CA Structure (Pre - QC/CA)	112,128	131,343	125,073
Present Structure - No QC/CA (PSS - No QC/CA)	109,126	127,938	119,541
QC/CA And Structural Impacts			
Due to QC/CA and Structure	-12,855	-20,020	-22,001
% PSS	(-13.0%)	(-18.0%)	(-21.4%)
Due to Structure	-3,002	-3,405	-5,532
% PSS	(-3.0%)	(-3.1%)	(-5.4%)
Due to QC/CA	-9,853	-16,615	-16,469
% PSS	(-10.0%)	(-14.9%)	(-16.0%)

Figure 5.1

Counterfactual Simulations vs. Actual: Upstate New York

Cases Receiving Assistance



the number of cases receiving assistance in the Present Structure Simulation (simulation (2) in Figure 5.1), indicates the accuracy of the "full" model. At no time does the full model predict a caseload more than 1.65 percent higher or lower than the actual, suggesting that the statistical model is an appropriate reflection of the Upstate program.

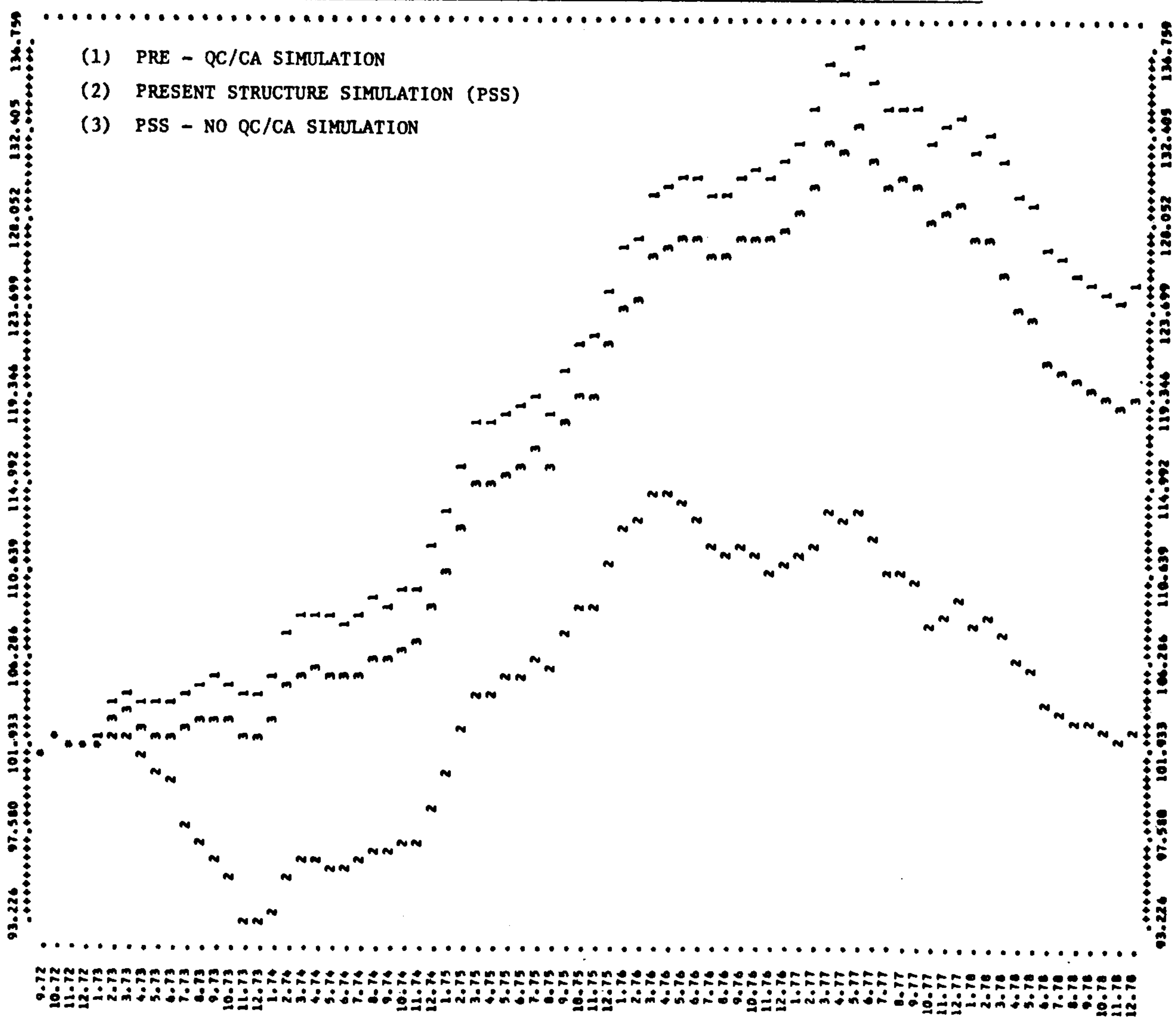
The next comparison to be made uses estimates produced by the Pre-QC/CA and PSS simulations to evaluate the total difference in caseload resulting from both structural change and corrective actions. We see in Table 5.6, for example, that had corrective actions not been undertaken, the AFDC caseload would have been about 12,855 cases higher in December 1974 than the PSS estimate. Structural change along with corrective actions were therefore responsible for producing a caseload some 12,855 cases lower than the Pre-QC/CA estimate (see the differential between simulations (1) and (2) in Figure 5.2).

Of the total difference of nearly 13,000 cases by December 1974, 3,000 (or 23 percent of the total change) can be attributed solely to changes in the underlying structural regime. The differential between simulations (1) and (3) in Figure 5.2 indicates this impact graphically. As a result of more moderate responses to variables like the unemployment rate and benefit levels, there were 3,000 fewer cases receiving assistance than the Pre-QC/CA structure predicted. The remaining 9,853 case reduction (77 percent of the total difference) was a result of corrective action activities initiated by the Department of Social Services (see the differential between simulations (2) and (3) in Figure 5.2).

Figure 5.2

Counterfactual Simulation: Upstate New York

Impact of All Corrective Action Variables on Cases Receiving Assistance



By December 1976 the difference between the PSS estimate and the Pre-QC/CA estimate of caseload had grown to over 20,000 cases or 18 percent of the PSS caseload. Again, this difference is attributable to both structural change and corrective actions. Of the total difference in caseload during the 48 month simulation, 3,405 cases (17 percent) were due to structural change, while a 16,600 case reduction (83 percent of the total) was the result of the full range of corrective actions in effect.

Over the next two years, the simulated caseload impact of both structural change and corrective action slowed considerably. By December 1978 structural changes accounted for one-fourth of the overall difference of 22,000 cases. The difference attributable to corrective actions seems to have leveled off at approximately 16,470 cases, or about 16 percent of the PSS estimate of caseload. The remaining estimated reduction in the caseload was due to other factors not specifically related to corrective actions.

From the foregoing it is clear that corrective actions had a significant impact on the number of AFDC-Basic cases in Upstate New York. However, the caseload impact reflected in Table 5.6 and Figure 5.2 does not indicate how this reduction was achieved. By showing the effects of both structural change and corrective action on cases added and cases subtracted, it is possible to show how corrective actions worked on the two primary components of the basic caseload identity to achieve the 16,500 case reduction.

Cases Added

To reiterate, the basic caseload identity can be written as:

$$CA.REM(t) = CA.REM(t-1) + CA.ADD(t) - CA.CLO(t)$$

Using the SWRI methodology cases added [CA.ADD(t)] and cases closed [CA.CLO(t)] can be disaggregated further. CA.ADD is equal to the sum of applications received and applications pending from previous periods multiplied by an application processing rate, and an acceptance rate. Mathematically:

$$CA.ADD(t) = [AP.REC(t) + AP.PEND(t-1)] * PROC.RT * (1 - REJ.RT)$$

From this disaggregation, we can see that any corrective action that affects applications, the processing rate, or the rejection rate will influence the number of cases added. This, in turn, affects the potential size of the caseload. Further, since cases added take the form of a flow rather than a stock, it is necessary to examine corrective action impacts over a discrete period of time, rather than at one point in time as was done with cases receiving assistance.

Table 5.7 presents the effects of structural change and corrective action on the cases added component of the AFDC caseload. We find that between January 1973 (the initial period of the simulation) and December 1974 125,780 cases were actually opened under the AFDC program in Upstate New York. The full model predicted 122,847 additions, or 2.3 percent fewer than the actual number. More importantly, however, had the Pre-QC/CA structural regime remained intact (i.e., the relationships between the dependent and independent variables had remained the same) and no corrective actions had been implemented, almost 137,000 cases would have been added to the rolls

Table 5.7

Simulation Results

Upstate New York

Cases Added

Simulation	Cumulative to 12/74 (24 months)	Cumulative to 12/76 (48 months)	Cumulative to 12/78 (72 months)
Actual	125,780	274,660	409,002
Present Structure (PSS)	122,847	267,689	406,458
Pre - QC/CA Structure (Pre - QC/CA)	136,987	296,147	454,554
Present Structure - No QC/CA (PSS - No QC/CA)	134,406	292,261	445,723
QC/CA And Structural Impacts			
Due to QC/CA and Structure	-14,140	-28,458	-48,096
% PSS	(-11.5%)	(-10.6%)	(-11.8%)
Due to Structure	-2,581	-3,886	-8,831
% PSS	(-2.1%)	(-1.4%)	(-2.2%)
Due to QC/CA	-11,559	-24,572	-39,265
% PSS	(-9.4%)	(-9.2%)	(-9.6%)

over that 24 month period. Compared to the PSS estimate of 122,847 openings, structural change and corrective actions were responsible for reducing the total number of openings by more than 14,100.

Of this total difference, only 18 percent (2,581 openings) was due to changing structural relationships, while a full 82 percent or 11,600 can be attributed to corrective actions. By 1976 these absolute numbers had almost doubled, but the percentage change remained nearly constant. Over the 48 month period, if there had been no change in the individual parameter estimates and no corrective actions, the Upstate jurisdiction would have seen almost 28,500 more openings than the PSS indicated. Of the total difference, 24,600 cases (87 percent) were precluded from participating in the program due to corrective action. By December 1978 the difference between the PSS and Pre-QC/CA estimates was nearly 48,100 cases. Of this total, corrective actions were responsible for reducing openings by about 39,250 cases, while structural change accounted for the remainder. Overall, corrective actions were responsible for reducing the number of openings by approximately 9 percent over the entire period of analysis.

Cases Subtracted

As well as influencing the rate at which applications were rejected and consequently the number of cases added, some of New York's corrective action activities acted to increase the rate at which active cases were closed. Table 5.8 presents the effects of both structural change and corrective action on the total number of

Table 5.8

Simulation Results

Upstate New York

Cases Subtracted

Simulation	Cumulative to 12/74 (24 months)	Cumulative to 12/76 (48 months)	Cumulative to 12/78 (72 months)
Actual	128,519	265,850	399,955
Present Structure (PSS)	125,299	259,004	395,593
Pre - QC/CA Structure (Pre - QC/CA)	126,662	267,715	419,786
Present Structure - No QC/CA (PSS - No QC/CA)	127,064	267,188	416,967

QC/CA And Strucural Impacts

Due to QC/CA and Structure	-1,363	-8,711	-24,193
% PSS	(-1.1%)	(-3.4%)	(-6.1%)
Due to Structure	+402	-527	-2,819
% PSS	(+0.3%)	(-0.2%)	(-0.7%)
Due to QC/CA	-1,765	-8,184	-21,374
% PSS	(-1.4%)	(-3.2%)	(-5.4%)

cases closed over three simulation periods.

In this instance, when corrective actions were "turned off" in the PSS equation system, a smaller number of case closings occurred than in the PSS simulation in which all corrective actions were operative. At first, this may seem counterintuitive since some of the corrective actions were intended to directly increase the number of closings. This result, however, is not inconsistent with the dynamics of the full caseload components model: when, for example, the dominant corrective action variables in a given model significantly increase the rejection rate, the number of applications rejected obviously increases, leaving fewer cases to potentially close. The closing rate will rise as a result of corrective action, but this higher rate will be applied to a smaller caseload yielding a smaller number of estimated closings. Mathematically:

CA.CLO.(t) = CLO.RT.(t) * [(CA.REM.(t-1) + CA.ADD.(t))]

Thus, if the number of cases added (CA.ADD.(t)) is allowed to grow each month (as would happen if all corrective actions were removed from the system) cases remaining (CA.REM.) in each successive period will be greater as well. Clearly, if the sum in the parentheses (CA.REM.(t-1) + CA.ADD(t)) grows larger, and if it is multiplied by the regression equation determined closing rate, the number of subtractions will of necessity be higher. Therefore, the estimated number of closings can be greater in a "no" corrective action scenerio than they are in an "all" corrective action scenario, despite the fact that the estimated closing "rate" is higher because of corrective actions.

Table 5.8 indicates that this is precisely the phenomenon that occurred in Upstate New York. Between January 1973 and December 1974, the net impact of structural changes and corrective actions on closings was to decrease the total by approximately 1,363. While corrective actions reduced cases subtracted by about 1,765, the change in structure boosted closings by about 400 over what the Pre-QC/CA simulation predicted them to be. The net impact was therefore 1,365 fewer closings. As we have just demonstrated, corrective actions reduced closings by reducing the absolute level of the caseload through increased rejection activity.

Over the 48 month period ending in December 1976, there were over 8,700 fewer closings than there would have been had the previous structural regime held and corrective actions not been implemented. Although the impact of the structural change that did occur resulted in more closings over the first 24 month period, over the longer 48 month period the structural change actually decreased the number of closings below what the earlier regime (Pre-QC/CA) predicted. Of a total difference in closings of 8,700, only 500, or approximately six percent were attributable to changes in structure, with the remaining 92 percent or 8,184 fewer cases a result of corrective action.

Finally, Table 5.8 indicates that between January 1978 and December 1978, the total reduction in cases closed due to structural change and corrective action was over 24,000, or 6.1 percent of cases closed in the Present Structure Simulation. Of the total, 88 percent, or nearly 21,400 of the 24,000 fewer closings were the result of corrective action activity.

Expenditures

Table 5.9 and Figure 5.3 present the impacts of structural change and corrective action on AFDC expenditures. The methodology utilized to obtain AFDC expenditure estimates consisted of taking estimates of cases receiving assistance under each alternative simulation, and multiplying that by the actual expenditure per case in each period. This involves a crucial assumption: each case that is not added to AFDC and each active case that is closed as a result of corrective action is assumed to receive the average expenditure for all cases. This may be a rather dubious assumption, however, for one might expect cases receiving only marginal amounts of assistance to be closed with greater frequency. However, because existing data do not allow us to derive a more realistic estimate of what the "typical" case (rejected or closed as a result of corrective action) would receive in terms of a cash benefit it was necessary to adhere to this assumption.

Table 5.9 indicates that if no structural change had taken place and no corrective actions had been undertaken, AFDC expenditures by December 1974 would have been nearly $58 million more than our best model indicates. Of this total reduction, corrective action was responsible for approximately 76 percent or about $44 million (see the differential between simulations (2) and (3) in Figure 5.3). Relative to the PSS estimate of total expenditures over the period, the savings attributable to corrective action were about 7.2 percent. Structural change was responsible for the remaining $14 million difference (see the differential between simulations (1) and (3) in Figure 5.3).

By December 1976, had the earlier structural relationships held

Table 5.9

Simulation Results

Upstate New York

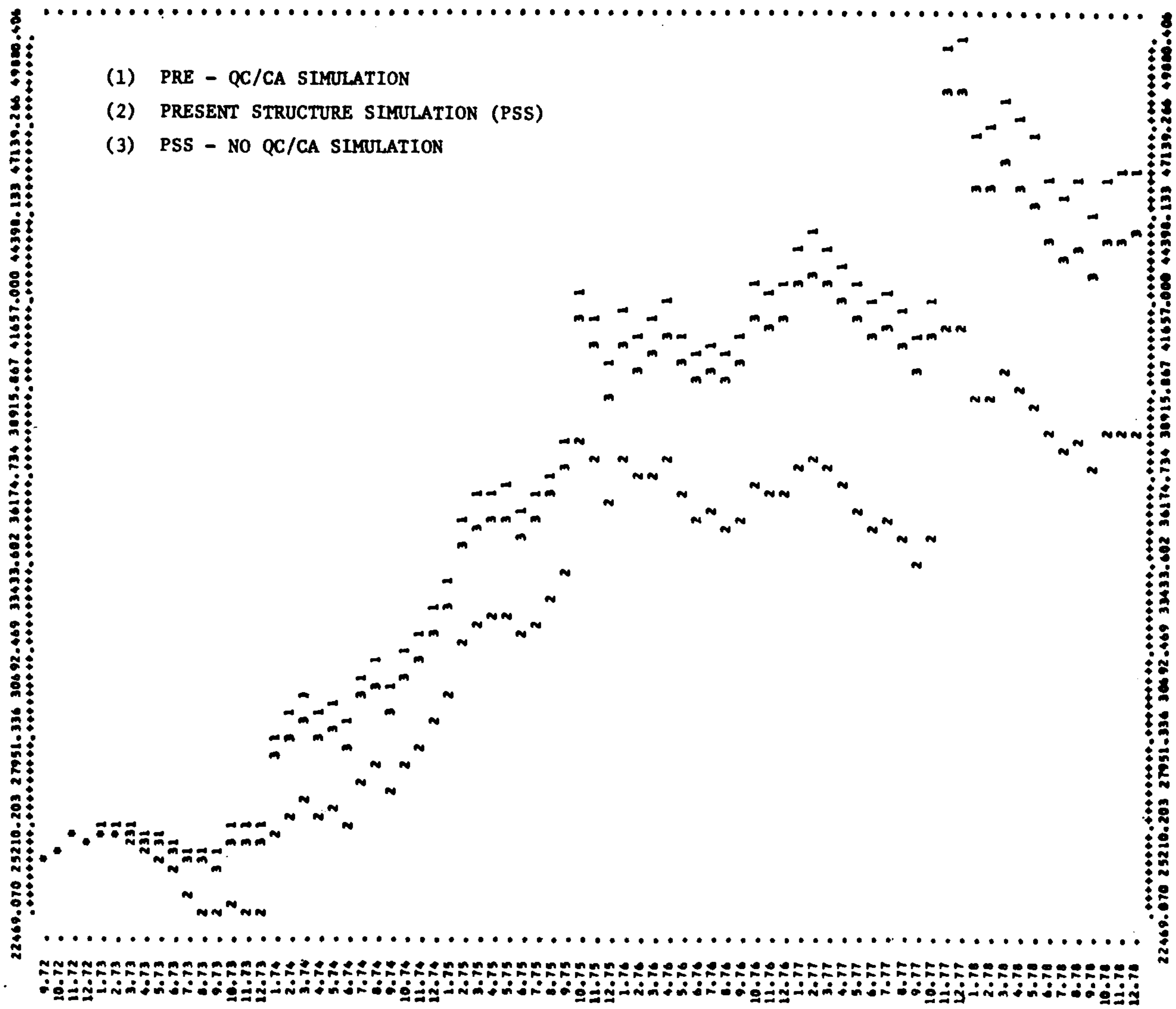
Expenditures (in thousands)

Simulation	Cumulative to 12/74 (24 months)	Cumulative to 12/76 (48 months)	Cumulative to 12/78 (72 months)
Actual	$607,001	$1,437,604	$2,296,928
Present Structure (PSS)	601,660	1,425,540	2,317,306
Pre - QC/CA Structure (Pre - QC/CA)	659,263	1,596,770	2,676,010
Present Structure - No QC/CA (PSS - No QC/CA)	645,387	1,560,324	2,601,121
QC/CA And Structural Impacts			
Due to QC/CA and Structure	$-57,603	$-171,230	$-358,704
% PSS	(-9.6%)	(-12.0%)	(-15.5%)
Due to Structure	-13,876	-36,446	-74,889
% PSS	(-2.3%)	(-2.6%)	(-3.2%)
Due to QC/CA	-43,727	-134,784	-283,815
% PSS	(-7.3%)	(-9.4%)	(-12.3%)

Figure 5.3

Counterfactual Simulation: Upstate New York

Impact of All Corrective Action Variables on Expenditures



and corrective actions not been instituted, expenditures for AFDC would have been over $171 million more than the PSS suggests. (This assumes average payments were received by all cases affected by corrective action.) Of the total difference, structural change that occurred over the full period was responsible for approximately $36 million, while corrective action reduced expenditures by nearly $135 million, or 9.4 percent of the PSS estimate.

Finally, total expenditures over the entire 72 month simulation period were almost $359 million less than they would have been had the early structural relationships remained intact and corrective actions not been implemented. Seventy-nine percent (or $284 million) of this reduction was the result of the corrective action program undertaken by the DSS, while the remaining 21 percent was attributable to changing structural relationships. The expenditure reduction brought about by corrective action constituted 12.3 percent of total expenditures under the PSS over the entire analysis period. As such, corrective actions themselves appear to have reduced Upstate AFDC-Basic expenditures by approximately $47 million per year between 1973 and 1978.

Which Corrective Actions Did the Most?

The preceding analysis focused on the total impact of all corrective action variables in Upstate New York. That analysis in itself did not indicate the relative importance of each corrective action individually. The purpose of the following sections is to statistically evaluate the impact of each of the corrective actions on caseload, openings, closings, and expenditures.

Cases Receiving Assistance

Table 5.10 presents the individual effects of the five basic corrective action variables on cases receiving assistance at three points in time. In addition, Figures 5.4 through 5.9 indicate graphically the individual impacts of each variable on cases receiving assistance for the entire simulation period.

The first corrective action variable (APTIT1 & 7/73D) represents the initial period in 1973 when New York's DSS introduced an expanded application/verification procedure. Because both variables are considered to be components of the same phenomena they were analyzed together as one corrective action. The table indicates that in December 1974 there were nearly 1,270 fewer cases receiving assistance in Upstate New York because of the tightened applications procedures. By December 1976 however, that initial reduction had for the most part worked its way through the system, and the longer-run impact was of a much smaller magnitude. By December 1978 the initial effect of the

Table 5.10

Individual Corrective Action Impacts

Upstate New York

Cases Receiving Assistance

QC/CA Variable	at 12/74 (24 months)	at 12/76 (48 months)	at 12/78 (72 months)
1) APTIT1 & 7/73D	-1,268	-289	+232
2) APTIT3	-6,025	-9,854	-10,038
3) REJTIT	0	0	-1,808
4) RECRT2	-2,646	-601	+160
5) MLOUTS	0	-5,636	-3,780
Total (Excluding Interactions)	-9,939	-16,380	-15,234
Interactions	+89	-235	-1,235
Total Impact	-9,853	-16,615	-16,469

policy on cases receiving assistance had all but disappeared. [*]

Figure 5.4 presents a graphic depiction of the impact of the APTIT1 and 7/73D variables. It suggests that the caseload impact of the initial tightened applications policy was temporary in nature. Note that by the final 24 month period of the simulation scenerios (2) and (6) fully converge. Because the new policy acted as a one-time exogenous shock to the underlying determinants of the system, its long-term impact was insignificant.

Table 5.10 also indicates the impact of the other two tightened applications variables on cases receiving assistance. It suggests that over the full 72 month simulation period, APTIT3, the variable designed to account for the ongoing (or continous) effect of the tightened applications policy, was responsible for reducing the caseload by over 10,000 cases relative to what it would have been in the absence of the policy. It is not surprising that its impact is of large magnitude. Figure 5.5 gives a graphic representation of the estimates presented in Table 5.10. The distances between simulations

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[*] In order to understand the increase of 232 cases in 12/78 receiving assistance reflected in Table 5.5, one must again consider the dynamics of a caseload components model and the many interactions that result in a final caseload estimate. As tightened applications policies boost the number of rejections, the number of cases added to the active caseload obviously falls. This in turn causes the caseload to fall below what it would have been in the absence of the policies. Because the caseload is endogenous to the rejection rate equation in the form of a participation rate (C/F or caseload/female headed families) the lower participation rate implied by a lower caseload leads to fewer rejections. Fewer rejections mean that more cases are added to the caseload over any discrete period. Hence, over the long term, in a dynamic model, APTIT1 and 7/73D actually led to a small increase in the number of cases receiving assistance, relative to a prediction in which there were no policy changes implemented at all.

Figure 5.4

Counterfactual Simulation: Upstate New York

Impact of Initial Tightened Applications Policy (APTIT1 & 7/73D)

Cases Receiving Assistance

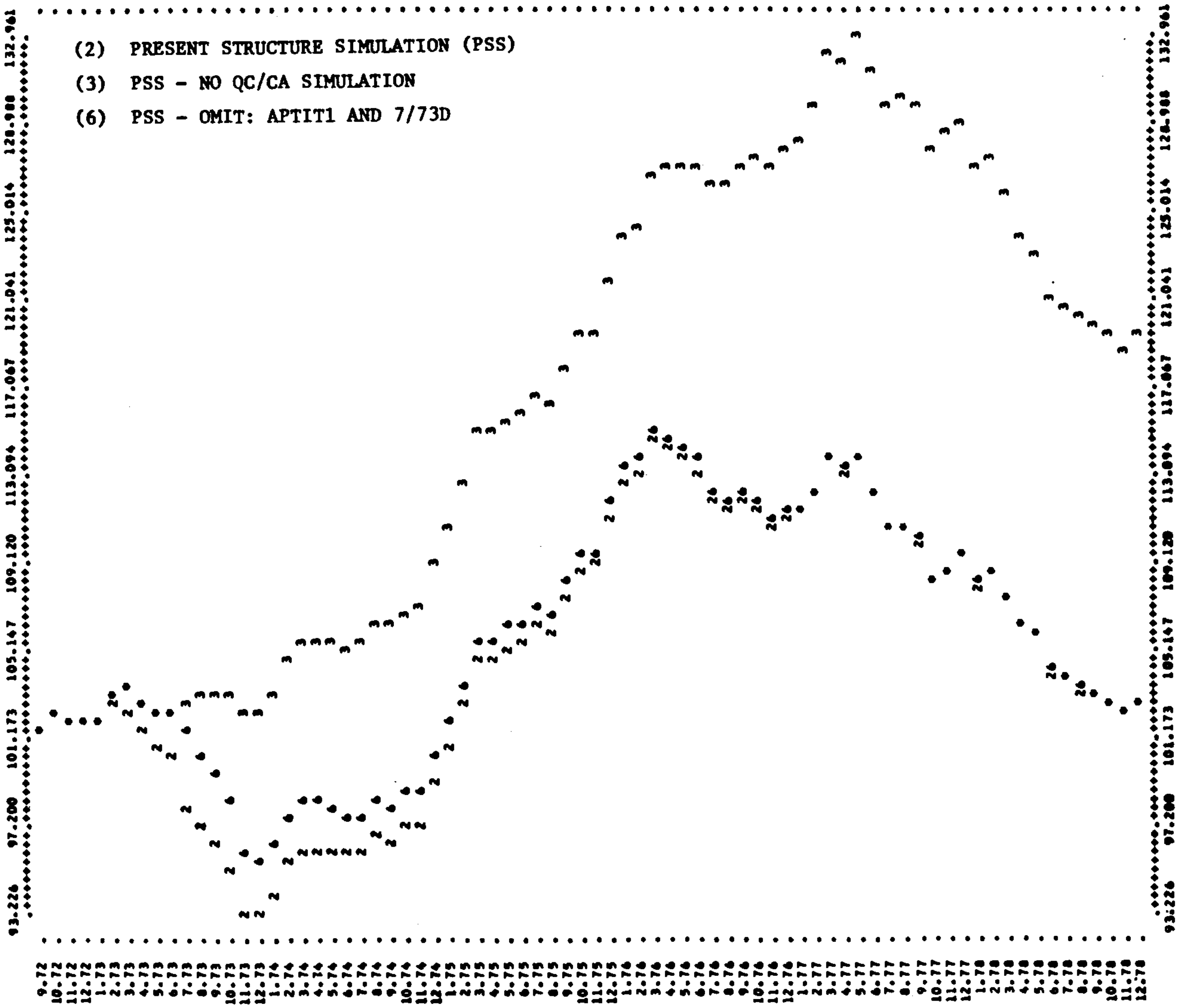
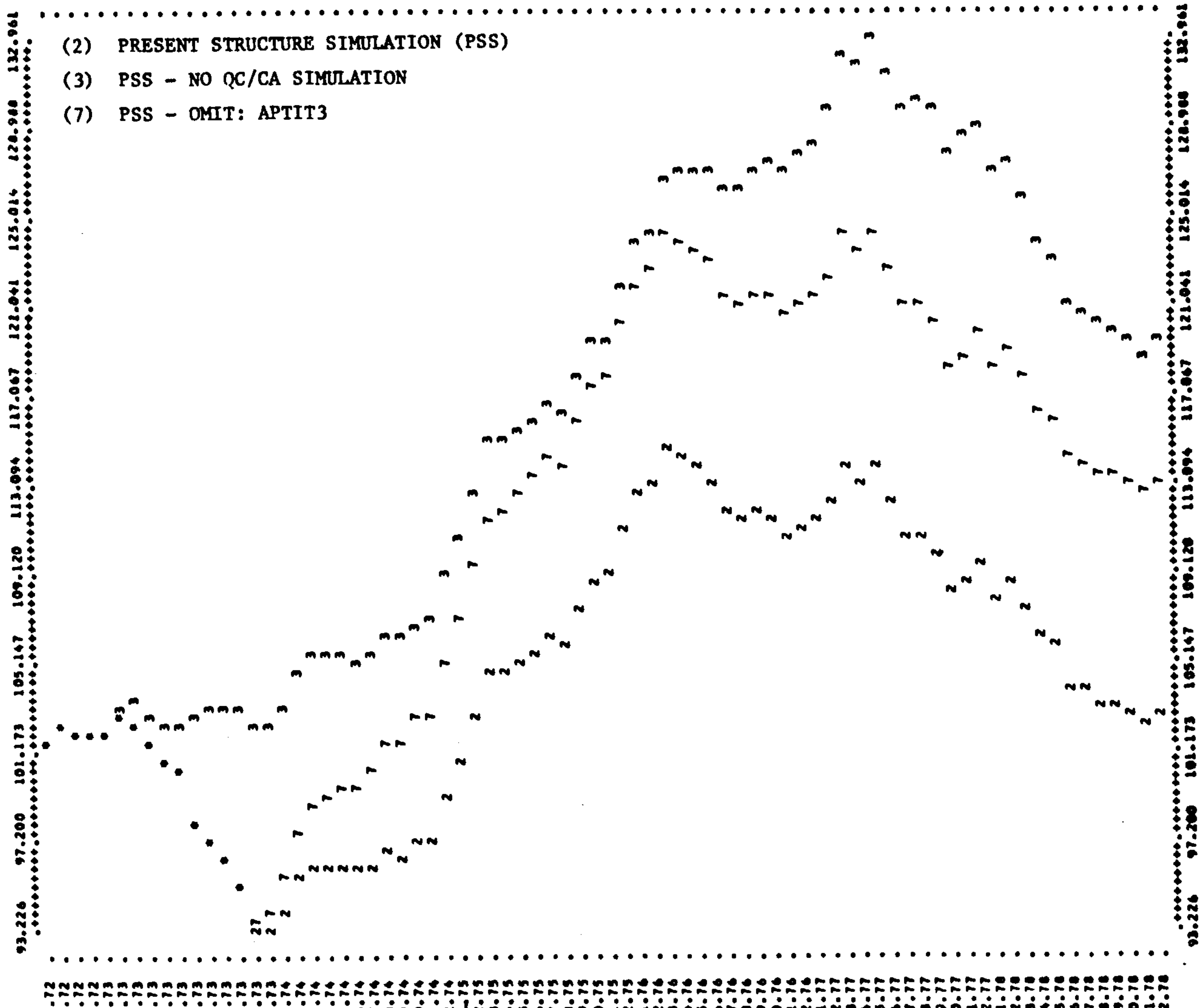


Figure 5.5

Counterfactual Simulation: Upstate New York

Impact of Continuous Tightened Applications Policy (APTIT3)

Cases Receiving Assistance



(2) and (7) represents the impact of APTIT3 on the number of cases receiving assistance.

In 1978 renewed emphasis on tighter applications procedures (REJTIT) occurred. The policy's impact on cases receiving assistance is also indicated in Table 5.10 and Figure 5.6. The table shows that relative to what the caseload would have been in the absence of REJTIT, there were approximately 1,800 fewer cases in December 1978 due to this rejection policy. Figure 5.6 indicates graphically the impact of REJTIT relative to the PSS and PSS-No QC/CA simulations. The differentials between simulations (2) and (4) represent the relatively minor impact of this one corrective action variable on cases receiving assistance.[*]

Finally, the impacts of the two "closing rate" variables are presented in Table 5.10 and Figures 5.8 and 5.9. According to the table, RECRT2, the term accounting for increased recertification activity during 1973, had a large impact when it was in effect. However, as with APTIT1 and 7/73D, it acted as a temporary shock to the system's underlying determinants, and therefore by December 1978 the differential between the full PSS simulation and the PSS simulation omitting RECRT2 (simulations (2) and (8) respectively in Figure 5.8) was effectively zero.

The mailouts variable (MLOUTS) had an impact similar to that of

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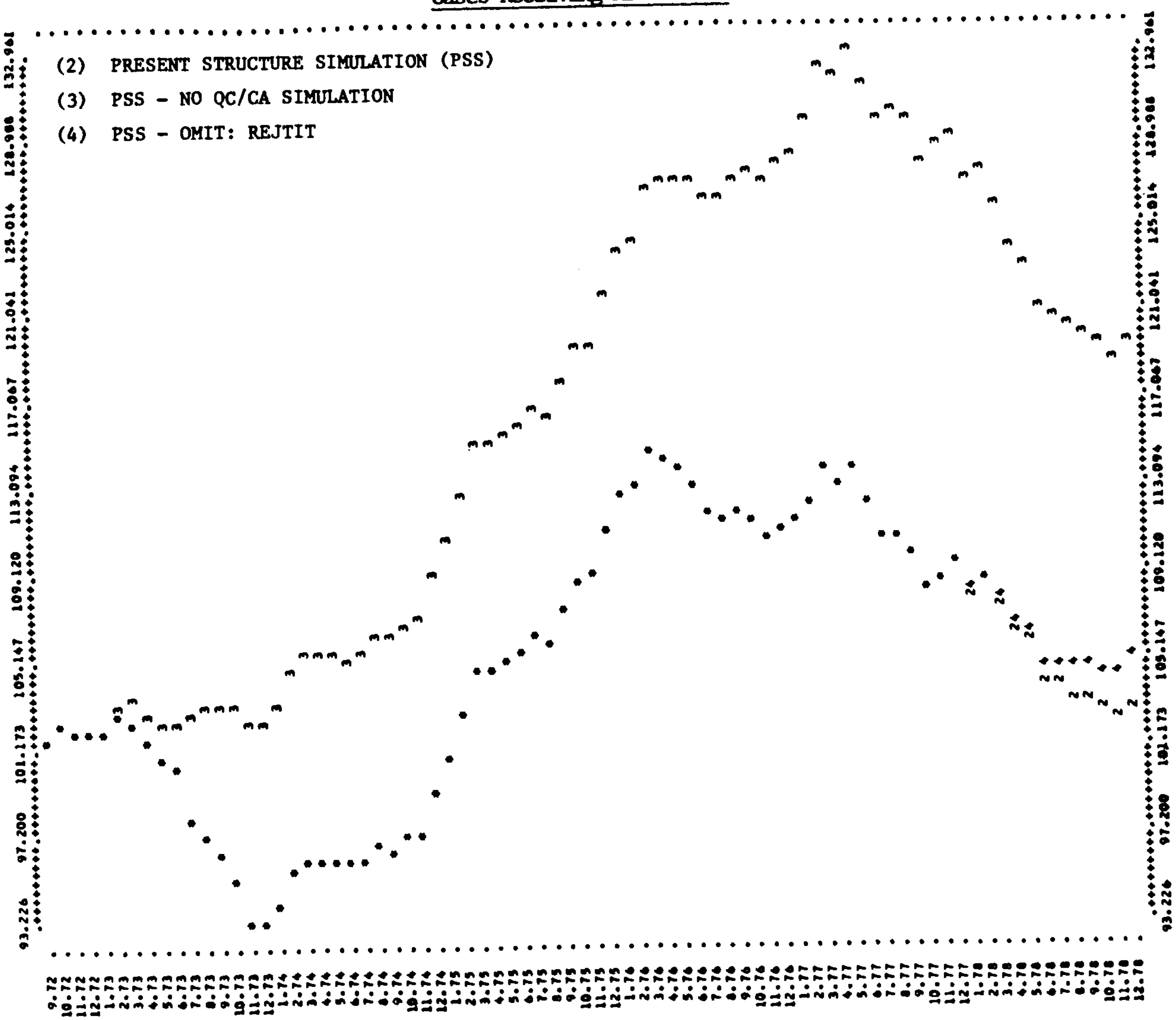
[*] Because all of the variables just reviewed are obviously interrelated (i.e., they all reflect tightened application procedures in one form or another), a simulation was run setting all of their coefficients to zero. The result of this simulation is presented in Figure 5.7.

Figure 5.6

Counterfactual Simulation: Upstate New York

Impact of 1978 Tightened Applications Policy (REJTIT)

Cases Receiving Assistance



the policy which led to increasing rejections. Although its initial effect was fairly powerful (see Figure 5.7), as soon as the MLOUTS activity had ended in 1976 the differential between simulations (2) and (5) begins to decline. Table 5.10 indicates that by December 1976 the impact of MLOUTS was to reduce the caseload by over 5,630 relative to what it would have been in the absence of this mailout and recertification activity. By December 1978 however, the differential had fallen to approximately 3,800.

Cases Added

As was done in an earlier section, cases receiving assistance is disaggregated into openings and closings for the purpose of evaluating the impact of corrective action on the two components. Table 5.11 presents the individual impacts on the cases added component of the system.

Again, APTIT1 and 7/73D are the first corrective actions to appear. The table indicates that between January 1973 and December 1974 the new application procedures were responsible for decreasing the number of openings by nearly 3,875 relative to what would have occurred in the absence of the policy. This suggests that the policy worked in exactly the manner that it was intended to work. By tightening the application process and requiring extensive verification of factors affecting eligibility, the Department was able to reduce the number of cases it added to the AFDC rolls.

The other two variables representing periods of increased eligibility verification, APTIT3 and REJTIT, show similar results.

Table 5.11

Individual Corrective Action Impacts

Upstate New York

Cases Added

QC/CA Variable	Cumulative to 12/74 (24 months)	Cumulative to 12/76 (48 months)	Cumulative to 12/78 (72 months)
1) APTIT1 & 7/73D	-3,871	-3,678	-3,652
2) APTIT3	-8,503	-22,895	-37,330
3) REJTIT	0	0	-2,972
4) RECRT2	+546	+958	+1,014
5) MLOUTS	0	+316	+1,730
Total (Excluding Interactions)	-11,828	-25,299	-41,210
Interactions	+269	+727	+1,945
Total Impact	-11,559	-24,572	-39,265

Figure 5.7

Counterfactual Simulation: Upstate New York

Impact of All Tightened Applications Policies (APTIT1, 7/73D, APTIT3, and REJTIT)

Cases Receiving Assistance

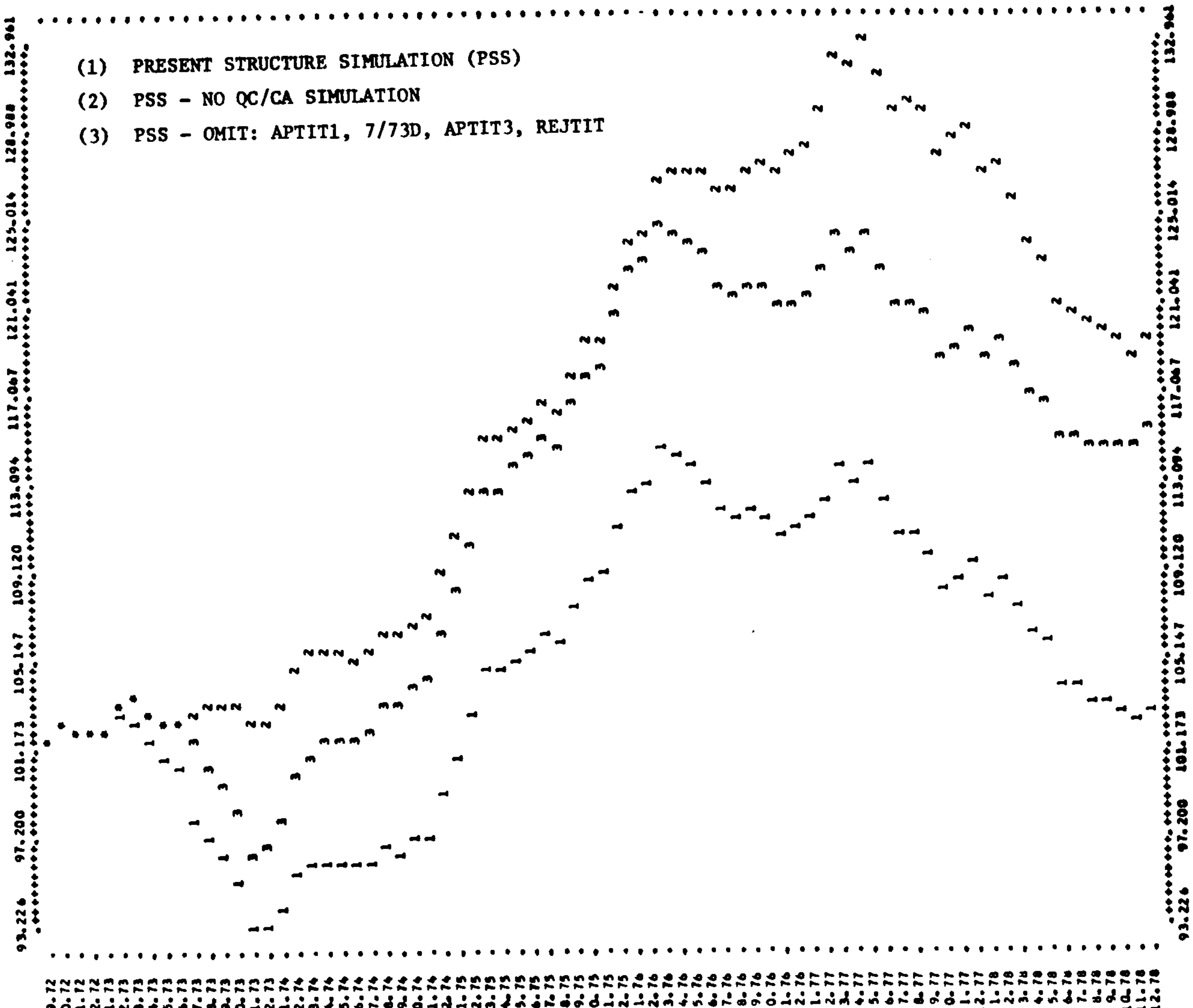


Figure 5.8

Counterfactual Simulation: Upstate New York

Impact of Recertification and Mailout Activity (MLOUTS)

Cases Receiving Assistance

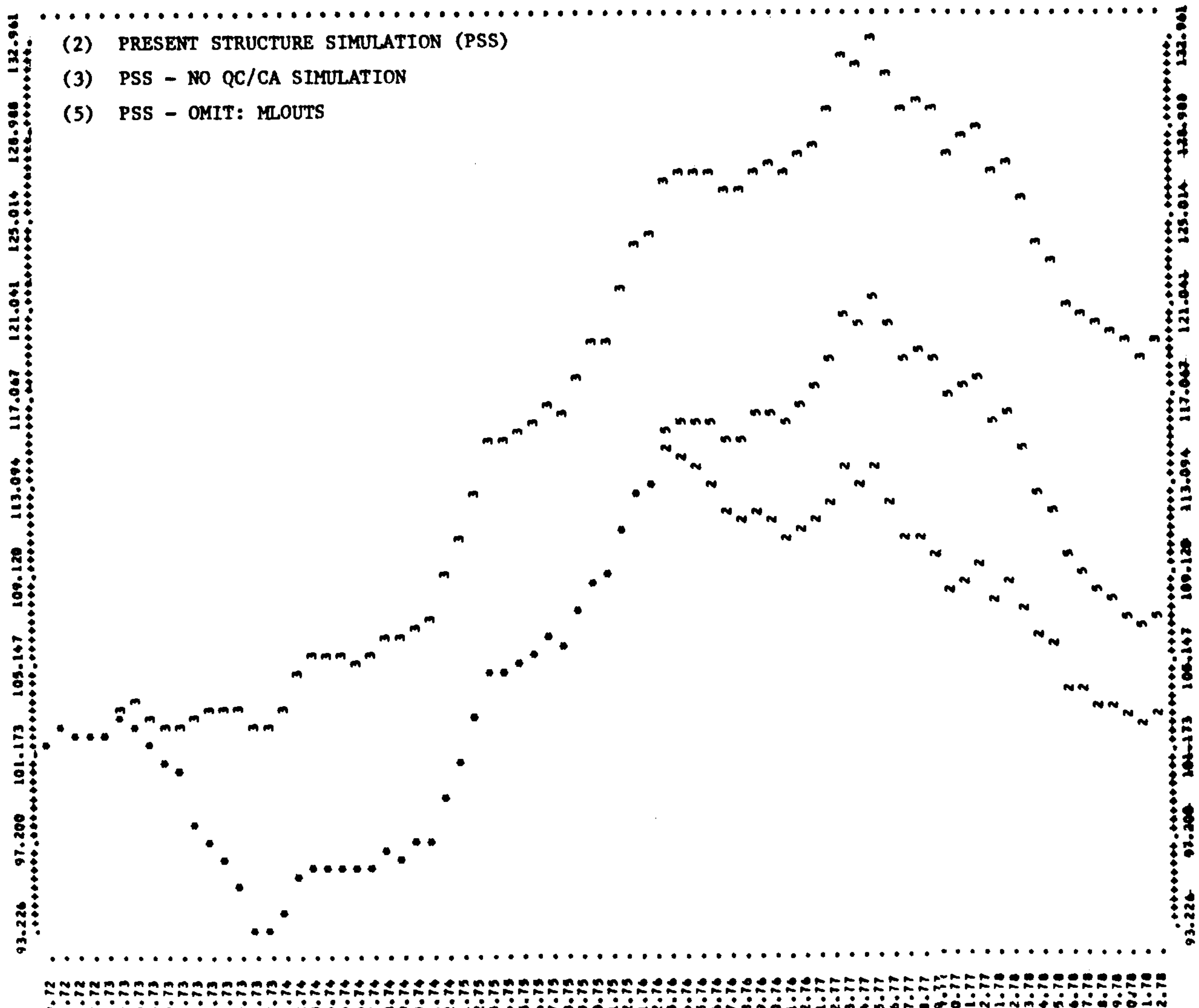
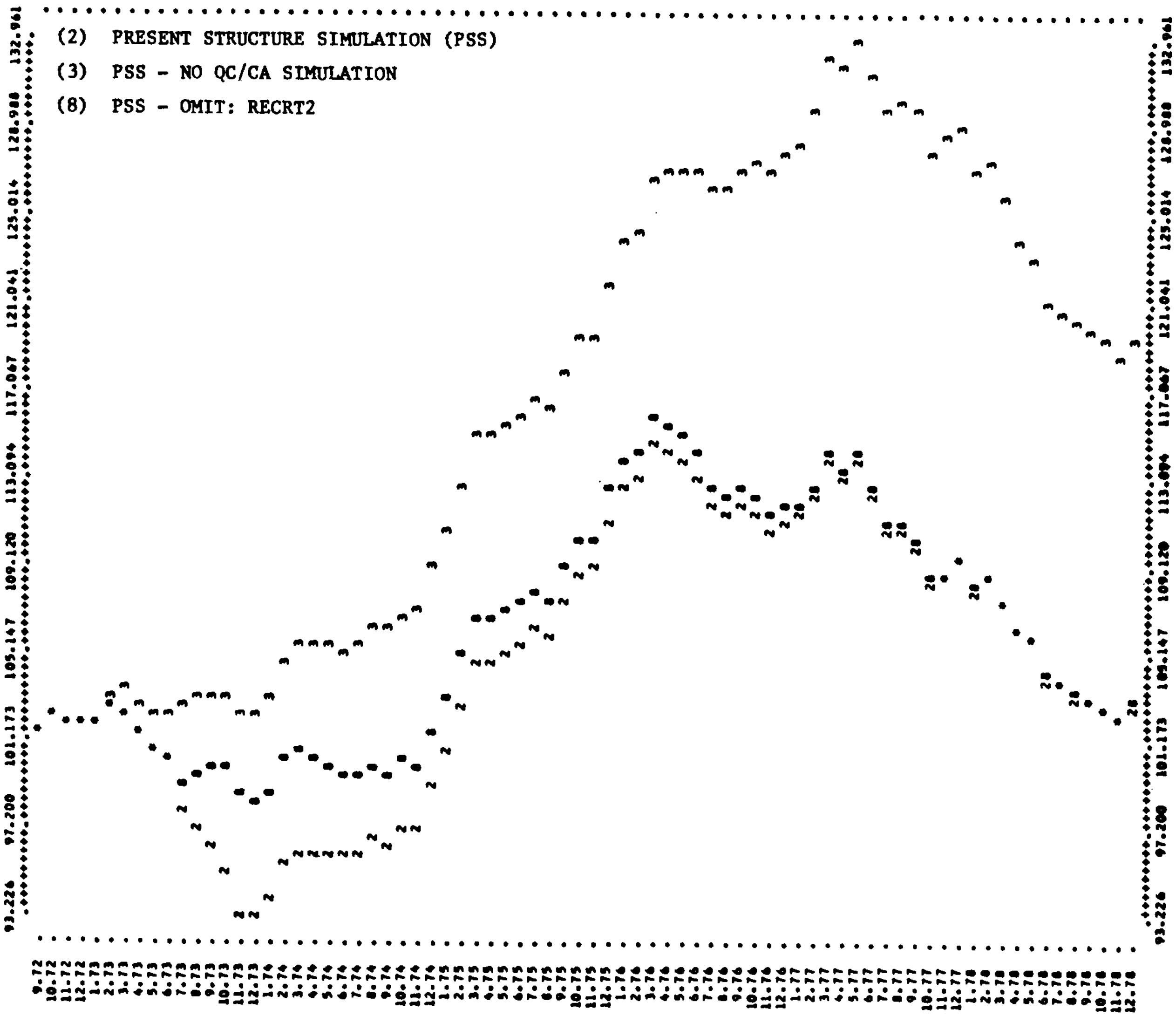


Figure 5.9

Counterfactual Simulation: Upstate New York

Impact of Recertification Activity (RECRT2) on Cases Receiving Assistance



APTIT3, the variable designed to capture the long-term or ongoing effect of the policy, was responsible for reducing openings by 8,500 over the 24 month period ending in December 1974, and over 37,300 openings by December 1978. Similarly, the renewed emphasis on verification during 1978, as proxied by REJTIT, reduced openings by an additional 3,000 over the 12 month period.

The remaining two variables, RECRT2 and MLOUTS, represent corrective actions that acted to increase the rate at which cases were closed. The table suggests that these "closing" variables actually increased slightly the number of openings. Here again, the clear intent of the action to reduce the caseload contrasts with a dynamic outcome: recertifications and mailouts work directly on the closing rate equation and increase the number of case closings. This would, by itself, produce a lower caseload. But because the casesload feeds back into the equation system in the next period in the form of a participation rate, the lower participation rate implied by a lower caseload leads to fewer rejections. Fewer rejections mean that more openings occur over any discrete period. Thus, the two closing rate variables indirectly act to increase the number of openings in the model while they increase the measured closing rate.

Cases Subtracted

In a similar way we can analyze the impacts of individual corrective actions on the cases subtracted component of the basic caseload identity. Table 5.12 presents the effect of each corrective action variable on cases subtracted. The two closing rate variables,

Table 5.12

Individual Corrective Action Impacts

Upstate New York

Cases Subtracted

QC/CA Variable	Cumulative to 12/74 (24 months)	Cumulative to 12/76 (48 months)	Cumulative to 12/78 (72 months)
1) APTIT1 & 7/73D	-2,611	-3,392	-3,578
2) APTIT3	-2,515	-13,175	-26,099
3) REJTIT	0	0	-682
4) RECRT2	+3,176	+1,550	+1,166
5) MLOUTS	0	+5,875	+6,161
Total (Excluding Interactions)	-1,950	-9,142	-23,032
Interactions	+185	+958	+1,658
Total Impact	-1,765	-8,184	-21,374

RECRT2 and MLOUTS, both show a positive impact on this component, as would be expected. Since recertifications and mailouts are designed to determine which cases are ineligible and to then close them, it is not surprising that both of these variables acted to increase closings. RECRT2, a variable representing recertification activity during the second half of 1973, had a fairly powerful impact initially. Over the 24 month period ending in December 1974, it was responsible for boosting closings by about 3,175 cases. The MLOUTS variable, constructed to proxy for increased mailout and recertification activity during much of 1976 had a similar impact: by the end of 1976 it had increased closings by about 5,875 cases, and by December 1978, 6,161 cases had been closed because of this corrective action activity.

In contrast, the three tightened acceptance policy variables, APTIT1 & 7/73D, APTIT3, and REJTIT, were responsible for decreasing the number of cases subtracted during the period. The dynamics are clear: because a tightened acceptance policy increases the number of rejections, it therefore leads to a lower caseload via fewer openings. A lower caseload, when multiplied by the closing rate results in fewer cases subtracted.

Expenditures

Table 5.13 indicates the effects of the individual corrective actions on AFDC expenditures. The table suggests that the impact of the initial policy of tightened application procedures (APTIT1 and 7/73D) was to reduce expenditures by nearly $12 million by December

Table 5.13

Individual Corrective Action Impacts

Upstate New York

Expenditures (in thousands)

QC/CA Variable	Cumulative to 12/74 (24 months)	Cumulative to 12/76 (48 months)	Cumulative to 12/78 (72 months)
1) APTIT1 & 7/73D	$-11,935	$-16,840	$-18,024
2) APTIT3	-13,712	-79,181	-163,736
3) REJTIT	0	0	-4,544
4) RECRT2	-17,878	-28,082	-30,538
5) MLOUTS	0	-10,803	-66,378
Total (Excluding Interactions)	-43,525	-134,906	-283,220
Interactions	-202	+122	-595
Total Impact	$-43,727	$-134,784	$-283,815

1974. Had the policy never been implemented, approximately 2.0 percent more than the PSS estimate of expenditures would have been spent for AFDC in the Upstate jurisdiction. By December 1978, had the policy not been adopted, Upstate New York would have spent over $18 million more for AFDC than our best PSS estimate indicates.

APTIT3, the variable accounting for the ongoing impact of the tightened applications policy, was responsible for the greatest cost savings of any of the corrective action variables. If it had not been in effect over the entire simulation period, expenditures would have been nearly $164 million (or 7.1 percent) more than the PSS simulation indicates. By keeping applicants off of the welfare rolls entirely through the use of a much tighter acceptance policy, the Department was able to reduce expenditures significantly.

The last of the tightened acceptance policy variables, REJTIT, also had a significant impact on expenditures for the brief period that it was operative. Had the stricter acceptance standards not been reemphasized in 1978 (i.e., had the REJTIT variable been omitted from the equation system, specifically from the rejection rate equation), expenditures for AFDC would have been approximately $4.5 million more than the PSS indicates. By emphasizing verification/documentation requirements in 1978, and consequently rejecting more applicants through this policy, the Upstate jurisdiction saved about two-tenths of one percent of PSS total expenditures over the full simulation period. As a proportion of total savings attributable to corrective action, REJTIT was responsible for approximately 1.6 percent.

The two closing rate variables, RECRT2 and MLOUTS, by directly increasing the number of cases closed, also produced expenditure savings in Upstate New York. Table 5.13 indicates that had the increased mailout and recertification activity proxied by MLOUTS not occurred, AFDC expenditures would have been more than $66 million (or about 2.8 percent) greater than the PSS estimate for the entire simulation period. RECRT2, a recertification variable effective in an earlier period produced savings of about one half that, or nearly $31 million. Of the total expenditure reduction resulting from corrective action, the two closing rate variables were responsible for $97 million or approximately 34 percent.

It is clear from these results that corrective action had a significant impact on AFDC-Basic expenditures in Upstate New York. The tightened application procedures reflected by the variable APTIT3, appears to have had the greatest impact of all corrective actions. Fully 58 percent of the total corrective action induced expenditure reduction was accomplished through the tighter acceptance standards represented by this variable.

Overall then, corrective actions were responsible for reducing AFDC-Basic expenditures in Upstate New York by more than $280 million between 1972 and 1978. Of this total savings, tightened application procedures reflected by the APTIT3 variable were responsible for almost 58 percent, while mailouts accounted for almost a quarter (23 percent) of the total. The remaining savings were due to new recertification procedures and stricter but temporary application and verification policies. The key to Upstate New York's corrective action program was therefore tied to preventing new cases from gaining access to the AFDC, rather than exclusively aimed at removing families once they were on the rolls.

Chapter 6

New York City

The complete New York City AFDC model contains equations for applications received, the processing rate (Basic), the processing rate (UF), the rejection rate, and the closing rate. Each of these is discussed in the following section.[*]

Applications Received

The final applications equation for New York City's AFDC program appears in Table 6.1. The OLS version explains 87 percent of the variance in monthly applications with a standard error of less than 11 percent of the mean. In addition to the constant term, 15 variables enter the regression, with several of them designed to capture feedback mechanisms resulting from various types of corrective action activity.

The alternative income hypothesis is tested by B/ZM*30, a variable resulting from an interaction between B/Z with the imputed value of Medicaid (M) in the denominator as well as the numerator, and

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[*] The Appendix to this report presents the short period regressions used in preparing the Pre-QC/CA simulations.

Table 6.1

New York City AFDC-Basic: Final Applications Received Equation (1st Stage)

```
EQN NO.  1    228 OBSERVATIONS (    1-> 228)
DEP VAR(   8): APREC
INDEPENDENT VAR(S):  16
V(S) IN XPX= 98   M= 98
DETERMINANT=       0.1094105E-08
```

	INDEP.VAR.	REGR.COEFF.	STD.ERR.	T-RATIO	MEAN
(8)					0.724016E+01
(1)	CONS	-0.592572E+01	0.946764E+00	0.625892E+01	0.100000E+01
(45)	WDAYS	0.198975E+00	0.368248E-01	0.540327E+01	0.209254E+02
(25)	DFHF	0.894618E+00	0.215271E+00	0.415578E+01	0.726776E+00
(22)	B/Z*30	0.668877E+00	0.178371E+00	0.374991E+01	0.530196E+00
(23)	ACRT-3	0.383567E+01	0.968094E+00	0.396208E+01	0.660216E+00
(34)	PROOF	-0.106951E+01	0.260387E+00	0.410739E+01	0.526316E-01
(44)	ADAIX	0.562453E-01	0.647971E-02	0.868022E+01	0.865489E+02
(39)	SWANTS	-0.332223E+01	0.788009E+00	0.421598E+01	0.438596E-02
(36)	CHP992	0.233802E+01	0.588000E+00	0.397622E+01	0.109649E-01
(31)	DWINRF	0.162191E+00	0.710124E-01	0.228398E+01	0.232456E-01
(47)	DXHT	-0.470653E+01	0.151938E+01	0.309767E+01	-0.925876E-03
(52)	12/72D	-0.158727E+01	0.785276E+00	0.202129E+01	0.438596E-02
(88)	CC*RCM	0.162179E+00	0.285394E-01	0.568262E+01	0.440355E+00
(94)	RJ*P77	0.233230E+00	0.884991E-01	0.263539E+01	0.165346E+00
(68)	RECRT*	0.230468E+01	0.308180E+00	0.747837E+01	0.964912E-01
(95)	CC*Q-1	0.166366E+00	0.287036E-01	0.579601E+01	0.185603E+01

```
RSQBAR=    0.8620 RSQ=    0.8711    SEE= 0.7403033E+00 SEEBAR= 0.7677312E+00

TSS= 0.9693550E+03    RSS= 0.1249552E+03       FSTAT( 15, 212)= 0.9550772E+02

MBAR=  -0.6585          DW STAT:   0.9598         RHO:   0.52760842
```

Rho-corrected

```
EQN NO.  1    227 OBSERVATIONS (    2-> 228)
DEP VAR(115): APREC
INDEPENDENT VAR(S):  16
V(S) IN XPX=115   M= 98
DETERMINANT=       0.4253982E-07
RHO=        0.527608 4E+00
Y( 228)=         0.7022726E+00
```

	INDEP.VAR.	REGR.COEFF.	STD.ERR.	T-RATIO	MEAN
(115)					0.343635E+01
(99)	CONS	-0.678183E+01	0.110147E+01	0.615704E+01	0.472391E+00
(100)	WDAYS	0.244089E+00	0.247038E-01	0.988062E+01	0.988693E+01
(101)	DFHF	0.735632E+00	0.299774E+00	0.245396E+01	0.344967E+00
(102)	B/Z*30	0.574096E+00	0.273071E+00	0.210237E+01	0.253571E+00
(103)	ACRT-3	0.460134E+01	0.124198E+01	0.370484E+01	0.312758E+00
(104)	PROOF	-0.129591E+01	0.377403E+00	0.343375E+01	0.249722E-01
(105)	ADAIX	0.514892E-01	0.109024E-01	0.472272E+01	0.409791E+02
(106)	SWANTS	-0.350103E+01	0.587849E+00	0.595566E+01	0.208102E-02
(107)	CHP992	0.200425E+01	0.636306E+00	0.314983E+01	0.520255E-02
(108)	DWINRF	0.147208E+00	0.545454E-01	0.269881E+01	0.110294E-01
(109)	DXHT	-0.506023E+01	0.113011E+01	0.447766E+01	0.145084E-03
(110)	12/72D	-0.192367E+01	0.603517E+00	0.318744E+01	0.208102E-02
(111)	CC*RCM	0.179261E+00	0.217289E-01	0.824990E+01	0.208937E+00
(112)	RJ*P77	0.235158E+00	0.113024E+00	0.208060E+01	0.784523E-01
(113)	RECRT*	0.218949E+01	0.428504E+00	0.510962E+01	0.481067E-01
(114)	CC*Q-1	0.166888E+00	0.387986E-01	0.430139E+01	0.895274E+00

```
RSQBAR=    0.7648 RSQ=    0.7804    SEE= 0.6251950E+00 SEEBAR= 0.6484659E+00

TSS= 0.4040442E+03    RSS= 0.8872721E+02       FSTAT( 15, 211)= 0.4998984E+02

MBAR=  -0.4101          DW STAT:   1.8701         RHO:   0.07024855
```

a "30 + 1/3" program dummy.[*] As the coefficient implies, its impact on applications is extremely modest, adding only 30 applications per month for a 10 percent increase in the B/Z ratio.

One employment term appears in the regression. The change in indexed high turnover employment (DXHT) bears a significantly negative relationship to the number of applications received. An analysis of the coefficient and the mean value of indexed high turnover employment (XHT) indicates that a 10 percent increase in the level of high turnover jobs would have reduced applications by an average of about 500 throughout the period of analysis. However, since the XHT level generally fluctuates seasonally with little secular trend, the variable appears to account for "cycling" between work and welfare.

The remaining variables in the equation are institutional in nature. The coefficient on WDAYS suggests that an additional workday in a month is responsible for an average of 244 more applications. A three month lagged acceptance rate (ACRT-3) to proxy for an information diffusion process was also included in the regression. Its coefficient indicates that an increase of one percent in recent acceptance rates leads to an additional 30 applications per month. The empirical result suggests that potential applicants obtain reasonably accurate information about their chances of being accepted

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[*] The imputed value of Medicaid is included in the denominator because of the large Medicaid-only population in New York City. This non-welfare low income population has access to government paid medical care without the necessity of being in a cash allowance public assistance program. As such, Medicaid provides no greater incentive to apply for AFDC than to remain in low-paid work.

onto the AFDC rolls and tend to apply in greater numbers when acceptance appears easier.

The ADA index is also a powerful variable in the applications equation. The coefficient implies that a 10 point increase in ADAIX boosts the number of applications about 500 a month, a result consistent with the hypothesis that during periods of liberal political attitudes, more people attempt to gain access to public assistance. Additionally, the anticipation of a strike (SWANTS) in 1965 decreased applications by about 3,500, while the liberalization of state laws in 1968 (CHP992) was responsible for boosting applications by some 5,000 over a four month period. In terms of demographic characteristics, an increase of 1,000 female headed families (DFHF) results in an additional 800 applications. Given repeated applications as a result of work-welfare cycling, this does not imply that 80 percent of the new female headed families apply for AFDC. The proportion is likely to be much smaller, but the analysis cannot tell us by how much.

One fitted dummy variable (12/72D) was run in the regression to control for what appears to be a data aberation in the applications received variable. In December 1972 there were almost 2,000 fewer applications than would have been expected from the model. We could find no explanation for this substantial deviation from normal trend.

Several specially constructed corrective action variables appear in the equation to proxy for specific administrative actions. A proof of identification program (PROOF), for example, was implemented in July 1973. It required that applicants provide documentation of all factors affecting eligibility. Similar to the APTIT1 variable in the Upstate model, PROOF reflects tightened application/verification procedures implemented statewide. This program was responsible for lowering applications by nearly 1,300 during the first month of its implementation with a declining impact over the remainder of the following 12 month period.

In order to reveal the underlying nature of reapplication dynamics in New York City, a cases closed variable with a lag structure was tested in the applications equation. The best specification to emerge from several attempts to include such a variable was a cases closed term with a one period lag. The final variable used (CC*Q-1) only takes on non-zero values from April 1973 to the end of the regression period in order to account for the fact that these reapplication dynamics were not present during the structural "regime" preceding the period of specific corrective actions.[*] As increased closing activity (resulting from tighter caseload controls attributable to both quality control efforts and the fiscal crisis) became a permanent feature of the AFDC program in New York City during the mid and late 1970s, a significant proportion of the cases closed returned to reapply for public assistance in the month immediately following their termination. The coefficient on CC*Q-1 suggests that, on average, 17 percent of all cases closed reapplied within a month.

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[*] This was determined on the basis of a statistically insignificant coefficient on the CACL-1 term in the short period regression (i.e., 1960-1973).

A second variable was designed to account for the differential impact on applications of the closings which occurred in specific months of mass recertification activity. The variable CC*RCM attempts to capture the impact of those closings on the number of applications received in the following month. Again, its coefficient indicates that nearly 18 percent of the cases closed during periods of active recertification return almost immediately to reapply for AFDC.

The RJ*P77 variable enters the equation to capture the impact of an administrative directive which required the automatic rejection of cases with insufficient documentation of eligibility, rather than their placement into the applications pending category. Some applications which might have been deferred were being rejected because of insufficient information. At a later date, when the same persons provided full documentation, a new application was counted and accepted. The effect of this policy was to significantly increase both the number of applications received (because some applications were actually being counted two and possibly three times) and the rate at which applications were rejected (because rejections were inflated above their "normal" level). In order to statistically determine the impact of this policy on applications received, we constructed a variable containing the number of applications rejected during the period when the policy was operative. The empirical result indicates that this was a significant determinant of increased applications in 1977 and early 1978. The coefficient suggests that, on average, about 23 percent of the applicants rejected as a result of this directive returned with documentation of eligibility to reapply for AFDC.

Finally, the variable (RECRT*) attempts to measure the impact of increased mailout and recertification activity during the period of March 1977 to December 1978. The New York State Department of Social Services admits that these programs produce an unavoidable churning effect. As more cases are closed administratively, there tends to be a greater level of closing-opening cycling in the AFDC program. This naturally increases the number of reported applications. The coefficient on RECRT* suggests that the operation of this feedback mechanism resulted in almost 2,200 additional applications per month during the period. While we did not attempt to measure it, the administrative cost of handling this large number of reapplications may have been quite substantial.

Processing Rate

The processing rate regression for the AFDC-Basic component in New York City is presented in Table 6.2. The OLS regression indicates that approximately 83 percent of the variance is captured by the explanatory variables, with a standard error of just over eight percent of the mean value of the processing rate during the period under consideration.

The first variable in the equation does no more than account for the relative size of the AFDC-Basic and AFDC-UF segments. CU/CR is simply the ratio of the UF caseload to the Basic caseload (lagged one month for statistical purposes). By including this variable, which accounts for the secular decline in the UF program, other factors in the regression are left unconstrained to measure exogenous

Table 6.2

New York City AFDC-Basic: Final Processing Rate (Basic Segment) Equation

(1st Stage)

EQN NO. 1 210 OBSERVATIONS (19-> 228)
DEP VAR(9): PRORR
INDEPENDENT VAR(S): 7
V(S) IN XPX= 92 N= 92
DETERMINANT= 0.1387006E-03

INDEP.VAR.		REGR.COEFF.	STD.ERR.	T-RATIO	MEAN
(9)					0.702408E+00
(1)	CONS	0.708709E+00	0.629802E-01	0.112529E+02	0.100000E+01
(30)	CU/CR	-0.386887E+01	0.264151E+00	0.146464E+02	0.498752E-01
(45)	WDAYS	0.815330E-02	0.286290E-02	0.284792E+01	0.209286E+02
(38)	SIMPL6	0.577103E-01	0.148211E-01	0.389378E+01	0.407143E+00
(33)	PHOTO	0.117688E+00	0.365033E-01	0.322403E+01	0.202381E-01
(39)	SWANTS	0.992708E-01	0.587100E-01	0.169086E+01	0.476190E-02
(53)	PRODMY	-0.120486E+00	0.158406E-01	0.760617E+01	0.857143E-01

RSQBAR= 0.8257 RSQ= 0.8307 SEE= 0.5717383E-01 SEEBAR= 0.5815123E-01

TSS= 0.4054532E+01 RSS= 0.6864579E+00 FSTAT(6, 203)= 0.1660017E+03

MBAR= -0.5731 DW STAT: 0.3358 RHO: 0.83413819

Rho-corrected

EQN NO. 1 209 OBSERVATIONS (20-> 228)
DEP VAR(100): PRORR
INDEPENDENT VAR(S): 7
V(S) IN XPX=100 N= 92
DETERMINANT= 0.2271978E-01
RHO= 0.8341382E+00
Y(228)= 0.2075999E+01

INDEP.VAR.		REGR.COEFF.	STD.ERR.	T-RATIO	MEAN
(100)					0.116956E+00
(93)	CONS	0.686778E+00	0.489258E-01	0.140371E+02	0.165862E+00
(94)	CU/CR	-0.269937E+01	0.594466E+00	0.454082E+01	0.805851E-02
(95)	WDAYS	0.540419E-02	0.103689E-02	0.521194E+01	0.347199E+01
(96)	SIMPL6	0.104630E+00	0.349644E-01	0.299247E+01	0.718436E-01
(97)	PHOTO	0.927334E-01	0.471939E-01	0.196494E+01	0.337279E-02
(98)	SWANTS	0.129798E+00	0.243352E-01	0.533373E+01	0.793597E-03
(99)	PRODMY	-0.132860E+00	0.221316E-01	0.600316E+01	0.142847E-01

RSQBAR= 0.4525 RSQ= 0.4683 SEE= 0.3113602E-01 SEEBAR= 0.3167091E-01

TSS= 0.3810697E+00 RSS= 0.2026154E+00 FSTAT(6, 202)= 0.2965204E+02

MBAR= -0.1390 DW STAT: 2.1186 RHO: -0.05824740

(administrative) influences on the actual processing rate.

One of the exogenous influences referred to above is the number of workdays per month (WDAYS). Its coefficient implies that an extra workday in a month boosts the rate at which applications are disposed by .0054. The introduction of simplified eligibility (SIMPL6) also increased the processing rate, but to a much greater extent. On average, over the period in question, the reduced verification requirements associated with simplified eligibility increased the processing rate by over 10 percentage points. Additionally, a photo identification program initiated in July 1971 (PHOTO) increased the rate at which applications were disposed (at least initially) by over nine percentage points. In a month when there were 5,000 cases availiable to be processed, this translates into an extra 463 applications disposed. While the provision of ID cards may have slowed initial processing, it apparently expedited future reapplications and other social worker functions allowing a more rapid overall disposition of applicants.

Of the final two variables in the equation, anticipation of the social worker strike in early 1965 (SWANTS) led to an isolated increase in the processing of new cases, while an unexplained phenomena possibly related to the increased verification requirements in AFDC intake (PRODMY) decreased the processing rate by an average 13 percentage points between November 1974 and April 1976.

Table 6.3 presents the results for the UF processing rate. This equation has no particular importance for the Basic program, but is required for mathematically reconstituting the caseload identity which

Table 6.3

New York City AFDC-Basic: Final Processing Rate (UP Segment) Equation

(1st Stage)

```
EQN NO.  3   210 OBSERVATIONS (  19-> 228)
DEP VAR( 11): PRORU
INDEPENDENT VAR(S):   5
V(S) IN XPX= 92   M= 92
DETERMINANT=      0.3188001E-01
```

	INDEP.VAR.	REGR.COEFF.	STD.ERR.	T-RATIO	MEAN
(11)					0.897262E-01
(1)	CONS	0.251410E-01	0.589257E-02	0.426657E+01	0.100000E+01
(30)	CU/CR	0.146044E+01	0.798889E-01	0.182808E+02	0.498752E-01
(41)	WRKFR	-0.301487E-01	0.460620E-02	0.654524E+01	0.428571E+00
(39)	SWANTS	0.622326E-01	0.181685E-01	0.342531E+01	0.476190E-02
(40)	WNT*RT	0.417524E-03	0.400171E-04	0.104336E+02	0.104667E+02

```
RSQBAR=   0.9211 RSQ=    0.9226    SEE= 0.1733005E-01 SEEBAR= 0.1754012E-01

TSS= 0.8144900E+00    RSS= 0.6306944E-01     FSTAT(   4, 205)= 0.6106016E+03

MBAR=  -0.7346         DW STAT:  0.5048        RHO:  0.74858852
```

Rho-corrected

```
EQN NO.  3   209 OBSERVATIONS (  20-> 228)
DEP VAR( 98): PRORU
INDEPENDENT VAR(S):   5
V(S) IN XPX= 98   M= 92
DETERMINANT=      0.7098512E-01
RHO=       0.7485805E+00
Y( 228)=        0.2075999E+01
```

	INDEP.VAR.	REGR.COEFF.	STD.ERR.	T-RATIO	MEAN
(98)					0.220182E-01
(93)	CONS	0.244495E-01	0.110290E-01	0.221684E+01	0.251419E+00
(94)	CU/CR	0.148511E+01	0.153994E+00	0.964393E+01	0.123321E-01
(95)	WRKFR	-0.299037E-01	0.823329E-02	0.363205E+01	0.111848E+00
(96)	SWANTS	0.695771E-01	0.911544E-02	0.763289E+01	0.120296E-02
(97)	WNT*RT	0.309171E-03	0.264454E-04	0.116909E+02	0.264411E+01

```
RSQBAR=   0.7284 RSQ=    0.7336    SEE= 0.1107178E-01 SEEBAR= 0.1120665E-01

TSS= 0.9616528E-01    RSS= 0.2562014E-01     FSTAT(   4, 204)= 0.1404287E+03

MBAR=  -0.3403         DW STAT:  1.9859        RHO:  0.00762635
```

is used in simulating the AFDC-Basic program. It is included here only for inspection purposes.

Rejection Rate

The rejection rate equation is found in Table 6.4. In the New York City model this rate takes on added significance because its complement (the acceptance rate) appears as a major factor in the applications equation. Hence, it affects the final caseload through two components of the model. Moreover, because it is one of the two dependent variables that are most directly affected by corrective action activity it is especially critical to gain a thorough understanding of its determinants.[*]

The participation enters this equation non-linearly with a one period lag through two variables — C/F-1 and this value raised to the 1.6 power (1.6C/F).[**] The non-linear specification of the participation rate indicates that rejection rates tend to rise more than proportionally as program participation reaches high levels. At high participation rates the pool of non-participating eligibles becomes increasingly exhausted, with the remaining applicants more

---

[*] Although applications are often affected by corrective action activity, it is usually more indirectly than the way in which the rejection and closing rates are affected. As indicated in an earlier section, it is usually through some type of feedback mechanism that specific correction action policies affect applications received.

[**] The participation rate was lagged one month so that for simulation purposes it could be endogenously determined along with the caseload and at the same time be predetermined for simulating the rejection rate. The power on the non-linear term was determined using maximum likelihood estimation techniques.

Table 6.4

New York City AFDC-Basic: Final Rejection Rate Equation (1st Stage)

EQN NO. 2 228 OBSERVATIONS (1-> 228)
DEP VAR(10): REJRT
INDEPENDENT VAR(S): 11
V(S) IN XPX= 98 M= 98
DETERMINANT= 0.6240219E-04

	INDEP.VAR.	REGR.COEFF.	STD.ERR.	T-RATIO	MEAN
(10)					0.336244E+00
(1)	CONS	0.120314E+01	0.213076E-01	0.564652E+02	0.100000E+01
(33)	PHOTO	-0.158395E+00	0.165394E-01	0.957679E+01	0.186404E-01
(34)	PROOF	0.452846E-01	0.780268E-02	0.580372E+01	0.526316E-01
(39)	SWANTS	-0.575473E-01	0.251869E-01	0.228481E+01	0.438596E-02
(52)	12/72D	0.122767E+00	0.254256E-01	0.482849E+01	0.438596E-02
(26)	C/F-1	-0.303699E+01	0.865377E-01	0.350943E+02	0.782423E+00
(98)	1.6C/F	0.209381E+01	0.651569E-01	0.321349E+02	0.718411E+00
(81)	POL77	0.112494E+00	0.847607E-02	0.132719E+02	0.438596E-01
(62)	TIT4D	0.499616E-01	0.128292E-01	0.389438E+01	0.175439E-01
(35)	CH8784	0.236523E-01	0.600299E-02	0.394009E+01	0.625000E-01
(42)	WKLOAD	-0.511029E-02	0.146696E-02	0.348358E+01	0.373521E+00

RSQBAR= 0.9304 RSQ= 0.9334 SEE= 0.2444706E-01 SEEBAR= 0.2505903E-01

TSS= 0.2046948E+01 RSS= 0.1362662E+00 FSTAT(10, 217)= 0.3042705E+03

MBAR= -0.1244 DW STAT: 0.7617 RHO: 0.62292217

Rho-corrected

EQN NO. 2 227 OBSERVATIONS (2-> 228)
DEP VAR(110): REJRT
INDEPENDENT VAR(S): 11
V(S) IN XPX=110 M= 98
DETERMINANT= 0.9232113E-04
RHO= 0.6229222E+00
Y(228)= 0.7022726E+00

	INDEP.VAR.	REGR.COEFF.	STD.ERR.	T-RATIO	MEAN
(110)					0.125791E+00
(99)	CONS	0.119597E+01	0.424566E-01	0.281693E+02	0.377078E+00
(100)	PHOTO	-0.146485E+00	0.248020E-01	0.590618E+01	0.705982E-02
(101)	PROOF	0.507116E-01	0.117930E-01	0.430013E+01	0.199336E-01
(102)	SWANTS	-0.683143E-01	0.165813E-01	0.411995E+01	0.166114E-02
(103)	12/72D	0.137014E+00	0.169343E-01	0.809094E+01	0.166114E-02
(104)	C/F-1	-0.300339E+01	0.170449E+00	0.176204E+02	0.296896E+00
(105)	1.6C/F	0.206791E+01	0.127974E+00	0.161588E+02	0.273112E+00
(106)	POL77	0.956535E-01	0.123480E-01	0.774649E+01	0.166114E-01
(107)	TIT4D	0.350482E-01	0.145772E-01	0.240432E+01	0.664454E-02
(108)	CH8784	0.240181E-01	0.101071E-01	0.237635E+01	0.236712E-01
(109)	WKLOAD	-0.526847E-02	0.992782E-03	0.530678E+01	0.141637E+00

RSQBAR= 0.7931 RSQ= 0.8023 SEE= 0.1904616E-01 SEEBAR= 0.1952511E-01

TSS= 0.4164751E+00 RSS= 0.8234568E-01 FSTAT(10, 216)= 0.8764510E+02

MBAR= -0.0636 DW STAT: 1.8855 RHO: 0.05973597

likely to be only marginally eligible or completely ineligible for assistance. This naturally leads to a higher rejection rate. In New York City, at a participation rate of 85 percent, an increase of 5 percentage points to 90 percent would increase the rejection rate by only .25 percentage points, whereas an increase in participation of 10 points to 95 percent would boost the rejection rate by 1.02 percentage points.

The remaining variables in the rejection rate equation are used to proxy a number of administrative factors. In direct contrast to its impact in the AFDC-Basic processing rate equation, the photo identification program had a negative and extremely powerful effect on the rejection rate. Perhaps the additional "hassle" that this program imposed on potential recipients precluded marginally eligible familes from applying for AFDC altogether, or perhaps it acted to reduce the amount of attempted fraud. In any case, the program was responsible for about a 14 percentage point decline in the rejection rate over a several month period.

Anticipation of the social workers strike in 1965 also effectively reduced the rate at which applications were rejected. The coefficient on the SWANTS term indicates that the rejection rate was nearly seven percentage points lower than the historical average as a result of anticipation of the strike. Apparently, the extra processing of applications a month before the work action was partially accomplished through lower acceptance standards.

CH8784, a dummy variable to account for changes in state law restricting eligibility, also had a significant impact on the number of rejections. Its effect was to increase the rejection rate by an average of nearly two and one half points in the first three months, and even more during several of the remaining nine months that it was in effect.

The exponential workload term (WRKLOD) appears in the equation to test if, in fact, as the workload of the welfare department increases, the intensity with which eligibility requirements are applied declines, ultimately lowering the rejection rate. The coefficient of .0053 suggests that the phenomenon exists, but that it is not overly powerful.

Three corrective action variables enter the rejection rate equation directly. First, the proof of identification program (PROOF) instituted in New York City in 1973 exerted a powerful influence on the number of rejections. The tighter application procedures were responsible for boosting the rejection rate by five points in the first month that the policy was in effect, with a declining impact over the following eleven months.

The start-up of Child Support Enforcement (TIT4D) in 1975 also acted to increase the rate at which applications were rejected. In August 1975, New York's DSS implemented various provisions of Title IV-D of the Social Security Act. Each social service district in the state was required to establish a Child Support Unit. Clearly, at that time a great deal of emphasis was placed on the problem of absent parents, a leading cause of ineligibility in New York City according to the DSS, and a significant increase in the rejection rate occurred for a period of a few months. In a sense, the IV-D program start-up reflected a general administrative tightening which led to a greater number of rejections. The coefficient indicates that this tightening raised the rejection rate by about 3.5 percentage points.

Finally, an administrative policy implemented in 1977 (POL77) requiring the immediate rejection of cases with insufficient documentation of eligibility, rather than their placement into the applications pending category, had a significant and positive impact on the rejection rate. Some applications which should have been deferred for later action on eligibility determination were being rejected because of insufficient information. The coefficient indicates that on average, this boosted the rejection rate by over four points for much of the year. The rejected applicants were directed to return at some later date when they could provide full documentation of eligibility factors. When they did return with the appropriate documentation, a new application was counted and accepted. In 1978, an administrative decision to reduce the number of rejections occurring as a result of this policy led to the return of a "normal" rejection rate. Following this decision, the Income Maintenance Division conducted staff training to ensure that applicants lacking documentation but having prima facie eligibility were deferred (put in the pending category) for a time long enough for them to submit the required documentation.

Closing Rate

The one remaining component of the caseload identity to examine is the closing rate. The final OLS and rho-corrected regressions for this equation are presented in Table 6.5. The first stage regression indicates that approximately 80 percent of the variance in the dependent variable was explained by the right-hand-side variables. The equation contains employment opportunity and institutional variables, but in contrast to most of the other models it does not contain a significant welfare benefit variable.

The natural log of the unemployment rate (LNURT) appears in the equation to evaluate the employment opportunity theory. The log specification was decided upon for several reasons, not the least of which was purely intuitive. Because we believe a priori that a one point change in the unemployment rate will have a very different impact on closings at different levels of unemployment, we chose to rely on a non-linear specification of UNRTE to evaluate the employment opportunity hypothesis. Clearly, if a linear relationship is assumed, an increase in unemployment from five to eight percent will have the same impact proportionally as an increase from nine to twelve percent. However, with this type of specification the size of the "welfare prone" population will be overestimated at extremely high levels of unemployment. This naturally flows from the assumption that at high rates of unemployment "marginally" unemployed families are more likely to be ineligible for AFDC due to a number of factors - primarily those involving family composition (the family is intact with the male wage earner unemployed) and alternative sources of income (e.g., asset

Table 6.5

New York City AFDC-Basic: Final Closing Rate Equation (1st Stage)

```
EQN NO. 1   120 OBSERVATIONS ( 109-> 228)
DEP VAR( 15): CLORT
INDEPENDENT VAR(S):    9
V(S) IN XPX= 98   M= 98
DETERMINANT=       0.2488457E-07
```

INDEP.VAR.		REGR.COEFF.	STD.ERR.	T-RATIO	MEAN
(15)					0.211858E-01
(1)	CONS	0.617843E-01	0.893116E-02	0.691784E+01	0.100000E+01
(45)	WDAYS	0.439745E-03	0.252766E-03	0.173973E+01	0.209250E+02
(92)	LUNRT	-0.689871E-02	0.186691E-02	0.369526E+01	0.198191E+01
(61)	CH811	-0.685495E-02	0.195618E-02	0.350426E+01	0.333333E-01
(62)	TIT4D	-0.667091E-02	0.210002E-02	0.317660E+01	0.333333E-01
(44)	ADAIX	-0.135277E-03	0.431223E-04	0.313704E+01	0.845742E+02
(90)	7/77D	-0.737844E-02	0.389020E-02	0.189667E+01	0.833333E-02
(84)	RCM	0.979533E-02	0.120589E-02	0.812292E+01	0.100000E+00
(43)	QCRATE	-0.171084E-02	0.124286E-03	0.137653E+02	0.147027E+02

```
RSQBAR=   0.7891 RSQ=   0.8033    SEE= 0.3673580E-02 SEEBAR= 0.3819606E-02

TSS= 0.8232677E-02   RSS= 0.1619423E-02     FSTAT(  8, 111)= 0.5666148E+02

MBAR=  -0.2576        DW STAT:  1.3755        RHO:  0.31960250
```

Rho-corrected

```
EQN NO. 1   119 OBSERVATIONS ( 110-> 228)
DEP VAR(108): CLORT
INDEPENDENT VAR(S):    9
V(S) IN XPX=108   M= 98
DETERMINANT=       0.8754638E-07
RHO=      0.3196025E+00
Y( 228)=       0.7022726E+00
```

INDEP.VAR.		REGR.COEFF.	STD.ERR.	T-RATIO	MEAN
(108)					0.144352E-01
(99)	CONS	0.602474E-01	0.105724E-01	0.569857E+01	0.680397E+00
(100)	WDAYS	0.443483E-03	0.215063E-03	0.206211E+01	0.142174E+02
(101)	LUNRT	-0.617341E-02	0.246809E-02	0.250129E+01	0.135255E+01
(102)	CH811	-0.584976E-02	0.233599E-02	0.250418E+01	0.228705E-01
(103)	TIT4D	-0.666923E-02	0.246148E-02	0.270944E+01	0.228705E-01
(104)	ADAIX	-0.139070E-03	0.595154E-04	0.233671E+01	0.574105E+02
(105)	7/77D	-0.103042E-01	0.349686E-02	0.294669E+01	0.571762E-02
(106)	RCM	0.875536E-02	0.107530E-02	0.814226E+01	0.686115E-01
(107)	QCRATE	-0.168677E-02	0.165921E-03	0.101661E+02	0.995021E+01

```
RSQBAR=   0.7013 RSQ=   0.7215    SEE= 0.3487149E-02 SEEBAR= 0.3627001E-02

TSS= 0.5196062E-02   RSS= 0.1447065E-02     FSTAT(  8, 110)= 0.3562292E+02

MBAR=  -0.1951        DW STAT:  2.0395        RHO: -0.01417734
```

related and non-public assistance transfers such as UIB and SSI). The coefficient on LNURT indicates that an increase in the unemployment rate of four percentage points from 5 to 9 percent would decrease the closing rate by .36 percentage points. A further increase in the unemployment rate from 9 to 13 percent would continue to lower the closing rate, but only by .23 percentage points.

The Americans for Democratic Action index (ADAIX) was entered in the equation to investigate whether this measure of political attitudes was correlated with the rate at which cases were closed. The regression indicates a small but statistically significant impact on the number of closings. The coefficient implies that with a caseload of 250,000 in New York City, a ten point increase in ADAIX would result in 350 fewer closings.

The number of workdays per month and an illegal aliens ruling are the two remaining factors in the closing rate equation excluding corrective action related variables. The coefficient on WDAYS suggests that with a caseload of 250,000 an additional workday would result in almost 110 more closings, while the initial impact of a liberalized policy with respect to illegal aliens (CH811) resulted in a decline of over one half of a point in the closing rate.

Several specially constructed corrective action variables enter the closing rate equation. One in particular was designed as a proxy for administrative tightening in general, rather than a specific corrective action measure. The quality control ineligibility rate (QCRTE) is meant to proxy for the existence of a host of undocumented administrative policies aimed at increasing the number of closings, particularly during the City's fiscal crisis. Because it would have been impossible to identify each and every policy that might have had a direct impact on the rate at which cases were closed, it was judged that the ineligibility rate would be an acceptable proxy for the administrative tightening that resulted from the emphasis placed on quality control.

The negative sign on the coefficient is fully consistent with what we originally hypothesized. It implies that during periods of high ineligibility rates (e.g., in early 1973) the New York City welfare administration was placing less emphasis on the removal of ineligibles from the caseload. In contrast, during periods of low ineligibility rates, the administration (through a score of undocumented policies, ranging from supervisory pep talks for case workers to a significantly enlarged commitment to personnel training) was working intently on "cleansing" the caseload of any ineligible recipients. The coefficient suggests that a one point decrease in the ineligibility rate is correlated with an increase of .0017 in the closing rate.

The second corrective action variable appearing in the closing rate equation (RCM) attempts to capture the impact of specific periods of recertification and mailout activity. It proves to be a powerful factor in explaining much of the sharp and isolated variation in the closing rate. Obviously, the increased recertification activity, consisting of more frequent face-to-face contact between worker and client as well as mailed questionnaires to recertify the entire caseload, served its intended purpose of increasing the number of closings. By acquiring information relating to the changing circumstances of recipients in a periodic manner, the Department maintains that it has been able to "cleanse" the caseload of many ineligible recipients that would have continued to receive aid. The coefficient on RCM implies that on average, during these periods of recertification, the closing rate was nine-tenths of one percentage point higher than it would have been in the absence of these activities, or about a 40 percent increase over the mean value of the closing rate during the period under study.

The implementation of various provisions of Title IV-D (Child Support and Enforcement) of the Social Security had an impact on the closing rate that was quite different from that which it had on the rejection rate. While TIT4D acted to boost the rejection rate, probably because it increased the amount of scrutiny with which intake workers applied the various eligibility criteria, (especially with respect to absent parents), it had the completely opposite effect on the closing rate. It is reasonable to suspect that while the DSS was concentrating on matters relating to absent parents and child support in the application procedure, it inadvertently neglected the termination process. During the three month period when Title IV-D was implemented and highly visible, the closing rate fell by an average of nearly two-thirds of one point.

Finally, in July 1977 (7/77D) the closing rate fell sharply, by more than one full point. We suspect that this may have been a reaction to the abnormally high closing rate of the previous months, but this is pure conjecture.

The preceding five equations, those necessary to simulate the AFDC-Basic caseload in New York City, indicate that there has been an ongoing program of corrective action in this jurisdiction. Variables constructed to capture various elements of this program appear in all equations except the two processing rates (Basic and UF). Interestingly, several of them attempt to measure indirect feedback mechanisms that result from policies designed to directly increase closings and rejections. But only by simulating the caseload with these equations can we determine what their actual impact has been on caseload and expenditures levels. The following section presents these simulations.

New York City

Simulation Results

As the preceding regression results indicated, several corrective action variables appear in the individual component equations of the New York City AFDC Dynamics model. Several of them were designed to capture indirect feedback mechanisms resulting from corrective actions intended to directly increase closings and rejections. Three variables designed to capture such feedback mechanisms appear in the applications equation. CC*RCM and CC*Q-1 measure increased applications that resulted from increased corrective action-related closings, while RJ*P77 measures increased application activity resulting from a 1977 administrative directive requiring complete documentation of all factors affecting eligibility. A variable designed to capture additional turnover or "churning" within the program (RECRT*) during a period of increased recertification activity also appears in the equation. Finally, a policy requiring increased verification and documentation of eligibility factors during 1973 and 1974 is proxied by the variable PROOF. It indicates that the policy had a powerful dampening effect on applications.

The variable PROOF also appears in the rejection rate equation. Here it measures the policy's direct impact on rejections. The POL77 term appears in the equation to capture the impact of the 1977 rejection rate policy requiring total documentation of all eligibility factors. Finally, TIT4D measures the effect of the implementation of Title IV-D child support provisions.

The closing rate, the final equation of the system, incorporates four corrective action variables. TIT4D appears in the regression, but in contrast to its impact on the rejection rate, it actually reduced the closing rate. The quality control ineligibility rate (QCRTE) entered the regression to proxy for a general administrative tightening within the AFDC program. Specific periods of active recertification and mailout activity are represented by the term RCM. And finally, a one period dummy variable (7/77D) captures a sharp decline in the closing rate in an isolated period. In the next sections we examine the impacts of all of these corrective action variables in a dynamic simulation model.

Cases Receiving Assistance

Table 6.6 presents simulated estimates of cases receiving assistance at three points in time. A comparison of actual cases receiving assistance and our best regression estimate (provided by the PSS simulation) indicates the accuracy of the PSS model. In December 1974, there is virtually no error between the PSS estimate and the actual. By December 1976, the error approaches only one percent of the actual caseload, and by the end of the simulation period we see just over one percent error in the full model. This accuracy is depicted graphically in Figure 6.1. The differential between simulations (0) and (2) represents the difference between the actual caseload and our best simulated estimate of the caseload.

Table 6.6 and Figure 6.2 also indicate the effects of corrective action and structural change on the number of cases receiving

Table 6.6

Simulation Results

New York City

Cases Receiving Assistance

Simulation	at 12/74 (18 months)	at 12/76 (42 months)	at 12/78 (66 months)
Actual	242,660	253,250	238,068
Present Structure (PSS)	242,907	255,518	240,444
Pre - QC/CA Structure (Pre - QC/CA)	241,008	293,831	296,566
Present Structure - No QC/CA (PSS - No QC/CA)	256,858	303,792	315,690
QC/CA And Structural Impacts			
Due to QC/CA and Structure	+1,899	-38,313	-56,122
% PSS	(+0.8%)	(-15.0%)	(-23.3%)
Due to Structure	+15,850	+9,961	+19,124
% PSS	(+6.5%)	(+3.9%)	(+8.0%)
Due to QC/CA	-13,951	-48,274	-75,246
% PSS	(-5.7%)	(-18.9%)	(-31.3%)

Figure 6.1

Counterfactual Simulations vs. Actual: New York City

Cases Receiving Assistance

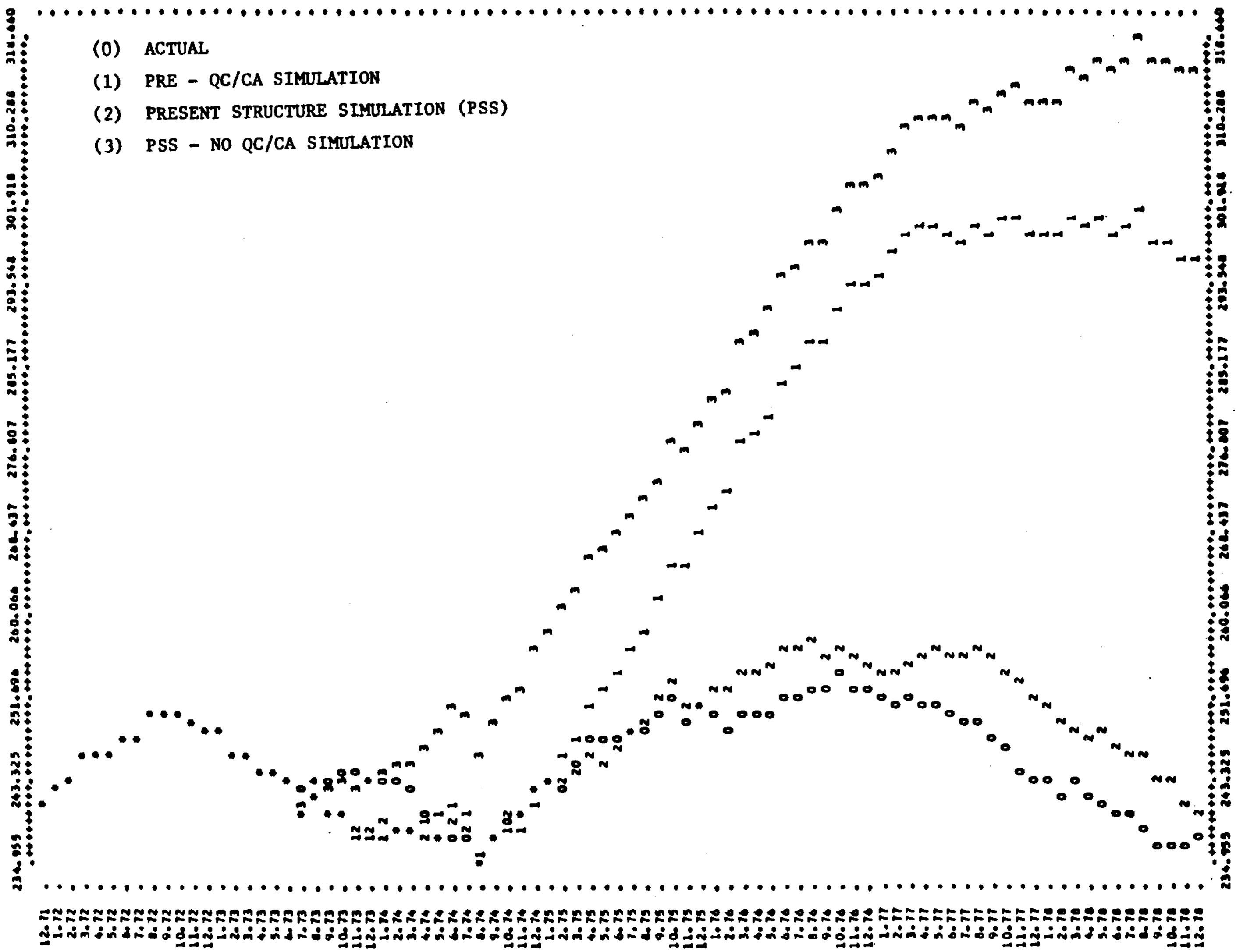
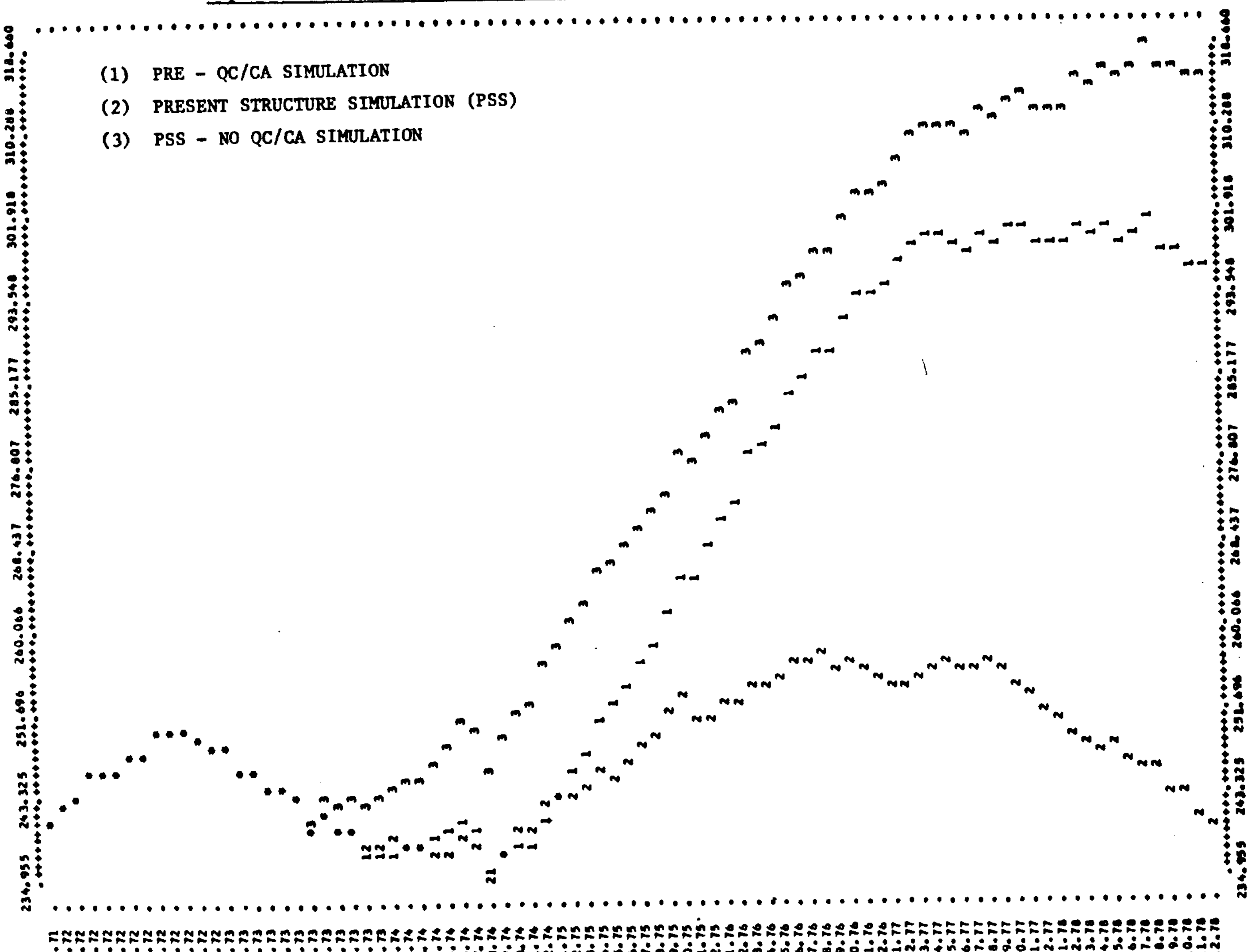


Figure 6.2

Counterfactual Simulation: New York City

Impact of All Corrective Action Variables on Cases Receiving Assistance



assistance. The table indicates that by December 1974, had no change occurred in underlying structural relationships, and had no corrective actions been undertaken, there would have been about 1,900 fewer cases receiving assistance than the PSS indicates. Corrective action itself reduced the potential caseload by about 13,950 cases, while structural changes that actually occurred resulted in 15,850 more cases than the Pre-QC/CA simulation predicted. This leaves a net impact of only 1,900 cases. In this case, the corrective actions were only sufficient to offset the simulated increase in the caseload due to apparent heightened sensitivity to factors such as higher unemployment rates.

By December 1976, the difference in caseload between the PSS and Pre-QC/CA simulations had grown to over 38,300 cases. The difference solely attributable to changing structural relationships declined to about 9,960. Corrective action, on the other hand, was responsible for reducing the potential caseload level by nearly 48,300 cases, or about 19 percent of the PSS estimate. Finally, by the end of the full simulation period the difference between the PSS and Pre-QC/CA simulations was 56,122 cases. Changes in underlying structural responses resulted in a caseload some 19,125 cases higher than the Pre-QC/CA simulation predicted. However, this was much more than offset by the caseload reduction impact of corrective action. Had corrective action never been undertaken, there would have been nearly 75,250 more cases receiving assistance than the PSS predicted. This represents almost one-third (31.3 percent) of the PSS estimate of the caseload for December 1978. The difference between simulations (2) and

(3) in Figure 6.2 depicts graphically the impact of all corrective actions on cases receiving assistance. Simulation (1) indicates what the caseload would have been had the Pre-QC/CA relationships held and no corrective actions been undertaken. Simulation (2) represents our best estimate of actual caseload, and simulation (3) indicates what the caseload would have been had no corrective action been taken. Corrective actions were therefore responsible for reducing the caseload from (3) to (2), while structural change that occurred boosted the simulated caseload from (1) to (3).

From the preceding it is clear that the corrective actions undertaken in New York City had an extremely powerful impact on the City caseload. However, the caseload estimates do not indicate how the 31 percent reduction in potential caseload growth was accomplished. By analyzing the impact of corrective actions (and structural change) on the two basic components of the caseload identity we can show how this extraordinary caseload reduction was actually achieved.

Cases Added

Table 6.7 presents the impact of structural change and corrective action on the cases added component of the caseload identity. It indicates that over the initial 18 month simulation period ending in December 1974, had no corrective actions been implemented and no structural changes occurred, there would have been about 7,180 more additions to the AFDC-Basic caseload. Of the total difference between the PSS and Pre-QC/CA simulations, different structural relationships

Table 6.7

Simulation Results

New York City

Cases Added

Simulation	Cumulative to 12/74 (18 months)	Cumulative to 12/76 (42 months)	Cumulative to 12/78 (66 months)
Actual	93,354	259,258	455,505
Present Structure (PSS)	89,964	262,854	458,693
Pre - QC/CA Structure (Pre - QC/CA)	97,147	246,091	375,582
Present Structure - No QC/CA (PSS - No QC/CA)	94,143	237,077	361,859
QC/CA And Structural Impacts			
Due to QC/CA and Structure	-7,183	+16,763	+83,111
% PSS	(-8.0%)	(+6.4%)	(+18.1%)
Due to Structure	-3,004	-9,014	-13,723
% PSS	(-3.3%)	(-3.4%)	(-3.0%)
Due to QC/CA	-4,179	+25,777	+96,834
% PSS	(-4.7%)	(+9.8%)	(+21.1%)

accounted for about 3,000 fewer additions, while corrective actions resulted in 4,179 fewer cases being added (or 4.7 percent of the PSS estimate of openings).

Over the longer 42 month simulation period the impact of both changing structural relationships and corrective action was 16,763 cases. Had no change in structural relationships occurred, there would have been over 9,000 more openings in the program. This difference was, however, offset by an increase of 25,777 (or 9.8 percent of the PSS estimate) openings attributable to corrective action. Through the many feedbacks that operate in the New York City equation system, corrective actions themselves actually acted to boost the number of cases added. These feedback mechanisms will be analyzed more closely in a later section.

Finally, by the end of the entire simulation period, had no change whatsoever occurred in the caseload generating function, there would have been about 83,100 fewer additions than the PSS indicates. Of this difference, corrective actions were responsible for 96,834 additional openings (21.1 percent of the PSS estimate), while changes that occurred in underlying structural relationships resulted in 13,723 fewer additions. Again it was the operation of various feedback mechanisms in the model that acted to increase openings relative to what they would have been in the absence of corrective action activities.

Cases Subtracted

Table 6.8 presents estimates of cumulative cases subtracted over three discrete periods. As we have done for all of the models in the study, the impacts of structural change and corrective actions are parceled out via comparisons of the three basic simulations.

The table indicates that over the first 18 months of the simulation period, had no change occurred in the underlying relationships between dependent and independent variables and had no corrective actions been initiated, there would have been 9,062 more cases closed than the PSS indicates. Changing structural relationships were responsible for a difference of about 18,680 closings. This was offset, however, by an increase of 9,624 closings (10.8 percent of the PSS estimate) that resulted from corrective action alone.

By December 1976, had the Pre-QC/CA structure continued from 1972 and no corrective actions been undertaken, there would have been over 54,500 fewer cases closed than the PSS indicates. Corrective actions, however, acted to boost closings by about 73,350 or 29.3 percent of the PSS estimate. Changing structural relationships were responsible for 18,834 fewer closings, leaving a net increase of over 54,000 additional closings.

Over the full simulation period ending in December 1978, the difference between the PSS and Pre-QC/CA simulations was 137,355 cases. The structural changes that occurred between 1972 and 1978 were responsible for about 32,200 fewer case closings in the PSS-No QC/CA simulation relative to the Pre-QC/CA simulation. Put another

Table 6.8

Simulation Results

New York City

Cases Subtracted

Simulation	Cumulative to 12/74 (18 months)	Cumulative to 12/76 (42 months)	Cumulative to 12/78 (66 months)
Actual	92,469	248,867	464,624
Present Structure (PSS)	88,825	250,232	465,505
Pre - QC/CA Structure (Pre - QC/CA)	97,887	195,710	328,150
Present Structure - No QC/CA (PSS - No QC/CA)	79,201	176,876	295,941
QC/CA And Structural Impacts			
Due to QC/CA and Structure	-9,062	+54,522	+137,355
% PSS	(-10.2%)	(+21.8%)	(+29.5%)
Due to Structure	-18,686	-18,834	-32,209
% PSS	(-21.0%)	(-7.5%)	(-6.9%)
Due to QC/CA	+9,624	+73,356	+169,564
% PSS	(+10.8%)	(+29.3%)	(+36.4%)

way, had no changes occurred in the individual parameter estimates of structural variables like B/Z and UNRATE, there would have been 32,200 more cases closed than the PSS-No QC/CA simulation indicates. On the other hand, had no corrective actions been undertaken there would have been about 169,560 fewer cumulative closings in AFDC. Corrective actions were therefore responsible for boosting closings by 36.4 percent of the PSS estimate.

Expenditures

Table 6.9 and Figure 6.3 present the basic simulations for AFDC expenditures in New York City. As we noted in the Upstate simulation results, it was necessary to make a major assumption in estimating AFDC expenditures: each case that is affected by corrective action through any component of the model is assumed to receive the actual average expenditure for all cases. This is a crucial assumption because cases that are rejected or closed as a result of corrective action might be expected to receive only marginal amounts of aid (because they may be more likely to be at the margin of eligibility).

The table indicates that in the absence of both structural change and corrective actions, AFDC expenditures would have been only \$286,000 less than the PSS indicates by December 1974. However, when we analyze the individual impacts of structural changes and corrective action, we see that their individual impacts were large, yet cancelled each other out, yielding a net difference of only \$286,000. While underlying structural changes that occurred in the program actually boosted simulated expenditures by about \$47.0 million, corrective

Table 6.9

Simulation Results

New York City

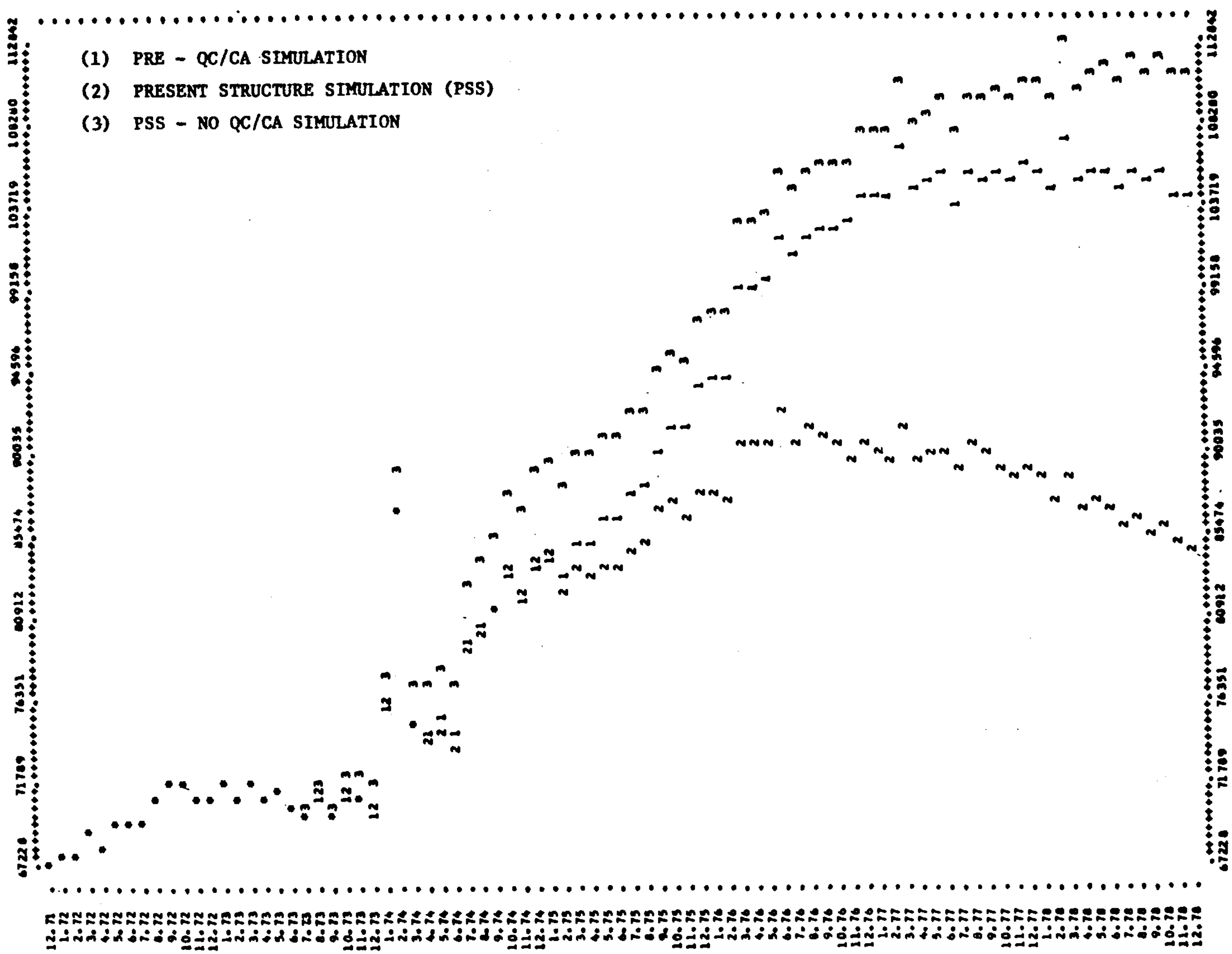
Expenditures (in thousands)

Simulation	Cumulative to 12/74 (18 months)	Cumulative to 12/76 (42 months)	Cumulative to 12/78 (66 months)
Actual	$1,389,914	$3,479,048	$5,549,693
Present Structure (PSS)	1,379,139	3,485,025	5,606,769
Pre - QC/CA Structure (Pre - QC/CA)	1,378,853	3,639,352	6,168,877
Present Structure - No QC/CA (PSS - No QC/CA)	1,425,840	3,784,019	6,431,912
QC/CA And Structural Impacts			
Due to QC/CA and Structure	$+286	$-154,327	$-562,108
% PSS	(+0.02%)	(-4.4%)	(-10.0%)
Due to Structure	+46,987	+144,667	+263,035
% PSS	(+3.4%)	(+4.2%)	(+4.7%)
Due to QC/CA	-46,701	-298,994	-825,143
% PSS	(-3.4%)	(-8.6%)	(-14.7%)

Figure 6.3

Counterfactual Simulation: New York City

Impact of All Corrective Action Variables on Expenditures



actions reduced simulated expenditures by $46.7 million or 3.4 percent of the PSS estimate for the 18 month period.

By December 1976, 42 months out in the simulation period, had structural change not occurred and corrective actions not been implemented, AFDC expenditures would have been about $154.3 million or 4.4 percent more than the PSS estimate. Changes in underlying structural relationships were responsible for increasing expenditures by $144.7 million. This was offset again, however, by an expenditure reduction of $299.0 million (8.6 percent of the PSS estimate) resulting from corrective actions.

By the end of the full 66 month simulation period, the difference between PSS and Pre-QC/CA simulations was about $562.1 million. Corrective actions alone acted to reduce expenditures by a total of $825.1 million (14.7 percent of the PSS estimate of total AFDC expenditures) over the five and one-half year period. Note the differential between simulations (2) and (3) in Figure 6.3. The total reduction attributable to corrective actions was tempered, however, by structural changes that occurred over the period. If the Pre-QC/CA structure had continued to the end of 1978, expenditures would have been $263.0 million less than PSS-No QC/CA simulation indicates. Structural changes in the caseload generating function were therefore responsible for increasing expenditures by the same amount. The differential between simulations (1) and (3) represents the difference in expenditures attributable to structural change alone.

Which Corrective Actions Did the Most?

As we did for Upstate New York we can parcel out the individual impacts of the various corrective actions undertaken in New York City. With this method of analysis we can determine which factors have been the most significant in reducing caseload and expenditure levels below what they would have been in the absence of corrective action activity.

Cases Receiving Assistance

Table 6.10 presents the individual impacts of the basic corrective action variables on cases receiving assistance for three points in time.[*] Additionally, Figures 6.4 through 6.8 graphically depict the impacts of these variables for the entire simulation period.

The first corrective action variable evaluated in Table 6.10 (PROOF) represents a policy implemented in 1973 requiring complete verification and documentation of factors affecting eligibility. Because the policy variable was operative for a period of only 12 months, its impact on the caseload via the applications received and rejection rate equations was largest during the initial 18 month

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[*] Because some of the corrective action policies directly affected the rejection rate or closing rate equations, and indirectly affected the applications equation, they are evaluated in terms of their net impacts. For example, the 1977 rejection rate policy (POL77) and its feedback counterpart (RJ*P77), as well as the specific period recertification variable (RCM) and its counterpart (CC*RCM), are evaluated as individual corrective actions in order to determine their net impacts.

Table 6.10

Individual Corrective Action Impacts

New York City

Cases Receiving Assistance

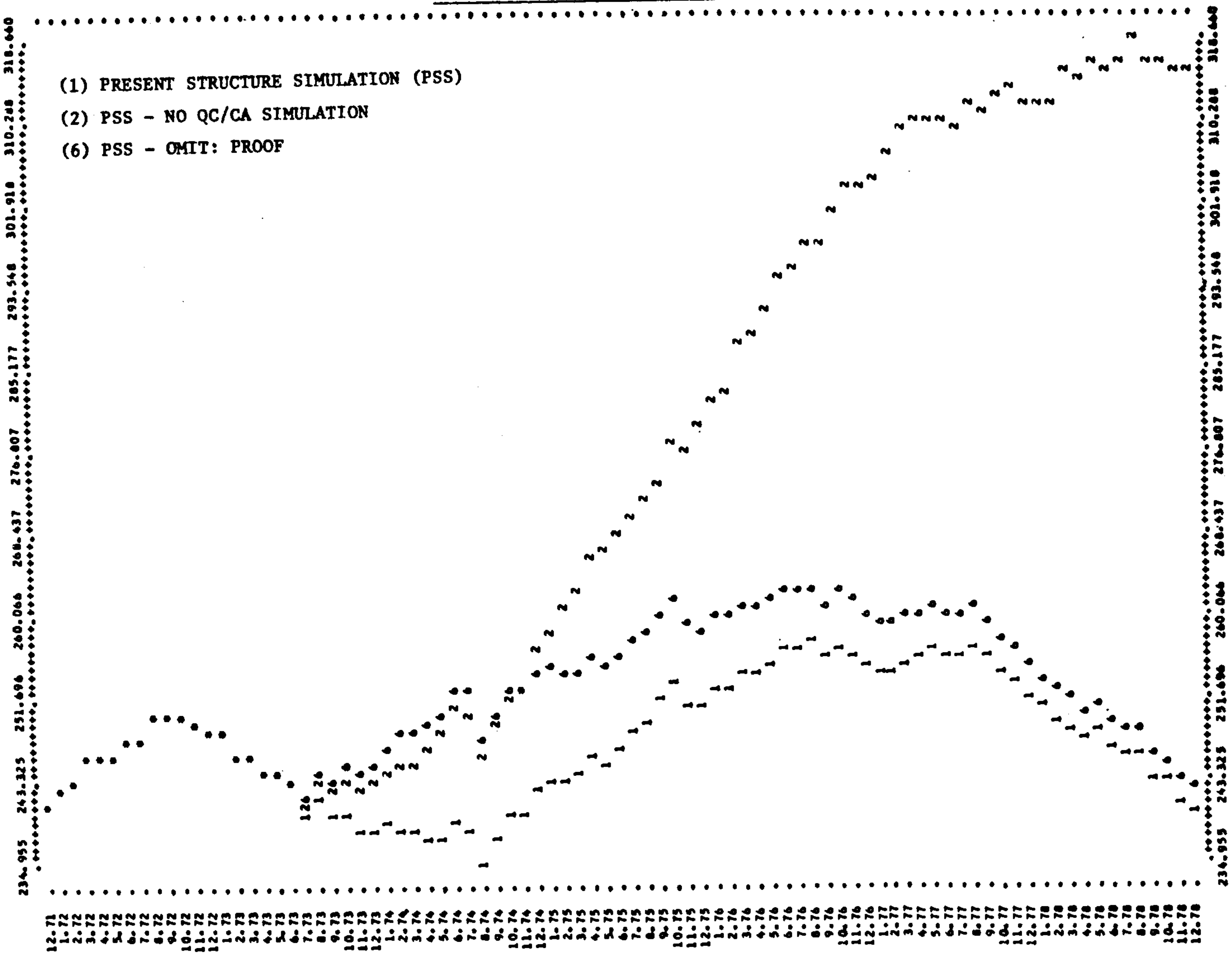
QC/CA Variable	at 12/74 (18 months)	at 12/76 (42 months)	at 12/78 (66 months)
1) PROOF	-11,933	-4,992	-2,229
2) TIT4D	0	+2,415	+1,104
3) POL77 & RJ*P77	0	0	-5,007
4) RCM & CC*RCM	-1,447	-3,556	-3,762
5) RECRT*, QCRTE, CC*Q-1, 7/77D	-65	-40,594	-63,239
Total (Excluding Interactions)	-13,445	-46,727	-73,133
Interactions	-506	-1,547	-2,113
Total Impact	-13,951	-48,274	-75,246

Figure 6.4

Counterfactual Simulation: New York City

Impact of Tightened Application Policy (PROOF)

Cases Receiving Assistance



period of the simulation. In Figure 6.4, the differential between simulations (1) and (6) denotes the impact of PROOF alone, while the differential between simulations (2) and (6) represents the combined effects of all other corrective action variables in the model. Had the policy never been implemented, there would have been about 11,930 more cases receiving assistance in December 1974 than the PSS indicates. By December 1976, however, the impact of PROOF had declined to about 5,000 cases. That is, the tightened application procedures were responsible for reducing the caseload by about 5,000 cases relative to what it would have been had the policy not been adopted.

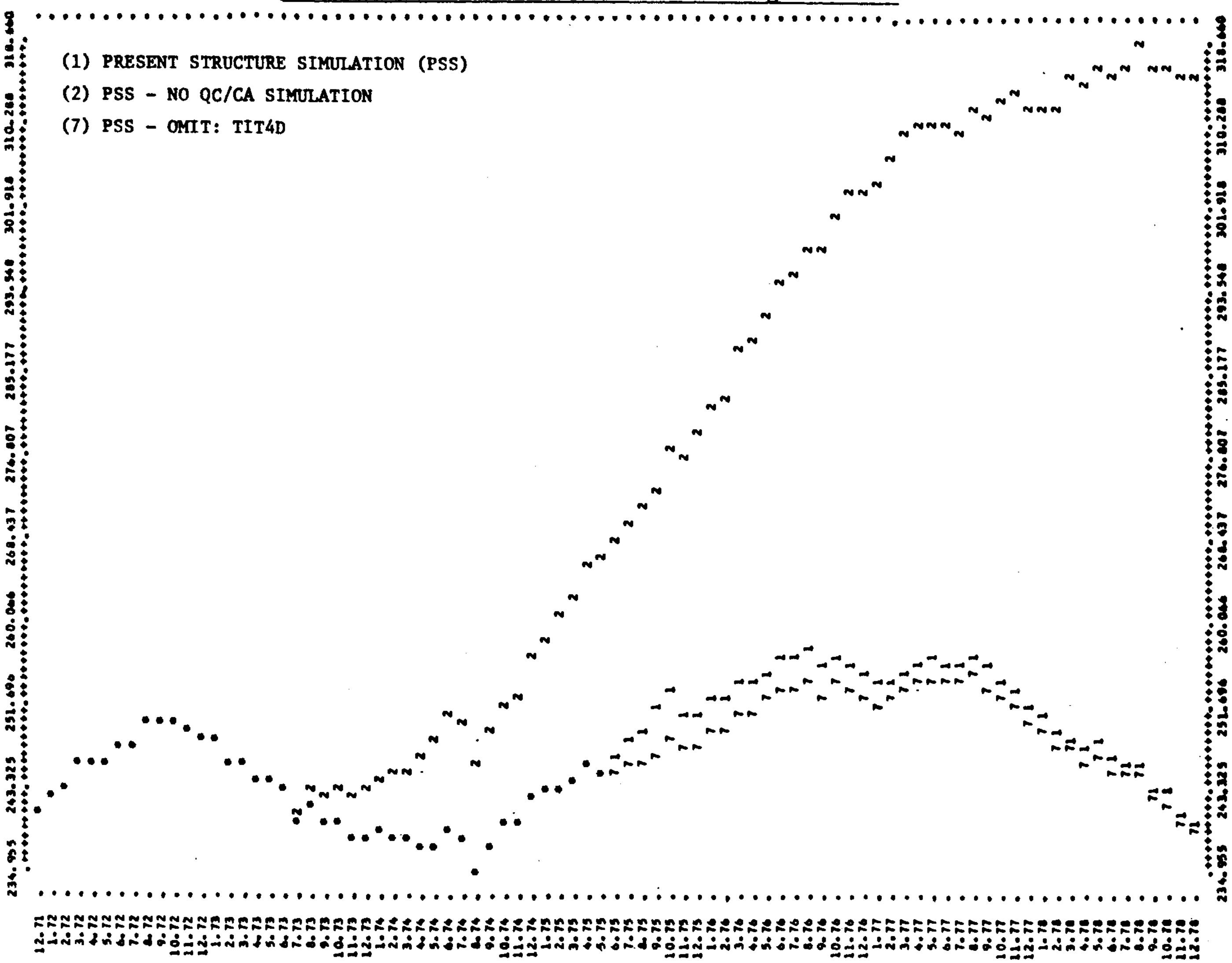
Finally, by the end of the simulation period, had the PROOF policy never been operative in the New York City AFDC program, there would have been about 2,230 more cases receiving assistance than our best model indicated. In a sense, this 12 month modified variable, represents an exogenous shock to the underlying structural and institutional determinants of both the applications and rejecion rate equations. Therefore, it is not surprising that its impact on the caseload five years after it was instituted is only one fifth the magnitude of its initial impact.

The Title IV-D variable (TIT4D) entered both the rejection rate and the closing rate equations. However, because its negative impact on the closing rate dominated over its positive impact on the rejection rate, it was responsible for increasing the caseload by 2,415 cases relative to what it would have been in December 1976 had the start-up of Title IV-D not occurred. To understand how this

Figure 6.5

Counterfactual Simulation: New York City

Impact of Title-IVD (TIT4D) on Cases Receiving Assistance



variable acted to increase the caseload one must again consider the interactions in a caseload components model: because TIT4D reduced the measured closing rate, thereby reducing closings in the program, the simulated caseload was allowed to grow at a faster rate during the three month period that the variable was in effect. Although TIT4D also acted to raise the rejection rate, therefore reducing cases added and caseload for the three month period, this impact was clearly overpowered by the closing rate relationship. Thus, the caseload is lower in a simulation that omits TIT4D from the equation system than one in which all corrective actions are operative. The differential between simulations (1) and (7) in Figure 6.5 represents the impact of this variable.

As noted earlier, the 1977 rejection policy (POL77) requiring the automatic rejection of applicants lacking complete documentation of eligibility had a direct impact on the rejection rate as well as an indirect feedback effect on applications (RJ*P77). Table 6.10 indicates that in December 1978, the net impact of the two variables was about 5,000 cases. Had the policy never been instituted, in other words, there would have been 5,000 more cases receiving assistance in December 1978 than the PSS indicated. In Figure 6.6, the differential between simulations (1) and (5) indicates the caseload reduction impact of this rejection rate policy.

The next variables in Table 6.10 represent periods of special recertification and mailout activity (RCM). These policies were designed to periodically locate and remove from the public assistance rolls those recipients not legally entitled to be there. Similar to

Figure 6.6

Counterfactual Simulation: New York City

Impact of 1977 Rejection Policy (POL77 & RJ*P77)

Cases Receiving Assistance

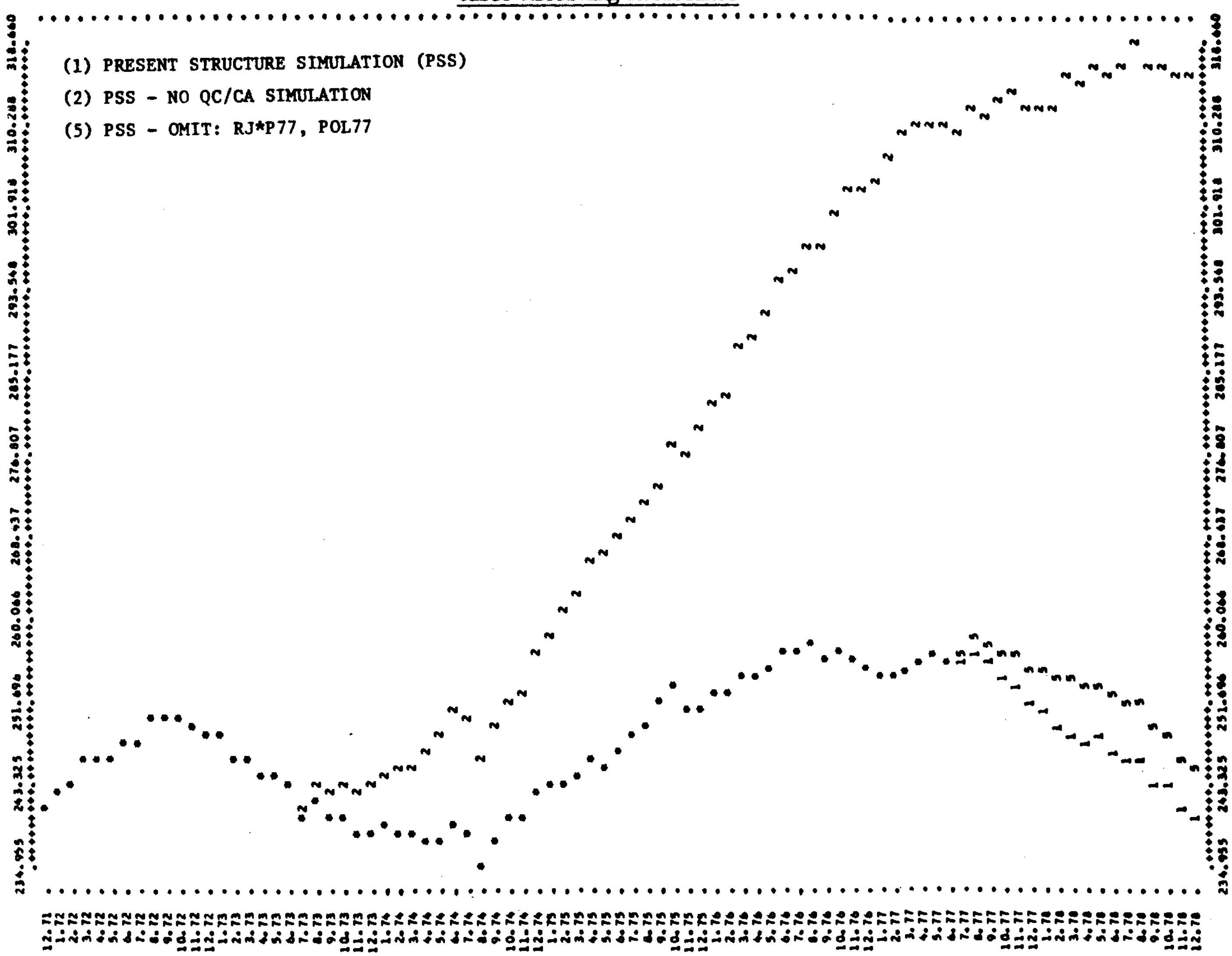
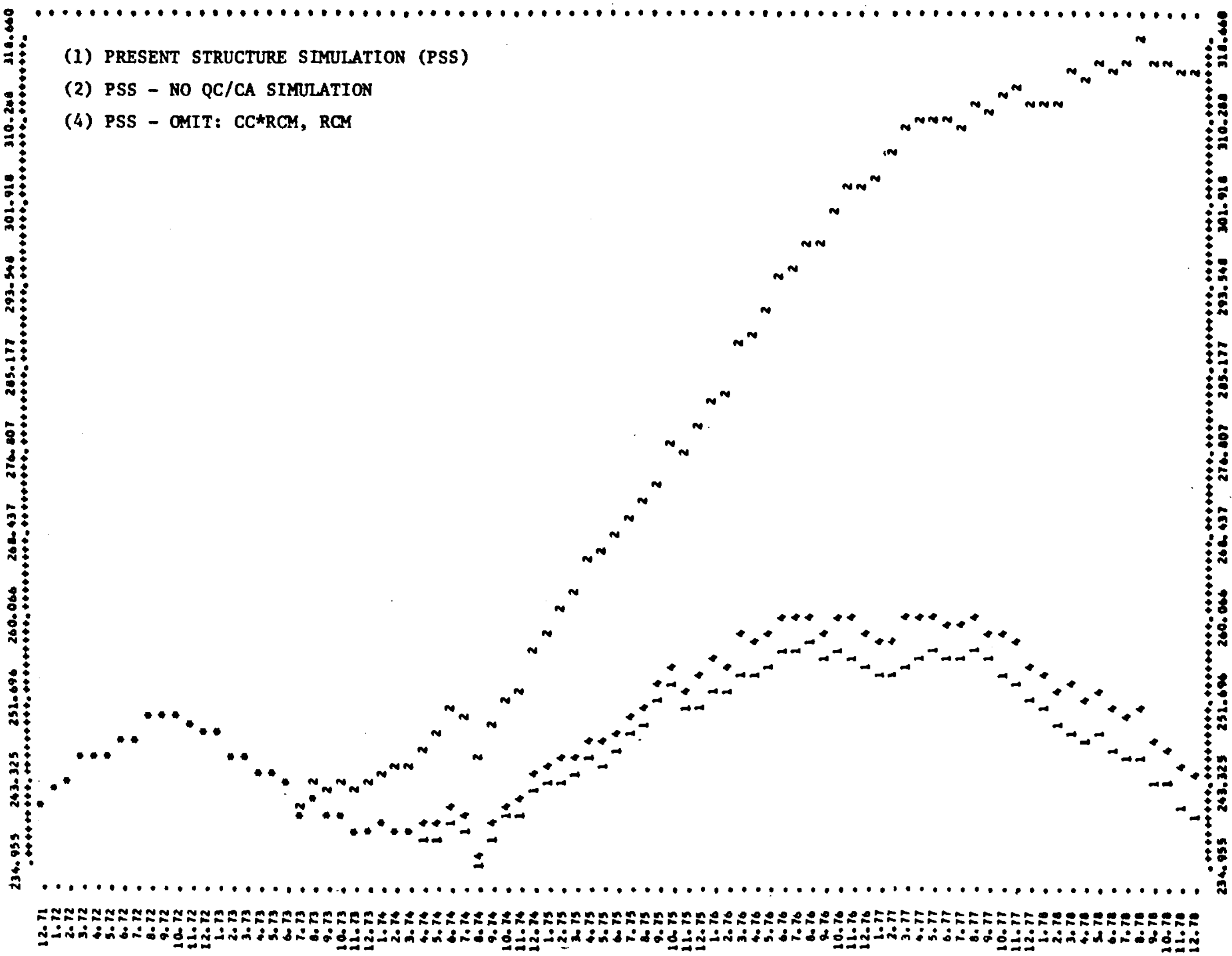


Figure 6.7

Counterfactual Simulation: New York City

Impact of Recertifications and Mailouts (RCM & CC*RCM)

Cases Receiving Assistance



the RJ*P77 variable, CC*RCM measures the proportion of cases closed in the specific months of recertification activity that return soon after their termination to reapply for AFDC. The table indicates that the net impact of these two variables was a reduction in the caseload of about 1,450 cases by December 1974. That is, in the absence of the recertification and mailout activity the caseload would have been 1,450 cases higher than the PSS predicted. By December 1976, 42 months out in the simulation period, these activities were responsible for a reduction of about 3,556 cases. Finally, by the end of the full simulation period, the net effect of the periodic recertifications (i.e., after accounting for both direct and indirect effects) was a reduction in caseload of about 3,762 cases. Figure 6.7 presents a graphic depiction of the impact of the recertification and mailout activity. The differential between simulations (1) and (4) represents the net effect of RCM and CC*RCM variables on the caseload. Simulation (4) indicates what the caseload would have been if the rejection rate policy had not been adopted, but all other corrective actions had remained operative, whereas simulation (1) represents our best estimate of the caseload, given all corrective action activities.

The final corrective action scenario in Table 6.10 accounts for the impact of general administrative corrective actions in the review of active cases. Although these general corrective actions included many administrative activities, including supervisory pep talks, more frequent recertifications, and more intensive case reviews, we could not separate out the effects of each. Rather, the many activities are proxied by the ineligibility rate (QCRATE) in the closing rate equation. While these general corrective actions resulted in a higher closing rate, they also had an offsetting impact of increasing applications. These offsetting impacts are modeled in the applications equation by the term CC*Q-1 which implies that 17 percent of the cases closed reapplied, and by the term RECRT* which implies that reapplications were at an even higher rate after spring 1977. This scenario also includes a single month dummy variable in the closing rate (7/77D) to account for a relatively low closing rate in July 1977, which we feel was a reaction to the high closing rates of previous months.

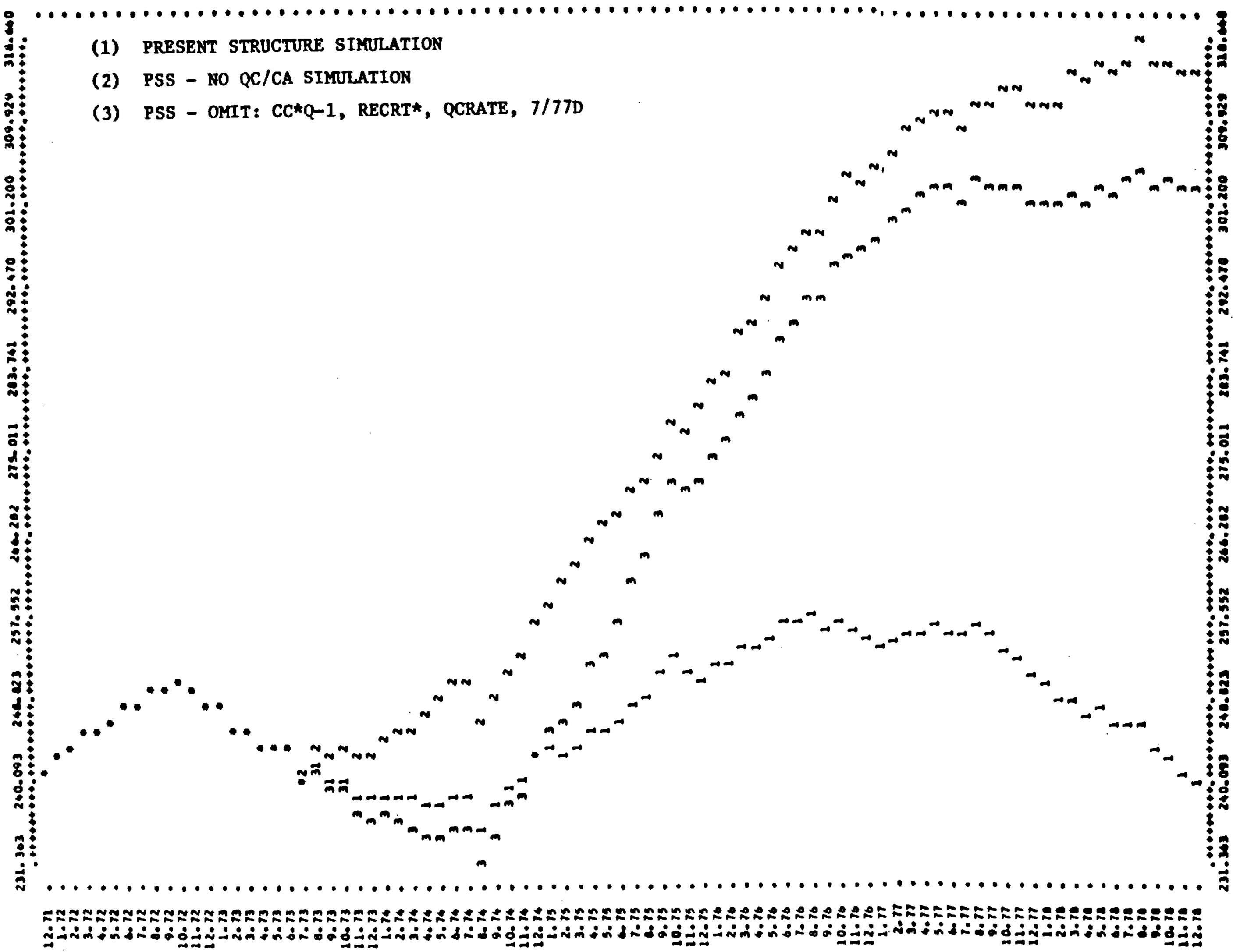
These four variables clearly had the greatest caseload reduction impact. Their combined effect was to reduce the caseload from the level indicated in simulation (3) to the level in simulation (1) in Figure 6.8. The differential between simulations (2) and (3) indicates the caseload impact of all other corrective actions in the model.

By December 1976, had the administrative policies not existed and had there been no active recertification activity during 1977 and 1978 (including feedbacks) there would have been nearly 40,600 more cases receiving assistance in New York City than our best model indicates. This represents about 84 percent of the total caseload reduction attributable to all corrective actions, and 18.9 percent of the PSS estimate of caseload. Clearly, then, the most powerful corrective action in New York City was neither a special program to tighten application procedures nor a particular program to increase terminations. Rather the City reduced its caseload (and its error rate) by developing a permanent set of administrative programs which

Figure 6.8

Counterfactual Simulation: New York City

Impact of QCRATE, RECRT*, CC*Q-1, 7/77D on Cases Receiving Assistance



were vigorously enforced. A vigilant attitude toward strict enforcement of regulations was instituted to help meet the City's fiscal crisis. These simulation results suggest it was.

Indeed, by December 1978, in the absence of these general administrative activities, we estimate that the caseload would have been about 63,240 cases higher than the PSS estimate. Again this represents 84 percent of the total corrective action-related caseload reduction, and 26.3 percent of the PSS estimate of caseload.

Now that the individual impacts of the various corrective actions on the New York City caseload have been evaluated, we turn to an analysis of the components through which the caseload reduction was accomplished.

Cases Added

Table 6.11 presents the individual corrective action impacts on cases added over three discrete periods. It begins with the PROOF variable representing tightened application procedures during 1973 and 1974. The table indicates that had this policy not been implemented, there would have been about 14,780 more cases added over the 18 month period ending in December 1974 than the PSS suggested. Relative to the PSS estimate of cases added for the 42 month simulation period, there would have been about 12,161 more openings without the PROOF variable. Finally, by December the complete verification / documentation requirements were responsible for reducing openings by nearly 11,970 relative to what would have occurred in their absence. Hence, this policy served its intended purpose of minimizing potential

Table 6.11

Individual Corrective Action Impacts

New York City

Cases Added

QC/CA Variable	Cumulative to 12/74 (18 months)	Cumulative to 12/76 (42 months)	Cumulative to 12/78 (66 months)
1) PROOF	-14,781	-12,161	-11,966
2) TIT4D	0	-3,046	-3,101
3) POL77 & RJ*P77	0	0	-7,564
4) RCM & CC*RCM	+2,605	+8,253	+14,430
5) RECRT*, QCRTE, CC*Q-1, 7/77D	+7,933	+31,472	+99,284
Total (Excluding Interactions)	-4,243	+24,518	+91,083
Interactions	+64	+1,259	+5,751
Total Impact	-4,179	+25,777	+96,834

caseload growth by keeping potential recipients off of the public assistance rolls.

As noted earlier, TIT4D appeared in both the rejection and closing rates. Through its positive impact on the rejection rate, it acted to reduce additions to the caseload by about 3,050 cases by December 1976. Over the entire simulation period, there would have been 3,100 more openings had the TIT4D start-up not occurred. By concentrating on the absent parent provisions of Title IV-D during application intake, the DSS was apparently able to reroute about 3,100 cases from the AFDC system by December 1978.

The 1977 administrative directive requiring the automatic rejection of applicants lacking sufficient documentation of eligibility (POL77) also served its objective of keeping certain applicants off the caseload. After explicitly accounting for the increase in applications resulting from this policy, the table indicates that it was still responsible for about 7,565 fewer openings by December 1978.

The recertification and mailout activity that occurred in several specific months throughout the simulation period (RCM) had the opposite effect on cases added. Because of the unavoidable churning and feedbacks that these mailout projects induce, openings were actually greater with these activities than they would have been in their absence. During the initial 18 months of the simulation, RCM and CC*RCM were responsible for 2,600 additional openings. Over the longer 42 month simulation period, the additional openings numbered 8,250, and by December 1978 there were 14,430 more openings as a result of these programs. However, in order to judge the net impact of the recertifications and mailouts, one must evaluate their effect on cumulative closings as well. This is done in the analysis of cases subtracted to follow.

The final variables evaluated in Table 6.11 indicate that the general administrative policies proxied by QCRTE had by far the greatest impact on openings of any of the corrective actions. The combined impact of these variables was to raise openings by about 7,930 over the 18 month period ending in December 1974. By December 1976, cumulative openings were 31,470 greater than they would have been in the absence of all these activities. Finally, by December 1978, the table indicates that nearly 100,000 re-openings were the result of these permanent administrative procedures. Obviously this added to the administrative costs of applicant intake, but as the next section indicates, the savings in permanent case closings was enormous.

<u>Cases Subtracted</u>

Table 6.12 presents individual corrective action impacts on the cases subtracted component of the basic caseload identity. The table indicates that PROOF actually acted to reduce the number of closings in AFDC over all three time periods. The result is clearly consistent with the dynamics of the model. Consider how closings are determined in the SWRI model. Mathematically,

$$CA.CLO.(t) = CLO.RT.(t) * [CA.REM(t-1) + CA.ADD.(t)]$$

If the number of cases added falls for a period of several months

Table 6.12

Individual Corrective Action Impacts

New York City

Cases Subtracted

QC/CA Variable	Cumulative to 12/74 (18 months)	Cumulative to 12/76 (42 months)	Cumulative to 12/78 (66 months)
1) PROOF	-2,975	-7,239	-9,810
2) TIT4D	0	-5,427	-4,169
3) POL77 & RJ*P77	0	0	-2,724
4) RCM & CC*RCM	+4,036	+11,757	+18,065
5) RECRT*, QCRTE, CC*Q-1, 7/77D	+7,996	+71,481	+160,408
Total (Excluding Interactions)	+9,057	+70,572	+161,770
Interactions	+567	+2,784	+7,794
Total Impact	+9,624	+73,356	+169,564

(as the result of a powerful corrective action like PROOF) cases remaining in each successive period will fall as well. Clearly, if the sum of cases remaining and cases added declines, and if it is then multiplied by the regression determined closing rate, the number of subtractions will of necessity be lower. The number of closings, therefore, were lower as a result of PROOF, despite the fact that the variable itself increased the estimated rejection rate.

The table indicates that by December 1974, PROOF was responsible for reducing closings by nearly 3,000 cases. By the end of the 66 month simulation period the continuation of this policy was responsible for reducing closings by about 9,800 cases.

Similar to the impact of PROOF, the TIT4D variable also acted to reduce closings in the program. However, TIT4D worked both directly on the closing rate and indirectly through the dynamics of the model to reduce cases subtracted. Because TIT4D entered the closing rate with a fairly large negative coefficient, we would expect that it would directly reduce closings. However, TIT4D also entered the rejection rate equation with a positive coefficient. It therefore had the same impact on caseload dynamics as the PROOF variable. By December 1976 the effect of TIT4D was to reduce closings by about 5,425 cases. Over the full simulation period there would have been about 4,170 more closings relative to what would have occurred in its absence.

The POL77 variable, because it also entered the rejection rate and increased the number of rejections, worked through the dynamics of the system to reduce closings. By December 1978, this administrative directive was responsible for about 2,724 fewer closings than would have occurred had it never been implemented. However, as we have already discussed, its direct impact on the rejection rate was to reduce openings by 7,564, leaving a net decline in caseload of about 4,840 cases.

The recertification and mailout activities (RCM) undertaken in New York City acted to increase closings in the program, as they were designed to do. By recertifying the caseload through periodic large mailout projects, more cases were closed than would have been in the absence of the recertifications. The net effect (i.e., accounting for both direct effects and indirect feedbacks) of these activities was an increase in closings of about 4,036 over the period ending in December 1974. By December 1976, there were 11,757 net closings attributable to recertifications and mailouts. Finally, over the entire 66 month simulation period, these programs were responsible for 18,065 more closings relative to what would have occurred in their absence.

The final four variables are again evaluated in one simulation rather than four for reasons discussed earlier. Table 6.12 indicates that these variables had the most significant impact on closings of all corrective action variables. By December 1974, the general administrative tightening in combination with active recertification policies were reponsible for boosting closings by nearly 8,000 cases over and above what they would have been in the face of a more liberal administration of the program and no recertification activity. Over the longer 42 month simulation period, the table suggests that these corrective actions were responsible for about 71,481 closings or about

97 percent of all closings attributable to corrective action. By December 1978, the effect of these four variables on cumulative closings exceeded 160,000 cases, or nearly 95 percent of the total corrective action induced increase in closings.

Expenditures

Table 6.13 presents the impacts of the individual corrective actions on AFDC expenditures in New York City. Again, we emphasize the assumption made in estimating the impact of corrective action on expenditures: each case affected by corrective action through any component of the model is assumed to receive the actual average expenditure for all cases. This assumption therefore results in estimates that reflect, in a sense, the maximum possible expenditure savings attributable to corrective action.

The table indicates that the 1973-74 tightened applications procedures (PROOF) were responsible for a $54.6 million expenditure reduction by December 1974. That is, had the policy never been implemented, and the increased rejections resulting from it had never occurred, $54.6 million more would have been spent in AFDC by December 1974. Over the 42 month simulation period ending in December 1976, the total expenditure savings resulting from PROOF approached $120 million. And finally, over the entire simulation period, had the PROOF policy never been implemented, expenditures would have been about $148 million more than the PSS estimate indicated. This represents nearly 18 percent of the total expenditure reduction attributable to corrective action.

Table 6.13

Individual Corrective Action Impacts

New York City

Expenditures (in thousands)

QC/CA Variable	Cumulative to 12/74 (18 months)	Cumulative to 12/76 (42 months)	Cumulative to 12/78 (66 months)
1) PROOF	$-54,557	$-119,711	$-147,953
2) TIT4D	0	+20,927	+34,726
3) POL77 & RJ*P77	0	0	-27,750
4) RCM & CC*RCM	-4,832	-28,172	-60,824
5) RECRT*, QCRTE, CC*Q-1, 7/77D	+13,038	-165,313	-602,645
Total (Excluding Interactions)	-46,351	-292,269	-804,446
Interactions	-350	-6,725	-20,697
Total Impact	$ -46,701	$ -298,994	$ -825,143

The TIT4D variable, because it acted to increase rather than decrease the caseload through its effects on the rejection and closing rate equations, was responsible for an increase in expenditures. By December 1976, the TIT4D variable was responsible for a \$20.9 million expenditure increase. By the end of the simulation period, had TIT4D not been operative in the equation system, expenditures would have been \$34.7 million less than the full PSS simulation.

The 1977 rejection rate policy (POL77) was responsible for significant expenditure savings. By directly reducing the number of openings in the program, the policy acted to reduce AFDC benefit outlays. Although the POL77 variable also resulted in a substantial increase in applications through the operation of an indirect feedback mechanism (RJ*P77), its net impact on expenditures was a reduction of \$27.7 million or about 3.4 percent of total corrective action induced expenditure savings by December 1978.

The recertification and mailout variable (RCM) was also responsible for significant expenditure savings, even after accounting for the increase in applications caused by its feedback counterpart (CC*RCM). Over the 18 month period ending in December 1974, the mailed recertifications can be credited with reducing expenditures by about \$4.8 million via their impact on closings. By December 1976, savings attributable to these recertification activities amounted to \$28.2 million. Finally, by the end of the simulation period, we find that had the mailouts and recertifications not been undertaken, AFDC expenditures would have been about \$60.8 million more than the PSS simulation indicated. As a proportion of total corrective action induced savings, this represents about 7.4 percent.

The final group of corrective action variables had the most significant impact on AFDC-Basic expenditures. By December 1976, the net impact of these variables was a reduction in expenditures of about $165.3 million, or over 50 percent of the total savings attributable to corrective action. Put another way, had the general administrative tightening proxied by QCRTE not occurred and no feedback mechanisms had been operative (i.e., those feedbacks proxied by CC*Q-1 and RECRT*), $165.3 million more would have been spent on AFDC over the 42 month simulation period ending in December 1976. Over the entire simulation period ending in December 1978, these general corrective action variables resulted in an expenditure reduction of over $600 million - about 73 percent of total corrective action induced savings, and 10.7 percent of the PSS estimate of total expenditures for the full simulation period.

Therefore, as far as expenditures are concerned, corrective actions were responsible for a total cumulative reduction of $825.1 million or nearly 15 percent of total expenditures over the 66 month period under consideration. This translates into an average monthly savings of $12.5 million. Again, however, the reader must be cautioned that this figure is based on a very rigid assumption -- that every case potentially affected by corrective action was entitled to the average expenditure for all cases. The real savings from the whole range of corrective actions was probably less than this figure, but by no means insignificant. The fiscal crisis of New York City was clearly felt by the City's Department of Social Services. Its policies, enacted beginning in the early 1970s, obviously reduced the City's deficit by a significant amount — perhaps as much as $200 million by the end of 1978 based on the AFDC cost sharing formula operative in New York State.

Section III

The California Models

Chapter 7

California - An Overview

California is, for the purposes of this research, and for that matter any research into the underlying dynamics of public assistance, one of the most fascinating states that can be studied. The implementation of Governor Reagan's California Welfare Reform Act (CWRA) in the early 1970s represents a unique experience in recent welfare history. In general, the CWRA represented an attempt by the Governor and his staff to put a cap on a public assistance caseload that was growing at a rapid pace, and was expected by many people to keep rising. By emphasizing the the growth in public assistance caseloads and expenditures, Reagan was able to convince a Democratic controlled legislature to pass his welfare plan in 1971.

According to _Welfare Reform in California . . . Showing the Way_, the stated objectives of the CWRA were:

1) To cap the uncontrolled growth in the cost of welfare.
2) To reduce the welfare rolls to those strictly entitled to benefits.
3) To reform the state/county system for the administration of the program.
4) To require those able to work to do so or seek work.

5) To increase assistance to the truly needy.

6) To strengthen family responsibility.

In general, the strategy of the planners of California welfare reform was to "purify" the system; the goal was to preclude or uproot those from the system who legally "didn't belong there," while making grants more equitable -- even increasing them as warranted -- among eligibles who really did.[*]

One can readily see that even though welfare reform in California preceded the national drive toward "purified" caseloads (through quality control emphasis) by nearly two years, the basic objective was the same: to "clean" the welfare rolls of those recipients who were not strictly entitled to benefits, and to improve program administration.

Volumes have already been written about California's experience with welfare reform, and clearly, at least for the purposes of this analysis, it would serve no useful purpose to add another volume to this extensive collection. What is important, however, is to closely examine the impact of some of the components of the CWRA on caseload and expenditure levels. Although many of the regulations that were implemented as part of welfare reform were subject to extensive litigation and subsequently ruled invalid by the courts, some of the elements remain intact today and are major components of the ongoing quality control corrective action process in various California

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[*] Welfare Reform in California....Showing the Way, State of California, December 1972, p. 10.

counties.

The CWRA and Corrective Action

Many of the individual regulations that were implemented as part of the CWRA can be viewed as "quality control" corrective actions. In fact, several of the 1971-1972 mandated actions in California are held up as exemplary operational systems with regard to the corrective action process. In 1979 in a policy statement on proposed rules for quality control, HEW expanded the number of situations in which it would waive penalties for states with higher than acceptable error rates. Among the qualifying situations that would permit waiver was a state's ability to demonstrate the "sufficiency and quality of operational systems which are designed to reduce error."[*] Interestingly, three of the systems listed as examples, namely monthly reporting, retrospective budgeting, and computer clearances, have been in operation in the State of California since the period of welfare reform, and indeed were major components of the CWRA.

Statewide Corrective Action Activities

Several of the programs implemented with Governor Reagan's Welfare Reform Act remain fully operational today and are considered to be very effective parts of an overall system of "quality control."

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[*] The Federal Register, Volume 45, No. 18, January 25, 1980, p. 6327.

One of the most significant strategies to emerge from the 1971 reforms was a deliberate attempt to shift the burden of eligibility verification onto the recipient. Instead of depending upon the caseworker to initiate the actions which resulted in denial of aid, the relationship was reversed so that potential recipients would be responsible for convincing the welfare department that they were indeed eligible.

At the same time, the state developed and implemented two new systems of income verification. The Earnings Clearance System (ECS), an operational fraud detection and prevention system, was established to allow for the comparison of income reported by employed recipients to the welfare office with the income reported by their employers to the Employment Development Department for Unemployment Insurance (UI) purposes. This automated computer system allows the welfare department to match unemployment insurance records against the names and social security numbers of all active AFDC recipients. Following this match-up, listings are sent to the counties for review, investigation, and possible referral to the District Attorney.

Although this system involves an information lag because it usually takes about six months to gather from employers the data necessary for the computer match, several of the county welfare administrators maintain that this is an effective program in helping to control error. It is believed that the existence of the system promotes more accurate reporting of actual earnings by recipients themselves. Moreover, some administrators maintain that the initial impact of the program was especially significant due to the media coverage surrounding the program's implementation. In effect, administrators claim that the effect of the coverage was to discourage "marginal" cases from applying for assistance.

The second program of verification implemented in California was the Monthly Income Reporting System. It requires that all recipients complete a computer generated form each month (originally dubbed the WR-7 and currently called the CA-7) on the basic factors affecting their eligibility and grant (i.e. changes in income, family composition, etc.). In effect, the monthly reporting form is used to recertify the entire caseload on a monthly basis. Failure to complete and return the form results in the termination of aid.

Administrators in all counties studied agreed that this system is one of the most effective ways available to verify the continuing eligibility of recipients. According to the Los Angeles County Department of Public Services, "this system has proven very effective in reducing grant overpayments, eliminating ineligible recipients from the welfare rolls and clearly identifying/delineating possible fraud situations."[*]

In practice, the monthly reporting system has two effects on caseload components, one partially counteracting the overall caseload impact of the other. The net impact of this program is thus a function of these two effects. First, the CA-7 directly affects the closing or termination rate because when recipients fail to return the

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[*] "Factors Influencing DPSS's Quality Control Performance," Los Angeles County, Department of Public Social Services, p. 4.

forms their cases are automatically discontinued. However, many of these terminated cases return in the month or months immediately following the closing. Therefore, the number of reapplications received each month will usually be a positive function of the number of cases closed previously. It may also be true that the CA-7 regulations are viewed by recipients as simply another administrative "hassle." In this case, it is likely that the initial imposition of the program discouraged marginal cases from actually applying for public assistance. In essence, the existence of the program itself may have had a chilling effect on applications. These issues are investigated empirically in the regression models.

Retrospective (or prior month) budgeting was also a major component of the 1971 reforms, although its implementation was delayed until November 1972 in most jurisdictions to allow an appropriate period to change over to this new system. Under this budgeting method, the income that a recipient receives in one month is used to calculate the grant two months hence: a recipient's income for the month of November would be used to calculate the grant for January, and income in January would be used to determine March's grant. Prior to the implementation of retrospective budgeting most counties determined a recipient's grant using estimates of his/her income for the coming month. Since approximations rather than actual income were originally used in the grant calculation, it was believed that the new system would substantially reduce overpayments, and therefore the overpayment error rate as determined by the quality control review. Indeed, agency staff in the counties believe that this system has in fact been a significant factor contributing to the control of overpayments.

The effects of these and other corrective actions are examined in the analyses to follow. County-specific statistical variables were constructed and used in estimating regression equations for the caseload components in each of the jurisdictions. These variables were then evaluated using the same methodology utilized for the New York models.

For the sake of clarity and ease of organization, the remainder of Section III is divided into three separate (county-wide) chapters. The analysis of the Los Angeles County AFDC-Family Group program is presented first, followed by Alameda, and finally San Diego.

Chapter 8

Los Angeles County

In the same manner that we presented brief historical reviews of the AFDC programs in the two New York jurisdictions, we now offer an overview of the Los Angeles County AFDC-FG (Family Group) program. Although Los Angeles has both a Family Group program and an Unemployed Parent (UP) program, for the purposes of this report we focus only on the FG caseload.

Caseload and Expenditure Trends

With respect to size, Los Angeles County is one of the few areas that can even come close to rivaling the New York City AFDC caseload. Unlike the data for New York City which begins in 1960, however, the data collected for our analysis of Los Angeles begins in 1964. In January of 1964 there were about 33,200 AFDC-FG cases under care in Los Angeles compared to New York City's 62,700 cases. Over the following 36 month period caseload growth in Los Angeles was moderate. There were about 13,000 net additions to the caseload, so that in December 1966, it stood at 53,000 cases. Then in 1967 the caseload "explosion" of the late 1960s and early 1970s began in Los Angeles, as it did nationwide. From December 1966 to December 1968, over 27,000 cases were added to the rolls. The following two years witnessed a rate of growth never before experienced. In that 24 month period alone (1969-1970) over 70,000 net additions were recorded. At the end of this dizzying period of growth, there were over 150,000 cases under care in Los Angeles. By the following December there were 161,000 families receiving aid. The next several years witnessed an abrupt halt to this phenomenal growth. The caseload actually fell to the 150,000 cases, and fluctuated between 148,000 and 152,000 for much of 1974. We then see another short period of growth in the caseload statistics. Between December 1974 and December 1977, a period of only three years, another 25,000 net additions were recorded, putting the caseload at 175,000 for the first time in the program's history. Finally, the last 21 months of the period under study indicate a gradual decline. In September 1979, there were about 160,000 cases under care in Los Angeles.

While the caseload multiplied five-fold, expenditures grew at over twice that rate. In 1964, the average monthly expenditure for AFDC was about $6 million. By December 1974 the total monthly cost was approaching $40 million. With an increase in benefits of $64.00 for a family of four effective July 1979, total monthly expenditures approached the $60 million mark by September of the same year.

Demographic Characteristics

The female population (aged 18-54) was characterized by steady growth from 1964 through mid-1970. At the end of that period approximately 125,000 more women were estimated to be living in the county than there were at the beginning. A reduction of about 12,000 persons in this population subgroup occurred over the following two years, before gradual but consistent growth resumed. Between mid-1972 and September 1979, it is estimated that this subgroup expanded by another 113,000 individuals. At the end of this period there were approximately 1.9 million women between the ages of 18 and 54 residing in Los Angeles County.

Although the female population estimates indicate growth of only 14 percent over the entire 16 year period, the number of female headed households grew by over 85 percent. From 113,000 families in January 1964, this segment of the population grew to 155,000 by the end of 1970. In September 1979, we estimate that there were about 211,000 female headed families living within the borders of Los Angeles County.

Economic Characteristics

The change in employment structure experienced in Los Angeles County during the period under study was similar to that experienced in San Diego. This is largely because of the rise of Southern California as a major tourist center. Increases in low skill service sector employment (eating and drinking establishments and hotels and motels) led employment gains in our narrowly-defined manufacturing sector by a large margin, with employment in eating and drinking responsible for most of the growth. Beginning in January 1964, employment in the service sector stood at about 98,000 jobs. By the beginning of the following decade almost 130,000 jobs were to be found in the two industries comprising this sector. In September of 1979, employment stood at 196,000 jobs, or an increase of exactly 100 percent since 1964.

The manufacturing sector, on the other hand, remained relatively stable over most of the period. In fact, between 1964 and 1970 there was zero net growth. Over the ten year period ending in 1979 however, there was an increase in employment from 104,000 to 128,000, or an increase of 23 percent.

In terms of the aggregate economic environment, the unemployment rate ranged between 6 and 7 percent during the first four years of the period under study before falling to the 5 to 6 percent range during late 1967 and early 1968. It remained stable until mid-1970, when it began to rise as the recession of that year began to take hold. The rate peaked at 10.4 percent in June 1971, before beginning a gradual decline to a low of 5.2 percent in May 1974. As the recession of 1974-75 set in, the unemployment rate began another ascent, this time peaking at 10.7 percent in March 1975 before beginning another gradual decline. It remained in the 7 to 9 percent range until late 1978 when it fell below 7 percent for the first time since late 1974. In September 1979 the county-wide unemployment rate stood at 5.5 percent.

Legal and Administrative Characteristics of AFDC

As one would expect, during the period 1964 to 1979 there were many significant changes that may have affected caseload and expenditure trends in the Los Angeles County AFDC program. For the purposes of this research the first important change was the implementation of the AFDC-U program in February 1964. This program extended aid to families with unemployed fathers in the home. It therefore increased the eligible population and introduced more families to the welfare system.

The Watts riots of August 1965, the result of intense racial unrest, were another significant factor in the administrative environment of AFDC. The riots themselves increased community awareness of the problems of poverty and prompted the welfare agency to re-examine its role and to expand its presence and services in the community.

The Food Stamp program was implemented in December 1965. Three months later, in March 1966, the Medi-Cal program was introduced. Both programs exposed many more persons to the welfare system.

In July 1968 the "30 + 1/3" provisions and the WIN/Talmadge requirements went into effect. The "30 + 1/3" disregards effectively lowered the benefit reduction rate in order to provide an incentive for recipients to work; WIN required more recipients to register for work and accept training as a condition of eligibility. It is interesting to note that the State of California initially directed the counties to apply the disregard formula to earnings net of work expenses and mandatory deductions rather than gross earnings, as was done in other states. In February 1970, however, as a result of a judicial decision, counties began to apply the formula to gross earnings. This liberalized the disregards for working recipients, and increased the range of earnings consistent with continued welfare eligibility. The more liberal application of the "30 + 1/3" provisions remained in effect until October 1971, when the California Welfare Reform Act was implemented.

In July 1969 the social service functions were separated from those of income maintenance. Under this procedural change the worker who determined eligibility no longer provided social services. A pilot program of simplified eligibility determination was implemented in October 1969. It eliminated the extensive verification requirements involved in eligibility determination and substituted a client declaration method in their place. Over the two year period that the simplified method was in effect (October 1969 through September 1971) the application rate of potential recipients rose significantly.

In July 1971 special needs allowances were eliminated from the AFDC benefit structure. This precluded additional benefits for recipients with special needs and reduced the demands on eligibility staff to secure special needs for their clients.

In October 1971, the California Welfare Reform Act (CWRA) was implemented in an attempt to reduce a rapidly growing caseload and ever increasing costs. It constituted the first formal state-wide attempt to contain welfare costs by tightening the various eligibility criteria; overall, it represented the beginning of a period of much more conservative welfare policy statewide.

Los Angeles County
Corrective Action Efforts

In 1973, under the auspices of a new welfare administration, quality control performance was made the foremost priority of the Los Angeles Department of Public Social Services (DPSS). Since that time, DPSS has undertaken a variety of corrective action activities in an attempt to keep its error rate within federally mandated levels. These corrective action measures vary from minor program or regulatory changes to major systems changes within the Department. Los Angeles County clearly undertook a comprehensive program of staff training and staff assignment to deal with potential error. The following section presents a description of those activities considered to be the most significant in terms of the County's ongoing commitment "to achieve the most effective welfare system possible."[*]

Performance Expectations

Throughout much of 1973 and 1974 the Department, through a variety of methods, stressed to all agency personnel the significance and implications of the new federal regulations. New performance standards were developed and issued to the entire staff in order to

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[*] "Chronological Listing of Recommendations and Corrective Actions Taken as a Result of Quality Control Findings," Los Angeles County, Department of Social Services.

impress upon them the priority that was being placed by top management on the quality control process and resulting performance of the Department. Audio visual productions, special information bulletins, management retreats, and the formal identification of the performance requirements as the Department's foremost priority were some of the techniques used to impress upon staff what was expected of them with the 1973 quality control regulations.

Program Monitoring Plan for AFDC

In early 1974 a comprehensive program was established by the Department which provided a formal quality control process with emphasis on the development of corrective actions. Prior to the initiation of this program, it was felt that the major focus of quality control within DPSS had been on the error identification process, rather than on corrective action development and implementation. This program was established to redirect efforts in order to make data analysis and corrective action planning the primary focus of the quality control process.

The monitoring plan implemented in Los Angeles provides case review data on both a County-wide basis and on an individual district basis. The first component of the plan consists of a full field investigation of a predetermined number of AFDC cases every two months. These cases are randomly selected from each of the 28 district offices within the County and undergo a full field investigation, including a case review, home call, and collateral checks of all factors affecting eligibility and grant. These investigations are made by County welfare staff experienced in case auditing and quality control, and utilize the same methodology as the Federal/State Quality Control review. Essentially, the objective of the review is to "provide the Department with a continuous overview of its performance on a bi-monthly basis and to facilitate broad corrective action efforts."[*]

The second component of the monitoring plan consists of desk audits of case records by the Department's central audit staff at two levels, the local district office and within individual work assignment units. This allows the review of a much larger number of cases, and also permits the identification of specific districts experiencing particular difficulty in controlling error. Although less thorough than the full field investigation, this desk audit allows for the review of the case record focusing upon agency caused errors without requiring a full reverification of recipient eligibility.

The final element of the monitoring plan is comprised of desk audits by individual district office staff with experience in case auditing and quality control. These reviews are especially designed to provide information on eligibility worker and supervisor performance and to identify areas of difficulty so as to formulate the appropriate staff training programs.

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[*] Model Quality Control Program, Los Angeles County, Department of Public Social Services, p. 3.

AFDC Corrective Action Planning Committee

Because the Department believed that its early quality control efforts (i.e., prior to the 1973 announcement of fiscal sanctions) had dealt almost exclusively with error identification rather than identification and analysis in combination with corrective action development and implementation, it established a Corrective Action Planning Committee in 1973. This committee, made up of various department and state representatives was established to make recommendations for corrective actions which could deal with major problem areas identified through the Department's ongoing program evaluation process. Based on the indicators available to them, the members of the committee are responsible for the formulation of appropriate strategies for error reduction.

Computer Payroll Matches

In addition to utilizing the Earnings Clearance System mandated by the state to verify recipient income, the DPSS undertook computer matches of welfare recipients to the payrolls of Los Angeles county, and several cities within the County. This system allows the Department to isolate fraudulent cases that require intensive investigation. When such cases are detected, they are fully investigated for appropriate application of welfare regulations and employee conduct codes. This system was implemented in late 1975 and is still utilized periodically.

Caseload Specialization

Recognizing that regulations, administrative activities, and benefit calculations on certain types of cases are much more complex than on others, the Department instituted early in the QC sanctions period a policy of caseload specialization intended to help control errors. This system involves the frequent review of certain so-called "high risk" cases which are most susceptible to error due to frequent changes in status.

The caseload specialization policy assigns similar case situations to specialized units containing personnel with specific experience and skills related to these high risk cases. These specialized units include:

1) AFDC-U Cases (Unemployed Parent(s) Program)

2) WIN Cases

3) Earned Income Cases

4) Non-Earned Income Cases

5) Inter-county Transfer Cases

6) Stepfather Cases

With this system, the DPSS maintains that it has been able to maximize the effective utilization of staff experience and skills, enhance its training efforts, and provide a process through which it can isolate and therefore deal with cases that experience a high probability of error.

Specialized Computer Programs

Over the past several years, many specialized computer programs have been developed by the Department to isolate certain cases which have a higher than average probability of experiencing error. For example, a listing of non-earned income cases was developed to identify government-related benefits as well as all other forms of non-earned income. DPSS maintains that this list was useful in assisting agency staff in transferring all appropriate cases to the correct specialized files. Additionally, computer based control systems were implemented for the verification of school attendance of 16-20 year-olds, and for the identification of cases in which the youngest child is soon to turn six (to improve compliance with specific WIN/Talmadge requirements). These control systems are considered by the Department to be effective ways to isolate cases which are prone to specific types of error.

Staff Development and Training

As part of its effort to reduce the amount of error in the AFDC program, the DPSS reorganized and centralized its Staff Development Division in order to allow it to focus upon quality control findings and improvement in the Department's performance. One task of the Division was to provide reinforcement training for supervisory and intake personnel concentrating on the program areas most vulnerable to error. The areas emphasized in these sessions varied, and included training in the handling of special investigative referrals, treatment of earned and non-earned income as well as real and personal property, and evaluation of the monthly income and eligibility form (CA-7).

As a supplement to this department-wide training program, Staff Development provided individualized training in specific district offices experiencing unique problems. Moreover, the division was responsible for providing special training to newly hired eligibility workers, and for ensuring that during their first several months they would be responsible for smaller caseloads.

Elimination of Home Calls

Although most individuals familiar with public assistance programs associate the term corrective action with the implementation of some new policy, this is not always the case. In fact a corrective action might even be the removal of a program or policy that has been judged to be ineffective or counterproductive. The policy of conducting home calls for the purpose of eligibility verification is an example of a policy that was determined by the DPSS to be ineffective. In March 1974, most routine home calls were eliminated to allow for the more effective utilization of agency staff time. By eliminating this policy, which made travel outside of the office unnecessary, workers again were able to spend more time with other aspects of the verification process.

Discontinuance of Group Intakes

The policy of group intakes in the AFDC application process is another example of a policy that was determined to be counterproductive. Group intakes involve the initial "screening" of a group of applicants rather than individual interviews. In late 1974 the Department conducted an evaluation of the AFDC group intake to determine the most effective means of conducting group interviews. The resulting report recommended new guidelines for the process in an attempt to gain conformity across districts, and set forth a new script that intake workers were to follow. However, effective February 1977, the Department chose to discontinue the policy, replacing it with a one-to-one intake interview. The purpose of the transition was clearly to afford the intake worker an opportunity to more closely scrutinize each potential recipient on an individual basis. With this type of policy the intake workers are more able to detect potentially ineligible or fraudulent cases before they are allowed to be added to the caseload.

All of these programs, as well as the standard variables in the caseload components model, were proxied in the Los Angeles model. A listing of the most important institutional variables used in the model including corrective action proxies is presented in the next section. This is followed by the final estimated regression equations and counterfactual simulations.

Los Angeles County

County-Specific Administrative and Institutional Variables

WATRTS — Watts Riot Dummy - Has value of 1.0 from 8/65 to 1/66 to account for impact of the Watts riots on the welfare system.

SWSTK — Social Worker Strike Dummy - Has value of 1.0 in 6/66 to account for impact of 14 day social worker strike.

SWSTK1 — Modified Social Worker Strike Dummy - Has value of .30 in 5/66, 1.0 in 6/66, .50 in 7/66, .50 in 8/66, .70 in 9/66, 1.0 in 10/66, .40 in 11/66, and .30 in 12/66 to account for strike and its impact on worker morale.

LIBSS — Liberalization of Social Services Dummy - Has value of .10 in 8/66, .20 in 9/66, .30 in 10/66, .40 in 11/66, .50 from 12/66 to 5/67, .60 in 6/67, 1.0 in 7/67, .80 in 8/67 and .70 in 9/67. This variable accounts for the department's philosophical transition toward greater services (e.g., Medi-Cal, Food Stamps, social services), rehabilitation, and breaking the poverty cycle.

WINTAL — Win Talmadge Requirements - Has value of 1.0 in 7/68 to account for initial impact of this work registration program.

WRKLOD — Los Angeles County Workload -

exp [(Δ AP.REG(t) + Δ AP.REG(t-1) + Δ AP.REG(t-2))] /
[(CA.REM(t)/CA.REM(1/64)]

Proxy variable for periods of unusually high workloads.

SIMPLE — Simplified Eligibility Dummy - Has value of 1.0 from 10/69 to 9/71 to account for use of the simplified method of eligibility determination during this period.

WRA	<u>Welfare Reform Act Dummy</u> - Has value of 1.0 from <u>10/71 to 12/71</u> to account for impact of California Welfare Reform Act (CWRA) on processing rate.
WRA1	<u>Welfare Reform Act Dummy(1)</u> - Has value of 1.0 in 11/71 to account for impact of CWRA on closing rate.
WRAMOD	<u>Welfare Reform Act Reform Modified Dummy</u> - Has value of .50 in 11/71, .75 in 12/71, and 1.0 in 1/72 to account for impact of CWRA on applications.
SUMRDY	<u>Summer Dummy</u> - Has value of 1.0 in July, August and September of each year to account for increased level of applications during summer months.
CACL-3	<u>Cases Closed lagged 3 Months</u> - Has actual value of cases closed lagged three months to account for reapplication dynamics in the Los Angeles County welfare system.

<u>Corrective Action Variables</u>

STAFRO	<u>Staff Reorganization</u> - Has value of 1.0 from 3/72 to 8/72 to account for impact of welfare department staff reorganization, including implementation of caseload management and control system, caseload specialization (specialized handling of cases with earned income, stepfathers, WIN, etc.), model case format, and monthly management reports.
ELIMHC	<u>Elimination of Home Calls</u> - Has value of 1.0 from 3/74 to end of regression period to account for the elimination of home visits on initial eligibility determination.
3/74D	<u>3/74 Dummy Variable</u> - Has value of 1.0 in March 1974 to account for initial impact of the elimination of home calls policy.
FEDSAC	<u>Federal Sanctions</u> - Has value of 1.0 from 1/73 to 12/74 to account for elevated processing and closing rates which may have been a result of county reaction,

including increased corrective action activity, to federal sanctions policy.

PERFM — Performance Expectations - Has value of 1.0 from 3/73 to 1/74 to account for period when great emphasis was placed by Department's top management on increased performance of staff to meet Federally imposed error rate targets.

SANCT — State Sanctions - Has value of 1.0 from 1/79 to end of regression period to account for existence of a state sanctions policy with regard to county level rates.

GRINT1 — Elimination of Group Intakes - Has value of 1.0 from 3/77 to end of regression period to account for the elimination of group intakes. Replacing it was a policy whereby the intake worker would conduct a full one-on-one interview at time of eligibility determination.

REFER — Fraud Referrals - The sum of monthly fraud referrals statewide for AFDC-FG and UP programs entered monthly from 1964 to 1979.

CA-7 — CA-7 Monthly Income Reporting Form - Has value of 1.0 from 4/74 to end of regression period to account for existence of monthly eligibility reporting.

CC*CA7 — CACL-3 * CA-7 Interaction Term - Has value of cases closed (t-3) from 4/74 to end of regression period to account for differential impact of cases closed (t-3) on applications registered while the monthly reporting system is in effect; zero otherwise.

Fitted Dummy Variables

9/64D — 9/64 Fitted Dummy - Has value of 1.0 in 9/64 to account for extreme value in closing rate.

2/65D	<u>2/65 Fitted Dummy</u> - Has value of 1.0 in 2/65 to account for extreme value in processing rate.
5/65D	<u>5/65 Fitted Dummy</u> - Has value of 1.0 in 5/65 to account for extreme value in rejection rate.
6/65D	<u>6/65 Fitted Dummy</u> - Has value of 1.0 in 6/65 to account for extreme value in closing rate.
3/66D	<u>3/66 Fitted Dummy</u> - Has value of 1.0 in 3/66 to account for extreme value in closing rate.
5/68D	<u>5/68 Fitted Dummy</u> - Has value of 1.0 in 5/68 to account for extreme value in closing rate.
67/68D	<u>67/68 Fitted Dummy</u> - Has value of 1.0 from 11/67 to 4/68 to account for unexplained extreme values in closing rate.
10/68D	<u>10/68 Fitted Dummy</u> - Has value of 1.0 in 10/68 to account for extreme value in closing rate.
11/74D	<u>11/74 Fitted Dummy</u> - Has value of 1.0 in 11/74 to account for extreme value in rejection rate.

Los Angeles County Regression Results

The complete Los Angeles County caseload model contains equations for applications registered, the processing rate, the rejection rate, and the closing rate. Each of these regression equations will be discussed in turn.[*]

Applications Registered (Received)

Table 8.1 presents the OLS and rho-corrected versions of the applications registered equation in Los Angeles for the full period under study (1964-1979). The rho-corrected version indicates a standard error (SEEBAR) which is eight percent of the mean monthly number of applications. The equation provides a good fit as indicated by an R-square of 92 percent in the first stage of the regression. After correcting for first order serial correlation present in the OLS equation all of the variables remain statistically significant and have the correct sign.

The applications equation includes variables originating in all three of the key hypotheses. B/Z*30 attempts to proxy for the marginal trade-off between the value of welfare benefits (B) and the monetary returns to labor market participation (Z), but only after the advent of the "30 + 1/3" income disregard program. The value of

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[*] The Appendix to this report presents the short period regressions used in preparing the Pre-QC/CA simulations.

Table 8.1

Los Angeles AFDC-FG: Final Applications Registered Equation (1st Stage)

```
EQN NO.  1   186 OBSERVATIONS (    4-> 189)
DEP VAR(  5): APREG
INDEPENDENT VAR(S):    9
V(S) IN XPX=112   M=112
DETERMINANT=        0.6803488E-06
```

INDEP.VAR.		REGR.COEFF.	STD.ERR.	T-RATIO	MEAN
(5)					0.738540E+01
(1)	CONS	-0.569262E+01	0.109292E+01	0.520862E+01	0.100000E+01
(41)	WDAYS	0.183743E+00	0.393720E-01	0.466686E+01	0.208763E+02
(54)	DSREMP	-0.133865E+00	0.272306E-01	0.491597E+01	0.517231E+00
(44)	SIMPLE	0.120861E+01	0.189938E+00	0.636317E+01	0.129032E+00
(74)	B/Z*30	0.153141E+01	0.265525E+00	0.576747E+01	0.733615E+00
(65)	FHF	0.461712E-01	0.578177E-02	0.798566E+01	0.161808E+03
(70)	WRAMOD	-0.206997E+01	0.563582E+00	0.367287E+01	0.120968E-01
(71)	SUMRDY	0.760719E+00	0.122973E+00	0.618605E+01	0.258065E+00
(111)	CC*CAT	0.154657E+00	0.360928E-01	0.428497E+01	0.252042E+01

```
RSQBAR=    0.9222 RSQ=    0.9256    SEE= 0.7100579E+00 SEEBAR= 0.7278864E+00

TSS= 0.1260106E+04    RSS= 0.9377788E+02      FSTAT(  8, 177)= 0.2751716E+03

MBAR=  -0.8190         DW STAT:  0.9846         RHO:  0.51121551
```

Rho-corrected

```
EQN NO.  1   185 OBSERVATIONS (    5-> 189)
DEP VAR(122): APREG
INDEPENDENT VAR(S):    9
V(S) IN XPX=122   M=112
DETERMINANT=        0.9583864E-05
RHO=      0.5112155E+00
Y( 189)=       0.7171000E+01
```

INDEP.VAR.		REGR.COEFF.	STD.ERR.	T-RATIO	MEAN
(122)					0.364621E+01
(113)	CONS	-0.681815E+01	0.122409E+01	0.556995E+01	0.488784E+00
(114)	WDAYS	0.241933E+00	0.264000E-01	0.916413E+01	0.101900E+02
(115)	DSREMP	-0.112447E+00	0.202365E-01	0.555662E+01	0.249340E+00
(116)	SIMPLE	0.118727E+01	0.279723E+00	0.424446E+01	0.634099E-01
(117)	B/Z*30	0.137495E+01	0.390514E+00	0.352087E+01	0.363505E+00
(118)	FHF	0.465109E-01	0.844507E-02	0.550747E+01	0.794781E+02
(119)	WRAMOD	-0.193834E+01	0.580795E+00	0.333740E+01	0.594467E-02
(120)	SUMRDY	0.533438E+00	0.124979E+00	0.426822E+01	0.129583E+00
(121)	CC*CAT	0.168564E+00	0.525423E-01	0.320816E+01	0.125921E+01

```
RSQBAR=    0.8231 RSQ=    0.8308    SEE= 0.5959075E+00 SEEBAR= 0.6109538E+00

TSS= 0.3883075E+03    RSS= 0.6569457E+02      FSTAT(  8, 176)= 0.1080376E+03

MBAR=  -0.6239         DW STAT:  1.8240         RHO:  0.09054701
```

B/Z*30 fluctuates between .91 and 1.09 during the period 1968 to 1979. The very high ratio suggests that public assistance benefits may have been an attractive substitute for earned income for many recipients in the Los Angeles area. When one calculates an elasticity based on the mean values of AP.REG and B/Z*30 the result is equal to .136, suggesting that a 10 percent increase in B/Z*30 would induce on average an additional 100 applications per month.

The employment opportunity hypotheses suggests that the number and quality of job opportunities in the local labor market is also a factor in a recipient's decision to apply for AFDC. To test this hypothesis several variables were tried in the applications equation, including the aggregate unemployment rate, changes in this rate, and levels and changes in the levels of employment in several industries. In these tests only one variable, the change in service employment (eating and drinking establishments and hotels and motels), was consistently significant and of the right sign. Its coefficient suggests that for every 1000 additional jobs in the service sector we can expect approximately 112 fewer applications for AFDC.

Several variables originating from the institutional hypothesis appear in the applications equation. Beginning with the simple variable WDAYS (workdays per month that the welfare offices are open), and moving down the list to CACL-3 (cases closed lagged three periods), all variables are statistically significant and of the correct sign.

The coefficient on WDAYS indicates that an additional workday in a given month is associated with an additional 242 applications on average. Additionally, the APREG equation indicates that during the summer months of July, August and September (SUMRDY) the number of applications registered, on average, increases by 533 per month. This possibly reflects the increased demand for welfare when mothers are needed at home to care for their children, as children are not in school during the summer months.

The variable SIMPLE proxies for the period when simplified eligibility was in effect in Los Angeles (10/69 - 9/71). The positive coefficient on this variale implies that reduced verification requirements on initial eligibility determination resulted in an additional 1,187 applications each month during the two year period. WRAMOD, a modified dummy variable proxying for a period surrounding welfare reform in California (11/71 - 1/72) shows an average 1,938 fewer applications registered per month. This perhaps indicates that the media publicity surrounding the California Welfare Reform Act had a "chilling" effect on the willingness of potential recipients to apply for public assistance. By making it known that the "supply" of welfare slots was, at least for a time, being severely restricted, the administration was able to reduce the number of families actually applying for welfare.

The variable FHF represents the monthly number of female-headed families in Los Angeles County. Its coefficient suggests that on average, over the 16 year period, an increase of 1000 female headed families was associated with 46 additional applications each month.

The variable CC*CA7, the only corrective action variable to appear in the applications equation, is used to measure the proportion of cases closed in previous periods that actually reapplies for welfare in the current month. This variable assumes a non-zero value only after the introduction of the monthly reporting system (CA-7), which was implemented in early 1974.[*] The coefficient on CC*CA7 suggests that from 1974 through 1979 nearly 17 percent of cases closed in period t-3 returned to reapply for welfare in the current month. This provides some evidence that since the period of increased emphasis on quality control and corrective action, and specifically monthly reporting, there has been a significant amount of churning within the AFDC program in Los Angeles County.

Processing Rate

Table 8.2 presents the "best" OLS and rho-corrected processing rate equations for Los Angeles. The rho-corrected version has a standard error of 4.3 percent of the mean processing rate over the period of analysis. After rho-correction, all of the variables remain statistically significant and have the right sign.

The unemployment rate is the only variable appearing in the

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[*] Theoretically, we are trying to measure the proportion of cases closed that immediately comes back to reapply for welfare. A better specification might have been a cases closed variable with a one or two period lag structure. One might expect that the underlying dynamics of the reapplication process would dictate a return to welfare within two months if a closing resulted from an administrative action. However, given the tremendous amount of cycling on and off welfare due to seasonal employment opportunity in many jurisdictions, a three period lag specification is not unreasonable. In addition, both one and two period lag structures were tried with the cases closed variable and were found to be inadequate specifications.

Table 8.2

Los Angeles AFDC-FG: Final Processing Rate Equation (1st Stage)

```
EQN NO. 1   186 OBSERVATIONS (   4-> 189)
DEP VAR( 15): PRORT
INDEPENDENT VAR(S):  13
Y(S) IN XPX=113  M=113
DETERMINANT=       0.1911568E-04
```

INDEP.VAR.		REGR.COEFF.	STD.ERR.	T-RATIO	MEAN
(15)					0.601086E+00
(1)	CONS	0.510141E+00	0.373286E-01	0.136662E+02	0.100000E+01
(41)	WDAYS	0.788055E-02	0.168571E-02	0.467492E+01	0.208763E+02
(44)	SIMPLE	-0.560740E-01	0.779039E-02	0.719784E+01	0.129032E+00
(29)	UNRTE	-0.126191E-01	0.186996E-02	0.674831E+01	0.724753E+01
(45)	WRA	-0.105564E+00	0.180679E-01	0.584262E+01	0.161290E-01
(89)	SWSTK1	-0.116398E+00	0.174029E-01	0.668839E+01	0.252688E-01
(90)	2/65D	-0.858008E-01	0.307179E-01	0.279318E+01	0.537634E-02
(102)	WATRTS	0.629834E-01	0.128978E-01	0.488326E+01	0.322581E-01
(103)	STAFRO	0.551043E-01	0.132641E-01	0.415439E+01	0.322581E-01
(91)	3/74D	0.456480E-01	0.304301E-01	0.150009E+01	0.537634E-02
(113)	PERFM	0.446662E-01	0.987713E-02	0.452218E+01	0.591398E-01
(112)	ELIMHC	0.654299E-01	0.582271E-02	0.112370E+02	0.360215E+00
(101)	WRKLOD	-0.336556E-04	0.160223E-02	0.210054E-01	0.115563E+01

```
RSQBAR=    0.7539 RSQ=    0.7699    SEE= 0.2897725E-01 SEEBAR= 0.3004628E-01

TSS= 0.6787760E+00    RSS= 0.1561807E+00    FSTAT( 12, 173)= 0.4823952E+02

MBAR=  -0.2433        DW STAT:  1.0806      RHO:  0.46683519
```

Rho-corrected

```
EQN NO. 1   185 OBSERVATIONS (   5-> 189)
DEP VAR(127): PRORT
INDEPENDENT VAR(S):  13
Y(S) IN XPX=127  M=113
DETERMINANT=       0.1797971E-03
RHO=       0.4668352E+00
Y( 189)=       0.0000000E+00
```

INDEP.VAR.		REGR.COEFF.	STD.ERR.	T-RATIO	MEAN
(127)					0.320507E+00
(114)	CONS	0.483047E+00	0.316478E-01	0.152632E+02	0.533165E+00
(115)	WDAYS	0.873499E-02	0.123644E-02	0.706461E+01	0.111172E+02
(116)	SIMPLE	-0.529844E-01	0.112131E-01	0.472523E+01	0.691673E-01
(117)	UNRTE	-0.101358E-01	0.250674E-02	0.404343E+01	0.386051E+01
(118)	WRA	-0.888268E-01	0.201193E-01	0.441501E+01	0.864591E-02
(119)	SWSTK1	-0.112079E+00	0.209957E-01	0.533818E+01	0.135453E-01
(120)	2/65D	-0.111658E+00	0.238203E-01	0.468750E+01	0.288197E-02
(121)	WATRTS	0.560729E-01	0.164045E-01	0.341814E+01	0.172918E-01
(122)	STAFRO	0.473686E-01	0.166881E-01	0.283847E+01	0.172918E-01
(123)	3/74D	0.460158E-01	0.240202E-01	0.191571E+01	0.288197E-02
(124)	PERFM	0.370301E-01	0.136859E-01	0.270570E+01	0.317017E-01
(125)	ELIMHC	0.621036E-01	0.855500E-02	0.725933E+01	0.195616E+00
(126)	WRKLOD	-0.776170E-02	0.270191E-02	0.287267E+01	0.513688E+00

```
RSQBAR=    0.6269 RSQ=    0.6512    SEE= 0.2497720E-01 SEEBAR= 0.2590392E-01

TSS= 0.3309131E+00    RSS= 0.1154142E+00    FSTAT( 12, 172)= 0.2676288E+02

MBAR=  -0.1438        DW STAT:  2.0442      RHO: -0.01727919
```

equation that is not institutional or administrative in nature. Throughout the entire period, an increase of one percentage point in the UNRTE (e.g., an increase in unemployment from 5 to 6 percent) resulted in a decline of one point in the processing rate. As the employment environment worsened in the county, the speed with which applications were processed declined, probably due to the increased demands placed on staff time and resources.

Several of the variables (e.g., SWSTK1, WATRTS, SIMPLE, and WRA) represent, in a sense, exogenous shocks to the underlying determinants of the processing rate. The confusion generated within the welfare system by the social worker strike of 1966, the introduction of simplified eligibility, and the Welfare Reform Act of 1971, acted to put additional strains on Department staff and resulted in declines in the processing rate. In contrast, the Watts riots of 1965 increased community awareness of the problems of poverty as well as the demand for welfare. This in turn prompted the welfare agency to re-examine its role and to expand its presence and services in the community, thereby increasing the rate at which cases were processed.

The factors of special interest in this equation are those which are related to the corrective action process, namely a staff reorganization (STAFRO), implementation of new worker performance standards (PERFM), elimination of a home calls policy (ELIMHC), and a one period dummy variable (3/74D). Each of these variables represents an attempt to proxy various phenomena that were occurring sometime during the second half of the period under consideration (1972-1979).

STAFRO, a variable constructed to account for a period of major staff reorganization within the Department shows a fairly powerful and statistically significant impact on the processing rate. On average, over the six month period ending in August 1972, the staff reorganization resulted in an increase of 4.7 percentage points in the processing rate. This supports the view that the various components of the reorganization increased staff efficiency.

The new performance expectations (PERFM) communicated to agency staff by the Department's top administrators and thereafter stressed as the Department's number one priority for 1973-1974 also had a positive and significant impact on the processing rate. The coefficient implies that during this period of explicit emphasis on worker performance the processing rate increased by an average of 3.7 percentage points.

As suggested in an earlier section, the term corrective action applies not only to newly devised and implemented policies and procedures such as a monthly income reporting system, but it also applies to the elimination of existing policies which may be perceived to be detrimental to the ongoing process of "quality control." The elimination of a home calls policy (ELIMHC) in March 1974 represents such a case. The underlying objective of this major policy reversal was to allow for the more effective utilization of staff time and resources. Our regression results appear to substantiate that elimination of home visits did in fact accomplish its desired objective. A one period dummy variable (3/74D) is in the equation to proxy for the immediate impact of the policy reversal, and it suggests that the initial effect was to raise the processing rate by 4.6

points, or almost 8 percent of the mean value of the rate over the entire regression period. ELIMHC, the variable used to proxy the ongoing impact on efficiency of this policy change indicates that the average monthly impact over a five year period was to add 6.2 points to the processing rate, or an increase of over 10 percent.

Rejection Rate

The processing rate reflects the speed with which cases can be administratively "pushed" through the system. This rate is marginally affected by program regulations and corrective action policy which may be initiated in response to political, bureaucratic, and/or fiscal pressures. But the remaining two components, the rejection and closing rates, are those which most significantly reflect these pressures. Consequently, understanding the determinants of these two components, and in the present case specifically the rejection rate, is crucial to an understanding of how various types of corrective action activity work directly on caseload components, and in the final analysis, on the caseload itself.

The final rejection rate equation for Los Angeles County is presented in Table 8.3. In total, twelve variables enter the equation. All of them emanate from an institutional theory of caseload dynamics. The quadratic specification of the participation rate [*] indicates that the rejection rate tends to rise more than

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[*] That the participation rate is specified quadratically means that it is entered in the equation as two terms: participation rate (PRT) and the square of the participation rate (SQPRT).

Table 8.3

Los Angeles AFDC-FG: Final Rejection Rate Equation (1st Stage)

EQN NO. 1 186 OBSERVATIONS (4-> 189)
DEP VAR(16): REJRT
INDEPENDENT VAR(S): 12
V(S) IN XPX=112 M=112
DETERMINANT= 0.5920811E-05

	INDEP.VAR.	REGR.COEFF.	STD.ERR.	T-RATIO	MEAN
(16)					0.363952E+00
(1)	CONS	0.638165E+00	0.153292E-01	0.416307E+02	0.100000E+01
(68)	PRT	-0.863477E+00	0.518319E-01	0.166592E+02	0.723604E+00
(69)	SQPRT	0.586572E+00	0.383169E-01	0.153084E+02	0.573342E+00
(42)	SWSTK	-0.757783E-01	0.165586E-01	0.457637E+01	0.537634E-02
(44)	SIMPLE	-0.513815E-01	0.423227E-02	0.121404E+02	0.129032E+00
(92)	5/65D	0.666881E-01	0.166490E-01	0.400554E+01	0.537634E-02
(96)	LIBSS	-0.948815E-01	0.877754E-02	0.108096E+02	0.381720E-01
(94)	11/74D	-0.397531E-01	0.166236E-01	0.239136E+01	0.537634E-02
(112)	ELIMHC	0.241346E-01	0.389521E-02	0.619597E+01	0.360215E+00
(107)	GRINT1	0.707569E-01	0.495133E-02	0.142905E+02	0.166667E+00
(108)	PROP13	0.330121E-01	0.787720E-02	0.419084E+01	0.806451E-01
(109)	SANCT	0.343364E-01	0.864860E-02	0.397017E+01	0.483871E-01

RSQBAR= 0.9134 RSQ= 0.9186 SEE= 0.1584626E-01 SEEBAR= 0.1638357E-01

TSS= 0.5734321E+00 RSS= 0.4670532E-01 FSTAT(11, 174)= 0.1783921E+03

MBAR= -0.4061 DW STAT: 1.4650 RHO: 0.2727658O

Rho-corrected

EQN NO. 1 185 OBSERVATIONS (5-> 189)
DEP VAR(125): REJRT
INDEPENDENT VAR(S): 12
V(S) IN XPX=125 M=112
DETERMINANT= 0.7055449E-05
RHO= 0.2727658E+00
Y(189)= 0.1000000E+01

	INDEP.VAR.	REGR.COEFF.	STD.ERR.	T-RATIO	MEAN
(125)					0.264594E+00
(113)	CONS	0.644219E+00	0.206811E-01	0.311501E+02	0.727234E+00
(114)	PRT	-0.881802E+00	0.695016E-01	0.126875E+02	0.528581E+00
(115)	SQPRT	0.599017E+00	0.512273E-01	0.116933E+02	0.419579E+00
(116)	SWSTK	-0.738682E-01	0.152900E-01	0.483113E+01	0.393099E-02
(117)	SIMPLE	-0.505536E-01	0.540641E-02	0.935069E+01	0.943438E-01
(118)	5/65D	0.595129E-01	0.153311E-01	0.388183E+01	0.393099E-02
(119)	LIBSS	-0.946057E-01	0.110077E-01	0.859452E+01	0.279101E-01
(120)	11/74D	-0.403212E-01	0.153136E-01	0.263303E+01	0.393099E-02
(121)	ELIMHC	0.247830E-01	0.502772E-02	0.492928E+01	0.264851E+00
(122)	GRINT1	0.700188E-01	0.631263E-02	0.110919E+02	0.123335E+00
(123)	PROP13	0.324671E-01	0.957266E-02	0.339165E+01	0.604393E-01
(124)	SANCT	0.360257E-01	0.104085E-01	0.346117E+01	0.368534E-01

RSQBAR= 0.8620 RSQ= 0.8702 SEE= 0.1524438E-01 SEEBAR= 0.1576423E-01

TSS= 0.3312419E+00 RSS= 0.4299239E-01 FSTAT(11, 173)= 0.1054461E+03

MBAR= -0.3637 DW STAT: 1.9418 RHO: 0.03343989

proportionately as program participation reaches high levels. At high participation rates, the pool of nonparticipating eligibles becomes increasingly exhausted, with the remaining applicants more likely to be only marginally eligible or ineligible for assistance. This naturally leads to a higher rejection rate.

In Los Angeles, at a moderate participation rate of 76 percent, an increase in participation of 10 percentage points to 86 percent would increase the rejection rate by only 0.9 percentage points, whereas an increase in participation of 20 points to 96 percent would increase the rejection rate by 3.0 percentage points.

The significant negative coefficients on the SWSTK1, LIBSS, and SIMPLE terms indicate that the social worker strike of 1966, the overall liberalization of the Department's philosophy toward social service delivery during 1966 and 1967, and the institution of simplified eligibility, acted to reduce the rejection rate. The coefficients for each of these variables indicate a very powerful impact on the rate at which applications were rejected. Two fitted dummy variables, 5/65D and 11/74D, appear in the regression to capture two extreme unexplained points in the rejection rate series and to provide for unbiased parameter estimates of the other variables.

With the exception of the PROP13 term, a variable designed to capture the impact of the fiscal constraints placed on the Department by Proposition 13, the remaining variables in the equation are related to corrective action. ELIMHC, the same variable that appears in the processing rate equation, indicates that the policy requiring the elimination of home calls had a positive and significant impact on the rejection rate. Theoretically, this term could be either positively or negatively related to the dependent variable. With the elimination of visits to the potential recipient's home, one might expect that each case would be subjected to a less rigorous and thorough application of eligibility verification criteria, and therefore the Department as a whole would experience a decline in the rejection rate. The empirical evidence, however, indicates that precisely the opposite occurred. By eliminating home calls, workers apparently were able to concentrate more on other aspects of the eligibility verification process, and as a result the policy reversal added an average of 2.5 percentage points to the rejection rate.

The elimination of group intakes (GRINTI), a second policy reversal judged to be a corrective action activity, also effectively increased the rejection rate. Moreover, its impact was of a much greater magnitude than any of the other corrective action variables. With the elimination of group intakes the Department reverted back to a policy which required a one-on-one interview between the intake worker and the potential recipient, allowing for more scrutiny in the initial determination of eligibility. The t-ratio and coefficient for this variable indicate a highly significant and extremely powerful impact on the rejection rate. The coefficient implies that reversion to individual intake interviews added an average of over 7 percentage points to the rejection rate.

Finally, the term SANCT appears in the regression to proxy for the imposition of a state sanctions policy threatening counties with fiscal penalties for high error rates. Although even by mid-1980 the state had not developed an effective mechanism for carrying out the policy, its existence appears to have had a significant and positive impact on the rejection rate. One might hypothesize that as the counties, particularly Los Angeles, recognized the growing possibility of financial penalties, they reacted with a much more conservative acceptance policy in order to maintain "pure" caseloads and low ineligibility rates. In analyzing the timing of the PROP13 and SANCT terms, the impacts of the two variables are highly interrelated, as they are effective during a nearly identical time period. Thus, when the coefficients on the two terms are summed the combined impact for the period in which they are both "on" (1/79-9/79) raises the rejection rate by nearly 7 percentage points.

Closing Rate

The applications registered, processing rate, and rejection rate equations are used together to estimate the number of AFDC-FG openings each month. A closing rate equation is used to estimate the remaining component of the caseload identity.

The "best" OLS and rho-corrected regressions for the closing rate are presented in Table 8.4. Nearly 75 percent of the variance in the closing rate is captured by the OLS regression. After rho-correction, all coefficients remain statistically significant with little change in individual parameter estimates.

The employment opportunity hypothesis is tested in this equation by the inclusion of the unemployment rate term. According to the rho-corrected version of the regression, a one percentage point

Table 8.4

Los Angeles AFDC-FG: Final Closing Rate Equation (1st Stage)

EQN NO. 1 186 OBSERVATIONS (4-> 189)
DEP VAR(26): CLORT
INDEPENDENT VAR(S): 15
V(S) IN XPX=111 M=111
DETERMINANT= 0.3411625E-04

INDEP.VAR.		REGR.COEFF.	STD.ERR.	T-RATIO	MEAN
(26)					0.361421E-01
(1)	CONS	0.222813E-01	0.460262E-02	0.484101E+01	0.100000E+01
(41)	WDAYS	0.886762E-03	0.202772E-03	0.437320E+01	0.208763E+02
(29)	UNRTE	-0.838616E-03	0.240003E-03	0.349419E+01	0.724753E+01
(47)	CA-7	0.494954E-02	0.647523E-03	0.764382E+01	0.370968E+00
(79)	LBDSR	-0.907564E-02	0.105163E-02	0.863010E+01	0.102150E+00
(78)	FEDSAC	0.411389E-02	0.833425E-03	0.493612E+01	0.129032E+00
(80)	9/64D	-0.133385E-01	0.370115E-02	0.360389E+01	0.537634E-02
(81)	6/65D	0.111004E-01	0.371681E-02	0.298655E+01	0.537634E-02
(82)	3/66D	0.152341E-01	0.372388E-02	0.409093E+01	0.537634E-02
(83)	WINTAL	0.109677E-01	0.370683E-02	0.295878E+01	0.537634E-02
(84)	10/68D	0.134936E-01	0.371126E-02	0.363585E+01	0.537634E-02
(85)	5/68D	0.176823E-01	0.371136E-02	0.476437E+01	0.537634E-02
(88)	WRAI	0.979590E-02	0.370961E-02	0.264068E+01	0.537634E-02
(86)	67/68D	-0.129556E-01	0.156785E-02	0.826329E+01	0.322581E-01
(110)	3/71D	0.102762E-01	0.381890E-02	0.269088E+01	0.537634E-02

RSQBAR= 0.7246 RSQ= 0.7455 SEE= 0.3521954E-02 SEEBAR= 0.3673179E-02

TSS= 0.9064349E-02 RSS= 0.2307174E-02 FSTAT(14, 171)= 0.3577280E+02

MBAR= -0.2179 DW STAT: 1.5904 RHO: 0.21264746

Rho-corrected

EQN NO. 1 185 OBSERVATIONS (5-> 189)
DEP VAR(127): CLORT
INDEPENDENT VAR(S): 15
V(S) IN XPX=127 M=111
DETERMINANT= 0.7680937E-04
RHO= 0.2126475E+00
Y(189)= 0.7459000E+01

INDEP.VAR.		REGR.COEFF.	STD.ERR.	T-RATIO	MEAN
(127)					0.284140E-01
(112)	CONS	0.214792E-01	0.433541E-02	0.495437E+01	0.787353E+00
(113)	WDAYS	0.881358E-03	0.180383E-03	0.488604E+01	0.164276E+02
(114)	UNRTE	-0.716827E-03	0.279061E-03	0.256871E+01	0.570515E+01
(115)	CA-7	0.490155E-02	0.778026E-03	0.629998E+01	0.294811E+00
(116)	LBDSR	-0.918064E-02	0.123847E-02	0.741288E+01	0.808632E-01
(117)	FEDSAC	0.420214E-02	0.100066E-02	0.419939E+01	0.102143E+00
(118)	9/64D	-0.124561E-01	0.348023E-02	0.357909E+01	0.425596E-02
(119)	6/65D	0.110234E-01	0.349687E-02	0.315235E+01	0.425596E-02
(120)	3/66D	0.161519E-01	0.350863E-02	0.460348E+01	0.425596E-02
(121)	WINTAL	0.920127E-02	0.348540E-02	0.263994E+01	0.425596E-02
(122)	10/68D	0.121869E-01	0.349105E-02	0.349090E+01	0.425596E-02
(123)	5/68D	0.161145E-01	0.351849E-02	0.457994E+01	0.425596E-02
(124)	WRAI	0.100023E-01	0.348309E-02	0.287167E+01	0.425596E-02
(125)	67/68D	-0.124481E-01	0.182233E-02	0.683089E+01	0.255358E-01
(126)	3/71D	0.808603E-02	0.356145E-02	0.227043E+01	0.425596E-02

RSQBAR= 0.6773 RSQ= 0.7018 SEE= 0.3396277E-02 SEEBAR= 0.3542946E-02

TSS= 0.7157096E-02 RSS= 0.2133919E-02 FSTAT(14, 170)= 0.2858388E+02

MBAR= -0.1987 DW STAT: 2.0020 RHO: 0.00556607

increase in the UNRTE results in a decline of nearly 7/10 of a percentage point in the closing rate, suggesting that as employment opportunity declines, the rate at which cases close, both voluntarily and administratively, declines as well.

As the regression table indicates, several one period and multi-period fitted dummies appear in the closing rate equation to capture extreme data points in the time series that cannot be explained. Since, for the most part, they appear in the early segment of the period under consideration, they are not likely to affect the evaluation of the impact of later period corrective actions.

In addition, several variables representing changes in administrative / procedural policy unrelated to corrective action appear in the equation. Liberalization of the income disregard formula in the early 1970s, as proxied by LBDSR, appears to have had a highly significant and negative impact on the closing rate. Its effect was to lower the closing rate by an average of nearly one percentage point while the policy was effective. WINTAL, a one period dummy variable, captures the initial impact of the WIN/Talmadge requirements introduced in July 1968. Its effect was to raise the closing rate by over 9/10 of one point that month. The immediate impact of the California Welfare Reform Act, as measured by the coefficient on WRA1, was to increase the closing rate again by over one percentage point.

Two corrective action variables appear in the closing rate equation. CA-7, a proxy for the monthly recipient reporting system, is highly significant and exerts an upward pressure on the closing rate. For the period that the system is operative (4/74 - end of regression period) its effect was to add, on average, nearly one-half of a percentage point to the closing rate.

FEDSAC, a generalized variable designed to capture the impact of the federal sanctions policy and the flurry of "corrective action activity" resulting from it also acted to increase the closing rate. Its coefficient indicates that during the period that it was in effect (1/73 - 12/74) it increased the closing rate by nearly 12 percent of the mean value of the rate over the entire regression period.

Now that the four equations which comprise the Los Angeles AFDC Dynamics Model have been estimated, the next step involves the preparation of various simulations to evaluate the impact of corrective actions.

Los Angeles County

Simulation Results

The preceding regression results show that each of the four caseload component equations was affected by at least one corrective action variable. The applications registered equation indicated the existence of a significant feedback mechanism resulting from the monthly reporting system (CC*CA7). It suggested that, on average, throughout the period when monthly reporting was operative (1974-1979), approximately 17 percent of cases closed would be back within three months applying for welfare again. Increased performance standards (PERFM), a general staff reorganization (STAFRO), the elimination of home calls in initial aid determination (ELIMHC), and a one period dummy variable to capture the initial impact of the policy eliminating home calls (3/74D), all acted to boost the rate at which applications were processed. In the rejection rate, the elimination of home calls (ELIMHC), the introduction of a state sanctions policy (SANCT), and the discontinuance of group intakes (GRINT1) raised the rejection rate above what it would have been in the absence of these policies. (A one period dummy variable (11/74D) accounted for a sharp drop in the rejection rate in an isolated period.) Finally, the monthly reporting form (CA-7) and a generalized variable accounting for tighter administration of the program during the period surrounding the federal sanctions policy (FEDSAC) acted to boost the rate at which cases were closed. The impact of all of these policy variables on cases receiving assistance, cases added, cases closed, and expenditures, are now evaluated in a fully dynamic simulation.

Cases Receiving Assistance

Table 8.5 presents the final caseload estimates which are based on the three basic simulations. By comparing the caseload estimates resulting from these alternative simulations it is possible to estimate the impacts of changes in the relationships between "structural" variables and corrective action variables on the size of the caseload.

The table indicates our best model (the PSS) predicted the actual caseload with great accuracy. For example, the December 1974 estimate is only 1.9 percent lower than actual, while in December 1976 the error was less than one half of one percent. Finally, in September 1979, the PSS estimate of caseload was approximately 1.6 percent higher than the actual. By comparing actual cases receiving assistance and the PSS estimate of cases receiving assistance (scenerios (0) and (2) in Figure 8.1), one can gain an appreciation of the accuracy of the "full model."

More importantly, however, Table 8.5 and Figure 8.2 indicate the impact of structural changes and corrective action on cases receiving assistance. By December 1974, had no change occurred in the caseload generating function, and no corrective actions been implemented, there would have been nearly 11,900 more cases receiving assistance than the PSS estimate indicates. This represents an increase of 7.7 percent over the PSS caseload. While the Pre-QC/CA structure resulted in about 1,800 more cases than the PSS, the corrective actions undertaken

Table 8.5

Simulation Results

Los Angeles County

Cases Receiving Assistance

Simulation	at 12/74 (36 months)	at 12/76 (60 months)	at 9/79 (93 months)
Actual	157,004	175,296	164,637
Present Structure (PSS)	154,083	176,220	167,332
Pre - QC/CA Structure (Pre - QC/CA)	165,944	184,336	189,397
Present Structure - No QC/CA (PSS - No QC/CA)	167,735	186,809	192,363
QC/CA And Structural Impacts			
Due to QC/CA and Structure	-11,861	-8,116	-22,065
% PSS	(-7.7%)	(-4.6%)	(-13.2%)
Due to Structure	+1,791	+2,473	+2,966
% PSS	(+1.2%)	(+1.4%)	(+1.8%)
Due to QC/CA	-13,652	-10,589	-25,031
% PSS	(-8.9%)	(-6.0%)	(-15.0%)

Figure 8.1

Counterfactual Simulations vs. Actual: Los Angeles County

Cases Receiving Assistance

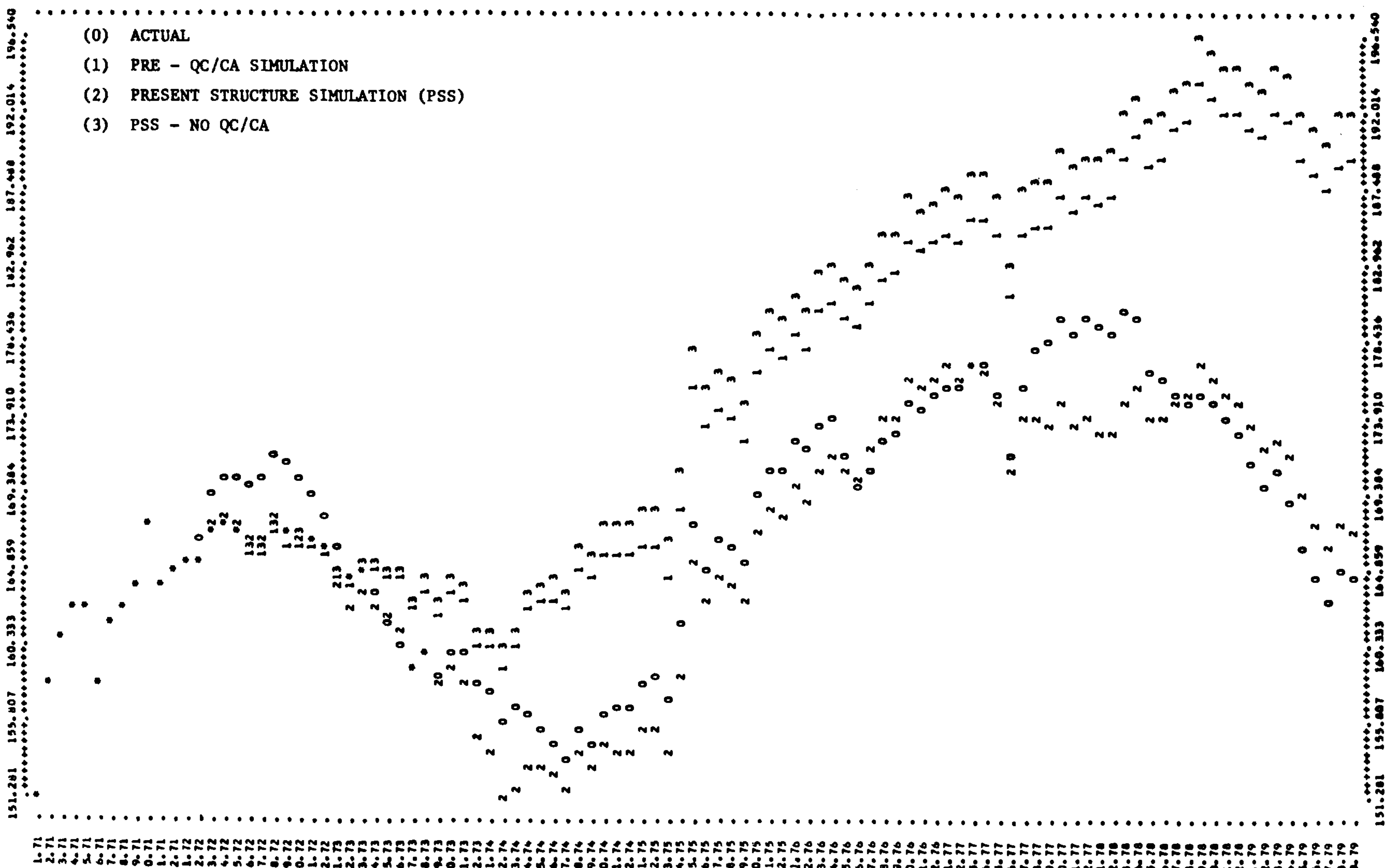
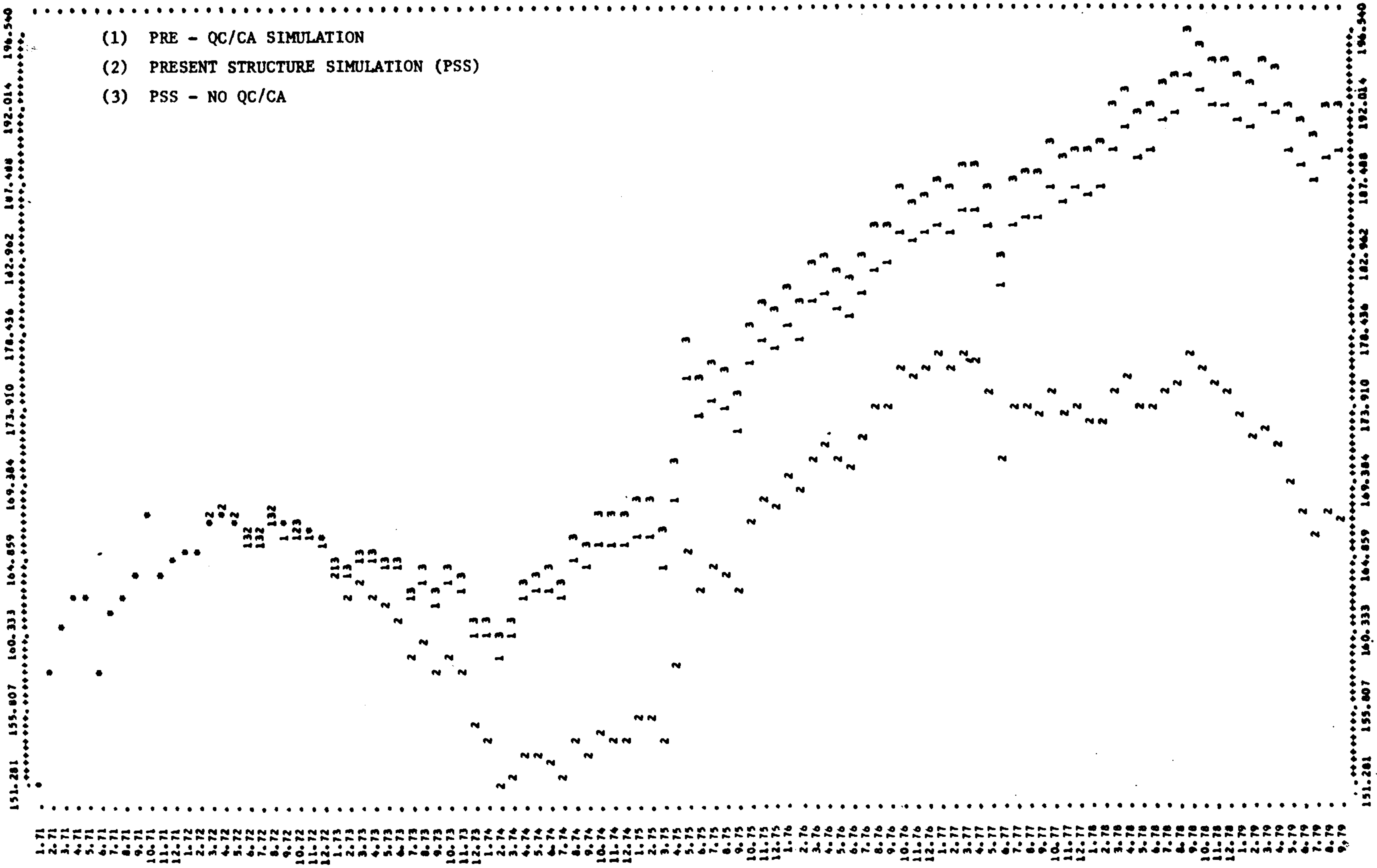


Figure 8.2

Counterfactual Simulation: Los Angeles County

Impact of All Corrective Action Variables on Cases Receiving Assistance



were responsible for reducing the caseload by more than 13,600 cases, or nearly nine percent of the PSS estimate.

By December 1976 the impact of corrective actions was slightly weaker. The difference between the PSS estimate and the Pre-QC/CA estimate of caseload was just over 8,100 cases. Changes in structure were responsible for a difference of nearly 2,475 in the caseload, while corrective action accounted for a reduction of about 10,600 cases (6.0 percent of the PSS estimate). Corrective action activity, therefore, not only offset what would have been predicted caseload growth, but an additional 2,500 cases that would have occurred as a result of structural changes in the underlying dynamics of the program.

By the end of the full simulation period (September 1979) the impact of corrective actions increased again. Had no change in the underlying structure occurred, and no corrective action been undertaken, there would have been about 22,000 more cases receiving assistance than the PSS indicates. Again, corrective action was responsible for more than 100 percent of the total reduction (or about 25,000 cases), but the decline was partially offset by an increase of 3,000 cases solely attributable to changing structural relationships. Corrective action was therefore responsible for producing a caseload some 15 percent smaller than might otherwise have occurred.

Cases Added

Although the preceding discussion indicates that corrective action had a significant impact on the number of cases receiving assistance in the Los Angeles County AFDC-FG program, it does not indicate how the specific reduction was accomplished. By going one step further and analyzing the impacts of structural change and corrective action on the individual cases added and cases closed components of the caseload identity, it is possible to show how the 22,000 case reduction was achieved.

Table 8.6 presents the impacts of structural change and corrective action on the cases added component of the basic caseload identity. It indicates that between January 1972 (the initial period of the simulation) and December 1974 there were 215,948 actual openings in the AFDC-FG program. Our "best model," the PSS, predicted 215,795 openings, an estimate that was virtually error-free. More to the point, however, the table also indicates that had no structural change occurred and had no corrective actions been undertaken, there would have been about 9,600 fewer openings (or about 4.5 percent of the PSS estimate) in the program. Changing structural relationships accounted for just over 3000 additional openings (or about one third of the total difference) while corrective actions had perhaps the unrealized effect of increasing the number of recorded openings by nearly 6,600 cases. This was due to additional reapplications that occurred as a result of increased administrative closings of some presumably eligible cases.

Over the longer period from January 1972 to December 1976, there

Table 8.6

Simulation Results

Los Angeles County

Cases Added

Simulation	Cumulative to 12/74 (36 months)	Cumulative to 12/76 (60 months)	Cumulative to 9/79 (93 months)
Actual	215,948	392,574	613,157
Present Structure (PSS)	215,795	394,254	615,640
Pre - QC/CA Structure (Pre - QC/CA)	206,188	367,799	590,394
Present Structure - No QC/CA (PSS - No QC/CA)	209,216	373,659	600,011
QC/CA And Structural Impacts			
Due to QC/CA and Structure	+9,607	+26,455	+25,246
% PSS	(+4.5%)	(+6.7%)	(+4.1%)
Due to Structure	+3,028	+5,860	+9,617
% PSS	(+1.4%)	(+1.5%)	(+1.6%)
Due to QC/CA	+6,579	+20,595	+15,629
% PSS	(+3.1%)	(+5.2%)	(+2.5%)

were almost 26,500 fewer additions in the Pre-QC/CA simulation relative to the PSS simulation. Different structural relationships accounted for nearly 5,900 openings (or 22 percent of the total), while corrective action was responsible for increasing openings by almost 20,600 cases. Finally, over the full 93 month simulation period, more than 25,000 more openings occurred in the PSS simulation than were predicted by the Pre-QC/CA simulation. Sixty-one percent of the difference, or approximately 15,600 cases were the result of corrective action related factors, while changes in underlying structural relationships were responsible for the remaining 9,600 additional openings.

Cases Closed

In addition to affecting the cases added component of the caseload identity, some of the corrective actions in the Los Angeles County model acted to increase the rate at which active cases were closed. Table 8.7 presents the impacts of both structural change and corrective action on the total number of cases closed over three time periods.

The table indicates that between January 1972 and December 1974 the total impact of structural change and corrective action was to increase closings by over 21,000 cases. While changing structural relationships were responsible for a difference of 1,300 closings, corrective action increased the number of cases closed by more than 19,700, or 8.7 percent of the PSS estimate.

Over the 60 month period ending in December 1976, the difference

Table 8.7

Simulation Results

Los Angeles County

Cases Closed

Simulation	Cumulative to 12/74 (36 months)	Cumulative to 12/76 (60 months)	Cumulative to 9/79 (93 months)
Actual	225,319	382,321	614,090
Present Structure (PSS)	228,026	383,105	613,954
Pre - QC/CA Structure (Pre - QC/CA)	206,985	348,732	567,287
Present Structure - No QC/CA (PSS - No QC/CA)	208,286	352,179	574,024
QC/CA And Structural Impacts			
Due to QC/CA and Structure	+21,041	+34,373	+46,667
% PSS	(+9.2%)	(+9.0%)	(+7.6%)
Due to Structure	+1,301	+3,447	+6,737
% PSS	(+0.5%)	(+0.9%)	(+1.1%)
Due to QC/CA	+19,740	+30,926	+39,930
% PSS	(+8.7%)	(+8.1%)	(+6.5%)

in closings attributable to changing structural relationships in conjunction with corrective action activity was nearly 34,375 cases. Of this total difference, corrective action was responsible for almost 31,000 closings, or 8.1 percent of the PSS estimate. Changes in structural relationships accounted for the remainder. Finally, over the entire 93 month simulation period, the difference between the PSS estimate and the Pre-QC/CA estimate amounts to more than 46,600 closings, with corrective action responsible for the major share (85 percent of the total increase in closings and 6.5 percent of the PSS estimate). These extra closings far outweighed the additional openings that resulted from corrective action. This explains part of the net decline in the expected caseload of 22,000 families by September 1979.

Expenditures

Table 8.8 presents the impacts of structural change and corrective action on AFDC-FG expenditures. Again, the methodology employed in obtaining expenditure estimates consisted of multiplying estimates of cases receiving assistance under each alternative simulation by the actual expenditure per case in each period. The critical assumption here is that every case that is either added to or subtracted from the caseload receives the average expenditure per case. This is, in fact, a dubious assumption, for one might expect that a high proportion of cases affected by corrective action actually receive only marginal amounts of aid. Because available data did not allow us to derive a more realistic estimate of what the "typical"

Table 8.8

Simulation Results

Los Angeles County

Expenditures (in thousands)

Simulation	Cumulative to 12/74 (36 months)	Cumulative to 12/76 (60 months)	Cumulative to 9/79 (93 months)
Actual	$1,304,181	$2,409,138	$4,223,669
Present Structure (PSS)	1,287,638	2,383,523	4,190,879
Pre - QC/CA Structure (Pre - QC/CA)	1,322,226	2,479,710	4,443,946
Present Structure - No QC/CA (PSS - No QC/CA)	1,328,648	2,500,902	4,491,650
QC/CA And Structural Impacts			
Due to QC/CA and Structure	$-34,588	$-96,187	$-253,067
% PSS	(-2.7%)	(-4.0%)	(-6.0%)
Due to Structure	+6,422	+21,192	+47,704
% PSS	(+0.5%)	(+0.9%)	(+1.1%)
Due to QC/CA	-41,010	-117,379	-300,771
% PSS	(-3.2%)	(-4.9%)	(-7.1%)

case affected by corrective action might receive in terms of a cash benefit, it was necessary to work within the constraints of this assumption.

Table 8.8 indicates that if no structural change had taken place and no corrective actions had been undertaken, AFDC expenditures by December 1974 would have been nearly $34.6 million more than the PSS indicates. Corrective action was actually responsible for a reduction of $41 million over the 36 month period (or 3.2 percent of the PSS estimate), but this was partially offset by an increase in expenditures of $6.4 million caused by changing structural relationships.

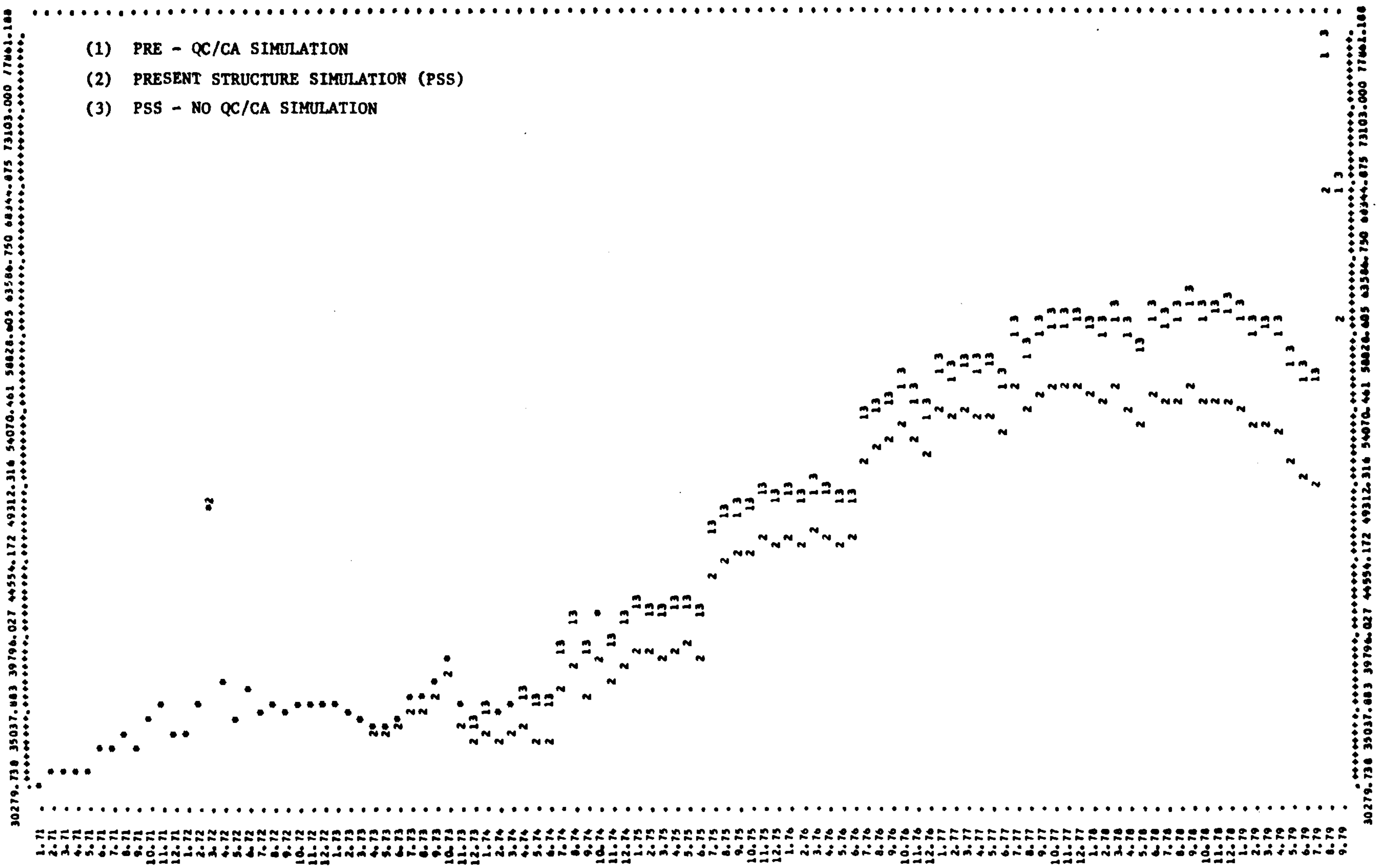
By December 1976, we estimate a maximum likely savings due to corrective actions and associated changes of nearly $96.2 million. Again, corrective action was responsible for well over 100 percent of the <u>gross</u> reduction ($117.4 million or 4.9 percent of the PSS estimate), but a changing structural regime increased expenditures by $21.2 million, offsetting the corrective action reduction. Figure 8.3 depicts graphically the impact of both structural change and corrective action on AFDC expenditures. The total area between simulations (2) and (3) represents the impact of corrective actions alone, while the differential between simulations (1) and (3) indicates the effect of changing structural relationships.

Finally, by September 1979 total expenditure savings for the 93 month period are estimated at $253 million. Corrective actions alone can be credited with reducing expenditures by slightly more than $300 million or 7.1 percent of the PSS estimate, but again, this reduction

Figure 8.3

Counterfactual Simulation: Los Angeles County

Impact of All Corrective Action Variables on Expenditures



was offset by an increase of nearly $48 million due to changes in the underlying structure. This represents a clear expenditure savings of some magnitude. Corrective actions were responsible for an average monthly savings of $3.23 million per month over the entire period. Again, however, the reader must be cautioned that this is an outside estimate given the method for measuring expenditure savings. A more likely estimate might be anywhere from one-half to two-thirds of this total.

Which Corrective Action Did the Most?

The preceding analysis did not indicate which corrective actions were the most powerful in terms of their impact on the various caseload components, and in the final analysis, on the caseload itself. In the following pages, the impact of each corrective action on cases receiving assistance, openings, closings, and expenditures is statistically evaluated.

Cases Receiving Assistance

Table 8.9 presents the individual impacts of the eight basic corrective action variables on cases receiving assistance in Los Angeles County at three points in time. Additionally, Figures 8.4 through 8.11 depict graphically the individual impacts of each corrective action variable on cases receiving assistance for the full simulation period.

The first corrective action variable to appear (STAFRO) represents a period of extensive departmental staff reorganization

Table 8.9

Individual Corrective Action Impacts

Los Angeles County

Cases Receiving Assistance

QC/CA Variable	at 12/74 (36 months)	at 12/76 (60 months)	at 9/79 (93 months)
1) STAFRO	-49	-18	-4
2) ELIMHC & 3/74D	-1,161	-4,008	-5,593
3) FEDSAC	-9,896	-3,452	-850
4) PERFM	-138	-51	-13
5) CA-7	-2,058	-3,197	-5,253
6) SANCT	0	0	-2,922
7) GRINTI	0	0	-12,697
8) 11/74D	+339	+124	+31
Total (Excluding Interactions)	-12,963	-10,602	-27,301
Interactions	-689	+13	+2,270
Total Impact	-13,652	-10,589	-25,031

during 1972. The table indicates that by December 1974, a full 36 months out in the simulation, the impact of the reorganization on the caseload was insignificant at best. Because the variable STAFRO entered the processing rate equation, it would not be expected to have a very significant impact on the caseload, for the processing rate equation simply determines the number of applications disposed, but not the number of applications rejected or active cases closed.

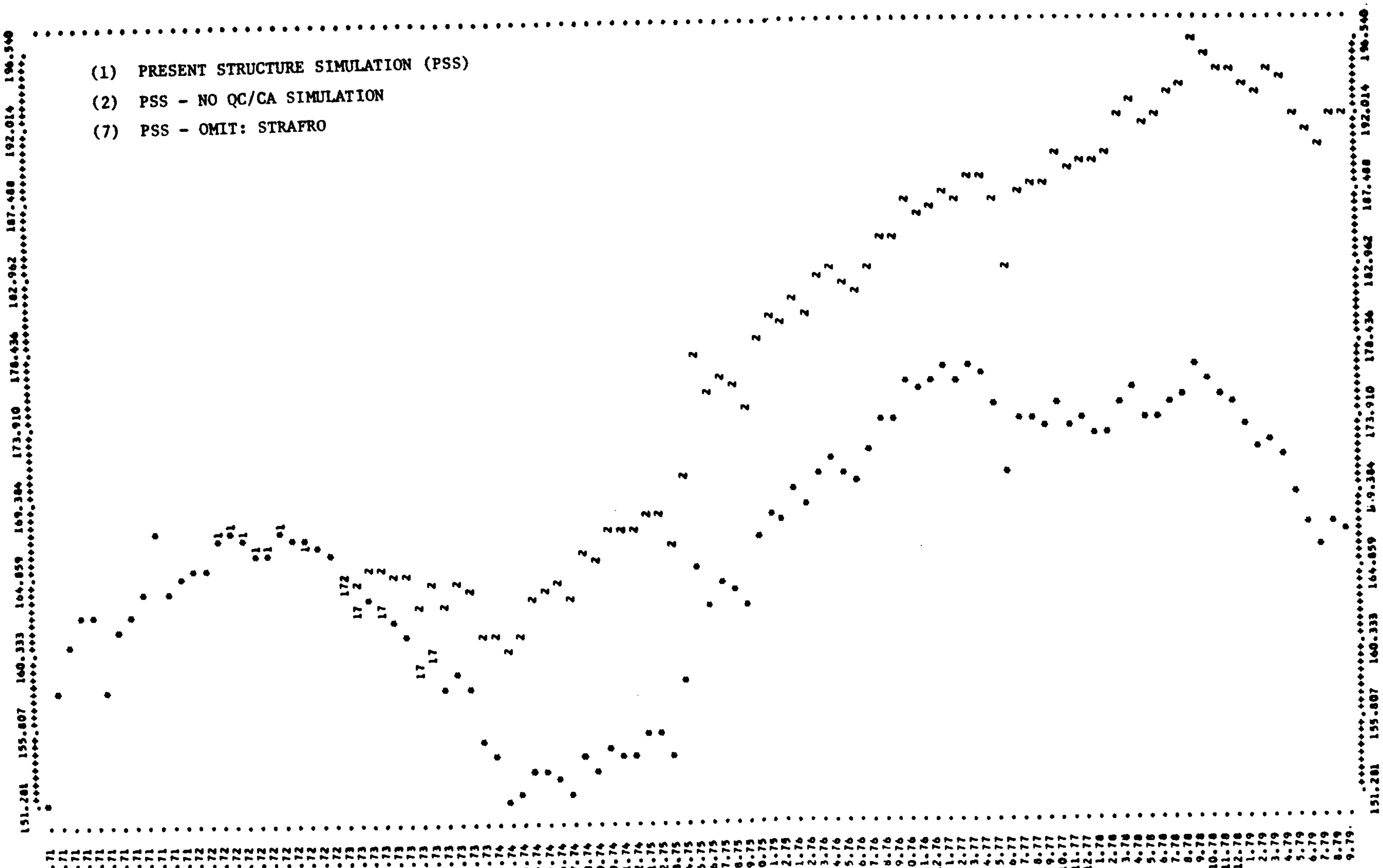
Figure 8.4 reflects graphically the estimates presented for STAFRO in Table 8.9. The difference between scenerios (1) and (7) represents the impact of the staff reorganization on cases receiving assistance. Note that during 1972 and 1973 the differential between the simulations is minor, and that by the end of 1973 the two scenerios fully converge. This indicates that the initial impact of the reorganization on the caseload had already completely dissipated.

The second corrective action to appear in the table is actually comprised of two separate variables. The elimination of a home calls policy (ELIMHC) which boosted both the processing and rejection rates, and a one period dummy variable (3/74D) to account for the initial impact on the processing rate of the policy discontinuance are evaluated as one corrective action because they are elements of the same phenomenon. The table indicates that by December 1974, had the policy of home calls in aid determination not been abandoned, there would have been nearly 1,200 more cases receiving assistance. By December 1976 the caseload reduction attributable to this corrective action variable had grown to over 4,000, and by September 1979 the total reduction was nearly 5,600 cases. As explained in the

Figure 8.4

Counterfactual Simulation: Los Angeles County

Impact of Staff Reorganization (STAFRO) on Cases Receiving Assistance



regression results, by eliminating the home calls requirement, the Department apparently was able to free up staff time for other aspects of eligibility verification. This clearly allowed for a significant reduction in the caseload.

Figure 8.5 presents the impact of this variable on cases receiving assistance. The significant distance between simulations (1) and (4) indicates the powerful nature of discontinuing home calls.

FEDSAC, a generalized variable constructed to account for tighter administration of the welfare program during 1973 and 1974, also had a significant impact on the AFDC caseload. Both Table 8.9 and Figure 8.6 indicate that the administrative tightening (which resulted in a significant increase in the closing rate) had a major impact initially. The table shows that the policy was responsible for reducing the caseload by almost 10,000 cases relative to what it would have been in the absence of FEDSAC. Because the policy acted as a one-time shock to the closing rate during 1973 and 1974, its impact necessarily faded over time. Figure 8.5 indicates that by the end of the simulation period, the two caseload simulations with and without the FEDSAC variable, simulations (1) and (5) respectively, are nearly identical. This suggests the transitory nature of this policy.

The variable proxying for the increased performance standards set by top management for departmental staff (PERFM), significantly affected the processing rate, but had no significant impact on the caseload. Note that initially scenerios (1) and (3) in Figure 8.7 are not significantly different, and that for the remainder of the simulation period they are identical.

Figure 8.5

Counterfactual Simulation: Los Angeles County

Impact of Elimination of House Calls (ELIMHC & 3/74D) on Cases Receiving Assistance

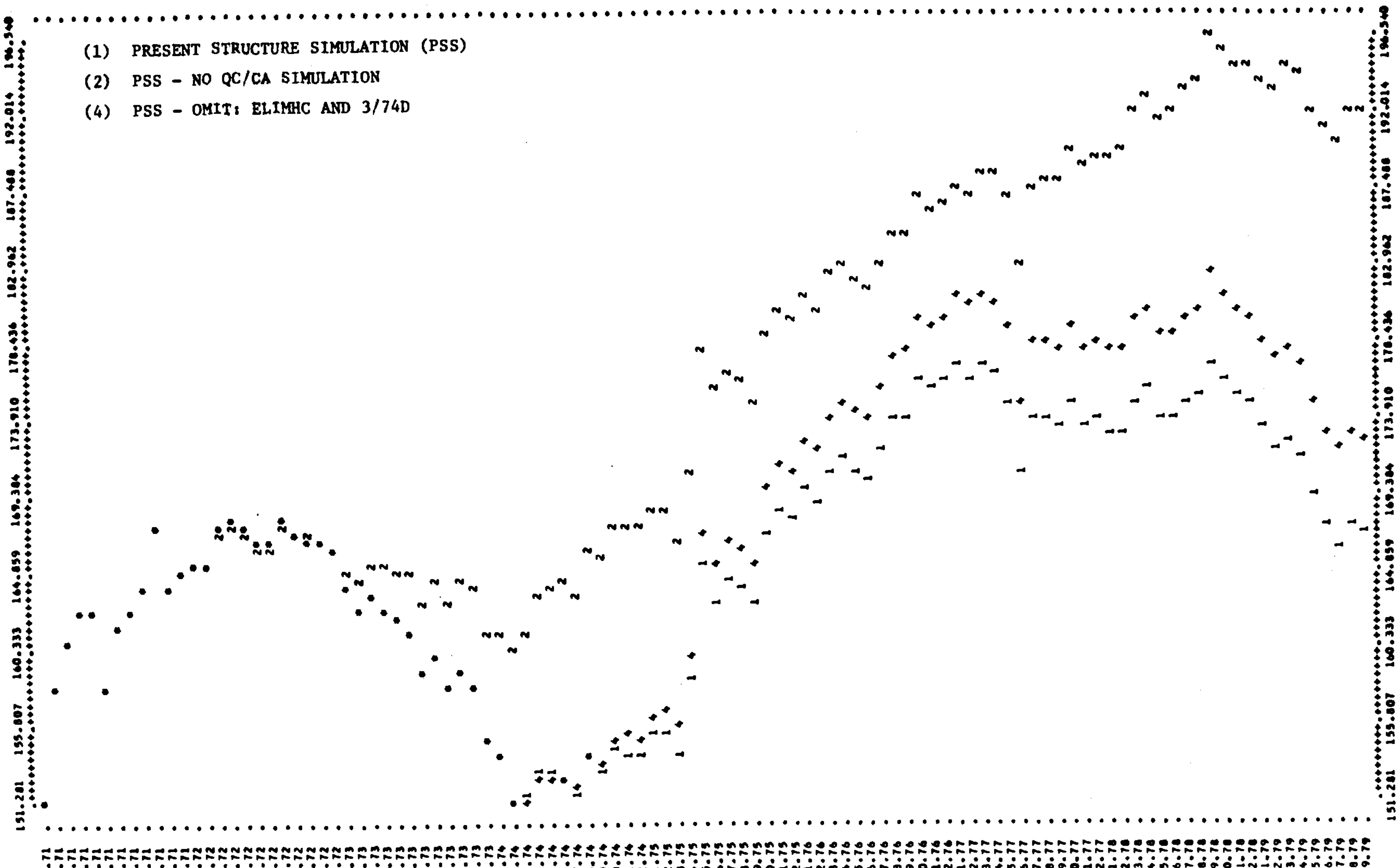


Figure 8.6

Counterfactual Simulation: Los Angeles County

Impact of Federal Sanctions Policy (FEDSAC) on Cases Receiving Assistance

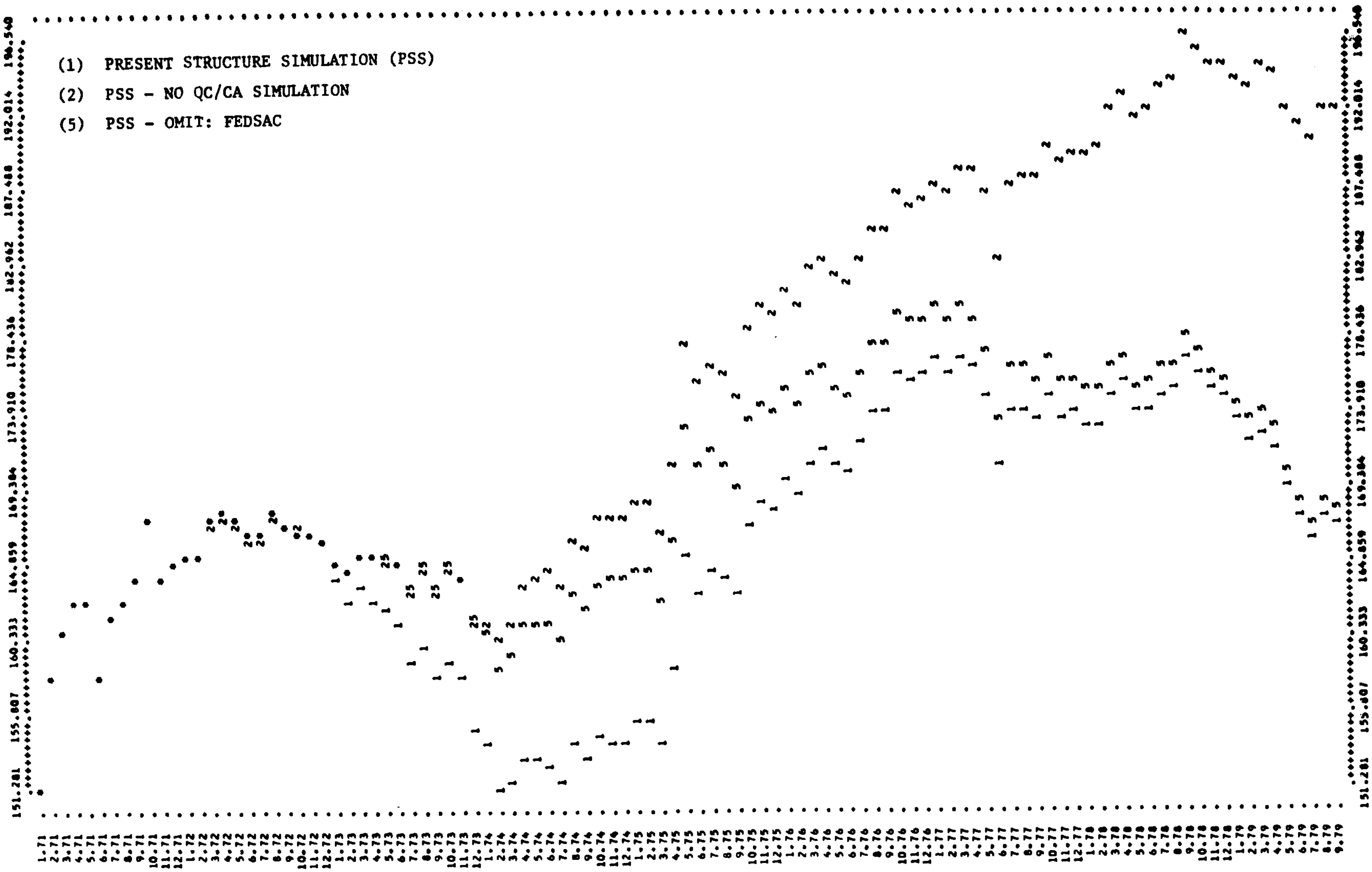


Figure 8.7

Counterfactual Simulation: Los Angeles County

Impact of Performance Standards (PERFM) on Cases Receiving Assistance

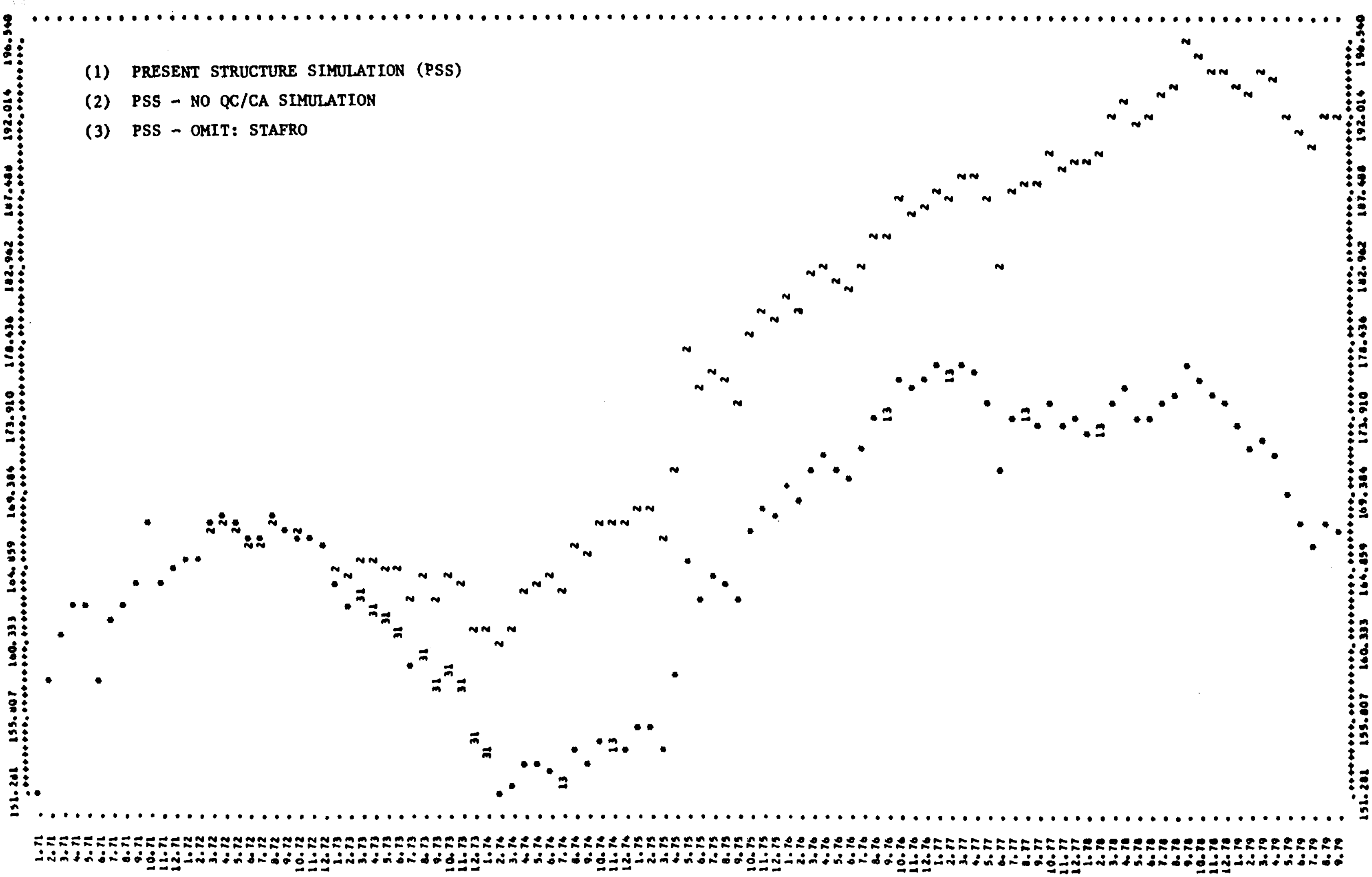
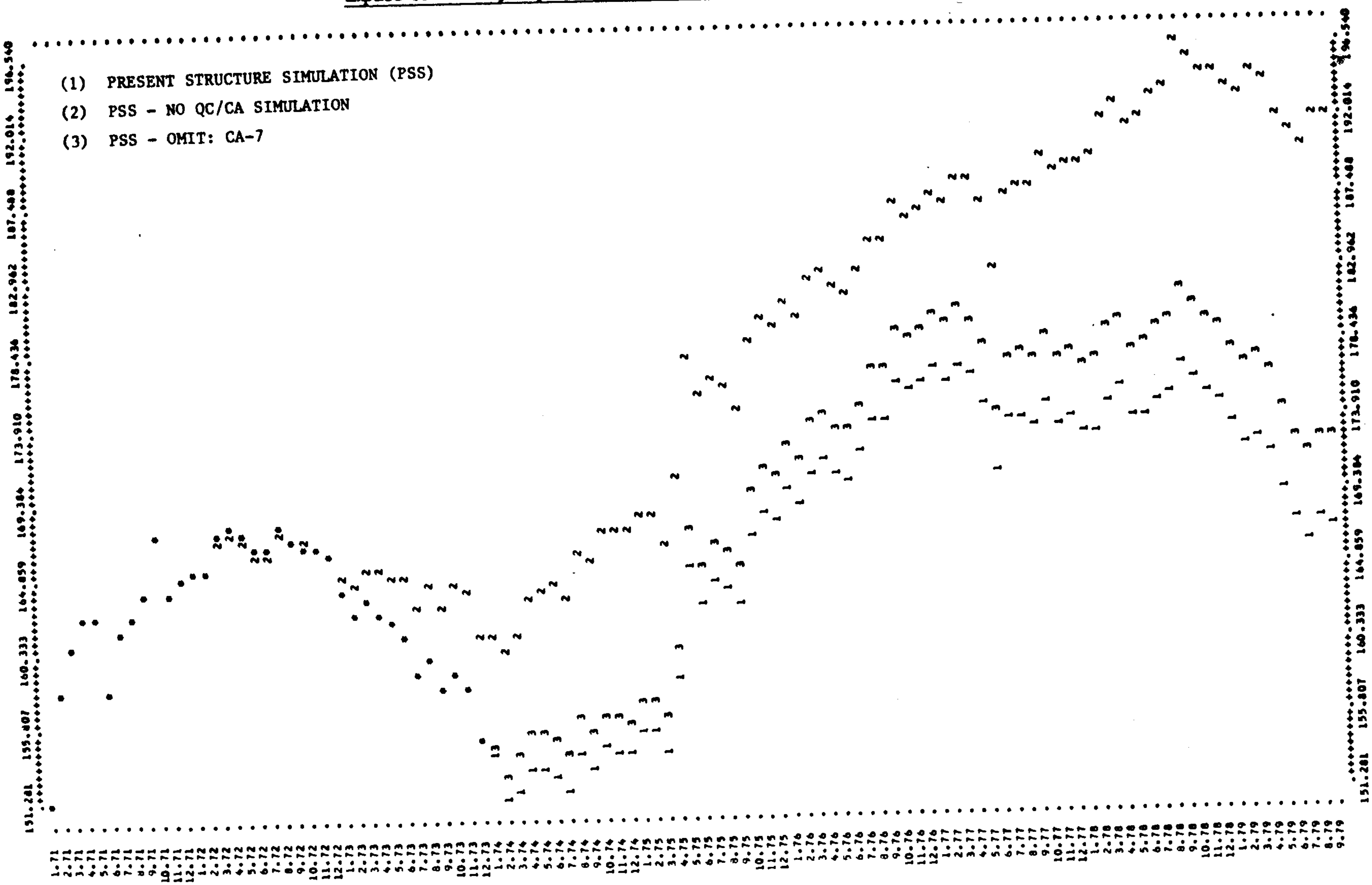


Figure 8.8

Counterfactual Simulation: Los Angeles County

Impact of Monthly Reporting (CA-7) on Cases Receiving Assistance



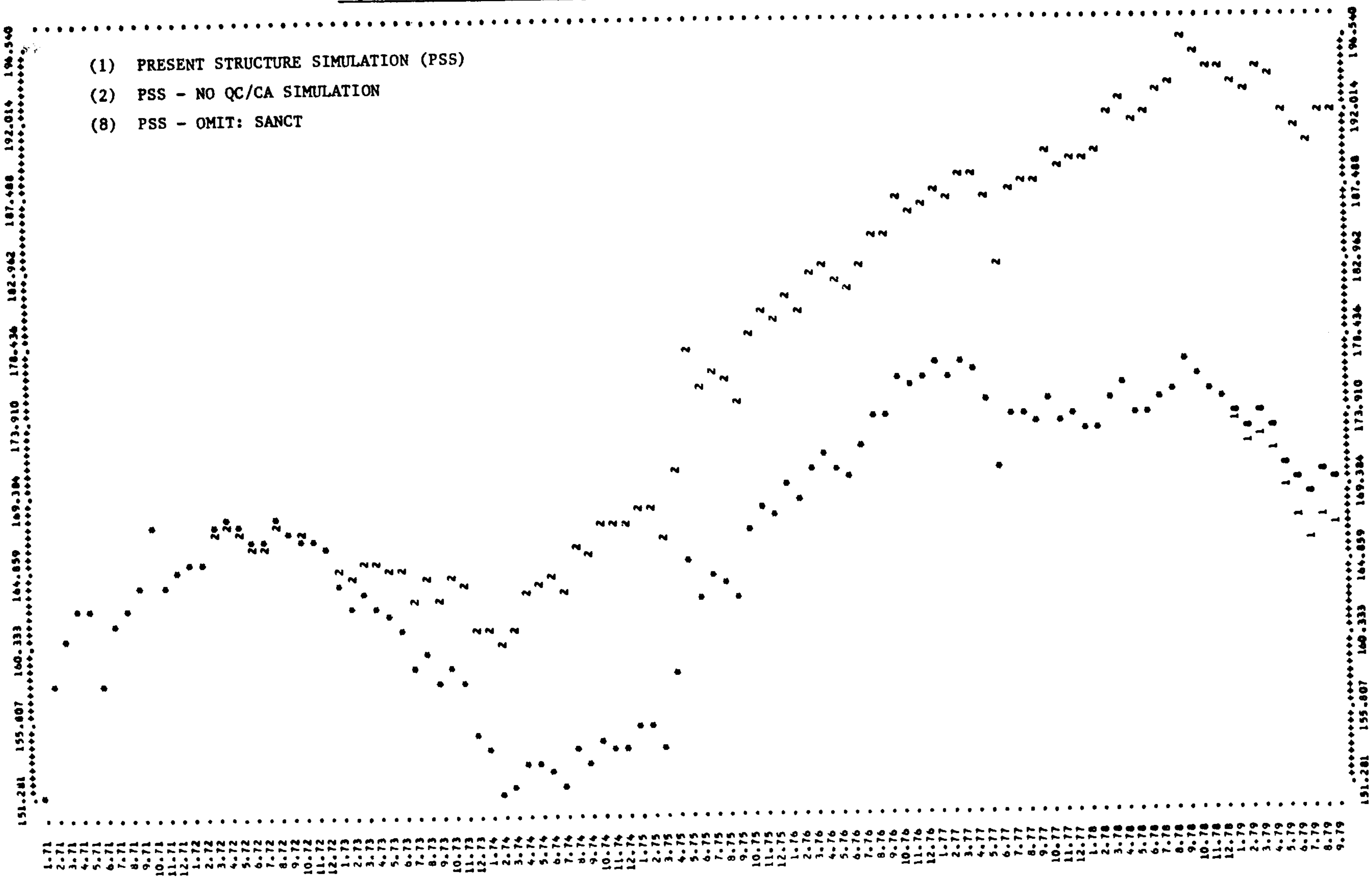
The monthly reporting system (CA-7), probably the most publicized of all the corrective actions, played a significant role in reducing the caseload well below what it would have been in its absence. Although it was partially responsible for indirectly increasing reapplications as well as directly boosting closings (and therefore creating a churning or cycling effect with the system), the net impact of this program of monthly recertification was to reduce the caseload in a gradual manner. Between December 1974 and September 1979, the reduction in caseload brought about by monthly reporting grew from 2,000 to nearly 5,300. Figure 8.8 graphically depicts the impact of this corrective action. The growing differential between scenerios (1) and (3) throughout the simulation period indicates the significant contribution of CA-7 to caseload reduction.

Two of the remaining three corrective action variables, because they only assumed values in later periods of the simulation, obviously had no impact on the caseload before 1977. However they did exert significant effects at the end of the simulation period. The imposition of state sanctions with regard to county-level error rates (SANCT) acted to reduce the caseload by nearly 3,000 by September 1979 (see Figure 8.9), presumably because it prompted a general tightening of the program's administration. More importantly however, the elimination of group intakes (GRINT1) in 1977 had the most significant impact on cases receiving assistance of any of the corrective actions. By changing from a group intake procedure to a one-to-one intake interview, eligibility workers in the Department were able to increase the amount of scrutiny each application received, and as a result the

Figure 8.9

Counterfactual Simulation: Los Angeles County

Impact of State Sanctions Policy (SANCT) on Cases Receiving Assistance



rejection rate rose accordingly. Table 8.9 indicates that in September 1979 there were nearly 12,700 fewer cases receiving assistance than there would have been had group intakes not been discontinued. In addition, Figure 8.10 depicts this impact in graphic form. Note that the differential between simulations (1) and (6) is approximately one-half of the differential between simulations (1) and (2), indicating that the GRINT1 variable accounted for almost one-half of the total corrective action induced reduction in caseload by September 1979. One might conclude then that the elimination of home calls in 1974 and of group intakes in 1977 together with monthly income reporting begun in 1974 were the three most powerful corrective actions taken in Los Angeles County. Together they accounted for over 23,000 fewer cases by late 1979, over 14 percent of the PSS estimate of caseload for September 1979.

The one period dummy variable (11/74D) in November 1974 which was designed to account for a large decline in the rejection rate in that month, was responsible for only a slight increase in the caseload during the simulation period because initially fewer applications were rejected. However, Figure 8.11 indicates that the variable acted as a one-time exogenous shock, as simulations (1) and (4) totally converge within about two years of the variable's direct impact.

Cases Added

As was suggested in a previous section, cases receiving assistance is disaggregated into the primary components of openings and closings in order to facilitate a more thorough evaluation of

Figure 8.10

Counterfactual Simulation: Los Angeles County

Impact of Elimination of Group Intakes (GRINT) on Cases Receiving Assistance

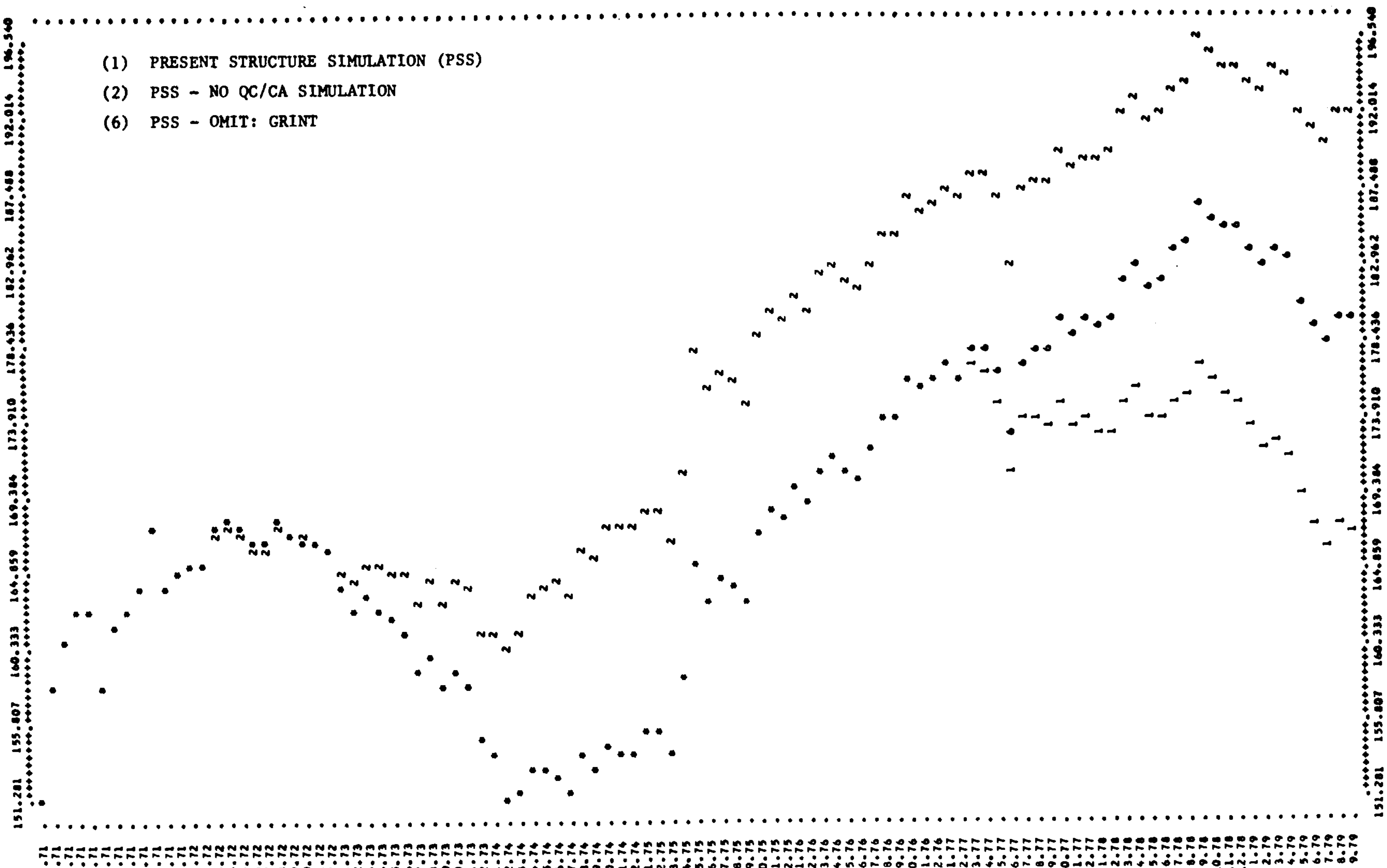
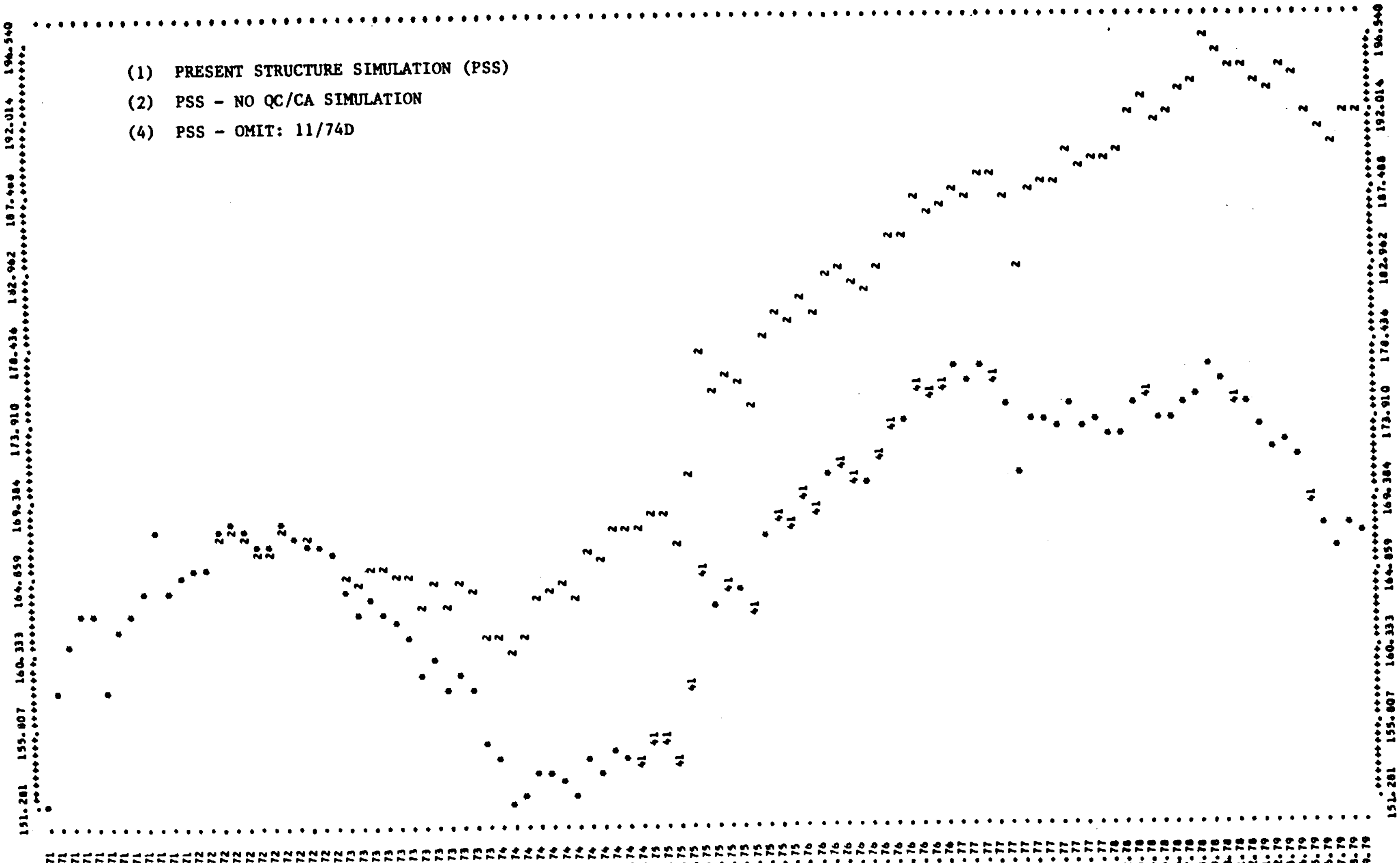


Figure 8.11

Counterfactual Simulation: Los Angeles County

Impact of November 1974 Dummy (11/74D) on Cases Receiving Assistance



corrective actions. Table 8.10 presents the individual impacts on the cases added component of the system.

The elimination of the home calls policy (ELIMHC and 3/74D) had a powerful impact on openings through its effect on the rejection rate. By directly increasing the rate at which applications were rejected, the discontinuance of home calls reduced openings over the entire simulation period by almost 15,000 relative to what would have occurred if the policy remained operational.

FEDSAC, the generalized variable accounting for the period surrounding the introduction of the federal sanctions policy, and CA-7, the proxy for the monthly reporting form, both acted to increase openings, although their magnitudes were quite different. Any policy which directly increases closings necessarily increases openings because of the feedback mechanism present in the applications equation. The interaction term (CC*CA7) suggests that approximately 16 percent of cases closed in period t-3 reapply for AFDC in period t. Therefore, because both FEDSAC and CA-7 increase closings, they increase openings as well. The monthly reporting form (CA-7), through this feedback mechanism, increased openings over the entire simulation period by more than 46,000 relative to what would have occurred had the monthly reporting system not been operative.

Two of the remaining variables, SANCT and GRINT1, in contrast to the federal sanctions policy and monthly reporting, directly acted to reduce openings in the AFDC program. By boosting the rejection rate and therefore increasing the number of rejections, the switch from group intakes to a one-to-one intake interview reduced openings by

Table 8.10

Individual Corrective Action Impacts

Los Angeles County

Cases Added

QC/CA Variable	Cumulative to 12/74 (36 months)	Cumulative to 12/76 (60 months)	Cumulative to 9/79 (93 months)
1) STAFRO	-32	-30	-29
2) ELIMHC & 3/74D	-1,238	-6,672	-14,729
3) FEDSAC	+1,255	+1,940	+2,108
4) PERFM	-33	-28	-25
5) CA-7	+6,501	+23,824	+46,291
6) SANCT	0	0	-3,468
7) GRINTI	0	0	-22,059
8) 11/74D	+356	+346	+341
Total (Excluding Interactions)	+6,809	+19,380	+8,430
Interactions	-230	+1,215	+7,199
Total Impact	+6,579	+20,595	+15,629

more than 22,000 in comparison to what would have taken place in the absence of the policy change. In addition, the state sanctions policy, by also boosting the rejection rate, resulted in nearly 3,500 fewer openings over the first nine months of 1979.

Cases Closed

Using the same methodology we can evaluate the impacts of individual corrective actions on the cases closed component of the basic caseload identity. Table 8.11 presents the effects of each corrective action variable on cases subtracted.

The three rejection rate variables, ELIMHC and 3/74D, SANCT, and GRINT1 all reduced the number of case closings throughout the simulation period. The dynamics are straightforward: when specific corrective action activities increase the rejection rate, fewer cases are added to the AFDC caseload. This obviously results in a caseload which is lower than if the activities had never been initiated. Clearly, a lower caseload multiplied by an exogenously determined closing rate results in fewer closings over any discrete period.

Table 8.11 indicates that through these interactions the elimination of a home calls policy resulted in 9,300 fewer closings than would have occurred in the absence of the policy reversal. Moreover, the elimination of group intakes (GRINT1) reduced closings by more than 9,700 cases, while the introduction of a state sanctions policy, by directly increasing the number of rejections, indirectly reduced the number of cases closed by 631 during 1979.

Both FEDSAC and CA-7 are variables that directly entered the

Table 8.11

Individual Corrective Action Impacts

Los Angeles County

Cases Closed

QC/CA Variable	Cumulative to 12/74 (36 months)	Cumulative to 12/76 (60 months)	Cumulative to 9/79 (93 months)
1) STAFRO	+15	-12	-25
2) ELIMHC & 3/74D	-118	-2,762	-9,300
3) FEDSAC	+10,795	+5,309	+2,934
4) PERFM	+101	+21	-14
5) CA-7	+8,485	+26,942	+51,391
6) SANCT	0	0	-631
7) GRINTI	0	0	-9,731
8) 11/74D	+29	+225	+311
Total (Excluding Interactions)	+19,307	+29,723	+34,935
Interactions	+433	+1,203	+4,995
Total Impact	+19,740	+30,926	+39,930

closing rate equation. It is totally consistent then that they act to raise the number of case closings throughout the simulation period. Because the federal sanctions policy variable is specified as a 24 month variable, assuming values only during 1973 and 1974, its impact on closings is quite powerful at first, but fades during the remainder of the period. In the absence of the general administrative tightening proxied by FEDSAC, there would have been nearly 10,800 fewer closings by December 1974 relative to the PSS estimate of cases closed. By 1979, however, the number had declined to just over 2,900 in relation to the PSS estimate.

Monthly reporting (CA-7), in calling for recipient recertification on a monthly basis, had the greatest impact on closings of any of the corrective action variables. It was responsible for more than 51,000 additional closings over the full simulation period. In conjunction with the feedback mechanism that acted to increase openings, however, the <u>net</u> result of CA-7 was a caseload reduction of about 5,000, relative to a welfare system in which CA-7 never existed.

<u>Expenditures</u>

Table 8.12 presents the individual corrective action impacts on expenditures. Again, we stress the assumption implicit in the calculation of expenditures savings: each case affected by corrective action is assumed to receive the <u>average expenditure for all cases</u>. Although this methodology surely overstates expenditure savings, lack of more accurate data precludes us from making more reliable

Table 8.12

Individual Corrective Action Impacts

Los Angeles County

Expenditures (in thousands)

QC/CA Variable	Cumulative to 12/74 (36 months)	Cumulative to 12/76 (60 months)	Cumulative to 9/79 (93 months)
1) STAFRO	$+189	$-6	$-98
2) ELIMHC & 3/74D	-703	-19,618	-70,793
3) FEDSAC	-34,353	-72,513	-91,123
4) PERFM	+558	+2	-273
5) CA-7	-5,850	-23,410	-68,220
6) SANCT	0	0	-5,062
7) GRINTI	0	0	-76,151
8) 11/74D	+168	+1,525	+2,200
Total (Excluding Interactions)	-39,991	-114,020	-309,520
Interactions	-1,019	-3,359	+8,749
Total Impact	$-41,010	$-117,379	$-300,771

estimates.

The first corrective action having a significant impact on expenditures is the elimination of a home calls policy (ELIMHC and 3/74D). Clearly, through its direct effect of reducing openings in the AFDC program, the elimination of home calls was responsible for reducing expenditures relative to what they would have been in the absence of the policy change. According to two PSS simulations, one with and one without this corrective action variable, the elimination of the home calls policy was responsible for a $19.6 million expenditure reduction by December 1976. Moreover, by September 1979, the total 93 month difference between the two simulations was a full $70.8 million, or 23.5 percent of the total reduction attributable to all corrective actions.

FEDSAC, the proxy variable for tightened administration of the AFDC program (specifically with respect to closings), also had a significant impact on expenditures. By increasing the measured closing rate, and therefore the number of closings, this variable reduced the caseload, and in turn the amount of money expended to AFDC recipients. A comparison of PSS simulations with and without the FEDSAC variable indicates that by December 1974, expenditures would have been $34.4 million more had this tighter administration not been present. By September 1979, the total impact of FEDSAC was about $91.1 million or about 2.2 percent of total PSS expenditures for the full simulation period.

The monthly reporting system (CA-7), because it also acted directly to reduce the caseload through increased closings, was responsible for major expenditure savings. The difference between two PSS simulations, one with the CA-7 variable operative and the other with it removed from the equation system, was about $5.8 million by December 1974. Over the next 24 months the difference had grown to $23.4 million, and by September 1979 the total expenditure reduction attributable to monthly reporting was about $68.2 million, or 1.6 percent of total expenditures in the PSS simulation.

The final two corrective action variables indicating a significant impact on expenditures are the state sanctions policy (SANCT) and the discontinuance of group intakes (GRINT1). As discussed in an earlier section, both of these variables, by directly raising the measured rejection rate, reduced the number of cases added to the program. A comparison of a full PSS simulation and a counterfactual simulation omitting SANCT indicates that this policy was responsible for a reduction of about $5.1 million by September 1979. A comparison of similar simulations with the GRINT1 variable indicates that by reducing the number of openings in the program through the elimination of a group intake policy, expenditures were $76.2 million or about 1.8 percent less than they would have been had group intakes been maintained.

Thus, as far as expenditures are concerned, the three most powerful corrective actions were the federal sanctions (FEDSAC), the discontinuance of group intakes, and monthly income reporting. Together they were responsible for a maximum savings of nearly 5.5 percent of the PSS estimate of total AFDC-FG expenditures between 1972 and 1979.

Chapter 9

Alameda County

Caseload and Expenditure Trends

Alameda County had an average monthly AFDC-FG (Family Group) caseload of about 6,500 cases in 1964. By the end of 1968, the number had reached 14,000. Over the following 24 month period the number of cases receiving aid grew considerably. By the end of December 1970 there were more than 23,000 cases under care in Alameda, representing an increase of over 9,000 cases, or almost 65 percent, in just a two year period. Since that time the caseload has remained relatively stable, fluctuating between 22,000 and 25,000 cases. In December 1979 the FG caseload stood at 24,420 cases.

While the caseload increased by about 400 percent during the period of analysis, expenditures rose at about twice that rate. In January 1964 $1.04 million was expended on AFDC benefits. June of 1968 signified the last time that monthly expenditures would ever be below $2.0 million. As a result of the payment of retroactive benefit increases, September 1979 witnessed the first time expenditures broke the $8.0 million mark. In fact, expenditures actually exceeded $10.5 million in that one month. In December of the same year, monthly expenditures stood at about $8.1 million.

Demographic Characteristics

Alameda's female population (aged 18-54) has grown at a much slower rate than either of the other two counties under study. Between January 1964 and December 1971, this subgroup of the population grew by about 30,000 persons. Over the following three years, however, growth was almost non-existent. From 279,000 women in January 1972, this population grew to 281,400 by December 1974. Moderate growth resumed in 1975, and has continued to the present. Estimates place the number of women aged 18 to 54 at about 296,000 in December 1979.

Economic Characteristics

Employment structure in Alameda County has not changed dramatically over the period 1964 to 1979. Unlike the counties of Los Angeles and San Diego, located in the more tourism-dependent areas of Southern California, growth in employment in the low skill service sector (employment in eating and drinking establishments and hotels and motels) has not been overly dramatic. From a level of about 10,400 workers in January 1964, employment in this sector expanded about two and a half times to 26,400 jobs.

Manufacturing employment, on the other hand, has been almost completely stable. There was, however, a significant secular decline in the seasonality of employment in the food and kindred industry. Throughout most of the 1960s monthly employment in this industry jumped by 5,000 to 9,000 workers during its peak season — the months of August and September. In more recent years this pronounced seasonality has been almost totally mitigated.

Legal and Administrative Characteristics of AFDC

As in the case of the other California counties, Alameda has seen many changes that may have affected caseload and expenditure growth. The "30 + 1/3" disregard provisions were implemented in July 1968, and were applied to net earnings for the first year and a half that they were in effect. As already noted in the Los Angeles County historical review, this made application of the provisions more conservative than in other states. Beginning in February 1970 the formula was changed and was applied to gross earnings, effectively raising the amount of earnings a recipient could have while retaining AFDC eligibility.

In early 1966, Medi-Cal was introduced. It provided medical care to low income families (both those families that were on public assistance and some that were not) at little or no cost, and, therefore, acted as a type of "supplement" to the basic welfare grant. Food stamps were introduced in the County in August 1968, and they also acted as a benefit supplement for those on public assistance.

There were several local factors which affected the large number of additions to the Alameda caseload in 1970. According to Michael Wiseman of the University of California at Berkeley,[*]

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[*] Michael Wiseman, County Welfare: Caseload Growth and Change in Alameda County, California, 1967-73, Income Dynamics Project, Institute for Business and Economic Research, University of California at Berkeley, August 1976, p. 37.

> Some portion of the expansion was the result of recruitment by recipient-oriented groups such as the Alameda County Legal Aid Society; part was apparently brought about by active solicitation of applications by caseworkers. This, plus a series of revelations concerning welfare "fraud" brought the welfare system to the attention of the Oakland Tribune, an important political force in the county. The Tribune began a series of articles and news reports in May 1970, in which lax administration in the welfare department, the efforts of the legal and society, and "legal fraud" were emphasized.

Wiseman asserts further that the initial impact of the newspaper series was to raise both public indignation and the number of applications for welfare. Our research suggests that this was indeed the case.

The California Welfare Reform Act (CWRA) was implemented in October 1971. Hundreds of individual provisions were contained in the legislation, but it is most important to note that its passage represented a turn toward much more conservative welfare policy statewide. As outlined earlier in this report many of the verification and recertification systems originating in the CWRA are maintained today.

Corrective Action Efforts

Monthly Income Reporting

In contrast to the other two California counties involved in this study, Alameda introduced the monthly income reporting system in mid-1972 rather than early 1974. This system required recipients to report income and any changes in their status on a monthly basis. Alameda was chosen as one of the counties to implement the monthly reporting form (CA-7) on a pilot program basis. After testing in Orange and Alameda counties in 1972 and 1973 the form was required in all counties in 1974.

Corrective Action Panels

Similar to all other jurisdictions, Alameda county has organized Corrective Action Panels in several aid categories including AFDC. These panels formalized a process by which those particular elements of eligibility determination responsible for a significant number of errors are identified and subsequently corrected. When errors are uncovered, eligibility staff are informed that emphasis is to be placed on the specific error-causing element regarding correct computation of the grant and correct interpretation of regulations. The AFDC corrective action panel consists of both line and management staff, and meets once per month to review all applicable quality control data and management reports. It has the authority to plan, implement, and evaluate corrective actions.

The corrective action panel also develops and distributes to all AFDC workers a written plan each month that indicates the problem areas to be emphasized and outlines the correct methods to be followed. Areas of emphasis have included renewal processing, income tax refunds, school attendance, and social security numbers. Finally, eligibility supervisors are required to conduct audits of a small sample of cases in order to insure that workers follow the directions set forth in the monthly Corrective Action Plan.

Staff Development and Training

A significant part of Alameda's effort to reduce AFDC errors has consisted of improved training for its eligibility staff. Staff Development members conduct an Induction Training Program, in which newly hired trainees are given six weeks of extensive, practical Eligibility Technician (ET) training in various aid categories. After completion of the training course, the trainees are evaluated on their progress and if they have shown sufficient skills and competency, they begin their roles as ETs.

The Alameda Social Services Agency maintains that the best way to reduce client-caused errors is to fully develop the workers' skills in interviewing. Staff Development, therefore, provides ongoing training for ETs and their supervisors on new regulations and procedures. Moreover, advanced interview training has been initiated for the eligibility staff. It has for the most part focused on investigative interviewing in order to assist workers in detecting potentially fraudulent situations. Finally, an interview checklist was developed to assist workers in the eligibility determination process.

Program Specialists

In an effort to reduce errors of all types specialists are utilized in the various aid categories to keep the Agency fully informed of all regulation changes, to write procedures and handbooks, and to serve as liasons to the state for aid programs. They also serve on the corrective action panels and are responsible for writing monthly Corrective Action Newsletters that provide policy and regulatory clarifications to all agency staff.

State Earnings Clearance System

As noted earlier, all counties are required by the state to use the Earnings Clearance System which detects unreported and under-reported income of recipients through a computer match. This system was revised in 1979 in order to make it more effective as a management tool in detecting welfare fraud. About 3,000 cases per month are cross-checked with earnings data from the Employment Development Department. The Alameda Social Services Agency maintains that this has been a significant factor in uncovering the fraudulent receipt of AFDC benefits.

These corrective action programs, as well as the standard variables used in a caseload components model were proxied in the Alameda model. A list of the county-specific administrative and institutional variables developed for the Alameda AFDC model appears below. Following this list we present the final regression and simulation results which allow us to evaluate the impact of corrective action on caseload and expenditure levels.

Alameda County

County-Specific Administrative and Institutional Variables

FEB	February Dummy - Has value of 1.0 in February each year to account for lower closing rate in those months.
STRIKE	Social Worker Strike Dummy Variable - Has value of 1.0 in 6/76 and .50 in 7/76 to account for impact of social worker strike on closing rate.
MSTRKE	Modified Social Worker Strike Dummy Variable - Has value of .50 in 5/76, 1.0 in 6/76, and .50 in 7/76 to account for impact of social worker strike on cases added.
ANTWRA	Anticipation of California Welfare Reform Act - Has value of 1.0 in 6/71 and 7/71 to account for impact of anticipation of CWRA on closing rate.
IMPWRA	Implementation of California Welfare Reform Act - Has value of .50 in 10/71 (month of implementation), 1.0 in 11/71 and .50 in 12/71 to account for impact of implementation on closing rate.
WR&TRB	Welfare Rights and Oakland Tribune Series - Dummy variable from March to September 1970 (with monthly values respectively .25, .25, .25, .25, .50, .50, 1.0) to account for impact of increased welfare rights activity and a series of articles appearing in the Oakland Tribune which emphasized lax administration of the welfare department, "legal fraud," and activities of the Legal Aid Society.
LBDSR2	Liberalization of the Income Disregard Program - Has value of 1.0 from 2/70 to 4/71 to account for period when disregards were calculated on the basis of gross rather than net income.

Corrective Action Variables

ECS	Earnings Clearance System - Has value of 1.0 from 10/73 to 12/79 to account for existence of earnings clearance system.
RETBUG	Retrospective Budgeting Method - Has value of 1.0 from 1/71 to 12/79 to account for this system of budgeting.
MDCA-7	Modified Monthly Income Reporting Form (CA-7) Dummy Variable - Has value of 1.0 from 7/72 to 1/75 to account for implementation and initial impact of the monthly income reporting form.

Alameda County

Regression Results

As mentioned earlier, the lack of full components data in Alameda County precluded anything more elaborate than a cases added/closing rate model. Although it was impossible to construct either an AFDC-FG rejection rate equation or a processing rate equation due to the nature of available data, the cases added/closing rate model allowed us to evaluate the impact of corrective actions on the closing rate, one of the two components where such variables are most likely to exert some influence. It is therefore a model which still allows significant evaluation capability. This section presents the final regression equations for the cases added and closing rate components of the caseload identity in Alameda County.[*]

Cases Added

Since much of the components data available in Alameda does not distinguish between the family group (FG) and unemployed (U) programs, we were forced to rely on a cases added equation rather than an applications equation for AFDC-FG. The cases added equation implicitly assumes a processing rate and an acceptance rate as the following identity reveals:

CA.ADD(t) = {[(AP.REC(t) + PEND(t-1)] * PROC.RT(t)

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[*] The Appendix to this report presents the short period regressions used in preparing the Pre-QC/CA simulations.

* ACC.RT(t)} + TRAN.IN(t)

where: CA.ADD(t) = Cases Added (t)

AP.REC(t) = Applications Received (t)

PEND(t-1) = Applications Pending from previous periods

PROC.RT(t) = Processing Rate (t)

ACC.RT(t) = Acceptance Rate (t) or (1 - Rejection Rate)

TRANS.IN(t) = Cases Transferred in from other counties and/or programs.

The cases added equation incorporates many of the same variables used in an applications received equation. Alternative income (B/Z), economic opportunity (DMNEMP), and institutional variables (MSTRKE) all enter the regression model.

Table 9.1 presents the "best" cases added equation. The OLS regression indicates that approximately 72 percent of the variance in the dependent variable is explained by the independent variables. After correcting for first order serial correlation all of the variables remain statistically significant and of the right sign.

The monthly change in manufacturing employment (food and kindred and textile industries) is the first variable appearing in the regression. The coefficient of -.00714 implies that when 1000 new jobs appear in our strictly defined manufacturing sector, one can expect to add only seven fewer cases to the AFDC-FG caseload. As the

Table 9.1

Alameda AFDC-FG: Final Cases Added Equation (1st Stage)

```
EQN NO.  1    192 OBSERVATIONS (    1-> 192)
DEP VAR(  4): CAADD
INDEPENDENT VAR(S):    6
V(S) IN XPX= 66   M= 66
DETERMINANT=      0.1057518E-02
```

INDEP.VAR.		REGR.COEFF.	STD.ERR.	T-RATIO	MEAN
(4)					0.816672E+00
(1)	CONS	0.111124E+00	0.155553E+00	0.714376E+00	0.100000E+01
(25)	DMNEMP	-0.788183E-02	0.473284E-02	0.166535E+01	-0.973948E-03
(58)	B/Z*3D	0.510029E+00	0.265812E-01	0.191876E+02	0.575067E+00
(20)	WDAY	0.193110E-01	0.740901E-02	0.260642E+01	0.208698E+02
(44)	WR&TRB	0.919319E+00	0.102776E+00	0.894491E+01	0.156250E-01
(37)	MSTRKE	-0.493594E+00	0.110480E+00	0.446770E+01	0.104167E-01

```
RSQBAR=   0.7176 RSQ=   0.7250   SEE= 0.1316653E+00 SEEBAR= 0.1337721E+00

TSS= 0.1210136E+02   RSS= 0.3328463E+01      FSTAT(  5, 186)= 0.9804878E+02

MBAR=  -0.0185       DW STAT:  1.5230       RHO:  0.23969467
```

Rho-corrected

```
EQN NO.  1    191 OBSERVATIONS (    2-> 192)
DEP VAR( 73): CAADD
INDEPENDENT VAR(S):    6
V(S) IN XPX= 73   M= 66
DETERMINANT=      0.2305482E-02
RHO=        0.2396947E+00
Y( 192)=        0.1000000E+01
```

INDEP.VAR.		REGR.COEFF.	STD.ERR.	T-RATIO	MEAN
(73)					0.623353E+00
(67)	CONS	0.849560E-02	0.135020E+00	0.629209E-01	0.760305E+00
(68)	DMNEMP	-0.714413E-02	0.454364E-02	0.157233E+01	-0.584991E-03
(69)	B/Z*30	0.501543E+00	0.339091E-01	0.147908E+02	0.440668E+00
(70)	WDAY	0.245615E-01	0.638855E-02	0.384461E+01	0.158604E+02
(71)	WR&TRB	0.858352E+00	0.113071E+00	0.759129E+01	0.119420E-01
(72)	MSTRKE	-0.493662E+00	0.124059E+00	0.397923E+01	0.796131E-02

```
RSQBAR=   0.6197 RSQ=   0.6297   SEE= 0.1273462E+00 SEEBAR= 0.1293948E+00

TSS= 0.8365780E+01   RSS= 0.3097457E+01      FSTAT(  5, 185)= 0.6293158E+02

MBAR=  -0.0104       DW STAT:  2.1322       RHO: -0.06522286
```

economic opportunity hypothesis postulates, when employment opportunity increases, as proxied by changing employment levels in two key sectors, the number of families seeking and consequently gaining access to public assistance declines.

The benefit/wage ratio after the advent of the "30 + 1/3" income disregard program (B/Z*30) proves to be positively correlated with AFDC openings. As with the other models, we chose to analyze the relationship in terms of an elasticity. When an elasticity is calculated based on mean values of both variables the result is .36, suggesting that an increase of 10 percent in the benefit/wage ratio would cause approximately 29 additional cases to be added to the caseload each month.

Finally, three institutional variables enter the equation. One additional workday in a month (WDAY) adds nearly 20 cases to the AFDC caseload, while increased welfare rights activity in conjunction with a series of news stories appearing in the Oakland Tribune claiming lax administration in the welfare department (WR&TRB) were responsible for adding nearly 2,800 cases over a seven month period. Additionally, a social worker strike occuring in mid-1976 precluded almost 1,000 cases from being added to the rolls over a three month period, presumably because workers were largely unavailable to process cases during the work action.

One variable that was repeatedly tried with several specifications was a cases closed term with a lag structure (e.g., CACL-1). The empiricial evidence resulting from many attempts to incorporate this type of variable into the regression model indicated that reapplication dynamics are, for the most part, a statistically insignificant factor in this jurisdiction. This in itself is an interesting finding in that the results for both other counties studied in California suggest that reapplication dynamics there are a highly significant factor in the underlying structure of the AFDC program.

Closing Rate

The closing rate equation for Alameda County appears in Table 9.2. In addition to the constant term, nine variables encompassing all three theories of caseload dynamics enter the regression.

The coefficient on UNRTE implies that a one point increase in the unemployment rate induces a one-half percentage point decline in the closing rate, a result highly consistent with what theory suggests. Theoretically there are at least two ways in which the unemployment rate can be expected to influence the closing rate. The first suggests that as employment opportunity decreases in a given labor market (as proxied by an increase in UNRTE) the rate at which cases voluntarily close decreases as well, reflecting the fact that fewer alternatives to public assistance are available to poorer subgroups of the population. The second hypothesis suggests that as the economic environment worsens, the welfare department itself adopts a more lenient attitude toward recipients, and fewer administrative closings result. Clearly, one or both of these phenomena are at work in Alameda County.

In this equation B/Z*30 is also a significant variable, and its

Table 9.2

Alameda AFDC-FG: Final Closing Rate Equation (1st Stage)

EQN NO. 1 192 OBSERVATIONS (1-> 192)
DEP VAR(14): CLORT
INDEPENDENT VAR(S): 10
V(S) IN XPX= 66 M= 66
DETERMINANT= 0.1368711E-04

INDEP.VAR.		REGR.COEFF.	STD.ERR.	T-RATIO	MEAN
(14)					0.381677E-01
(1)	CONS	0.264451E-01	0.445514E-02	0.593586E+01	0.100000E+01
(27)	UNRTE	-0.583217E-03	0.221739E-03	0.263020E+01	0.646609E+01
(58)	B/Z*30	-0.500023E-02	0.732274E-03	0.682836E+01	0.575067E+00
(65)	FEB	-0.204585E-02	0.105017E-02	0.194811E+01	0.781249E-01
(20)	WDAYS	0.856896E-03	0.206005E-03	0.415959E+01	0.208698E+02
(40)	ANTWRA	0.145092E-01	0.235176E-02	0.616948E+01	0.104167E-01
(39)	IMPWRA	0.258029E-01	0.271509E-02	0.950351E+01	0.104167E-01
(60)	LBDSR2	-0.532666E-02	0.916702E-03	0.581068E+01	0.781249E-01
(36)	STRIKE	-0.834820E-02	0.300809E-02	0.277525E+01	0.781250E-02
(55)	MDCA-7	0.452642E-02	0.697172E-03	0.649254E+01	0.156250E+00

RSQBAR= 0.6258 RSQ= 0.6434 SEE= 0.3191616E-02 SEEBAR= 0.3278125E-02

TSS= 0.5484573E-02 RSS= 0.1955791E-02 FSTAT(9, 182)= 0.3648640E+02

MBAR= -0.0818 DW STAT: 1.7144 RHO: 0.14587633

Rho-corrected

EQN NO. 1 191 OBSERVATIONS (2-> 192)
DEP VAR(77): CLORT
INDEPENDENT VAR(S): 10
V(S) IN XPX= 77 M= 66
DETERMINANT= 0.2218764E-04
RHO= 0.1458763E+00
Y(192)= 0.1000000E+01

INDEP.VAR.		REGR.COEFF.	STD.ERR.	T-RATIO	MEAN
(77)					0.326769E-01
(67)	CONS	0.235870E-01	0.397750E-02	0.593011E+01	0.854124E+00
(68)	UNRTE	-0.490662E-03	0.230995E-03	0.212413E+01	0.551968E+01
(69)	B/Z*30	-0.557512E-02	0.782107E-03	0.712834E+01	0.494451E+00
(70)	FEB	-0.185298E-02	0.948890E-03	0.195278E+01	0.670778E-01
(71)	WDAYS	0.986067E-03	0.180129E-03	0.547422E+01	0.178188E+02
(72)	ANTWRA	0.142704E-01	0.228522E-02	0.624463E+01	0.894370E-02
(73)	IMPWRA	0.258222E-01	0.271631E-02	0.950636E+01	0.894370E-02
(74)	LBDSR2	-0.535083E-02	0.961559E-03	0.556475E+01	0.670778E-01
(75)	STRIKE	-0.883806E-02	0.287330E-02	0.307593E+01	0.670778E-02
(76)	MDCA-7	0.453943E-02	0.735594E-03	0.617111E+01	0.134156E+00

RSQBAR= 0.6405 RSQ= 0.6576 SEE= 0.2908456E-02 SEEBAR= 0.2987720E-02

TSS= 0.4718379E-02 RSS= 0.1615692E-02 FSTAT(9, 181)= 0.3862030E+02

MBAR= -0.0957 DW STAT: 2.2058 RHO: -0.10047335

coefficient indicates that a small but highly significant relationship exists between the relative benefits available to recipients and the rate at which cases close. Specifically, a ten point boost in the benefit/wage ratio after the advent of the "30 + 1/3" program would have caused a decline of approximately 1/20 of one point in the closing rate, suggesting that an increase in the relative "attractiveness" of welfare does not seriously affect a family's decision to close their case.

Several institutional variables are also significant determinants of the closing rate. The number of workdays per month, anticipation of welfare reform legislation (ANTWRA), and the actual implementation of the California Welfare Reform Act (IMPWRA) are all positively correlated with the closing rate. The coefficient on ANTWRA indicates that in June and July 1971, immediately prior to the implementation of the WRA, the closing rate jumped by nearly one and one half points, hitting 5.1 and 5.2 percent, respectively. This was the highest level that the Alameda AFDC system had experienced during the 1964 to 1971 period. However, after falling back to "normal" levels in the following two months, the closing rate climbed again to even higher levels, reaching 6.3 percent in November 1971, a full two and one half points higher than would have been expected in the absence of California Welfare Reform.

LBDSR2, a variable representing the period when the State of California liberalized the "30 + 1/3" income disregard by applying the formula to gross rather than net earnings, had a fairly powerful impact on the closing rate. Over the 15 month period beginning in

February 1970 the liberalization of income disregards was responsible for reducing the closing rate by an average of one half of one percentage point. Apparently the more lenient attitude towards earned income made it more attractive for recipients to stay on welfare while working Finally, the social worker strike of mid-1976 (STRIKE) had an impact on the closing rate similar to that which it had on cases added. The coefficient suggests that the strike reduced the number of closings by approximately 320 cases over a two month period.

Only one corrective action variable appears in the closing rate equation for Alameda. It is not surprising that this variable is the monthly income and eligibility reporting form (MDCA-7), as this recertification procedure resulted in higher average closing rates in all counties studied. The coefficient on MDCA-7 indicates that the monthly reporting form was responsible for raising the closing rate from July 1972 to January 1975 by an average of nearly one half (.0045) of a percentage point higher than it would have been otherwise. If one applies this coefficient to the average number of cases open during the month over this two and a half year period the result suggests that an additional 105 cases were closed each month due to this reporting form. The regression model indicates however that for the remainder of the period under study (2/75 - 12/79) this system had no statistically significant impact on the rate at which cases were closed. One may speculate that as the welfare population became more and more familiar with the requirements of the new reporting system, recipients were less apt to have their cases administratively closed for failure to comply. In other words, as the requirements became more of a permanent fixture of the AFDC program, they represented less of an obstacle to the ongoing receipt of aid.

Now that the two equations comprising the Alameda County AFDC model have been presented, we turn to the simulations in order to evaluate the impact of corrective action on the caseload and expenditures.

Alameda County

Simulation Results

As indicated in the preceding regression models, only one corrective action variable had a significant impact on either of the two caseload components in the Alameda County AFDC Dynamics Model. The introduction of the monthly reporting system (MDCA-7) in mid-1972 acted to increase the rate at which cases were closed by effectively recertifying the caseload on a monthly basis. In the following section, we present the impact of that corrective action on cases receiving assistance, cases added, cases closed, and expenditures.

Cases Receiving Assistance

Tables 9.3 through 9.6 present the final simulation results. By comparing the three basic simulations we are able to estimate what the impact of both structural changes and corrective actions have been on the Alameda County welfare system. In addition, Figure 9.1 indicates each of the three basic simulations in relation to actual cases receiving assistance for the entire simulation period. The differential between simulations (0) and (3) represents the difference between actual cases receiving assistance and our "best model" estimate (PSS).

Table 9.3 presents estimates of cases receiving assistance in the County at three points in time. It indicates that by December 1974, had no structural change taken place and the monthly reporting system not been implemented, the number of cases receiving assistance would

Table 9.3

Simulation Results

Alameda County

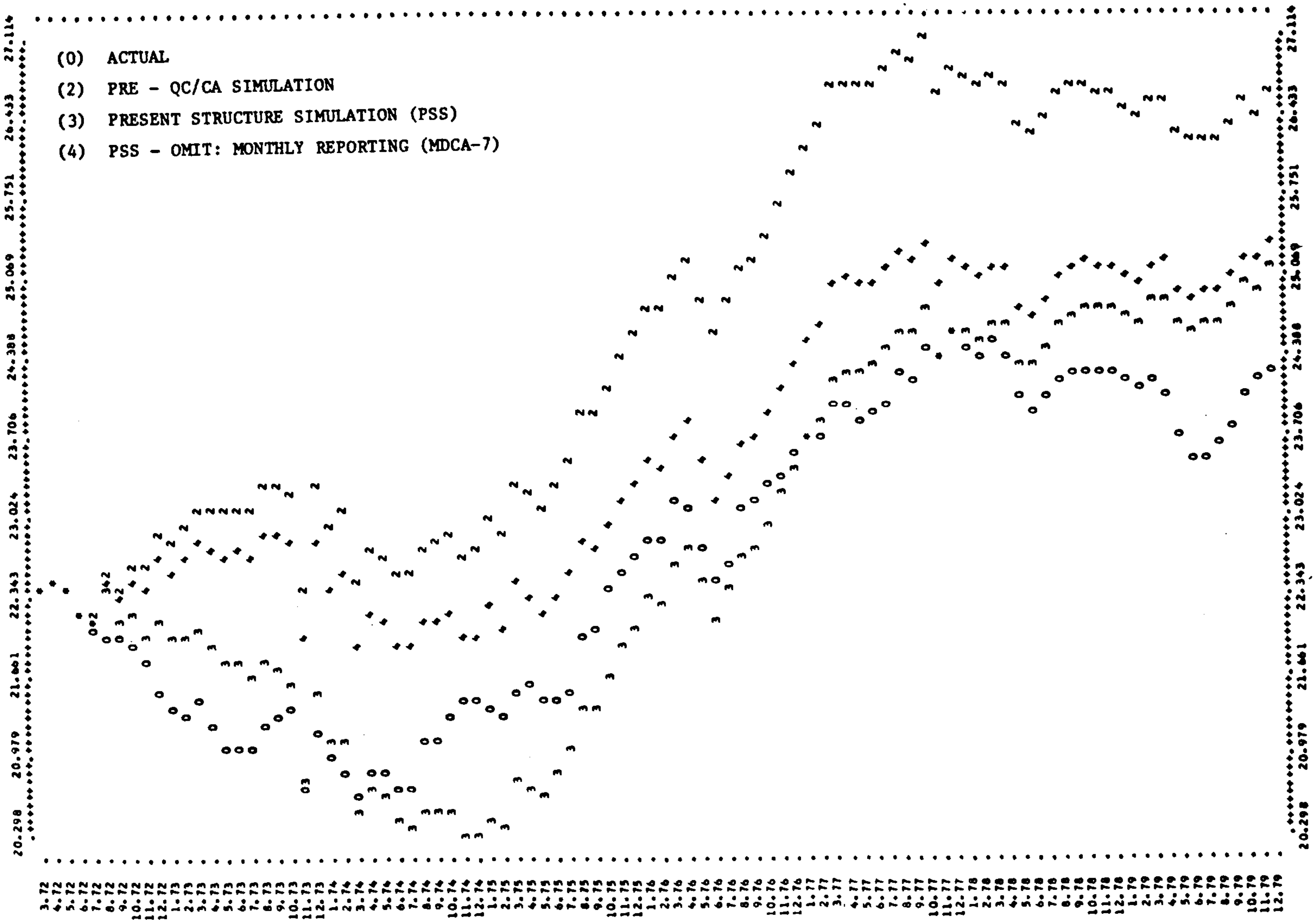
Cases Receiving Assistance

Simulation	at 12/74 (30 months)	at 12/76 (54 months)	at 12/79 (90 months)
Actual	21,489	23,636	24,293
Present Structure (PSS)	20,298	23,490	25,151
Pre - QC/CA Structure (Pre - QC/CA)	22,761	25,965	26,673
Present Structure - No QC/CA (PSS - No QC/CA)	22,048	24,347	25,381
QC/CA And Structural Impacts			
Due to QC/CA and Structure	-2,463	-2,475	-1,522
% PSS	(-12.1%)	(-10.5%)	(-6.1%)
Due to Structure	-713	-1,618	-1,292
% PSS	(-3.5%)	(-6.9%)	(-5.1%)
Due to QC/CA	-1,750	-857	-230
% PSS	(-8.6%)	(-3.6%)	(-1.0%)

Figure 9.1

Counterfactual Simulations vs. Actual: Alameda County

Cases Receiving Assistance



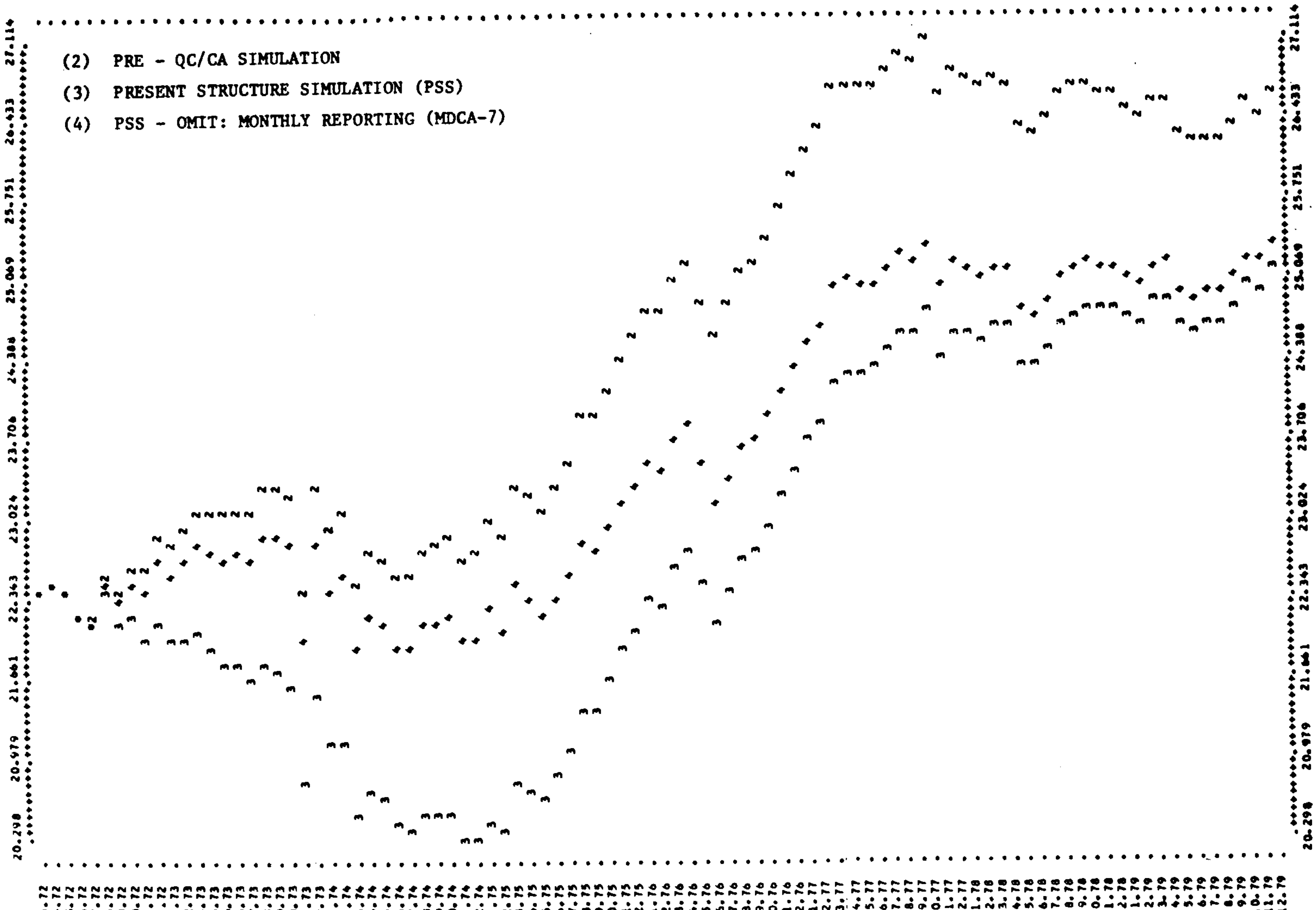
have been nearly 2,500 higher than our "best" model (the Present Structure Simulation) predicted. Of the total 2,463 case difference, just over 700 cases were the result of changing structural relationships, while 1,750 cases (or about 71 percent of the total reduction) were attributable to the system of monthly recipient reporting. However, by December 1976, although the total reduction in absolute terms had remained fairly constant (2,463 cases receiving assistance in December 1974 versus 2,475 in December 1976), the composition of the reduction had completely reversed. The initial impact of monthly reporting had already begun to fade, to the point where by December 1976 it had decreased cases receiving assistance by only 857 cases relative to what it would have been had the program not existed. In contrast, a changing structural regime was responsible for a difference in caseload of slightly more than 1,600, or approximately 65 percent of the total difference.

Since the monthly reporting variable (MDCA-7) was specified as a modified dummy variable assuming a value of 1.0 from July 1972 to January 1975 in order to capture the initial impact of this corrective action, it is not surprising that its impact was only of short term duration. It should be viewed then, as a type of exogenous "shock" to the true underlying determinants of the system. Once the initial impact had, in a sense, "run its course," the caseload again began to head toward an equilibrium level as the structural determinants in the equation system once again predominated. As seen in Figure 9.2, the impact of the monthly reporting system on cases receiving assistance was substantial between mid-1972 and early 1975 (note the significant

Figure 9.2

Counterfactual Simulation: Alameda County

Impact of Monthly Reporting (MDCA-7) on Cases Receiving Assistance



distance between scenerios (3) and (4) during the period), but thereafter, it became continually smaller until by the end of the simulation period, the two estimates had nearly converged. Had no corrective action activity been undertaken, there would have been only 230 more cases receiving assistance in December 1979 than our best model predicted.

Cases Added

We can trace the structural and corrective action related changes in the simulated caseload to each of the caseload components themselves. Because there were no structural feedbacks similar to those present in other models in the Alameda equation system, none of the change in cases added can be attributed to corrective action. In several of the other models, as we have shown, simulated estimates of the caseload reenter the rejection rate equation in the form of a participation rate, therefore affecting the succeeding month's caseload estimate. In this way closing rate variables such as monthly reporting or other types of recertification activity indirectly affected the caseload through their effect on the participation rate.

Table 9.4 presents the effects of structural change on the cases added component of the caseload identity. It indicates that if the structural regime existing prior to 1972 had held (i.e., the relationships between the dependent and independent variables had remained unchanged through 1979, as would be indicated by completely stable coefficients), there would have been nearly 1,200 more openings between July 1972 and December 1974. Furthermore, over the total 90

Table 9.4

Simulation Results

Alameda County

Cases Added

Simulation	Cumulative to 12/74 (30 months)	Cumulative to 12/76 (54 months)	Cumulative to 12/79 (90 months)
Actual	28,725	49,932	82,715
Present Structure (PSS)	27,547	49,100	83,914
Pre - QC/CA Structure (Pre - QC/CA)	28,726	51,273	87,682
Present Structure - No QC/CA (PSS - No QC/CA)	27,547	49,100	83,914
QC/CA And Structural Impacts			
Due to QC/CA and Structure	-1,179	-2,173	-3,768
% PSS	(-4.3%)	(-4.4%)	(-4.5%)
Due to Structure	-1,179	-2,173	-3,768
% PSS	(-4.3%)	(-4.4%)	(-4.5%)
Due to QC/CA	0	0	0
% PSS	(0%)	(0%)	(0%)

month simulation period, the structural changes that did occur were responsible for reducing additions to the caseload by more than 3,700 cases. Again, because neither a participation rate nor a cases closed variable with a lag structure entered any of the equations in the Alameda model, corrective action had no impact on the cases added component of the caseload identity. All of the corrective action related reduction in caseload occurred by reason of increased closings.

Cases Closed

As we have repeatedly shown, the monthly recipient reporting system had a direct impact on the rate at which cases were closed. Under a system of monthly recertification, recipients must report all changes in factors affecting eligibility, and if significant changes occur which make the recipient ineligible, the case is immediately closed.

Table 9.5 presents the effects of both structural change and the monthly reporting system on the total number of cases closed over three time periods. The table indicates that over the 30 month period beginning in July 1972 and ending in December 1974, the net impact of changes in structure and implementation of monthly reporting was to raise the total number of closings by nearly 1,500 cases. Monthly reporting alone increased closings by almost 1,900, but this increase was offset by a 400 case decline in closings due to changing structural relationships. Over the longer period of July 1972 through December 1976, monthly reporting increased the number of closings by

Table 9.5

Simulation Results

Alameda County

Cases Closed

Simulation	Cumulative to 12/74 (30 months)	Cumulative to 12/76 (54 months)	Cumulative to 12/79 (90 months)
Actual	28,165	48,855	80,983
Present Structure (PSS)	28,275	48,170	81,318
Pre - QC/CA Structure (Pre - QC/CA)	26,788	47,855	83,556
Present Structure - No QC/CA (PSS - No QC/CA)	26,381	47,308	81,087
QC/CA And Structural Impacts			
Due to QC/CA and Structure	+1,487	+315	-2,238
% PSS	(+5.3%)	(+0.7%)	(-2.7%)
Due to Structure	-407	-547	-2,469
% PSS	(-1.4%)	(-1.1%)	(-3.0%)
Due to QC/CA	+1,894	+862	+231
% PSS	(+6.7%)	(+1.8%)	(+0.3%)

approximately 860, while structural changes reduced closings by nearly 550, leaving a net increase of slightly more than 300 case closings. Finally, over the entire simulation period (July 1972 - December 1979) the table indicates that the combined impact of structural change and monthly reporting was to decrease closings by more than 2,200 cases. The change in structural relationships clearly dominated over the full period, and was responsible for reducing the number of closings by approximately 2,450 cases, while monthly reporting was responsible for increasing closings by about 230 cases.

Expenditures

As we have previously noted, the methodology utilized in making expenditure estimates consisted of taking the number of cases recieving assistance under the alternative simulations and multiplying by the actual average expenditure per case in each period. For reasons discussed earlier, the assumption that each potential case would have received or did in fact receive the average expenditure per case is a dubious one. Therefore, we believe that the expenditure estimates provided most likely overstate expenditure savings attributable to corrective action.

Table 9.6 and Figure 9.3 present the impacts of structural change and corrective action on AFDC expenditures in Alameda County. The table indicates that in the absence of any structural change and corrective action activity, expenditures for the AFDC-FG program over the period July 1972 through December 1974 would have been about $9.3 million (or 7.1 percent) more than the PSS estimate. Of the total

Table 9.6

Simulation Results

Alameda County

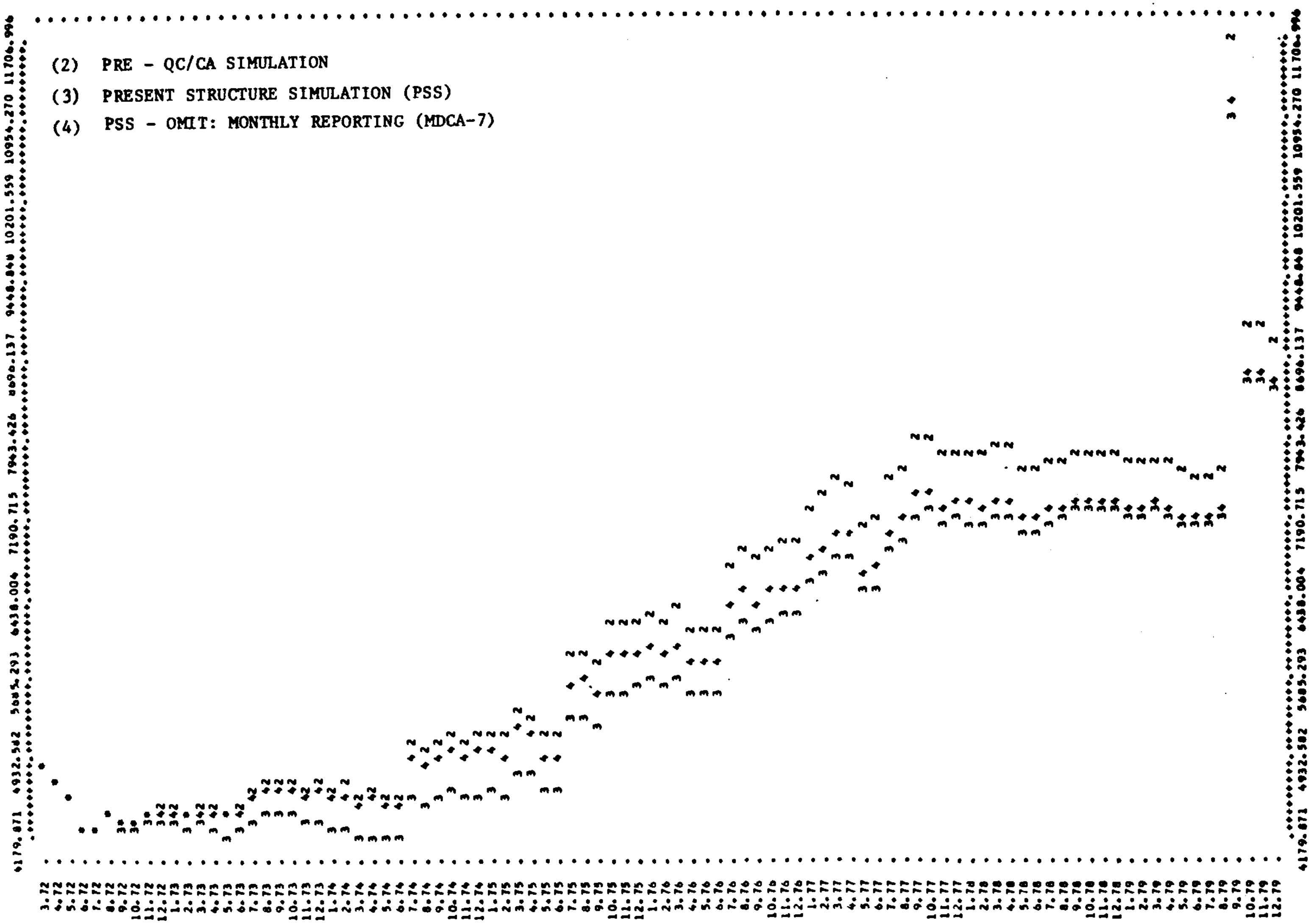
Expenditures (in thousands)

Simulation	Cumulative to 12/74 (30 months)	Cumulative to 12/76 (54 months)	Cumulative to 12/79 (90 months)
Actual	$130,743	$266,159	$524,438
Present Structure (PSS)	131,199	263,425	527,159
Pre - QC/CA Structure (Pre - QC/CA)	140,515	287,633	572,715
Present Structure - No QC/CA (PSS - No QC/CA)	137,866	277,542	546,241
QC/CA And Structural Impacts			
Due to QC/CA and Structure	-9,316	-24,208	-45,556
% PSS	(-7.1%)	(-9.2%)	(-8.6%)
Due to Structure	-2,649	-10,091	-26,474
% PSS	(-2.0%)	(-3.8%)	(-5.0%)
Due to QC/CA	-6,667	-14,117	-19,082
% PSS	(-5.1%)	(-5.4%)	(-3.6%)

Figure 9.3

Counterfactual Simulation: Alameda County

Impact of Monthly Reporting (MDCA-7) on Expenditures



difference, changing structural relationships were responsible for approximately $2.6 million (or 28 percent). Corrective action, on the other hand, accounted for a decline of nearly $6.7 million (72 percent of the total difference) over the 30 month period. Note the area between simulations (3) and (4) over the period.

By December 1976, a full 54 months out in the simulation period, the total difference in expenditures between the PSS and Pre-QC/CA simulations (reflecting changing structural relationships between dependent and independent variables and the impact of corrective action), was about $24.2 million, or 9.2 percent of the PSS estimate. Forty-two percent, or nearly $10.1 million, of the total difference was the result of structural change, while the remaining $14.1 million (58 percent) can be attributed to corrective action activity. Again, note the area between simulations (3) and (4) over this longer period.

Finally, by December 1979, the total difference in expenditures between the PSS and the Pre-QC/CA simulations was slightly more than $45.6 million (8.6 percent of the PSS estimate). Structural changes accounted for a full 58 percent, or $26.5 million. Corrective action was responsible for the remaining 42 percent of the total difference, or a reduction of $19.1 million. This was the maximum total savings related to the MDCA-7 variable over a seven and one-half year period (July 1972 - December 1979). Average savings were consequently in the neighborhood of $2.5 million annually (assuming, of course, that every case closed by reason of corrective action received the average payment per case in Alameda County).

Chapter 10

San Diego County

Caseload and Expenditure Trends

Like the other counties in California, San Diego County has both an AFDC-FG (Family Group) program and an AFDC-UP (Unemployed Parent) program. The FG program is, of course, the largest of the two. It had an average monthly caseload of about 4,500 cases in 1964. Between January 1964 and December 1968 caseload growth was modest. Only 5,000 net additions were reported over the five year period. Then, similar to the growth trend in Alameda County, the caseload grew considerably during the following 24 month period. From a level of about 9,200 cases in December 1968, it rose to 17,300 by December 1970. The caseload fluctuated between 17,000 and 19,000 cases for the next three years, before gradually rising to a peak of 26,385 cases in March 1978. The number remained within about 1,000 cases of that level through June 1979.

While the AFDC-FG caseload expanded six-fold over the fifteen and one half year period under study, expenditures multiplied more than 10 times. From $670,000 in net monthly expenditures in January 1964, AFDC expenditures rose to nearly $3 million in December 1970. Expenditures rose consistently with the gradual caseload growth and peaked in April 1978 at nearly $7.5 million. In June 1979 expenditures stood at about $7 million.

Demographic Characteristics

The female population (aged 18-54) has been characterized by steady growth over much of the period under consideration. Starting at a level of about 262,000 women in January 1964, this subgroup of the population grew to about 295,000 by December 1968. The year 1969 witnessed a spurt to 311,000, an increase of about 5.5 percent, or 16,000, women. By March 1976 this group numbered over 400,000, and in June 1979, we estimate that about 443,000 women between the ages of 18 and 54 were residing in San Diego County.

While the female population expanded by nearly 70 percent over the full fifteen and one half year period, the female headed family population more than doubled. From a total of about 20,000 households in January 1964, this subgroup grew to about 26,000 by the end of the decade. Over the following nine and a half year period over 20,000 were added to this population. We estimate that there were 46,000 female headed families living in San Diego in June 1979. Of these approximately 55 percent were receiving AFDC benefits.

Economic Characteristics

The structure of employment in San Diego County has changed significantly over the 16 year period ending in 1979. This was the result of the rapidly growing, tourist-related industries. Employment in our narrowly defined low skill service sector (eating and drinking establishments and hotels and motels) has more than tripled over the more than fifteen years of the analysis period. From a total of about 15,000 workers in January 1964, this sector had grown to over 53,000 employees by mid-1979. Eating and drinking establishments alone accounted for almost 42,000 jobs, or about 80 percent of this sector's employment in June 1979.

On the other hand, our narrowly defined low-skill manufacturing sector (food and kindred and apparel and textile products) experienced little change. Over the entire period this sector has expanded by only 2,000 jobs. Employment stood at about 10,300 in mid-1979.

Legal and Administrative Characteristics of AFDC

During the period under consideration there has been a full range of important changes that may have affected caseload and expenditure trends in AFDC. The "30 + 1/3" disregards were implemented in July 1968. However, as noted earlier, the State of California interpreted the disregard provisions (until February 1970) as directing the counties to apply the disregard formula to earnings net of work expenses and mandatory deductions rather than gross earnings. The effect of this was to make California's interpretation more conservative than elsewhere. In February 1970, the state shifted to applying the formula to gross earnings, therefore liberalizing the disregards for working recipients, and increasing the range of earnings consistent with continued eligibility. It was not until October 1971, with the passage of the California Welfare Reform Act, that the disregards were tightened again. Various provisions contained in the Act were effective in lowering the amount of money that a welfare family could earn while still receiving benefits.

The single most important event in the administrative environment of AFDC was undoubtedly the passage of the CWRA. There were literally hundreds of individual provisions in this legislation; but these shall not be severally reviewed here. It is important to note, however, that the passage of the Act represented the beginning of a period of much more conservative welfare policy statewide.

In July 1974 food stamps replaced the surplus commodities program in San Diego. Although food stamps were authorized in California several years earlier, counties had individual discretion in determining whether to implement the program. Immediately following the introduction of food stamps a media outreach program was undertaken. As in Upstate New York this may have indirectly acted to increase the participation rate of families categorically eligible for AFDC. It appears that as families applied to receive benefits under the new transfer program, many found that they were also eligible for AFDC.

San Diego County
Corrective Action Efforts

San Diego, as in the case of the other California counties, has had an aggressive quality control/corrective action program. The County has implemented many individual corrective actions since 1974. Here we review several of the major ones.

Department Reorganization

In May 1975 the County Welfare Department underwent a major reorganization with the objective of bringing together many of the interrelated activities of the department and to facilitate effective communication within divisions responsible for related tasks. This reorganization included the combining of the individual program monitoring functions of Appeals, Quality Control, Earnings Clearance, and Welfare Investigations into one section within the Administrative Division, as well as the decentralization of Staff Development with in-service training staff assigned to each division in the department. Additionally, in June 1975, the Corrective Action Committee was established. Its purpose was to enhance communication and analysis of quality control findings, error trends and their causes, and most importantly, to develop appropriate corrective actions to deal with error prone areas so as to reduce error rates.

<u>Supervisory Case Review</u>

In July 1974, the Supervisory Case Review was implemented, which in effect required line supervisors to decrease the number of annual case renewals and initial determinations they reviewed in favor of a more "cross sectional" review of active cases receiving aid. From a computer generated listing, three cases from each worker's caseload are randomly selected to undergo a desk audit by the worker's supervisor. Since this review is strictly a desk audit with no recipient contact or independent verification of elements of eligibility, supervisors can only detect those errors which can be uncovered without further investigation. However, it is maintained that these reviews do detect procedural errors which if gone uncorrected tend to lead to future errors in eligibility or grant determination. When the review is completed, a copy of the review form is filed in the case and uncovered errors are discussed with the worker to ensure that corrective action is taken.

Subsequent to this process, a listing of all reviewed cases is sent to Quality Control each month. From this listing Quality Control randomly selects cases to undergo full validation, including home call and independent verification of all elements of eligibility, after which an independent conclusion is reached with respect to the correctness of eligibility and grant. Although the Supervisory Case Review was implemented as a short term corrective action, it has remained in operation since its initial implementation. Agency staff believe that it is an effective management tool because it provides an opportunity to review the quality of work at two distinct levels, since supervisors review the accuracy of work at the caseworker level, and Quality Control, in its regular review, assesses the accuracy of the supervisory reviews. In addition to helping identify and reduce errors, it serves as a primary method of identifying training and other corrective action needs.

Monthly Income and Eligibility Evaluation

Departmental analysis of income and need related errors indicated that many payment errors were attributable to the lack of proper and thorough review of the information supplied by recipients on the monthly income reporting form (CA-7). Additional analysis revealed that districts within the county reporting the lowest error rates were those districts which focused a great deal of attention on the evaluation of CA-7 supplied information, with more structured and stringent attention to reporting responsibilities and deadlines, as well as increased worker accountability for clarification of inconsistent information.

Following these analyses, the Department undertook corrective action to remedy the inconsistencies between districts. A county policy was established that required a more "rigid and structured application" of reporting deadlines and other recipient responsibilities. Components of this policy included:[*]

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[*] Quarterly Quality Control - Corrective Action Report, April - June 1975, County of San Diego, Department of Public Welfare, September 1975, p. 15.

1) more strict adherence to personal interview requirements for clients who fail to submit a completed CA-7 by the approved deadline;

2) the waiver of the personal interview requirement only at Assistant District Chief level or higher; and

3) a CA-7 checklist to be utilized by workers as an aid in evaluating accuracy and consistency of information supplied on the form.

Training and Staff Development

As previously noted, immediately following the department reorganization in May 1975, Staff Development was decentralized with in-service training personnel assigned to each division in the department. This administrative change enabled the various division staffs to utilize more effectively the training specialists thus providing more frequent and useful in-service training. In addition to performing their basic function of providing a two week training program to new eligibility workers, the training specialists were required to provide in-service training at district offices when new policies or procedures were implemented. The objective of this policy was to prevent the incorrect application of the policies and therefore reduce the probability of error. Agency staff believe that the additional training in new policies is an effective way to help prevent errors before they actually occur, and therefore is worth the cost and time expended.

Error Cause Determination Committees

Effective July 1976 each district office within the county was to have in operation an Error Cause Determination Committee for AFDC. The purpose of these committees is to provide a uniform process across districts through which the causes of eligibility and grant determination errors can be isolated. Each committee consists of the District Chief or Assistant District Chief, two Eligibility Worker Supervisors, and two Eligibility Workers. The committees are required to review all cases that have been found through the quality control field investigation to contain error. Additionally, they are to review all cases that Quality Control, through its monitoring of Supervisory Case Reviews, has identified as being in error, but in which no error was cited by the Supervisor in the original review. Each committee review is supposed to include a full case review and interviews with the Eligibility Worker, his/her Supervisor, and the Quality Control analyst.

The next step in the process involves having the committee determine the specific nature of all errors, and the underlying reason for the error being made (e.g., lack of knowledge or training, lack of clarity in written instructions, etc.). Once this analysis has been completed, the committee evaluates and recommends corrective actions which it feels would contribute to the elimination or reduction of the types of errors detected. Finally, each district committee is expected to provide to the Division Chief of Income Maintenance a monthly summary of its findings with recommendations for corrective action. This, in turn, is reviewed and discussed by the AFDC Corrective Action Committee.

It should be clear from this review that the Department believes in involving line staff (i.e., eligibility workers) in the corrective action process. They maintain that it is a beneficial procedure because it promotes an increased awareness and interest in the agency's efforts to identify problem areas, devise appropriate corrective actions, and reduce the amount of error in the program itself.

Actions Dealing with Earned Income and Work-Related Expenses

Because earned income and work related expenses have been found to be major sources of error in the AFDC program, the Department of Public Welfare has implemented several corrective actions to deal explicitly with these error prone components. A Paydate Checklist was developed for use in all cases with earned income, as well as those cases that receive unearned income on a regular basis (more often than monthly). The eligibility worker must complete a checklist for each member of the budget unit that receives such income by entering the actual paydates on the form. The purpose of this checklist is to aid the worker in identifying missing paydates upon review of the monthly income and eligibility reporting form. The Department considers it a useful tool in determining if a recipient has reported income for each paydate on the checklist. In addition to this aid, a message is printed on the CA-7 form reminding reipients to report their extra paychecks. This serves as a type of "tickler" system to alert both the recipient and worker of the additional income for that period.

Additional training has also been provided to workers and supervisors alike on the correct treatment of earned income and work-related expenses. As the incorrect computation of transportation and child care expenses are known to be significant contributors to high error rates, these are the areas that are generally emphasized throughout the training sessions. Clearly, the Department has an ongoing commitment to worker and supervisor training which is designed to reduce the major elements contributing to payment error.

Proxy variables for many of these factors are presented below. They have been carefully constructed to reflect the actual timing of implementation and the period of enforcement.

San Diego County

County-Specific Administrative and Institutional Variables

ANTWRA	Anticipation of California Welfare Reform Act - Has value of 1.0 in 9/71 to account for effect of anticipation of CWRA on closing rate.
IMPWR-1	Implementation of California Welform Reform Act lagged one period - Has value of 1.0 in 11/71 to account for impact of WRA implementation on the closing rate.
OUTRCH	Food Stamp Outreach Program - Has value of 1.0 from 7/74 to 11/74 to account for impact of outreach program on cases added.
LBDSR	Liberalization of the Income Disregard Program - Has value of 1.0 from 2/70 to 8/71 to account for period when disregards were calculated on the basis of gross rather than net income.

Corrective Action Variables

PHCA-7	Phase-in of Monthly Income Reporting Form (CA-7) - Has values of .50 in 3/74, 1.0 in 4/74 and declines monthly by .10 until it reaches zero in 2/75 to account for initial impact of the monthly reporting form.
CA-7	Monthly Income Reporting Form (CA-7) Dummy Variable - Has value of 1.0 from 4/74 to 6/79 to account for ongoing effect of the monthly reporting system.
PREAPP	Pre-application Screening Dummy Variable - Has value of 1.0 from 7/78 to 6/79 to account for effect of the pre-application screening mechanism used

on intake.

SUPREV	Supervising Case Review Dummy Variable - Has value of 1.0 from 7/74 to 6/79 to account for existence of this worker review system.
RETBUG	Retrospective Budgeting Method - Has value of 1.0 from 11/72 to 6/79 to account for this system of budgeting.
RBUGDY	Retrospective Budgeting Dummy Variable - Has value of 1.0 in 11/72 to account for initial impact of this method of budgeting.
DMY99	Observation 99 Dummy Variable - Has value of 1.0 in 3/72, to account for first month of benefit calculations using a flat grant (consolidated standard) system.
M75DY2	Modified 1975 Dummy Variable - Has values of .25 in 3/75, .50 in 4/75, .75 in 5/75, 1.0 in 6/75, .80 in 9/75, .60 in 11/75, and .40 in 3/76 to account for dramatic movement in the closing rate.

San Diego County

Regression Results

As in the case of Alameda, the lack of complete caseload component data in San Diego County prevented the development of a full AFDC equation system. Therefore, we were forced to rely on a scaled-down, cases added/closing rate model, identical to that constructed for the Alameda Family Group (FG) program. The two component equations estimated for San Diego were derived in precisely the same manner as in Alameda. The following section presents the regression results for the two equations.[*]

Cases Added

To reiterate, many of the independent variables that appear in a typical cases added equation can be found in an applications received equation. Therefore, we would expect to find alternative income, economic opportunity, and institutional variables in most cases added regression models.

The "best" cases added equation for San Diego County's AFDC-FG program appears in Table 10.1. As indicated by the OLS regression, nearly 96 percent of the variance in the dependent variable is captured by the final specification. The rho-corrected version indicates a standard error (SEEBAR) which is approximately 11 percent

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[*] The Appendix to this report presents the short period regressions used in preparing the Pre-QC/CA simulations.

Table 10.1

San Diego AFDC-FG: Final Cases Added Equation (1st Stage)

```
EQN NO.  2   186 OBSERVATIONS (    1-> 186)
DEP VAR(   4): CAADD
INDEPENDENT VAR(S):    9
V(S) IN XPX=  70   M= 70
DETERMINANT=      0.2112027E-07
```

INDEP.VAR.		REGR.COEFF.	STD.ERR.	T-RATIO	MEAN
(4)					0.130304E+01
(1)	CONS	-0.152541E+01	0.218053E+00	0.699560E+01	0.100000E+01
(22)	UNRTE	0.320067E-01	0.665250E-02	0.481123E+01	0.765629E+01
(37)	WDAY	0.475909E-01	0.891656E-02	0.533736E+01	0.208817E+02
(45)	FHF2	0.240875E-01	0.532845E-02	0.452054E+01	0.310293E+02
(29)	DSREMP	-0.342693E-01	0.165276E-01	0.207345E+01	0.204409E+00
(56)	DMY99	0.404658E+00	0.162588E+00	0.248885E+01	0.537634E-02
(65)	OUTRCH	0.321396E+00	0.752259E-01	0.427241E+01	0.268817E-01
(60)	B/Z*30	0.375649E+00	0.479908E-01	0.782753E+01	0.777328E+00
(9)	CACL-2	0.468883E+00	0.554854E-01	0.845056E+01	0.116529E+01

```
RSQBAR=   0.9541 RSQ=    0.9560    SEE= 0.1565623E+00 SEEBAR= 0.1604934E+00

TSS= 0.1037293E+03    RSS= 0.4559188E+01      FSTAT(   8, 177)= 0.4812563E+03

MBAR=  -0.8981        DW STAT:  1.4537        RHO:  0.27609669
```

Rho-corrected

```
EQN NO.  2   185 OBSERVATIONS (    2-> 186)
DEP VAR( 80): CAADD
INDEPENDENT VAR(S):    9
V(S) IN XPX=  80   M= 70
DETERMINANT=      0.8766072E-07
RHO=      0.2760967E+00
Y( 186)=       0.2335999E+01
```

INDEP.VAR.		REGR.COEFF.	STD.ERR.	T-RATIO	MEAN
(80)					0.950264E+00
(71)	CONS	-0.180541E+01	0.206434E+00	0.874570E+01	0.723903E+00
(72)	UNRTE	0.376233E-01	0.835337E-02	0.450396E+01	0.552332E+01
(73)	WDAY	0.522166E-01	0.752396E-02	0.694004E+01	0.151105E+02
(74)	FHF2	0.319617E-01	0.613265E-02	0.521172E+01	0.225443E+02
(75)	DSREMP	-0.319112E-01	0.160543E-01	0.198770E+01	0.149782E+00
(76)	DMY99	0.468524E+00	0.149475E+00	0.313447E+01	0.391299E-02
(77)	OUTRCH	0.308821E+00	0.892085E-01	0.346179E+01	0.195650E-01
(78)	B/Z*30	0.386088E+00	0.609389E-01	0.633565E+01	0.567643E+00
(79)	CACL-2	0.372916E+00	0.598334E-01	0.623256E+01	0.851607E+00

```
RSQBAR=   0.9233 RSQ=    0.9266    SEE= 0.1494815E+00 SEEBAR= 0.1532558E+00

TSS= 0.5633208E+02    RSS= 0.4133773E+01      FSTAT(   8, 176)= 0.2778000E+03

MBAR=  -0.8431        DW STAT:  1.9883        RHO:  0.00821346
```

of the mean monthly number of cases added.

Two of the eight substantive variables in the regression originate from the economic opportunity hypothesis. The coefficient on UNRTE indicates that an increase of one percentage point in the seasonally unadjusted unemployment rate induces, on average, an additional 37 cases per month. As theory suggests, when employment opportunity declines in the aggregate, we can expect to see more families turn to public assistance for economic survival. Additionally, the monthly change in service employment (DSREMP) appears in the regression, and indicates a significant, though small, negative relationship between the two variables. With every 1,000 additional jobs in the service sector (as we define it) one can expect 32 fewer applications for AFDC.

The alternative income hypothesis is represented by the B/Z*30 term. The coefficient of .386 on this variable is best analyzed in terms of an elasticity. Such a computation based on the mean value of both variables yields an elasticity of .23, suggesting that in response to a ten percent increase in B/Z*30, 30 additional cases would have been added each month.

The remaining variables in the equation represent various institutional factors. An additional workday in a given month, on average, resulted in approximately 52 more cases being added. The coefficient on female headed families (FHF) implies that about 3.2 percent of the total FHF population was added to the AFDC caseload each month during the period. A food stamp outreach program (OUTRCH) in the second half of 1974 resulted in an average of 309 additional cases each month, or a total of nearly 1,550 cases over the five month period.

As in all of the other models, we attempted to determine what type of reapplication dynamics were "at work" in San Diego County during the period under consideration. This was done by including a lagged cases closed variable (CACL-2) in the equation. Several specifications were tried in the regression, but the two period lag structure provided by far the most reasonable results. The coefficient on this term suggests that about 37 percent of all cases closed not only reapply for public assistance, but are in fact added to the caseload within two months of termination. The coefficient therefore suggests a good deal of cycling in the welfare system in this jurisdiction.

Although it was originally hypothesized that the monthly reporting system implemented in 1974 might have resulted in a greater proportion of case closings being re-added to the caseload, the empirical evidence indicated no statistically significant change in this underlying relationship after 1972.[*] An interaction term (CC*CA7) that assumed the value of CACL-2 from early 1974 through 1979 was constructed but was repeatedly found to be uncorrelated with the cases added variable. It may be concluded then that in contrast to

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[*] A comparison of the CACL-2 coefficients in the full period regression presented here and the short period regression presented in the Appendix indicates that prior to monthly reporting 35.1 percent of cases closed in period t-2 were re-added to the caseload in period t. The proportion increased to 37.3 after the implementation of monthly reporting.

the result in Los Angeles, the monthly reporting corrective action had no significant impact on reapplication dynamics in San Diego County.

Closing Rate

The final closing rate equation for San Diego County is presented in Table 10.2. It contains 10 variables in addition to the constant term. The proportion of variance explained by the independent variables, as indicated in the OLS regression, was over 80 percent. Most of the explanatory variables were institutional in nature, with the exception of the estimated participation rate (C/F).

The coefficient on C/F suggests that a highly significant and positive relationship exists between the proportion of female headed families participating in AFDC and the closing rate. As the participation rate index climbs 10 points, one can expect the closing rate to increase by nearly seven-tenths of one percentage point. This in turn suggests that as the participation rate proxy reaches higher and higher levels, it is possible that more ineligibles may be included among those families receiving public assistance. The welfare department attempts to close some of those potentially ineligible families, resulting in a higher closing rate.

The remaining variables appearing in the equation are institutional in nature. The coefficient on WDAY suggests that an additional workday in a month adds one-tenth of a percentage point to the closing rate. The liberalization of the "30 + 1/3" income disregard formula (LBDSR) in 1970 decreased the closing rate by an average of nearly 1.3 percentage points while it was in effect. Two

Table 10.2

San Diego AFDC-FG: Final Closing Rate Equation (1st Stage)

```
EQN NO.  1    186 OBSERVATIONS (    1-> 186)
DEP VAR(  7): CLORT
INDEPENDENT VAR(S):  11
V(S) IN XPX= 68   M= 68
DETERMINANT=      0.6100098E-04
```

	INDEP.VAR.	REGR.COEFF.	STD.ERR.	T-RATIO	MEAN
(7)					0.644913E-01
(1)	CONS	0.915865E-02	0.955262E-02	0.958758E+00	0.100000E+01
(48)	C/F	0.658147E-01	0.626798E-02	0.105001E+02	0.470195E+00
(37)	WDAY	0.100312E-02	0.440351E-03	0.227801E+01	0.208817E+02
(61)	LBDSR	-0.132036E-01	0.234817E-02	0.562293E+01	0.102150E+00
(57)	ANTWRA	0.556410E-01	0.817508E-02	0.680617E+01	0.537634E-02
(55)	IMWR-1	0.341838E-01	0.811927E-02	0.421021E+01	0.537634E-02
(56)	DMY99	0.131039E-01	0.817843E-02	0.160225E+01	0.537634E-02
(67)	RBUGDY	0.207502E-01	0.723488E-02	0.286808E+01	0.940860E-02
(58)	PHCA-7	0.260470E-01	0.423983E-02	0.614341E+01	0.322581E-01
(39)	CA-7	0.730259E-02	0.195783E-02	0.372994E+01	0.338710E+00
(64)	M75DY	0.314244E-01	0.486008E-02	0.646581E+01	0.231183E-01

```
RSQBAR=   0.7916 RSQ=    0.8029    SEE= 0.7746832E-02  SEEBAR= 0.7986594E-02

TSS= 0.5662215E-01    RSS= 0.1116249E-01       FSTAT( 10, 175)= 0.7126936E+02

MBAR=   -0.4476         DW STAT:   0.9053         RHO:   0.55274496
```

Rho-corrected

```
EQN NO.  1    185 OBSERVATIONS (    2-> 186)
DEP VAR( 80): CLORT
INDEPENDENT VAR(S):  11
V(S) IN XPX= 80   M= 68
DETERMINANT=      0.6414387E-03
RHO=      0.5527450E+00
Y( 186)=       0.2335999E+01
```

	INDEP.VAR.	REGR.COEFF.	STD.ERR.	T-RATIO	MEAN
(80)					0.290066E-01
(69)	CONS	0.678108E-02	0.730372E-02	0.928441E+00	0.447255E+00
(70)	C/F	0.679788E-01	0.105647E-01	0.643451E+01	0.211970E+00
(71)	WDAY	0.107610E-02	0.278386E-03	0.386548E+01	0.933376E+01
(72)	LBDSR	-0.127697E-01	0.358886E-02	0.355815E+01	0.459343E-01
(73)	ANTWRA	0.513244E-01	0.601529E-02	0.853233E+01	0.241759E-02
(74)	IMWR-1	0.294451E-01	0.569964E-02	0.516613E+01	0.241759E-02
(75)	DMY99	0.214294E-01	0.575718E-02	0.372220E+01	0.241759E-02
(76)	RBUGDY	0.218813E-01	0.648132E-02	0.337606E+01	0.423079E-02
(77)	PHCA-7	0.244183E-01	0.653487E-02	0.373661E+01	0.145056E-01
(78)	CA-7	0.775238E-02	0.312571E-02	0.248020E+01	0.155296E+00
(79)	M75DY	0.201085E-01	0.411034E-02	0.489218E+01	0.103957E-01

```
RSQBAR=   0.6680 RSQ=    0.6860    SEE= 0.6305648E-02  SEEBAR= 0.6501910E-02

TSS= 0.2342917E-01    RSS= 0.7355822E-02       FSTAT( 10, 174)= 0.3802106E+02

MBAR=   -0.2570         DW STAT:   2.2037         RHO: -0.09870868
```

variables representing increased case closing activity during the period surrounding welfare reform appear in the regression. Anticipation of the California Welfare Reform Act (ANTWRA), caused the closing rate to jump over five percentage points in the month immediately preceding implementation of the Act (September 1971).

Whereas the mean value of the closing rate over the entire observation range was 6.45 pecent, in September 1971, an amazing 12.5 percent — one in eight — of all cases receiving AFDC-FG in San Diego County was closed. Additionally, in the month immediately following implementation of the Welfare Reform Act (IMWR-1), the closing rate again jumped almost three percentage points higher than in the absence of the legislation. Finally in March 1972 (DMY99), the closing rate rose over two percentage points higher than average, presumably in part due to the implementation of the consolidated need standard mandated under the CWRA.

Although all three of the models constructed in California reflect the same phenomena in terms of case closing activity during the period of welfare reform, the tremendous increase in the closing rate is most pronounced in San Diego. The welfare administration there appears to have been extremely conscientious in following the specific requirements of the legislation. The empirical evidence from our model suggests, however, that a large proportion of the cases closed during this period were back receiving aid within two months. The closing of a large number of eligible cases is self-evident.

The remaining variables in the closing rate equation are considered to be corrective action variables. RBUGDY, a one period dummy variable in November 1972 to account for the implementation of a retrospective budgeting system, indicates that the initial impact of this changeover was to raise the closing rate by nearly 2.2 percentage points. This indicates that a significant number of recipients were terminated as a result of the requirements of this new system.

Two variables proxying for the monthly reporting system are found in the closing rate equation. According to San Diego welfare administrators, the CA-7 form was required by the state in January 1974, but case closing activity resulting from recipient non-compliance did not immediately result. The Department chose to allow a two to three month period for recipients to become familiar with the requirements and reporting deadlines of the new system. It was not until March and April 1974 that the reporting deadlines were strictly adhered to and closings resulted.

A special variable, PHCA-7, was constructed to account for the phase-in of the monthly reporting system as it was explained by San Diego AFDC administrators. The regression results indicate that nearly 3,200 additional cases were closed over an eleven month period (March 1974 through January 1975) as a direct result of the phase-in process alone. A second variable, CA-7, attempts to capture the "ongoing" effect on closings of the monthly reporting system. Its coefficient suggests that the average impact over a five and one-half year period was to raise the closing rate by over seven-tenths of a percentage point.

Finally, because of large unexplained increases in the closing rate during much of 1975 and part of 1976, a modified dummy variable

(M75DY) was constructed and run in the regression. Although several attempts were made to identify the cause of this unexplained jump in the closing rate, it was impossible to do so. Members of the San Diego County AFDC program staff were largely unable to cite specific activities that were going on during the period in question. However, by reviewing the County's corrective action reports it was possible to identify some activities that we believe <u>may</u> have exerted an upward pressure on the closing rate. First, in May 1975 the County Welfare Department underwent a major reorganization in order to bring related activities closer together and facilitate communication within divisions conducting related tasks. Much emphasis was placed on Quality Control, Earnings Clearance, and Welfare Investigations as a result. This in itself may have acted to raise the closing rate, as it reflects, in a sense, a general administrative tightening. Second, during the same period the Department's Program Guide was modified to establish a county policy requiring a "more rigid and structured application of reporting deadlines and other client-related reporting responsibilities."[*] As indicated earlier in this chapter, the policy modification specifically provided for:

1) more strict adherence to the personal interview requirements for recipients who did not submit a completed CA-7 form by the fifth of the month,

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[*] <u>Quarterly Quality Control - Corrective Action Report, April - June 1975</u>, County of San Diego, Department of Public Welfare, September 1975, p. 15.

2) waiver of personal interview only at Assistant District Chief level or higher, and

3) a CA-7 checklist to be used by workers as an aid in reviewing the forms for completeness, accuracy, and consistency.

Again, it seems quite plausible that these new requirements could have acted to increase the rate at which cases were closed during the period that they were introduced.

Now that we have completed an analysis of the regression equations, we turn to the simulations in order to fully evaluate the impact of corrective actions on caseload and expenditures.

San Diego County Simulation Results

The regression models for San Diego County indicated that all of the corrective action variables in that jurisdiction entered the closing rate equation. The phase-in of the monthly reporting system (PHCA-7) and the ongoing impact of that system of recertification (CA-7) effectively increased the rate at which cases were closed. The start-up of the retrospective budgeting system in November 1972 (RBGDY) also raised the closing rate. Finally, a variable designed to capture the impact of several administrative changes that significantly raised the closing rate during 1975 and early 1976 (M75DY2) appeared in the equation. Here we present an analysis of the impact of these corrective actions on cases receiving assistance, cases added, cases closed, and expenditures in a dynamic simulation model.

Cases Receiving Assistance

Table 10.3 presents estimates of cases receiving assistance at three points in time. From comparisons of these estimates we are able to estimate the impacts of structural change and corrective action on various components of San Diego's AFDC system. Additionally, Figure 10.1 presents graphically the estimates appearing in Table 10.3. A comparison of simulations (0) and (1) indicates the accuracy of our best model (PSS) estimate.

Table 10.3

Simulation Results

San Diego County

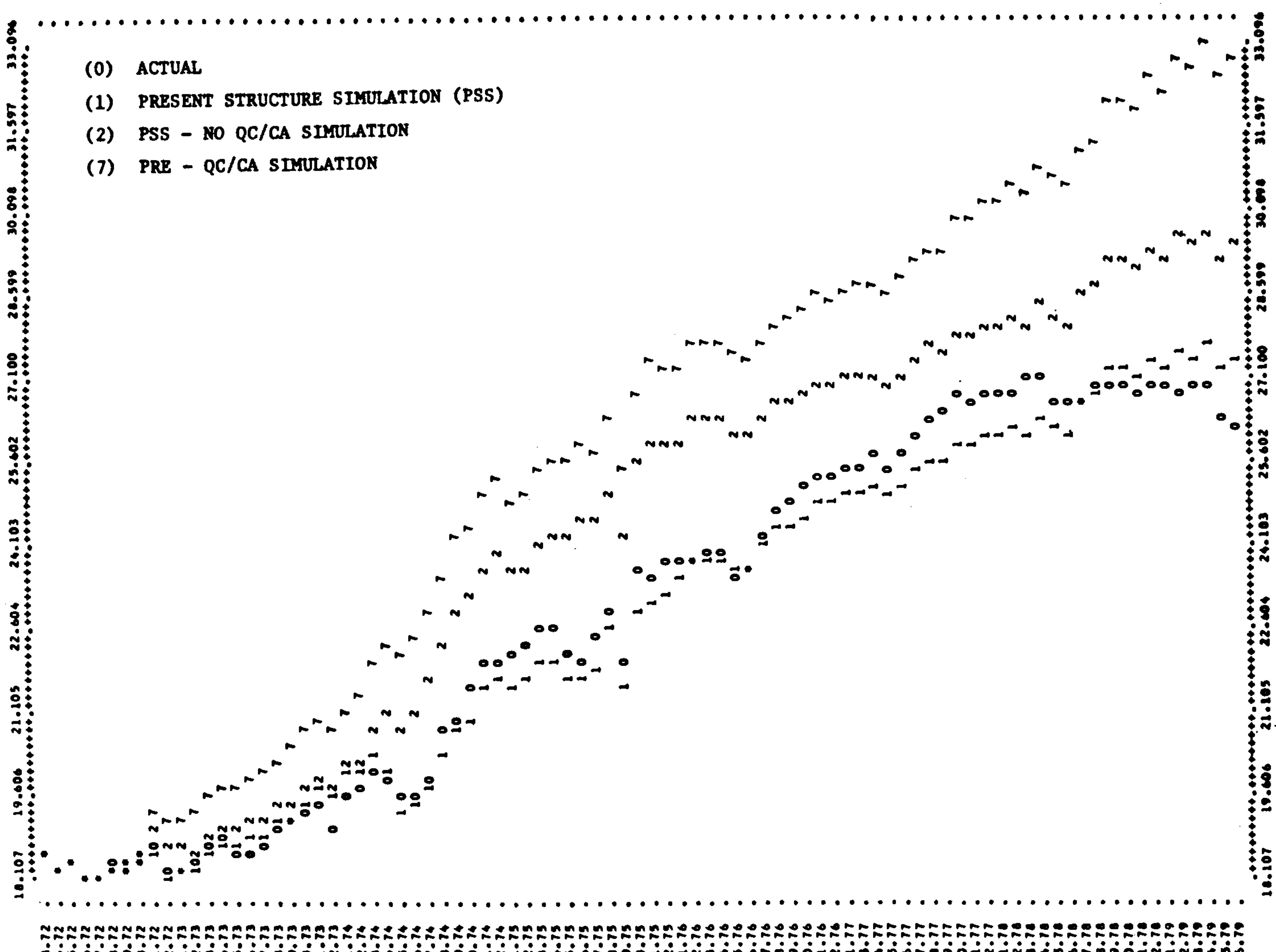
Cases Receiving Assistance

Simulation	at 12/74 (30 months)	at 12/76 (54 months)	at 6/79 (84 months)
Actual	22,102	25,324	26,267
Present Structure (PSS)	21,835	24,909	27,542
Pre - QC/CA Structure (Pre - QC/CA)	25,348	28,574	32,869
Present Structure - No QC/CA (PSS - No QC/CA)	24,049	27,054	29,529
QC/CA And Structural Impacts			
Due to QC/CA and Structure	-3,513	-3,665	-5,327
% PSS	(-16.1%)	(-14.7%)	(-19.3%)
Due to Structure	-1,299	-1,520	-3,340
% PSS	(-6.0%)	(-6.1%)	(-12.1%)
Due to QC/CA	-2,214	-2,145	-1,987
% PSS	(-10.1%)	(-8.6%)	(-7.2%)

Figure 10.1

Counterfactual Simulations vs. Actual: San Diego County

Cases Receiving Assistance



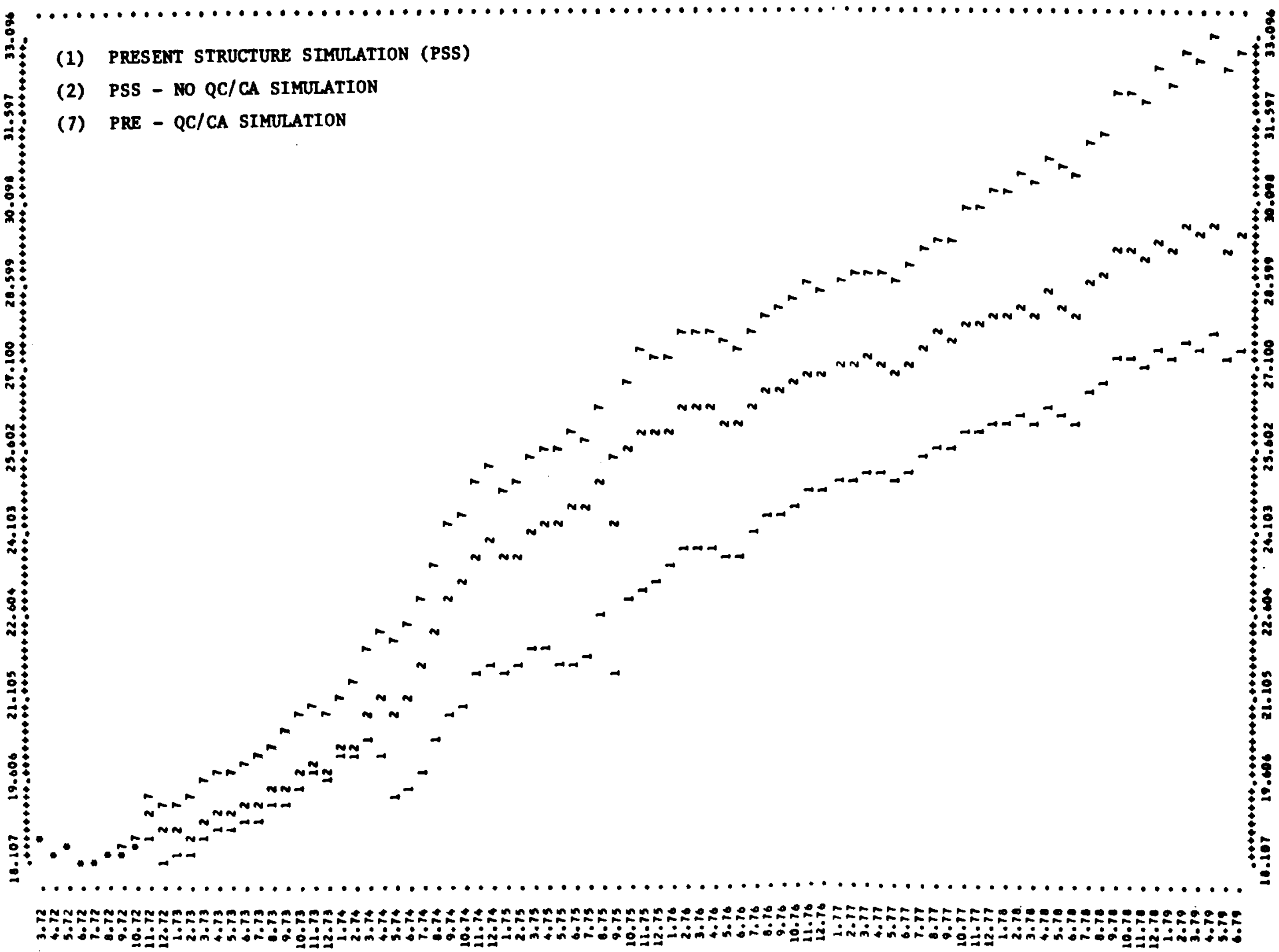
The table indicates that in December 1974, had no structural change occurred and no corrective actions been initiated, there would have been over 3,500 more cases receiving assistance (or 16.1 percent more than the PSS estimate predicted). Of the total difference between the PSS and Pre-QC/CA simulations, nearly 1,300 cases were attributable to changing structural relationships, while over 2,200 cases (or 63 percent of the total reduction) were a result of the various corrective actions. In December 1976, the composition of the difference was very similar. Of the total difference of about 3,665 cases, a different structural regime was responsible for reducing cases receiving assistance by 1,520 relative to a Pre-QC/CA structure, and corrective action resulted in a decline of almost 2,150 cases (or 59 percent of the total reduction). However by June 1979, the impact of structural change predominated as the impact of corrective action declined in both relative and absolute terms. The total difference in cases receiving assistance at that time was over 5,300, with structural change accounting for 3,340 fewer cases. Corrective action was responsible for a reduction of only 2,000 cases (37 percent of the total difference and 7.2 percent of the PSS estimate of caseload). Thus, over the entire period, the absolute effect of corrective actions on the caseload was roughly constant at about 2,000 cases.

In Figure 10.2, the differential between simulations (1) and (2) represents the impact of corrective actions. Simulation (2) indicates what the caseload would have been without corrective action, whereas simulation (1) represents our best estimate of the caseload. Corrective action was therefore responsible for reducing the caseload

Figure 10.2

Counterfactual Simulation: San Diego County

Impact of All Corrective Action Variables on Cases Receiving Assistance



from (2) to (1).

Cases Added

Table 10.4 presents the impacts of structural change and corrective action on the cases added component of the basic caseload identity. The table indicates that of a total difference in openings of 1,186 cases over the first 30 months of the simulation period, corrective actions were responsible for virtually 100 percent, or 1,164 cases (2.4 percent of the PSS estimate). It is through an indirect structural feedback mechanism that corrective actions actually increased the number of cases added to the AFDC rolls. Because a lagged cases closed variable (CACL-2) appears in the cases added regression equation with a fairly large coefficient, there are more openings in the program when corrective actions are operative (i.e., in a PSS simulation) than when they are not (i.e., in a PSS-No QC/CA simulation). The lagged cases closed variable enters the equation with a coefficient of .37 indicating that 37 percent of any additional closings resulting from corrective action are re-added to the caseload within two months. As a result of this structural feedback the San Diego AFDC program actually experienced more openings than it would have had corrective actions not existed.

By December 1976, had structural change not occurred and corrective action not been undertaken, there would have been nearly 2,500 fewer openings in the AFDC program. Changing structural relationships were responsible for a difference of over 1,200 cases or almost 50 percent of the total, while the implementation of the

Table 10.4

Simulation Results

San Diego County

Cases Added

Simulation	Cumulative to 12/74 (30 months)	Cumulative to 12/76 (54 months)	Cumulative to 6/79 (84 months)
Actual	51,752	105,402	168,382
Present Structure (PSS)	49,162	99,164	165,269
Pre - QC/CA Structure (Pre - QC/CA)	47,976	96,671	165,762
Present Structure - No QC/CA (PSS - No QC/CA)	47,998	97,875	164,136
QC/CA And Structural Impacts			
Due to QC/CA and Structure	+1,186	+2,493	-493
% PSS	(+2.4%)	(+2.5%)	(-0.3%)
Due to Structure	+22	+1,204	-1,626
% PSS	(0%)	(+1.2%)	(-1.0%)
Due to QC/CA	+1,164	+1,289	+1,133
% PSS	(+2.4%)	(+1.3%)	(+0.7%)

various corrective actions increased openings by almost 1,300 cases, or 1.3 percent of the PSS estimate.

Finally, over the entire simulation period, the changing structural relationships that acted to increase openings during the earlier periods actually reduced the number of additions by 1,160 relative to the Pre-QC/CA simulation. However, this difference was partially offset by an increase of about 1,130 openings resulting from corrective action, leaving a net decline in openings of 500 cases. By the final period in the simulation then, we can say that corrective action increased openings slightly, by approximately 1,130 cases relative to what they would have been in the absence of these activities.

Cases Closed

As was shown in the preceding regression results, all of the corrective actions in the San Diego AFDC Dynamics model were found in the closing rate regression. Therefore, it is important to look at the impact of those variables on the number of cases closed over time.

Table 10.5 presents estimates of the impact of structural change and corrective action on cumulative case closings over three discrete periods. It suggests that the impact of both factors was to boost closings by a total of nearly 4,550 cases (relative to what closings would have been in the absence of structural change and corrective action) over the period July 1972 to December 1974. Of this total difference, slightly more than 1,260 cases were a result of changes in underlying structural relationships, while corrective actions

Table 10.5

Simulation Results

San Diego County

Cases Closed

Simulation	Cumulative to 12/74 (30 months)	Cumulative to 12/76 (54 months)	Cumulative to 6/79 (84 months)
Actual	48,564	98,938	160,990
Present Structure (PSS)	46,227	93,098	156,647
Pre - QC/CA Structure (Pre - QC/CA)	41,686	87,075	152,005
Present Structure - No QC/CA (PSS - No QC/CA)	42,949	89,743	153,598
QC/CA And Structural Impacts			
Due to QC/CA and Structure	+4,541	+6,023	+4,642
% PSS	(+9.8%)	(+6.5%)	(+2.9%)
Due to Structure	+1,263	+2,668	+1,593
% PSS	(+2.7%)	(+2.9%)	(+1.0%)
Due to QC/CA	+3,278	+3,355	+3,049
% PSS	(+7.1%)	(+3.6%)	(+1.9%)

increased the number of closings by nearly 3,280 cases (7.1 percent of the PSS estimate). Over the longer period of July 1972 through December 1976, structural changes and corrective actions were responsible for raising the number of cases closed by more than 6,000, with corrective action responsible for over 3,350 cases (or 56 percent of the total reduction). Over the full simulation period (July 1972 through June 1979), about 4,640 additional cases were closed as a result of structural change and corrective action. Of the total reduction, 65 percent, or nearly 3,050 cases, was attributable to corrective action activity, while the remaining 1,600 case difference was the result of changing structural relationships.

All of these results suggest that corrective actions had a significant initial impact on reducing the caseload. However by the end of 1979 much of this effect dissipated, indicating perhaps that the traditionally conservative administration of AFDC in San Diego was responsible -- in the absence of any specific program -- for keeping the caseload under control. The favorable employment situation in the county is probably responsible for keeping the AFDC rolls relatively constant over the past few years.

Expenditures

Table 10.6 presents estimates of the impact of structural change and corrective action on AFDC expenditures over three periods. By December 1974, the full difference between the PSS and Pre-QC/CA simulations was $9.4 million or 8.5 percent of the PSS estimate. This difference is reflected in Figure 10.3 by the total area between

Table 10.6

Simulation Results

San Diego County

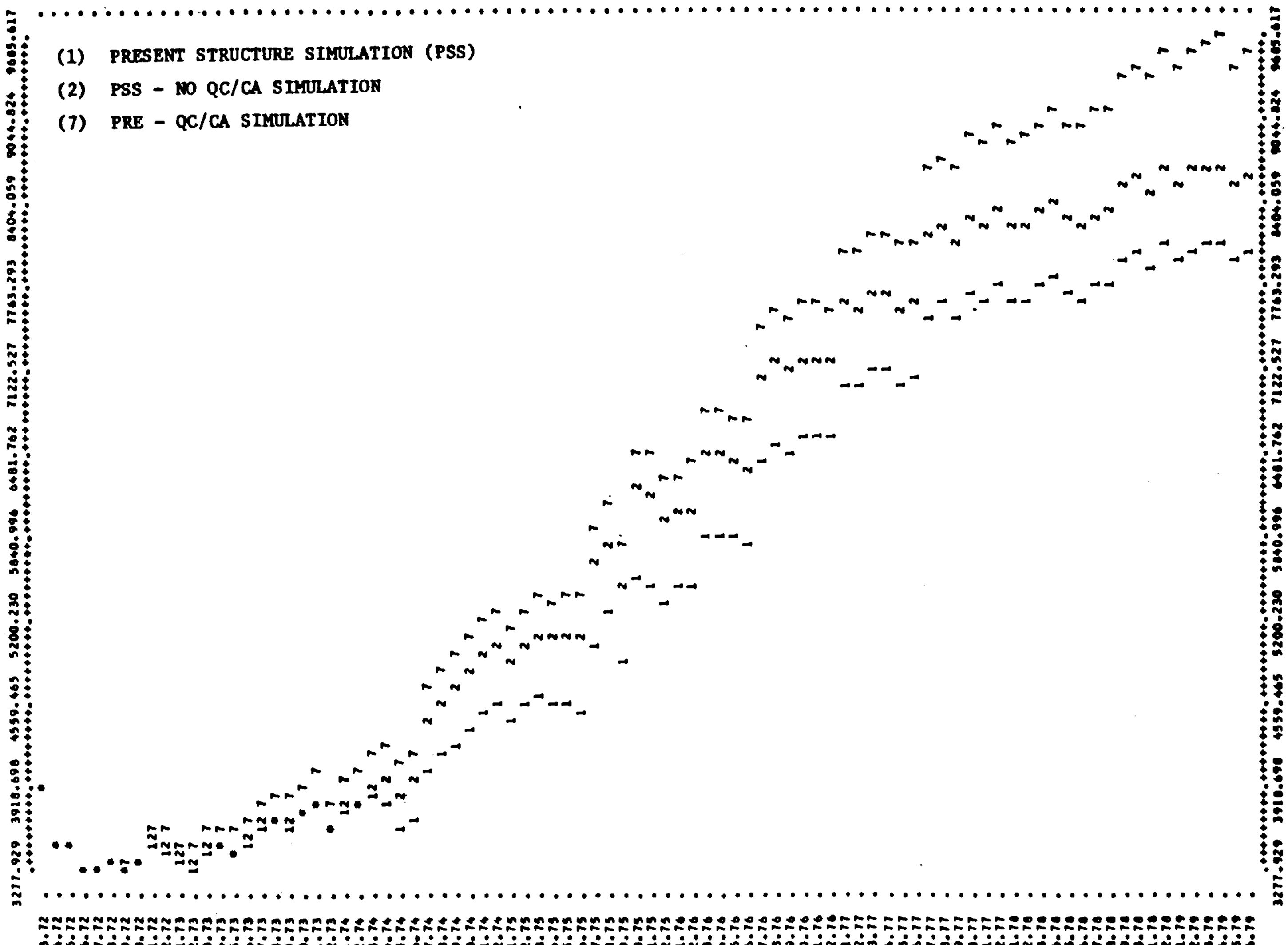
Expenditures (in thousands)

Simulation	Cumulative to 12/74 (30 months)	Cumulative to 12/76 (54 months)	Cumulative to 6/79 (84 months)
Actual	$111,778	$246,963	$479,633
Present Structure (PSS)	111,546	244,610	475,438
Pre - QC/CA Structure (Pre - QC/CA)	120,975	275,716	545,107
Present Structure - No QC/CA (PSS - No QC/CA)	115,956	262,884	511,151
QC/CA And Structural Impacts			
Due to QC/CA and Structure	$-9,429	$-31,106	$-69,669
% PSS	(-8.5%)	(-12.7%)	(-14.7%)
Due to Structure	-5,019	-12,832	-33,956
% PSS	(-4.5%)	(-5.2%)	(-7.2%)
Due to QC/CA	-4,410	-18,274	-35,713
% PSS	(-4.0%)	(-7.5%)	(-7.5%)

Figure 10.3

Counterfactual Simulation: San Diego County

Impact of All Corrective Action Variables on Expenditures



simulations (1) and (7) from August 1972 through December 1974. Of this total difference in expenditures, structural change in the caseload generating function accounted for approximately \$5.0 million (or 53 percent of the total), while corrective action was responsible for savings of \$4.4 million (or the remaining 47 percent of the total difference). The area between simulations (1) and (2) in Figure 10.3 represents this corrective action induced savings.

Over the period of July 1972 through December 1976, had no structural change occurred and no corrective action been undertaken, total expenditures for AFDC would have been about \$275.7 million, or \$31.1 million more than the PSS estimate indicates. Of this \$31.1 million (12.7 percent) difference, structural change was responsible for \$12.8 million (or 41 percent of the total). Corrective action accounted for \$18.3 million in savings or 7.5 percent of the PSS estimate for the 54 month period.

Finally, for the full simulation period of July 1972 through June 1979, the reduction in total expenditures resulting from structural changes and corrective action totalled nearly \$70 million or an average of \$833,000 per month. The total impact on expenditures was about evenly split, with structural change accounting for nearly \$34 million (49 percent of the total reduction). Corrective action was responsible for reducing expenditures by approximately \$35.7 million or 7.5 percent of the PSS estimate for the entire period.

Which Corrective Action Did the Most?

The preceding section focused on the total impact of all corrective action variables in San Diego County. But by itself this type of analysis does not indicate the relative importance of each corrective action individually. The purpose of the next section is to evaluate the impact of each individual corrective action on cases receiving assistance, openings, closings, and expenditures.

Cases Receiving Assistance

Table 10.7 presents the separate effects of the three basic corrective action variables on cases receiving assistance at various points in time. Additionally, Figures 10.4 through 10.6 indicate graphically the impact of each variable on cases receiving assistance over the entire simulation period.

Because the phase-in of the monthly reporting system (PHCA-7) and the variable representing the ongoing program of monthly reporting (CA-7) are components of the same activity, they are analyzed as one corrective action (i.e., removed from the equation system simultaneously).

Table 10.7 indicates that in December 1974 there were 2,134 fewer cases receiving assistance relative to the level that would have existed had monthly reporting not been implemented. In December 1976 the number was slightly less than 1,760. Similarly, by the end of the full simulation period, the difference between PSS simulations with and without CA-7 variables indicates approximately 2,000 fewer cases. The impact of monthly reporting was therefore roughly constant over

Table 10.7

Individual Corrective Action Impacts

San Diego County

Cases Receiving Assistance

QC/CA Variable	at 12/74 (30 months)	at 12/76 (54 months)	at 6/79 (84 months)
PHCA-7 and CA-7 (Monthly Reporting)	-2,134	-1,756	-1,942
75/76V	0	-342	-38
RBUGDY	-73	-12	0
Total (Excluding Interactions)	-2,207	-2,110	-1,980
Interactions	-7	-35	-7
Total Impact	-2,214	-2,145	-1,987

the entire simulation period.

Figure 10.4 presents a graphic depiction of this result. Simulation (1), of course, is the full PSS simulation, or our best estimate of the caseload. Simulation (2) is the PSS-No QC/CA (i.e., the PSS with all corrective action variables removed from the equation system). However, in this figure it is simulation (3) that provides the most useful information. It represents the full PSS simulation, with only the PHCA-7 and CA-7 variables omitted from the model. In essence, it indicates what the caseload would have been had only the other two corrective action variables been operative. Therefore, it is the differential between simulations (1) and (3) that provides the estimate of the monthly reporting impact.

The second variable appearing in Table 10.7 (M75DY2) represents activity during 1975 and 1976 which effectively raised the rate at which cases were closed. Although no definitive conclusions were reached with respect to its causes, we suggested in the regression results that it was related to a major Welfare Department reorganization and increased emphasis on the correct evaluation of the recipient monthly reporting form. The variable, therefore, represents a general administrative tightening within the program.

The table indicates that by December 1976, had the activity measured by the M75DY2 variable not occurred, the December 1976 caseload would have been about 342 cases higher than the PSS suggests. By June 1979, however, the impact of this administrative activity on the caseload had declined to approximately 38 cases. That is, relative to the PSS predicted caseload, there would have been just 38

Figure 10.4

Counterfactual Simulation: San Diego County

Impact of Monthly Reporting (PHCA-7 & CA-7) on Cases Receiving Assistance

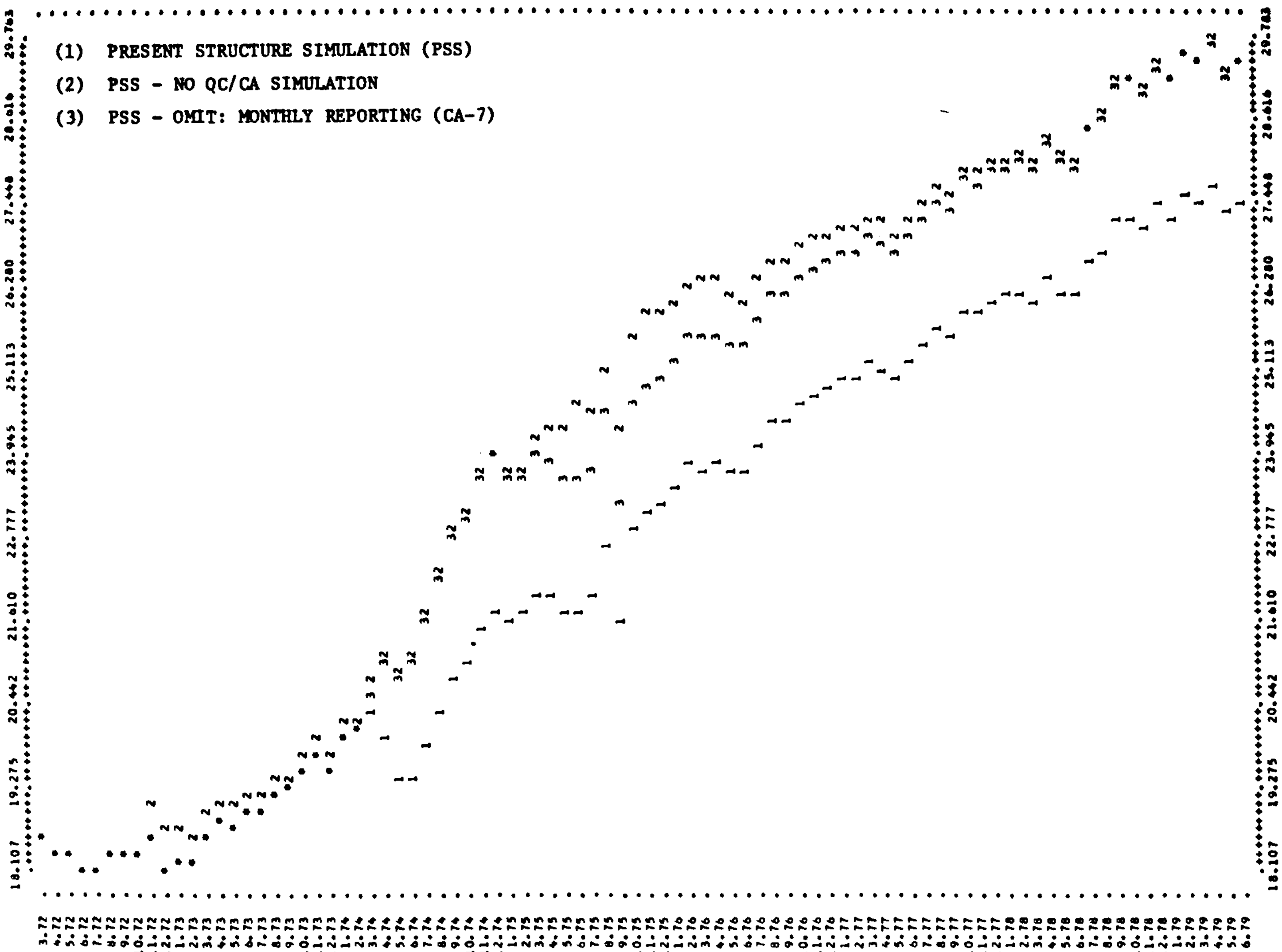


Figure 10.5

Counterfactual Simulation: San Diego County

Impact of Administrative Tightening (M75DY2) on Cases Receiving Assistance

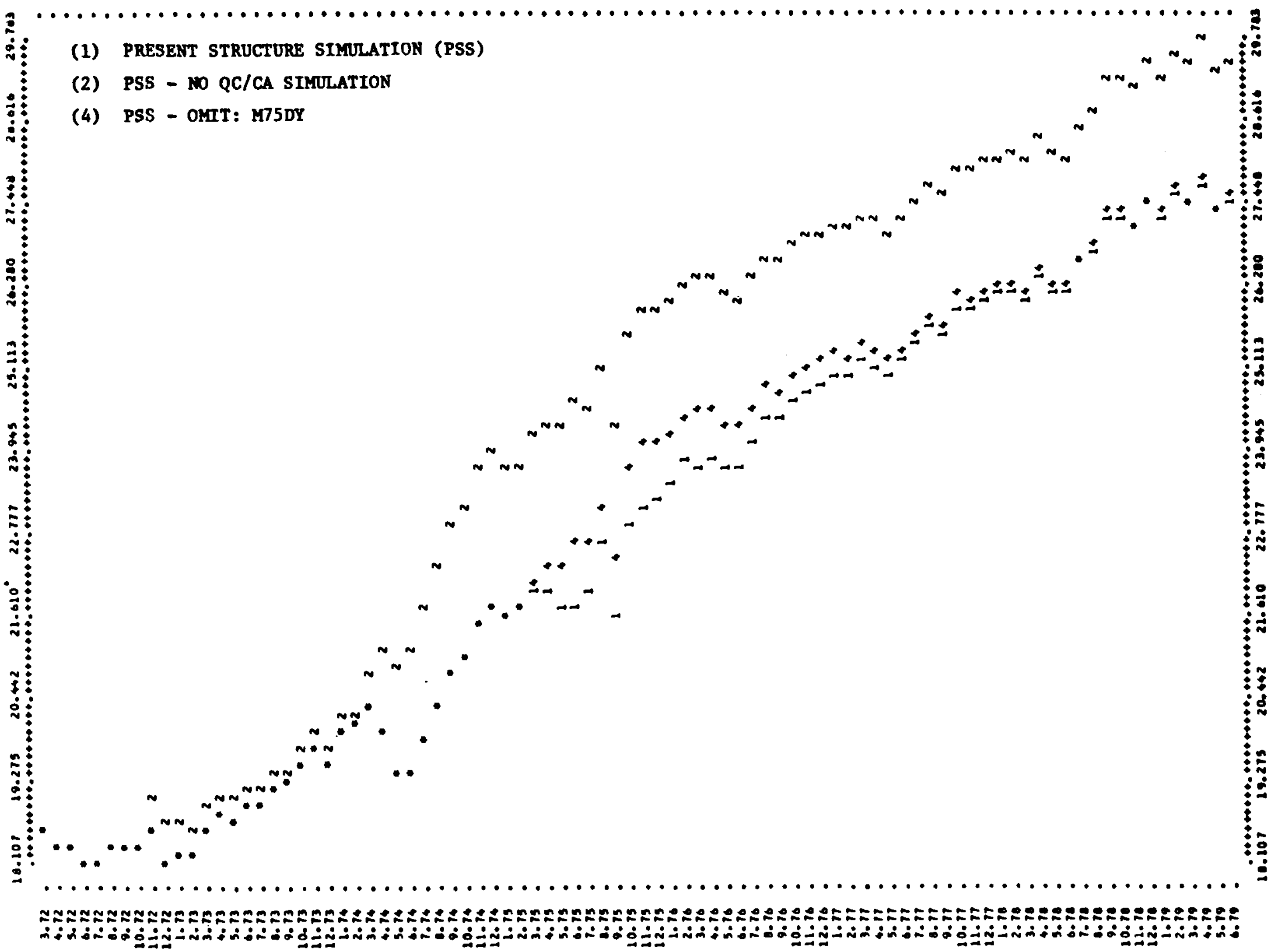
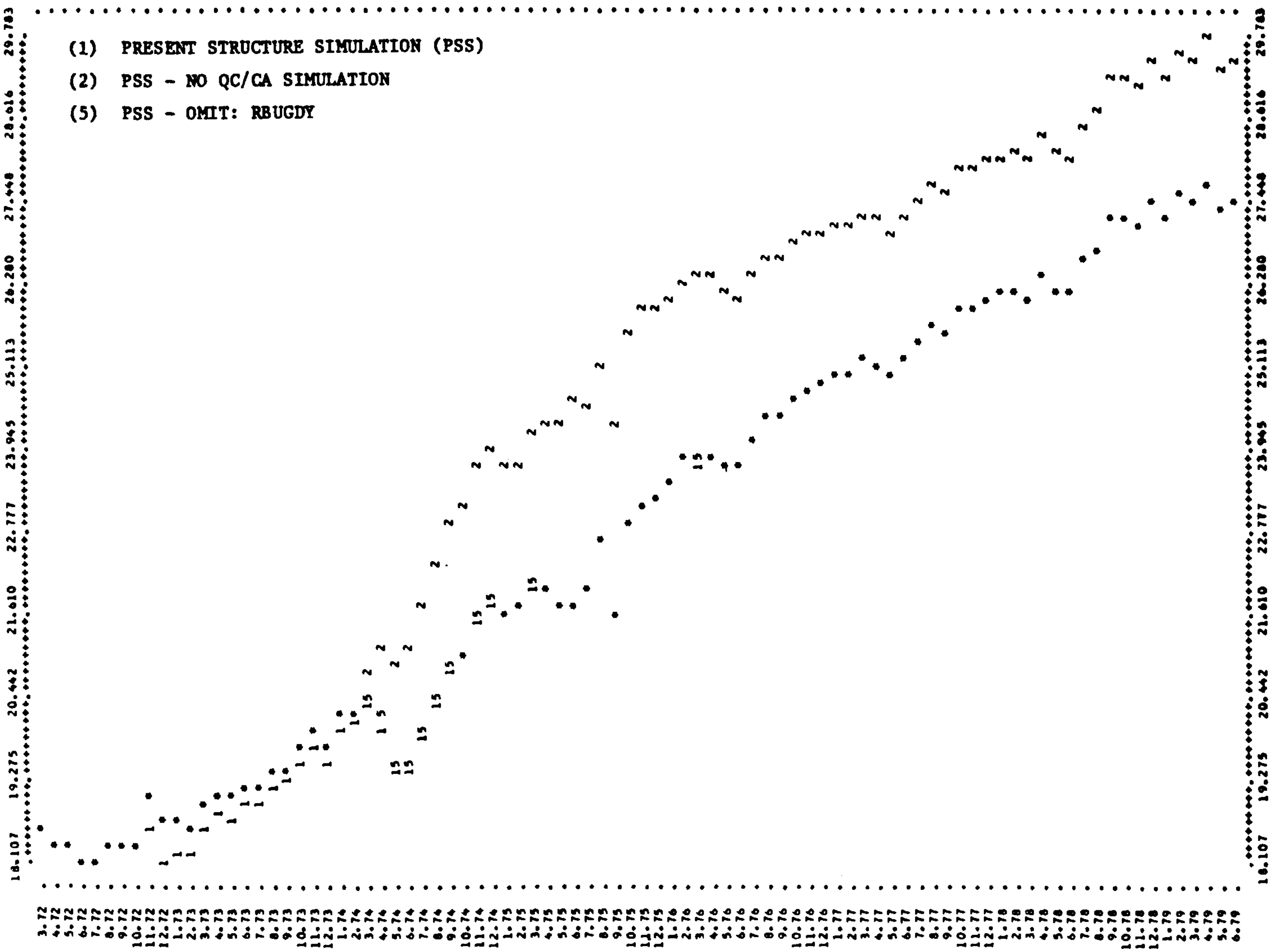


Figure 10.6

Counterfactual Simulation: San Diego County

Impact of Retrospective Budgeting Implementation (RBUGDY) on Cases Receiving Assistance



more cases receiving aid had the activity not existed. In Figure 10.5, this effect is indicated by the differential between simulations (1) and (4). It graphically shows that the impact of the departmental reorganization was fairly large throughout 1975 and 1976, but that it declined over time, as indicated by the convergence of the two simulations.

The final term (RBUGDY) appearing in Table 10.6 represents the impact of a one period dummy variable (November 1972) accounting for the changeover to a retrospective budgeting system. There is only a modest impact on the number of cases receiving aid. In December 1974, had the changeover not occurred, there would have been 73 more cases receiving assistance in San Diego than the PSS indicates. In December 1976, the reduction attributable to RBUGDY had fallen to a mere 12 cases and by the end of the entire simulation period its impact was effectively zero. Figure 10.6 indicates that the impact of the changeover upon the caseload was never really significant. Note the complete convergence of simulations (1) and (5) by early 1975.

Cases Added

As we have suggested for the other jurisdictions, cases receiving assistance can be disaggregated into openings and closings in order to evaluate the dynamics involved in caseload reduction. Table 10.8 reveals the individual impact on cases added of the three corrective actions analyzed here.

Again, the monthly reporting variables are the first to appear. The table indicates that over the 30 month simulation period ending in

Table 10.8

Individual Corrective Action Impacts

San Diego County

Cases Added

QC/CA Variable	Cumulative to 12/74 (30 months)	Cumulative to 12/76 (54 months)	Cumulative to 6/79 (84 months)
PHCA-7 and CA-7 (Monthly Reporting)	+1,106	+1,004	+1,100
75/76V	0	+252	+27
RBUGDY	+53	+9	0
Total (Excluding Interactions)	+1,159	+1,265	+1,127
Interactions	+5	+24	+6
Total Impact	+1,164	+1,289	+1,133

December 1974, monthly reporting actually increased the number of openings in the AFDC program. This is the result of the structural feedback mechanism in the cases added regression equation, which takes the form of a lagged cases closed variable (CACL-2). The presence of this variable in the equation indicates that about 37 percent of cases closed in period t-2, are re-added to the rolls in period t. Therefore, the system of monthly reporting, which acted to raise the number of closings, actually resulted in more openings. Thus, we see an increase in cases added over the three discrete time periods.

The same logic holds true for the other two terms in the table, for they are "closing rate" variables as well. The table indicates extremely minor impacts of the M75DY2 and RBUGDY terms on the number of openings in the program.

Cases Closed

Table 10.9 presents the effect of each corrective action variable on cases closed. Because all of the variables in the table increased the measured closing rate, it is not surprising that they increased the number of closings in the simulations.

The two monthly reporting variables (PHCA-7 and CA-7) had the most significant impact on closings. Over the 30 month period ending in December 1974, they were responsible for nearly 3,150 closings relative to what would have occurred in the absence of monthly reporting. By December 1976 the number of closings attributable to the system had fallen to 2,696. However, by the end of the full simulation period, had monthly reporting never been implemented, there

Table 10.9

Individual Corrective Action Impacts

San Diego County

Cases Closed

QC/CA Variable	Cumulative to 12/74 (30 months)	Cumulative to 12/76 (54 months)	Cumulative to 6/79 (84 months)
PHCA-7 and CA-7 (Monthly Reporting)	+3,143	+2,696	+2,973
75/76V	0	+582	+64
RBUGDY	+122	+20	0
Total (Excluding Interactions)	+3,265	+3,298	+3,037
Interactions	+13	+57	+12
Total Impact	+3,278	+3,355	+3,049

would have been about 2,973 fewer closings in the program than our best model indicated.

The final two variables appearing in the table, M75DY2 and RBUGDY, show relatively minor impacts in comparison to monthly reporting. The general administrative tightening proxied by M75DY2 was responsible for boosting closings by about 580 cases over the 54 month simulation period ending in December 1976. By June 1979, had the administrative tightening not occurred, we find that there would have been only 64 fewer closings than the PSS indicated.

Finally, the changeover to retrospective budgeting, which boosted the closing rate significantly in November 1972, indicates an impact on closings of 122 by December 1974. By December 1976 the impact had declined to only 20 cases. The table indicates that the effect of this exogenous shock to the true underlying determinants of the closing rate had declined to zero by June 1979. To put it another way, had the changeover never taken place, there would have been effectively no difference in cumulative closings over the entire simulation period.

As a result, it is fair to conclude that corrective actions decreased San Diego's caseload almost exclusively by acting on the number of closings rather than by affecting the number of openings. The one factor that played a dominant role was monthly income reporting.

Expenditures

Table 10.10 presents the individual corrective action impacts on AFDC-FG expenditures in San Diego County. To reiterate, in the calculation of expenditure savings we must assume, due to the lack of better data, that every case affected by corrective action received the average expenditure for all cases.

Not surprisingly, the table indicates that the monthly reporting system was responsible for a significant reduction in expenditures. Over the initial 30 months of the simulation period, monthly reporting reduced expenditures by about $3.3 million. Over the longer 54 month period, had the monthly reporting system not been implemented, cumulative expenditures would have been about $13.6 million more than the PSS estimate indicated. Finally, over the entire 84 month simulation period, monthly reporting was responsible for reducing AFDC expenditures by more than $29.7 million, or 83 percent of the total corrective action induced expenditure reduction.

Table 10.10 also indicates that the administrative tightening that occurred in 1975 and 1976 (M75DY2) was responsible for a relatively small expenditure reduction over the simulation period. Had the administrative tightening not occurred, expenditures would have been about $4.3 million or 12 percent more than the PSS estimate indicated.

Finally, the implementation of retrospective budgeting (RBUGDY), through its impact on the closing rate, resulted in a $1.3 million expenditure reduction by June 1979. That is, had the closing rate not increased significantly when retrospective budgeting was implemented,

Table 10.10

Individual Corrective Action Impacts

San Diego County

Expenditures (in thousands)

QC/CA Variable	Cumulative to 12/74 (30 months)	Cumulative to 12/76 (54 months)	Cumulative to 6/79 (84 months)
PHCA-7 and CA-7 (Monthly Reporting)	$-3,303	$-13,600	$-29,723
75/76V	0	-3,108	-4,251
RBUGDY	-1,091	-1,265	-1,304
Total (Excluding Interactions)	-4,394	-17,973	-35,278
Interactions	-16	-301	-435
Total Impact	$-4,410	$-18,274	$-35,713

$1.3 million more would have been spent on AFDC than our best model predicted.

The maximum effect of corrective actions on San Diego's AFDC-FG program was to reduce total expenditures by $35.7 million, or an average savings of about $425,000 per month between July 1972 and June 1979. This represents a savings of 7.5 percent in total AFDC-FG expenditures for the entire period.

Section IV

The Florida Model

Chapter 11

Florida

As for other jurisdictions involved in this study, we begin our analysis of the Florida AFDC program with a brief review of its history and special characteristics. Here we focus on caseload and expenditure trends, population characteristics, the economic environment, and the various corrective action efforts undertaken in the state.

Caseload and Expenditure Trends

In contrast to the states of California and New York, Florida does not have an unemployed parent (UP) component in its AFDC program. Only a direct assistance segment (AFDC-DA) exists. To model this program, we use a caseload component time series that has February 1966 as its initial observation. In the early years of the period (1966-1968) caseload growth was fairly moderate. Over this span of 36 months, an average of 5,000 net additions were made to the program each year. In December 1968 the caseload stood at about 44,000. Over the next four years, however, the total AFDC-DA population "exploded" as it did in nearly every other area of the nation. Between December 1970 and December 1971, for example, nearly 20,000 net additions were reported, resulting in a caseload of 88,000 at the end of the 12 month period. Simplified eligibility is credited with much of this growth, having been in effect from October 1970 to October 1971. Even as simplified eligibility was phased out, however, the caseload continued to grow, albeit at a slower rate. In January 1973 it peaked at nearly 94,500 cases. The following two years witnessed an abrupt reversal of this trend. Almost 20,000 fewer cases appeared at the end of the 24 month period than at the beginning. For the next four years the caseload remained relatively stable, fluctuating between 77,000 and 83,000. Then again in 1979 an unexpected "mini-explosion" occurred. Between December 1978 and December 1979, a full 8,000 net additions were recorded.

In terms of program financing, monthly expenditures rose about nine-fold between 1966 and 1979. In January 1966 approximately $1.6 million was spent for AFDC. By December 1979 the monthly cost was $14.7 million. This growth was obviously related to the many more cases receiving assistance at the end of the period, but also to the fact that the average expenditure per case almost tripled from a mere $59 in 1966 to about $166 in December 1979.

Population Characteristics

Based on a combination of various data sources we were able to make some estimates of the female headed family population in the state. During the early period of moderate caseload growth (1966-1968), there was indeed moderate growth in this population subgroup, as one might expect. From a level of about 89,000 in

January 1966, the female headed family pool rose to about 106,000 by December 1968. Then in 1969 the tremendous growth began (as it did nationwide). By the end of 1974, we estimate that almost 180,000 female headed families resided in Florida. By December 1979 the number was closer to 240,000 -- much of this due to an increase in family separation, but some no doubt due to immigration.

Economic Characteristics

During the period under study, employment growth in some sectors was dramatic. Tourism related service employment (defined for our purposes as employment in eating and drinking establishments and hotels and motels) expanded tremendously. Between January 1966 and December 1972 there was an increase of 69,000 jobs in these two industries alone. Then over the next seven years a virtual explosion occurred in this sector — almost 120,000 new jobs were added, putting total employment at 320,000. Quite clearly, the growth in tourism has provided the major impetus for this growth.

Employment in the low-skill manufacturing sector (defined as employment in food and kindred and apparel) reflects much different trends. The number of jobs in the food and kindred industries has remained unchanged, except for its seasonal variation. On the other hand, employment in the apparel sector has more than doubled, increasing from about 14,600 in 1966 to over 36,000 by the end of 1979.

In terms of the aggregate economic environment, in the early part of the period (1966-1969), the average annual unemployment rate ranged between 3 and 4 percent. The following two years witnessed a mild rise in unemployment to levels closer to 5 and 6 percent, with some monthly fluctuation back toward 4 percent. From a level of 4.6 percent in May 1974, the unemployment rate rose dramatically as the State of Florida and the rest of the nation plunged into the recession. For most of 1975 it remained between 10 and 12 percent, the highest rates in the state's post war history. Since that time there has been sporadic month-to-month fluctuation with a gradual downward trend. By December 1979 the unemployment rate reached 5.2 percent, the lowest reported figure (with the single exception of May 1979) since mid 1974.

Legal and Administrative Characteristics

In contrast to the other two states involved in the study, the AFDC program in Florida is state administered rather than state supervised. Local funds are not used in the financing of assistance or administrative costs. However, the responsibility for the eligibility decision, of course, still rests with the local welfare offices.

The period 1968 to 1972 included many new program regulations, most being associated with national legislation. The "30 + 1/3" provisions became effective in mid 1968. Additionally, the separation of social service and income maintenance functions took place in late 1970.

As already briefly discussed, simplified eligibility was instituted in October 1970 and remained in effect for 12 months.

Following its abandonment in late 1971, a one time recertification of the entire caseload (the Mass Review) was conducted. Its objective was to identify and remove from the active caseload those recipients that were not in fact eligible for AFDC and that may have "slipped" on to the rolls during the simplified eligibility experiment. Beginning in mid 1970 food stamps were phased in across the state. By the spring of 1972 the program was fully operative in most counties.

The period from 1972 to 1979 represented one in which quality control and corrective action was gaining greater visibility both nationwide and within the state. The Florida Department of Health and Rehabilitative Services (HRS), as with other welfare administrations involved in this study, has actively worked toward the reduction of error rates since that time. Many corrective actions have been undertaken by the Department's Program Office. The major ones are reviewed below.

Florida

Corrective Action Efforts

Region (District) Corrective Action Committees

It should be clear by now that one of the mechanisms used to transmit to agency staff the seriousness of the federal sanctions has been the creation of formal panels and committees for the sole purpose of dealing with quality control/corrective action issues. By creating such a committee, most welfare administrations feel that they can effectively give visibility to a conscientious program of error reduction. Florida has been no exception to this general rule. As well as establishing a statewide Corrective Action Committee, the Department set up regional (district) corrective action committees to operate at the local level. These committees have been effective ostensibly because they allow individual districts to focus on problem areas specific to their jurisdictions.

Additional Verification/Documentation of Eligibility Factors

One of the major policies implemented by the corrective action committees was to increase the verification and documentation of client statements, specifically with regard to income, shelter costs, and household composition. With the elimination of simplified eligibility at the end of 1971, the Department returned to a policy requiring verification of all factors affecting eligibility.

Moreover, as noted above, a complete review of the existing caseload was undertaken in early 1972 in order to locate and subsequently terminate the ineligible cases that had been accepted onto the AFDC rolls during the period of simplified eligibility. Following this "Mass Review," the Department released a new assistance payments manual which emphasized the requirements of complete verification and documentation of income and other eligibility factors. During the summer of 1972, following the introduction of the new manual, the assistance payments staff traveled throughout the state to provide training on interviewing techniques and other procedures enunciated in the manual. In January 1973, the Department fully implemented these new policies and procedures in an attempt to provide an effective system of caseload control.

In addition to requiring eligibility workers and case workers to assume more responsibility with regard to the verification of factors affecting recipient eligibility, the Department also placed greater emphasis on client education. In early 1974 a statement of client's rights and responsibilities was prepared and released to all active cases with the objective of creating a greater awareness and understanding of the program on the part of the client. Moreover, in 1977 the Department began mailing notices with benefit checks on a quarterly basis to emphasize recipient responsibilities. These notices advise recipients to notify their payments worker if changes in income, address, family composition, or work expenses occur.

Wage Clearance System

In order to provide for a complete verification of income, a wage clearance system was established in 1974 which entailed a computer match of State Labor Department tapes with AFDC payroll tapes. The purpose of this system was to detect unreported and under-reported income of recipients so as to minimize the fraudulent receipt of aid. The Department maintains that this has been an effective program because it has increased the number of potentially fraudulent cases that are referred for investigation and possible prosecution.

Staff Development and Training

The Florida Department of Health and Rehabilitative Services, similar to the welfare administrations in all other jurisdictions in the study, places significant emphasis on staff development and training. The training is used in part to ensure that new policies and procedures are applied correctly and consistently. Moreover, specific problem areas in eligibility determination, the application of time standards, civil rights issues, fraud, and the handling of income and expense information are dealt with in specialized training sessions when deemed necessary.

Income Averaging Policy

In 1977 a policy of income averaging for cases with irregular earnings was adopted. The Department found that in some instances, a recipient would have very large earnings in one month, use all of the income in that month, and then be eligible for AFDC in the following month. With the new policy the Department averaged the income of the recipient over a three month period to obtain an average monthly income which was used in determining eligibility and for calculating the size of the grant. This precluded recipients with extraordinarily large incomes in one month from receiving aid in the months that immediately followed.

Simplified Budgeting Procedures

In an effort to reduce error in budget calculations the Department also implemented a consolidated needs standard in early 1975. Prior to consolidated needs, the items included in the budgeting standards were food, clothing, incidentals, household expenses, and shelter. Allowances were based on the number of recipients in the assistance unit. If recipients found that they had special needs in certain months they could apply for a special needs allowance and the payment worker would decide if the request was legitimate and deserving of additional aid. With the adoption of the consolidated needs standard, all budgetary items were included in one flat grant, and special needs were no longer recognized. Clearly, the change to this policy had as its objective a simplification of budget calculations so as to reduce payment errors.

In addition to the consolidated standards, the Department adopted standards with respect to work-related expenses. Rather than documenting actual expenses, recipients were allowed to use a set standard in deducting work-related expenses from income. Again, the purpose of the standard was to simplify the budgeting process and therefore reduce recorded payment errors.

As such it should be clear that Florida relied heavily on new verification requirements, simplification of regulations, and staff development to insure quality control standards. Unlike other jurisdictions, Florida did not rely on special recertification procedures with the exception of the one-time mass review. The Department's goal was apparently to minimize fraud and error by a systematic application of administrative policies designed to improve staff capability and reduce the chance of error by minimizing administrative complexity. These programs, as the regression analysis indicates, were apparently effective in enhancing quality control and limiting caseload and expenditure growth.

In the following section, the Florida specific institutional variables are presented. They reflect our best attempts to proxy the many activities undertaken in the state, and the ones used in our regression equations to evaluate the impact of corrective actions.

Florida

Area-Specific Administrative and Institutional Variables

AIDES	Staff Aides Dummy - Has value of 1.0 from 4/72 to 3/74 to account for period when Department used additional trainees as eligibility workers.
STAFF	Staff Reallocation Dummy - Has value of .70 in 10/72, .80 in 11/72 and 1.0 in 12/72 to account for period of departmental staff reallocation.
SIMPLE	Simplified Eligibility Dummy - Has value of 1.0 from 10/70 to 9/71 to account for use of simpified method of eligibility determination during this period.
SIMPHA	Simplified Eligibility Dummy with Phase-in - Has value of .25 in 7/70, .50 in 8/70, .75 in 9/70, 1.0 from 10/70 to 9/71, .75 in 10/71, .50 in 11/71, and .25 in 12/71 to account for the use of simplified method of eligibility determination during this period.
SEPSVC	Separation of Services Dummy - Has value of 1.0 from 10/70 to 12/70 to account for initial period of separation of services.
SEPSV1	Modified Separation of Services Dummy - Has value of 1.0 in 10/70 to account for initial impact of separation of services.
IBM	IBM Dummy - Has value of .70 in 12/70 and 1.0 in 1/71 to account for conversion from IBM cards to the Basic Welfare Document.
APRSYS	APR System Dummy - Has value of 1.0 in 6/74 to account for implementation of live Assistance Payments Record.

FOSTER	Foster Care Dummy - Has value of 1.0 from 7/74 to 12/79, to account for Foster Care cases being reflected in applications data.
TIMTRD	Time Trend Dummy - Has value of 1.0 in 5/72 and increases linearly to value of 26 in 6/74.
MEDSTR	Medicaid Startup Dummy - Has value of .75 in 12/69, 1.0 in 1/70 to capture initial impact of medicaid program.
TMSTD1	Time Standard Phase-in Dummy - Has value of .50 in 2/73 and 1.0 in 3/73 to 4/73 to account for phase-in of time standard policy which required cases to be processed within 45 days of the intake of the application.
ADAIX	Americans for Democratic Action Index - Specially constructed annually interpolated ADA congressional voting index, based on the voting record of Florida's congressional delegation on key economic and welfare related issues.

Corrective Action Variables

CONND	Consolidated Need Standard - Has value of 1.0 from 1/75 to 12/79 to account for existence of consolidated need standard (flat grant system).
CONND1	Consolidated Need Impact Dummy - Has value of 1.0 in 1/75 to account for initial impact of consolidated need standard.
CONPHA	Consolidatd Need Phase-in Dummy - Has value of .50 in 11/74, and 1.0 in 12/74 to capture phase-in of consolidated need standard.
REVIEW	Mass Review Dummy - Has value of 1.0 from 1/72 through 3/72 to account for period of intensive caseload review.

MRIMP	Mass Review Impact Dummy - Has value of 1.0 in 11/71 to account for impact of Mass Review on processing rate.
REVMON	Mass Review Modified Dummy - Has value of .40 in 10/71, .60 in 11/71, .70 in 12/71, 1.0 in 1/72, .50 in 2/72 and 3/72, and .25 in 4/72 to account for impact of Mass Review and elimination of simplified eligibility on rejection rate.
REVEND	Mass Review Modified Dummy - Has value of 1.0 in 1/72, .50 in 2/72 and .25 in 3/72 to account for direct impact of Mass Review on closings.
ADDVER	Additional Verification Dummy - Has value of .20 in 2/73, .40 in 3/73, .60 in 4/73, and 1.0 from 5/73 to 12/79 to account for period of additional verification/documentation of factors affecting eligibility.
FRAUD	Fraud Unit Dummy - Has value of 1.0 from 12/74 to 12/79 to account for existence of Overpayment and Fraud Recoupment Units.
WAGE	Wage Clearance System - Has value of 1.0 in 10/74 to account for implementation of computer match-up between State Departments of Labor and Welfare.
INCAVG	Income Averaging Policy Dummy - Has value of 1.0 from 10/77 to 12/79 to account for administrative policy which averaged the applicant's income over a three month period rather than monthly.
MLOUTS	Mailout Dummy - Has value of 1.0 in 11/77, 1/78, 4/78, 7/78, 10/78, 1/79, 4/79, 7/79, 10/79 to account for quarterly mailouts sent with AFDC checks to remind clients to report any change in their circumstances.

Fitted Dummy Variables

69D1	1969 Fitted Dummy - Has value of .50 in 2/69, .75 in 3/69, 1.0 in 4/69 and .70 in 5/69 to account for period of constructed data.

68/69D — 1968/69 Fitted Dummy (1) - Has value of .10 in 9/68, .50 from 10/68 to 1/69, .85 in 2/69, .90 in 3/69, 1.0 in 4/69, .50 in 5/69 and .15 in 6/69 to account for period of constructed data.

68/692 — 1968/69 Fitted Dummy (2) - Has values of .40 in 1/68, .50 in 2/68, .60 in 3/68, .50 in 4/68, .75 in 5/68, .50 in 6/68, 1.0 in 7/68, .40 in 8/68, 1.0 in 9/68 and 10/68, .25 in 11/68, .75 in 12/68, .95 in 1/69, .90 in 2/69, .75 in 3/69, .40 in 4/69, .10 in 5/69 and 6/69 to account for period of constructed data.

Florida

Regression Results

Before delving into the final regression results for the Florida AFDC Dynamics Model, it is necessary to echo a phrase commonly heard in the field of statistics: "a model is only as good as the data that go into it." Initially the Florida AFDC data appeared to be of high quality. After careful first-hand examination, however, we found that large gaps existed in the component time series. A full 18 months of data was missing as a result of a physical relocation of the Florida Department of Health and Rehabilitative Services. However, six month totals for each component were readily available. Through straightforward mathematical techniques, we were able to construct monthly estimates for each component which were subsequently used in estimating a complete four equation system.[*]

In addition, there was very little variance in several of the components, which posed a problem with respect to regression estimation. Obviously, it is impossible to uncover significant correlations between dependent and independent variables if the dependent variable in question has little or no variance. Therefore, we urge caution in interpretting the Florida results. We are very skeptical of the simulated estimates produced.

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[*] See the Appendix to this chapter for a detailed explanation of the techniques used in creating these monthly component estimates. In addition, see the Appendix to this report for the short period regressions used in preparing the Pre-QC/CA simulations.

Applications Recieved

The "best" regression for the applications received component of the Florida AFDC model appears in Table 11.1. The OLS version indicates that 92 percent of the variance was explained with a standard error of about 14 percent of the mean value of the dependent variable. Five variables representing the three theories of caseload behavior appear in the regression.

An interaction term between the benefit/wage ratio and a "30 + 1/3" variable is the first term in the equation. The coefficient indicates a very modest impact on the number of applications received — a 10 percent boost in the ratio after July 1968 would have induced an average of 53 additional applications per month.

The employment opportunity theory is represented by two variables in the regression: the seasonally unadjusted unemployment rate and the change in service sector employment. Both terms are highly significant and powerful. The coefficient on URATE suggests that, on average during the period under study, a one percentage point jump in the aggregate unemployment rate was responsible for almost 350 new applications per month. Additionally, a reduction of 1,000 jobs in the tourist industry related service sector (defined as employment in eating and drinking establishments and hotels and motels) increased the number of applications by an average of 33 per month. The empirical evidence strongly suggests that both the overall economic environment and the number of job openings in low skill, high turnover sectors are major determinants of the demand for welfare in the State of Florida.

Table 11.1

Florida AFDC-Basic: Final Applications Received Equation (1st Stage)

```
EQN NO.  1   167 OBSERVATIONS (  26-> 192)
DEP VAR(   7): APPREC
INDEPENDENT VAR(S):    6
V(S) IN XPX= 84   M= 84
DETERMINANT=        0.3695026E-03
```

INDEP.VAR.		REGR.COEFF.	STD.ERR.	T-RATIO	MEAN
(7)					0.579523E+01
(1)	CONS	-0.297575E+01	0.229696E+00	0.129551E+02	0.100000E+01
(53)	BZ*30	0.894919E+00	0.360247E+00	0.248418E+01	0.589984E+00
(66)	SIMPLE	0.770975E+00	0.249955E+00	0.308446E+01	0.718563E-01
(25)	DSREMP	-0.339660E-01	0.103653E-01	0.327691E+01	0.112036E+01
(43)	FHF	0.402050E-01	0.243455E-02	0.165143E+02	0.156076E+03
(15)	URATE	0.341638E+00	0.391391E-01	0.872882E+01	0.570958E+01

```
RSQBAR=    0.9182 RSQ=    0.9206    SEE= 0.7983193E+00 SEEBAR= 0.8130588E+00

TSS= 0.1341289E+04    RSS= 0.1064314E+03      FSTAT(  5, 161)= 0.3735964E+03

MBAR=  -0.7357         DW STAT:  1.8263         RHO:  0.08820254
```

Rho-corrected

```
EQN NO.  1   166 OBSERVATIONS (  27-> 192)
DEP VAR( 91): APPREC
INDEPENDENT VAR(S):    6
V(S) IN XPX= 91   M= 84
DETERMINANT=       0.3734840E-03
RHO=      0.8820254E-01
Y( 192)=        0.8969998E+02
```

INDEP.VAR.		REGR.COEFF.	STD.ERR.	T-RATIO	MEAN
(91)					0.530903E+01
(85)	CONS	-0.298148E+01	0.252664E+00	0.118002E+02	0.911797E+00
(86)	BZ*30	0.900447E+00	0.396099E+00	0.227329E+01	0.541684E+00
(87)	SIMPLE	0.787486E+00	0.271346E+00	0.290214E+01	0.659130E-01
(88)	DSREMP	-0.332356E-01	0.108943E-01	0.305073E+01	0.998884E+00
(89)	FHF	0.401276E-01	0.265236E-02	0.151290E+02	0.142756E+03
(90)	URATE	0.343552E+00	0.423949E-01	0.810361E+01	0.521782E+01

```
RSQBAR=    0.9027 RSQ=    0.9056    SEE= 0.7979201E+00 SEEBAR= 0.8127434E+00

TSS= 0.1120101E+04    RSS= 0.1056883E+03      FSTAT(  5, 160)= 0.3071411E+03

MBAR=  -0.7184         DW STAT:  2.0176         RHO: -0.00753424
```

Finally, the institutional hypothesis is represented by one administrative variable (SIMPLE) and one demographic variable (FHF). During the twelve month period when the welfare department was using a simplified method of eligibility verification, the number of applications received increased by an average of nearly 800 per month. Clearly, with less "hassle" involved in the application process, more potential recipients were encouraged to apply. The number of female headed families statewide has also been an extremely significant factor in determining the level of applications. There were no corrective action policies that affected the number of applications.

Processing Rate

The processing rate equation is found in Table 11.2. The first stage regression explains about 60 percent of the variance.

The key variables in the equation are institutional (administrative) in nature. During a two year period when the Department used additional trainees as elibigility workers (AIDES) the processing rate increased by an average of nearly four percentage points. It is believed that the use of additional trainees resulted in a more effective distribution of the overall workload handled by the Department, leading to the expedited processing of cases. Moreover, a new staff allocation (STAFF) involving increased hiring, additional training, and the reassignment of work tasks was undertaken in August 1972. The result of this program was to raise the rate at which applications were processed by an extremely significant amount, at least for the first several months following its implementation.

Table 11.2

Florida AFDC-Basic: Final Processing Rate Equation (1st Stage)

EQN NO. 2 167 OBSERVATIONS (26-> 192)
DEP VAR(49): PROC
INDEPENDENT VAR(S): 14
V(S) IN XPX= 84 M= 84
DETERMINANT= 0.1415698E-02

	INDEP.VAR.	REGR.COEFF.	STD.ERR.	T-RATIO	MEAN
(49)					0.589854E+00
(1)	CONS	0.464766E+00	0.138821E-01	0.334795E+02	0.100000E+01
(62)	SREMP	0.771984E-03	0.982201E-04	0.785973E+01	0.203220E+03
(70)	AIDES	0.353645E-01	0.976578E-02	0.362126E+01	0.143713E+00
(68)	STAFF	0.148241E+00	0.268969E-01	0.551146E+01	0.149701E-01
(65)	SIMPHA	0.264131E-01	0.117363E-01	0.225056E+01	0.898203E-01
(56)	SEPSV1	0.218610E+00	0.377921E-01	0.578455E+01	0.598802E-02
(71)	MRIMP	-0.108731E+00	0.367856E-01	0.295579E+01	0.598802E-02
(72)	69D1	0.122871E+00	0.258792E-01	0.474786E+01	0.176647E-01
(73)	68/69D	0.112826E+00	0.206692E-01	0.545866E+01	0.329940E-01
(74)	MEDSTR	-0.816015E-01	0.296953E-01	0.274796E+01	0.104790E-01
(75)	CONPHA	-0.174576E+00	0.329478E-01	0.529856E+01	0.898203E-02
(53)	BZ*30	-0.784273E-01	0.185782E-01	0.422146E+01	0.589984E+00
(76)	APRSYS	-0.795231E-01	0.365943E-01	0.217310E+01	0.598802E-02
(77)	TMSTD1	0.768854E-01	0.260857E-01	0.294742E+01	0.149701E-01

RSQBAR= 0.6079 RSQ= 0.6386 SEE= 0.3479310E-01 SEEBAR= 0.3635011E-01

TSS= 0.5593368E+00 RSS= 0.2021635E+00 FSTAT(13, 153)= 0.2079344E+02

MBAR= 0.0033 DW STAT: 1.2544 RHO: 0.38249884

Rho-corrected

EQN NO. 2 166 OBSERVATIONS (27-> 192)
DEP VAR(99): PROC
INDEPENDENT VAR(S): 14
V(S) IN XPX= 99 M= 84
DETERMINANT= 0.2211726E-02
RHO= 0.3824988E+00
Y(192)= 0.8969998E+02

	INDEP.VAR.	REGR.COEFF.	STD.ERR.	T-RATIO	MEAN
(99)					0.363472E+00
(85)	CONS	0.452289E+00	0.185328E-01	0.244048E+02	0.617501E+00
(86)	SREMP	0.803340E-03	0.127075E-03	0.632180E+01	0.126149E+03
(87)	AIDES	0.376589E-01	0.122645E-01	0.307057E+01	0.892773E-01
(88)	STAFF	0.145230E+00	0.279341E-01	0.519904E+01	0.929971E-02
(89)	SIMPHA	0.335358E-01	0.157456E-01	0.212985E+01	0.557983E-01
(90)	SEPSV1	0.180318E+00	0.302767E-01	0.595567E+01	0.371989E-02
(91)	MRIMP	-0.953475E-01	0.298205E-01	0.319738E+01	0.371989E-02
(92)	69D1	0.129645E+00	0.301139E-01	0.430517E+01	0.109737E-01
(93)	68/69D	0.124342E+00	0.261093E-01	0.476234E+01	0.204966E-01
(94)	MEDSTR	-0.723524E-01	0.290666E-01	0.248919E+01	0.650980E-02
(95)	CONPHA	-0.172192E+00	0.311735E-01	0.552368E+01	0.557983E-02
(96)	BZ*30	-0.726143E-01	0.240915E-01	0.301410E+01	0.368668E+00
(97)	APRSYS	-0.952571E-01	0.297655E-01	0.320025E+01	0.371989E-02
(98)	TMSTD1	0.568010E-01	0.276046E-01	0.205766E+01	0.929971E-02

RSQBAR= 0.5573 RSQ= 0.5922 SEE= 0.3043827E-01 SEEBAR= 0.3180916E-01

TSS= 0.3771123E+00 RSS= 0.1537971E+00 FSTAT(13, 152)= 0.1697736E+02

MBAR= 0.0199 DW STAT: 2.2469 RHO: -0.11721898

Nearly 2,900 additional applications were disposed of between October and December 1972 because of this staff reallocation.

Simplified eligibility (SIMPLE) also put upward pressure on the processing rate. The impact of the limited verification policies was to increase the processing rate by an average of 3.3 percentage points while it was fully in effect. SIMPLE had a smaller but still significant impact during the three month period that it was phased in, and during the three month period surrounding its discontinuance. However, the factor that had the greatest impact on the number of cases disposed was separation of services (SEPSV1). In the initial period of its implementation, separation boosted the processing rate by over 18 percentage points, implying that almost 1,700 additional applications were disposed of due to this new requirement. Three of the remaining non-corrective action terms in the equation are variables that proxy for the start-up of new administrative programs and systems. The start-up of the Medicaid program in late 1969 and early 1970 (MDSTRT) decreased the rate at which cases were processed by about seven points, probably because workers were required to learn the new procedures and forms required of the new program.

A change in record keeping systems (APRSYS) also influenced the volume of applications disposed. The Department converted from the utilization of the Basic Welfare Document (BWD) to the Assistance Payments Record (APR) for managerial/record keeping purposes. In June 1974 with full implementation of the APR system, the processing rate experienced a decline of nearly 10 percentage points. Again, allowing for additional training and the necessary orientation period, we should expect that the general efficiency of workers would decline during the period surrounding this type of major conversion. The equation indicates that this is precisely what occurred.

The last of the three variables (TMSTD1) proxied for increased training activity and the application of time standards in the processing of applications. Extensive in-service training was provided to all workers in January 1973 to acquaint them with new verification requirements in AFDC and to insure that the new policy was applied correctly and efficiently. Toward the end of 1972 and in early 1973 a great deal of emphasis was also placed on compliance with a 45-day time limit on pending applications. These factors were apparently responsible for boosting the rate at which applications were processed by nearly six points for a short period in the beginning of 1973.

Finally, two fitted dummy variables (69D1 and 68/69D) appear in the regression to account for brief periods in which the caseload data required extensive adjustment.

There are also a number of explicit corrective actions that affected the processing rate. Following the phase-out of simplified eligibility, the Department conducted a "Mass Review" of the entire caseload. Every case was completely reviewed in early 1972 to insure that those receiving aid were legally eligible for participation in the program. Although a variable to proxy for this recertification program would be most appropriate, at least theoretically, for the closing rate equation, we found that it affected other components of the welfare system as well. In November 1971, immediately prior to the Mass Review, (MRIMP), the processing rate dropped significantly — by almost a full 10 points. This can be attributed to one of two things happening at the time. Perhaps the discontinuance of simplified eligibility, which placed more responsibility on individual workers for increased verification (therefore increasing individual workloads) initially caused much slower processing of applications. However, it is also possible that in preparing for a complete recertification of the existing caseload, worker emphasis was diverted from the processing of new cases to the review of active cases. In any case, the impact on the processing rate was quite powerful.

In January 1975, the Department implemented a consolidated need standard in AFDC, significantly simplifying the case budgeting process. With this new system of budgeting, all items were included in a flat grant, rather than the previously used policy of individual identification — and calculation — of food, clothing, shelter costs, and the like. The phase-in of the consolidated standard (CONPHA) caused a large decline in the processing rate in late 1974, probably due to the orientation process involved with the introduction of this type of new administrative policy.

Rejection Rate

The final rejection rate equation appears in Table 11.3. The OLS version indicates that 83 percent of the variance was explained, with a standard error of 11 percent of the mean value of the rejection rate. All of the variables in the equation are institutional in nature, suggesting that acceptance/rejection policy is not

Table 11.3

Florida AFDC-Basic: Final Rejection Rate Equation (1st Stage)

```
EQN NO.  4    167 OBSERVATIONS (   26-> 192)
DEP VAR( 48): REJRT
INDEPENDENT VAR(S):    7
V(S) IN XPX= 84   M= 84
DETERMINANT=      0.2589886E+00
```

	INDEP.VAR.	REGR.COEFF.	STD.ERR.	T-RATIO	MEAN
(48)					0.395929E+00
(1)	CONS	0.322731E+00	0.640390E-02	0.503961E+02	0.100000E+01
(31)	FOSTER	0.184561E+00	0.839839E-02	0.219758E+02	0.395210E+00
(57)	REVMON	0.656748E-01	0.288674E-01	0.227505E+01	0.236527E-01
(55)	68/692	0.865563E-01	0.202562E-01	0.427308E+01	0.541916E-01
(56)	SEPSVI	-0.124756E+00	0.458718E-01	0.271967E+01	0.598802E-02
(65)	SIMPHA	-0.893552E-01	0.140937E-01	0.634009E+01	0.898203E-01
(51)	TIMTRD	0.132558E-02	0.667549E-03	0.198573E+01	0.210180E+01

```
RSQBAR=    0.8272 RSQ=    0.8334   SEE= 0.4320703E-01 SEEBAR= 0.4414206E-01

TSS= 0.1871331E+01   RSS= 0.3117635E+00     FSTAT(  6, 160)= 0.1333975E+03

MBAR=  -0.2525        DW STAT:  0.6395       RHO:  0.68320580
```

Rho-corrected

```
EQN NO.  4    166 OBSERVATIONS (   27-> 192)
DEP VAR( 92): REJRT
INDEPENDENT VAR(S):    7
V(S) IN XPX= 92   M= 84
DETERMINANT=      0.3227612E+00
RHO=      0.6832058E+00
Y( 192)=       0.8969998E+02
```

	INDEP.VAR.	REGR.COEFF.	STD.ERR.	T-RATIO	MEAN
(92)					0.125394E+00
(85)	CONS	0.310690E+00	0.130582E-01	0.237926E+02	0.316794E+00
(86)	FOSTER	0.197739E+00	0.177597E-01	0.111341E+02	0.130070E+00
(87)	REVMON	0.135779E+00	0.382650E-01	0.354839E+01	0.753817E-02
(88)	68/692	0.113386E+00	0.252075E-01	0.449811E+01	0.172710E-01
(89)	SEPSVI	-0.875902E-01	0.263891E-01	0.331918E+01	0.190840E-02
(90)	SIMPHA	-0.819259E-01	0.272517E-01	0.300626E+01	0.286260E-01
(91)	TIMTRD	0.116431E-02	0.115558E-02	0.100756E+01	0.669848E+00

```
RSQBAR=    0.5791 RSQ=    0.5944   SEE= 0.3077666E-01 SEEBAR= 0.3144684E-01

TSS= 0.3876506E+00   RSS= 0.1572357E+00     FSTAT(  6, 159)= 0.3883339E+02

MBAR=  -0.1407        DW STAT:  2.2192       RHO: -0.10803350
```

significantly affected by economic factors. This is also the case in most of the other models we examined.

The first variable appearing in the regression (FOSTER) accounts for a period (7/74 - 12/79) in which foster care cases were reflected in the AFDC-Direct Assistance applications data. Although adjustments were made for this, it was clear that some underlying structural change in the data occurred at this time. FOSTER is in the equation simply to account for this data base change.

In its initial period of implementation, separation of services (SEPSV1) significantly reduced the rate at which applications were rejected. A decline of nearly nine full points was experienced in October 1970, probably a result of some disorganization that should be expected to accompany periods of major program changes.

Simplified eligibility, by reducing the need for extensive verification of information provided by potential recipients, also reduced the rejection rate substantially. During the 12 month period that this administrative policy was in effect, the rate at which applications were rejected was lower than "normal" by an average of about eight percentage points.

Finally, a dummy variable (68/692) similar to that used in the processing rate appears in the equation to account for a period in which the caseload data required extensive adjustment.

Although, as we mentioned earlier, the Mass Review was conducted with the intent of locating and then closing any ineligible recipients that may have been accepted onto the AFDC rolls during the period of simplified eligibility, it also affected the rate at which applications were processed and rejected. Clearly, the more conservative approach taken by the Department toward AFDC (in terms of additional verification on intake and more thorough review of active cases) affected virtually all components of the AFDC system. The impact of this new approach to caseload control significantly affected the rejection rate during the seven month period surrounding the elimination of simplified eligibility and the undertaking of the Mass Review. The coefficient on REVMON suggests that this activity raised the rejection rate by nearly 5.5 percentage points initially, reaching an increase of 13.5 points in January 1972, and then declining to about four points higher than "normal" in April 1972.

Closing Rate

The closing rate equation for the Florida model is presented in Table 11.4. The OLS regression indicates that about 70 percent of the variance in the closing rate was explained by seven variables in addition to the constant term. Similar to the other component equations in the Florida AFDC Dynamics Model, the closing rate is largely dominated by institutional factors, with the single exception of the B/Z ratio.

The benefit/wage ratio (including the actuarial value of Medicaid in the denominator) with a "30 + 1/3" interaction appears in the regression to test the alternative income hypothesis. The coefficient indicates that a small but significant relationship exists between the B/Z ratio and the rate at which cases are closed. Specifically, a ten point increase in B/ZM*30 is associated with a decline of 1/10 of a

Table 11.4

Florida AFDC-Basic: Final Closing Rate Equation (1st Stage)

EQN NO. 3 167 OBSERVATIONS (26-> 192)
DEP VAR(83): CLORT - (SREMP * .000097)
INDEPENDENT VAR(S): 8
V(S) IN XPX= 84 M= 84
DETERMINANT= 0.4442662E-01

	INDEP.VAR.	REGR.COEFF.	STD.ERR.	T-RATIO	MEAN
(83)					0.189548E-01
(1)	CONS	0.158958E-01	0.999955E-03	0.158965E+02	0.100000E+01
(56)	SEPSV1	0.552805E-01	0.550483E-02	0.100422E+02	0.598802E-02
(64)	REVEND	0.241475E-01	0.486941E-02	0.495902E+01	0.104790E-01
(67)	ADDVER	0.181084E-01	0.121188E-02	0.149424E+02	0.466228E+00
(68)	STAFF	0.919173E-02	0.392284E-02	0.234313E+01	0.149701E-01
(69)	CONND1	-0.160523E-01	0.549180E-02	0.292297E+01	0.598802E-02
(63)	IBM	-0.109994E-01	0.454644E-02	0.241934E+01	0.101796E-01
(54)	BZM*30	-0.122769E-01	0.238720E-02	0.514278E+01	0.509849E+00

RSQBAR= 0.6918 RSQ= 0.7048 SEE= 0.5324687E-02 SEEBAR= 0.5456998E-02

TSS= 0.1603960E-01 RSS= 0.4734833E-02 FSTAT(7, 159)= 0.5423204E+02

MBAR= 0.0286 DW STAT: 1.3789 RHO: 0.31353378

Rho-corrected

EQN NO. 3 166 OBSERVATIONS (27-> 192)
DEP VAR(93): CLORT - (SREMP * .000097)
INDEPENDENT VAR(S): 8
V(S) IN XPX= 93 M= 84
DETERMINANT= 0.4776810E-01
RHO= 0.3135338E+00
Y(192)= 0.8969998E+02

	INDEP.VAR.	REGR.COEFF.	STD.ERR.	T-RATIO	MEAN
(93)					0.130644E-01
(85)	CONS	0.159695E-01	0.140056E-02	0.114023E+02	0.686466E+00
(86)	SEPSV1	0.563881E-01	0.496800E-02	0.113503E+02	0.413534E-02
(87)	REVEND	0.241252E-01	0.512400E-02	0.470828E+01	0.723684E-02
(88)	ADDVER	0.177929E-01	0.161615E-02	0.110095E+02	0.337678E+00
(89)	STAFF	0.751415E-02	0.439074E-02	0.171136E+01	0.103383E-01
(90)	CONND1	-0.134631E-01	0.496489E-02	0.271165E+01	0.413534E-02
(91)	IBM	-0.116759E-01	0.478496E-02	0.244013E+01	0.703007E-02
(92)	BZM*30	-0.120346E-01	0.323771E-02	0.371702E+01	0.353486E+00

RSQBAR= 0.6305 RSQ= 0.6462 SEE= 0.5061983E-02 SEEBAR= 0.5188552E-02

TSS= 0.1202308E-01 RSS= 0.4253529E-02 FSTAT(7, 158)= 0.4122923E+02

MBAR= 0.0306 DW STAT: 2.2160 RHO: -0.10597842 percentage point in the closing rate, suggesting that as benefits increase relative to potential labor market earnings, fewer recipients are likely to close their cases.

The remaining variables in the equation are institutional in nature. While the introduction of separation of services (SEPSV1) increased the processing rate and decreased the rejection rate, it also acted to increase the closing rate. As more applicants were "pushed" through the system and accepted onto the AFDC rolls, more active cases were actually being closed. This might suggest that the implementation of separation served as a type of review of the existing caseload, at least for the initial month of the administrative change. The coefficient suggests an enormous impact on the dependent variable; in October 1970 the closing rate was over 5.5 points higher than it would have been expected to be in the absence of this new program.

A new staff allocation (STAFF) involving increased hiring, additional training, and the reassignment of various work tasks began in August 1972. In addition to raising the rate at which applications were processed, this program had the additional effect of increasing the closing rate by over one-half of a percentage point during the last quarter of 1972. This result suggests that the new staff allocation program permitted, at least for a brief period, a more thorough review of active cases.

The Department's conversion from IBM computer cards to a more systems oriented approach utilizing the Basic Welfare Document also had a very significant impact on the rate at which cases were closed.

The coefficient on IBM indicates that the effect of the conversion in late 1970 and early 1971 was to decrease the closing rate by approximately one percentage point. This suggests that the immediate impact of this administrative change was probably to divert staff time away from the review of ongoing cases in order to allow for a period of orientation with respect to the new system.

It should be clear by now that the closing rate is one of the caseload components that is most directly affected by corrective action activity. Any program that has the termination of ineligible cases as its primary objective is likely to appear in the closing rate equation. Several such variables appear in the Florida AFDC Model.

As we mentioned earlier, the Mass Review undertaken in early 1972 had as its objective the closing of ineligible cases that had been accepted onto the AFDC rolls during the period of simplified eligibility. Therefore, the direct impact of this short term program was to increase the closing rate significantly. The coefficient of REVEND indicates that in January 1972, the first month of the Mass Review, the closing rate jumped nearly 2.5 points, with a smaller, but still significant increase in the two succeeding months. It would seem that the program was successful in locating ineligible cases that were receiving aid, and in subsequently removing those cases from the active caseload.

A second corrective action variable to appear in the regression (ADDVER) is designed to proxy for the existence of a new policy requiring the additional verification and documentation of factors affecting eligibility and size of the grant. This policy was initiated in early 1973 and continues to the present. Adherence to this more rigid verification system acted to increase the closing rate by an average of nearly 1.8 percentage points, a result consistent with the original intent of the policy. By requiring a more thorough application of verification and documentation procedures the Department was able to close more cases than it would have in the absence of this policy.

Finally, the introduction of the consolidated need standard (CONND1) in January 1975 acted to decrease the closing rate for a brief period. The coefficient indicates that the closing rate dropped by nearly one and one-half points in January, again probably due to the effect that any new program can have on a system as large and complex as AFDC.

Now that each of the regressions of the full equation system has been estimated for the Florida model, we turn to the simulation results which allow us to estimate the impact of corrective actions.

Florida

Simulation Results

As indicated by the regression results, the corrective action variables in the Florida AFDC Dynamics model were limited to three basic activities: the Mass Review, additional verification requirements, and conversion to a consolidated need standard. The Mass Review, a complete recertification of the entire caseload which took place in early 1972, had a significant impact on all but the applications received component of the caseload identity. Variants of a basic Mass Review impact variable entered the processing, rejection, and closing rate equations. A variable designed to proxy for additional verification requirements in AFDC (ADDVER) appeared as a significant and powerful factor in the closing rate. Finally, variants of a simple consolidated need impact term entered both the processing and closing rates. In the following section, we evaluate in a fully dynamic simulation model the impact of these policy variables on cases receiving assistance, cases added, cases closed, and expenditures.

Cases Receiving Assistance

Table 11.5 presents final caseload estimates which are based on the three basic simulations. In comparing the estimates based on these alternative simulations we can estimate the impact of structural change that has occurred since 1972 independent of corrective action activity. As before, "structural change" refers to a change in the

Table 11.5
Simulation Results
Florida
Cases Receiving Assistance

Simulation	at 12/74 (36 months)	at 12/76 (60 months)	at 12/79 (96 months)
Actual	76,504	80,232	89,075
Present Structure (PSS)	80,793	85,208	80,170
Pre - QC/CA Structure (Pre - QC/CA)	111,370	123,933	120,494
Present Structure - No QC/CA (PSS - No QC/CA)	109,570	124,997	122,246
QC/CA And Structural Impacts			
Due to QC/CA and Structure	-30,577	-38,725	-40,324
% PSS	(-37.8%)	(-45.5%)	(-50.3%)
Due to Structure	-1,800	+1,044	+1,752
% PSS	(-2.2%)	(+1.2%)	(+2.2%)
Due to QC/CA	-28,777	-39,789	-42,076
% PSS	(-35.6%)	(-46.7%)	(-52.5%)

underlying relationship between non-corrective action variables and the various dependent variables in the model.

The table indicates that in December 1974, the Present Structure Simulation predicted 80,793 cases receiving assistance. The actual number was 76,504. Thus, there was a difference of about 5.6 percent between the actual reported caseload and our best estimate. For December 1976, the PSS predicted a caseload of 85,208, or nearly 5,000 more cases than there actually were. By December 1979, the difference between actual and predicted had reached 9,000 cases, due to a resurgence in caseload growth during 1979. In Figure 11.1 the differential between simulations (0) and (1) indicates the difference between the actual caseload and the PSS estimate.

Thus, compared to other jurisdictions in this study, our "best" model of the Florida caseload has serious flaws. Our belief is that the exceptionally large errors in the Florida model can be traced primarily to faulty and incomplete caseload data. As a result, we feel that the Florida results must be interpreted very carefully and not too much stock can be placed in them. Without better data and a better model, we have little confidence in these results and particularly our estimates of the impact of corrective action.

Table 11.5 and Figure 11.2 show the effects of corrective action and structural change on the number of cases receiving assistance. The table suggests that by December 1974, had no change occurred in underlying structural responses to variables like the benefit/wage ratio and the unemployment rate, and no corrective actions been undertaken, there would have been about 30,577 (37.8 percent) more

Figure 11.1

Counterfactual Simulations vs. Actual: Florida

Cases Receiving Assistance

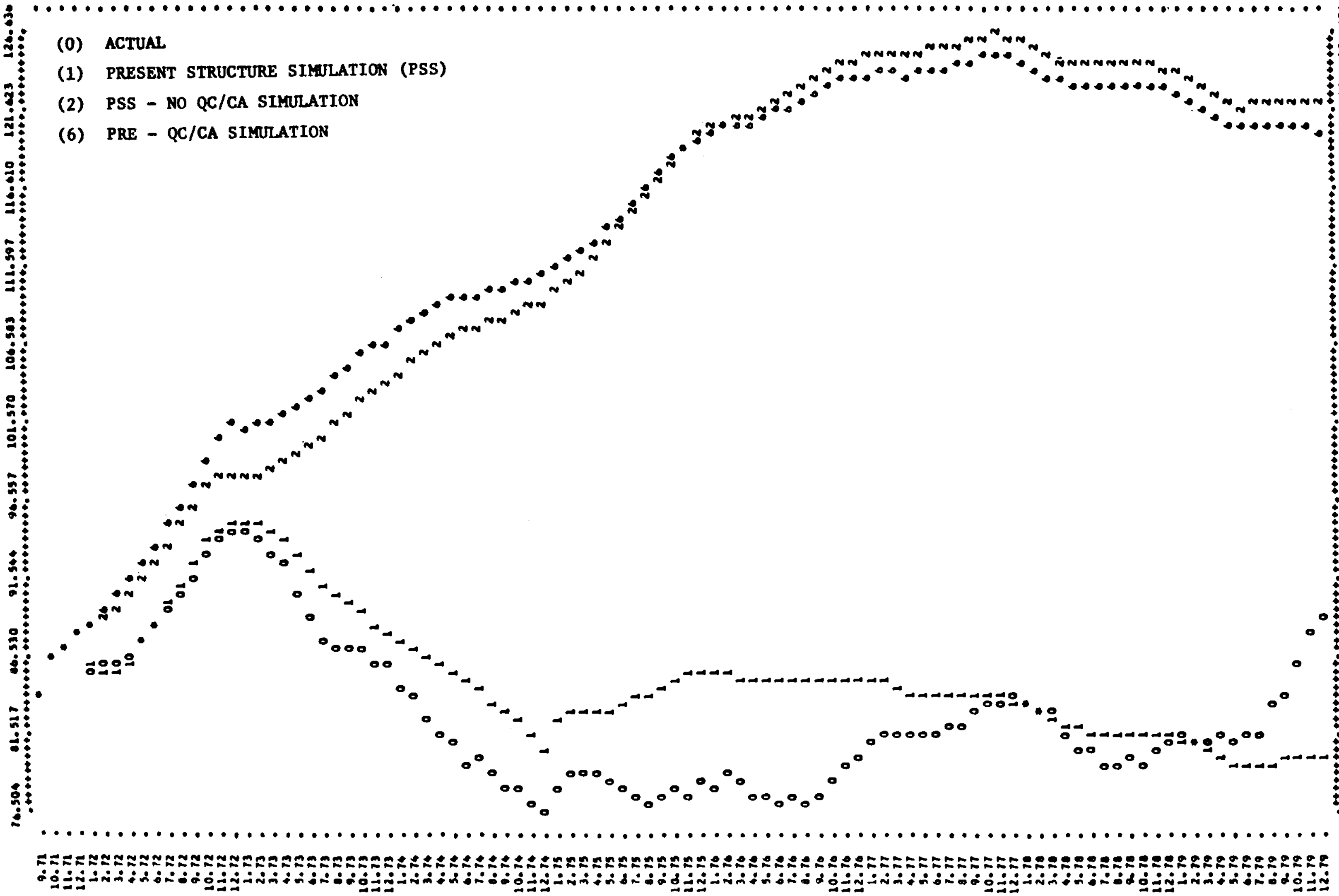
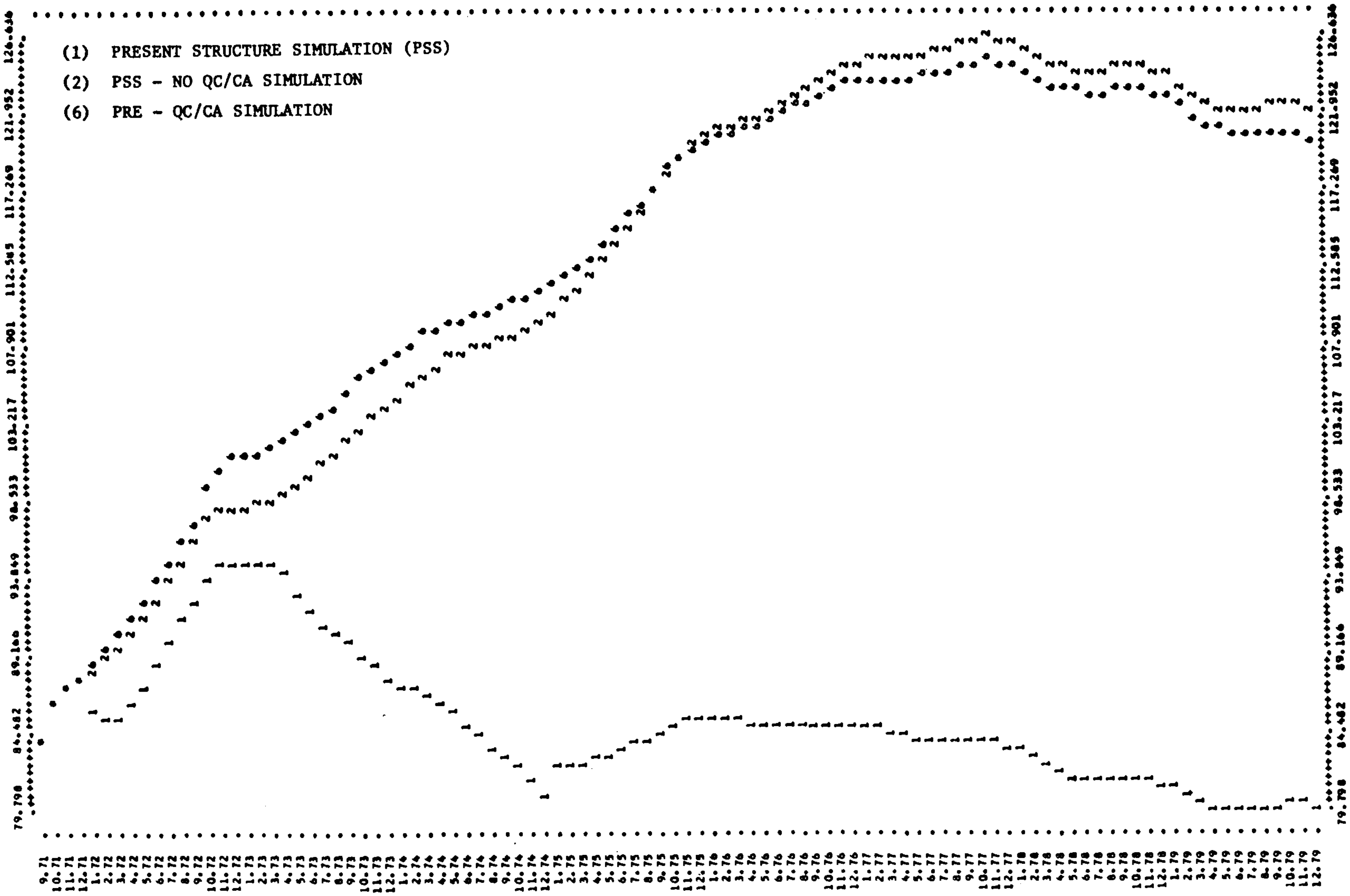


Figure 11.2

Counterfactual Simulation: Florida

Impact of All Corrective Action Variables on Cases Receiving Assistance



cases receiving assistance than the PSS predicted. Of the full difference, changes in underlying structure accounted for about 1,800 cases (see the differential between simulations (2) and (6) in Figure 11.2). Corrective actions appear to have been responsible for reducing the caseload by about 28,777 cases, or about 35.6 percent of the PSS estimate. (See the difference between simulations (1) and (2) in Figure 11.2).

By December 1976, the total difference attributable to both structural change and corrective action had grown to about 38,725 cases. However, the change in caseload caused by different structural responses (reflected by a comparison of Pre-QC/CA and PSS-No QC/CA simulations) was an increase of nearly 1,050. Corrective actions therefore reduced the caseload by almost 39,790 cases, or an incredible 46.7 percent of the PSS estimate. This impact is reflected by the difference between simulations (1) and (2) in Figure 11.2.

Finally, by the end of the entire simulation period (December 1979), had no structural change occurred, and no corrective actions been implemented, there would have been about 40,325 more cases receiving assistance than our best model predicted. Again, a comparison of the Pre-QC/CA and PSS-No QC/CA simulations indicates that structural change resulted in an increase of about 1,750 cases. Corrective actions caused a reduction in caseload of more than 50 percent of the PSS estimate, or 42,076 cases. Again we must stress our uneasiness about these results given the poor fit of the basic model.

Cases Added

Table 11.6 presents the effect of structural changes in the caseload generating function and the impact of corrective actions on the cases added component of the basic caseload identity. It indicates that over the 36 month simulation period ending in December 1974, had structural change and corrective actions not occurred, there would have been about 8,772 more cases added than the PSS estimate suggests. Of the total difference between the PSS and the Pre-QC/CA simulations, structural changes accounted for 6,836 openings. Corrective actions, on the other hand, had a much smaller impact on cases added. They were responsible for a reduction of 1,936 openings in the program, or only 1.5 percent of the PSS estimate.

Over the longer 60 month simulation period, the total difference in openings attributable to changing structural relationships and corrective actions was about 10,676 cases. Structural changes were responsible for nearly 96 percent of the difference (or 10,179 fewer openings than the Pre-QC/CA simulation predicted). Corrective actions accounted for only four percent of the total difference in cases added (or a reduction in openings of two-tenths of one percent of the PSS estimate).

Finally, by December 1979, the impact of changes in structural relationships and corrective actions on cumulative cases added was 16,209. Different structural responses to economic opportunity and alternative income variables resulted in about 15,700 fewer openings in the PSS-No QC/CA simulation relative to the Pre-QC/CA simulation. Again, corrective actions were relatively insignificant with respect

Table 11.6
Simulation Results
Florida
Cases Added

Simulation	Cumulative to 12/74 (36 months)	Cumulative to 12/76 (60 months)	Cumulative to 12/79 (96 months)
Actual	127,681	230,367	394,276
Present Structure (PSS)	128,247	233,869	394,415
Pre - QC/CA Structure (Pre - QC/CA)	137,019	244,545	410,624
Present Structure - No QC/CA (PSS - No QC/CA)	130,183	234,366	394,912
QC/CA And Stuctural Impacts			
Due to QC/CA and Structure	-8,772	-10,676	-16,209
% PSS	(-6.8%)	(-4.5%)	(-4.1%)
Due to Structure	-6,836	-10,179	-15,712
% PSS	(-5.3%)	(-4.3%)	(-4.0%)
Due to QC/CA	-1,936	-497	-497
% PSS	(-1.5%)	(-0.2%)	(-0.1%)

to their impact on the cases added component. By the end of the full simulation period they had reduced openings by only one-tenth of one percent of the PSS estimate, suggesting for all practical purposes that virtually all the impact of corrective action in Florida occurred through the closing rate.

Cases Closed

Table 11.7 presents estimates of cumulative cases closed over three time periods. As was done for the other components, the impacts of structural change and corrective actions are parceled out via comparisons of the three basic simulations.

The table indicates that over the 36 month simulation period ending in December 1974, the total difference in cumulative cases closed due to changing structural relationships and the implementation of corrective actions (PSS versus Pre-QC/CA) was 21,806. Corrective actions were responsible for boosting closings by nearly 26,850 cases (19.8 percent of the PSS estimate) but changing structural relationships offset this increase by 5,035 closings, resulting in the 21,806 case difference.

By December 1976, the total difference in closings had grown to almost 28,050 cases. Again, corrective actions were responsible for a tremendous increase in the number of closings. Over the 60 month period, they accounted for nearly 39,300 (16.6 percent of the PSS estimate), while a changing structure resulted in 11,243 fewer cases closings.

Finally, over the entire 96 month simulation period the impact of

Table 11.7

Simulation Results

Florida

Cases Closed

Simulation	Cumulative to 12/74 (36 months)	Cumulative to 12/76 (60 months)	Cumulative to 12/79 (96 months)
Actual	139,238	238,196	393,262
Present Structure (PSS)	135,515	236,721	402,305
Pre - QC/CA Structure (Pre - QC/CA)	113,709	208,672	378,191
Present Structure - No QC/CA (PSS - No QC/CA)	108,674	197,429	360,727
QC/CA And Stuctural Impacts			
Due to QC/CA and Structure	+21,806	+28,049	+24,114
% PSS	(+16.1%)	(+11.8%)	(+6.0%)
Due to Structure	-5,035	-11,243	-17,464
% PSS	(-3.7%)	(-4.8%)	(-4.3%)
Due to QC/CA	+26,841	+39,292	+41,578
% PSS	(+19.8%)	(+16.6%)	(+10.3%)

a different structural regime in combination with corrective actions was to increase closings by 24,114. While the change in structure acted to reduce potential closings, as it did over the shorter periods, corrective actions predominated. By December 1979, there were over 41,575 (10.3 percent of the PSS estimate), more closings than would have occurred had corrective actions not existed. In this model, then, corrective actions not only reduced the predicted caseload, but offset structural changes in program dynamics that would have added to the overall number of cases receiving assistance.

Expenditures

Table 11.8 and Figure 11.3 present the three basic simulations for AFDC expenditures in Florida. As we have repeatedly emphasized in the results for other jurisdictions studied, there is a crucial assumption made in estimating AFDC expenditures: each case that is affected by corrective action (through any of the components of the model) is assumed to receive the average expenditure for all cases. This is an important qualification, for we might expect that cases receiving only marginal amounts of aid are closed at a higher marginal rate. Ideally, we would have liked to use the average expenditure for all cases affected by corrective action; however, because existing data do not make this distinction, it was necessary to adhere to this assumption.

The table indicates that in the absence of both structural change and corrective action, AFDC expenditures would have been $52.2 million more by December 1974 than the PSS estimate indicates. Of the total difference, structural changes in the caseload generating function

Table 11.8

Simulation Results

Florida

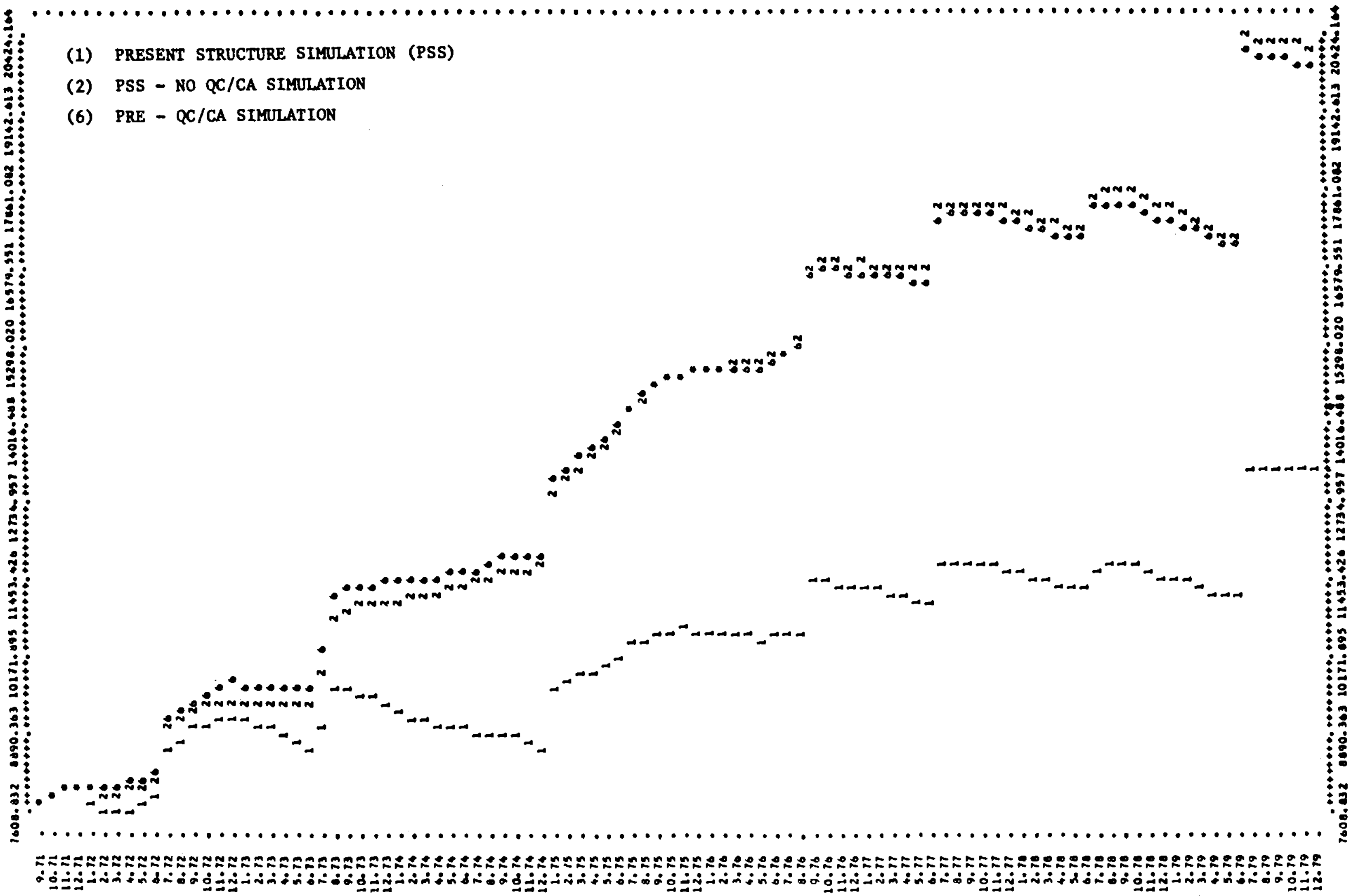
Expenditures (in thousands)

Simulation	Cumulative to 12/74 (36 months)	Cumulative to 12/76 (60 months)	Cumulative to 12/79 (96 months)
Actual	$311,271	$546,303	$972,869
Present Structure (PSS)	319,943	574,048	999,341
Pre - QC/CA Structure (Pre - QC/CA)	372,149	728,944	1,365,633
Present Structure - No QC/CA (PSS - No QC/CA)	364,173	720,965	1,364,683
QC/CA And Stuctural Impacts			
Due to QC/CA and Structure	$-52,206	$-154,896	$-366,292
% PSS	(-16.3%)	(-27.0%)	(-36.7%)
Due to Structure	-7,976	-7,979	-950
% PSS	(-2.5%)	(-1.4%)	(-0.1%)
Due to QC/CA	-44,230	-146,917	-365,342
% PSS	(-13.8%)	(-25.6%)	(+36.6%)

Figure 11.3

Counterfactual Simulation: Florida

Impact of All Corrective Action Variables on Expenditures



were responsible for nearly $8.0 million. Corrective actions, on the other hand, were responsible for a reduction of $44.2 million in potential expenditures (or 13.8 percent of the PSS estimate for the 36 month period).

By December 1976, 60 months out in the simulation period, had structural change not occurred and corrective actions not been implemented, expenditures for AFDC would have been nearly $154.9 million or 27 percent more than the PSS estimate. Of this total difference, changes in the underlying structural regime accounted for about $8.0 million. Corrective actions were much more powerful. They reduced expenditures by more than $146.9 million (or 25.6 percent of the PSS estimate) over the period.

Finally, over the entire simulation period, had no change in the underlying response to structural variables taken place and no corrective actions been undertaken, we estimate that about $366.3 million more would have been spent on AFDC. Virtually the entire difference in expenditures (36.6 percent of the PSS estimate) is attributable to corrective action. Thus, if these numbers are to be believed, corrective actions were responsible for reducing overall program benefit expenditures by over a third. For no other jurisdiction did we estimate such a large effect.

Which Corrective Actions did the Most?

As has been the case in the results presented for each jurisdiction, we can parcel out the individual impacts of the three corrective action variables in the Florida model. By doing this we can determine what has been the most significant factor in caseload reduction in the state.

Cases Receiving Assistance

Table 11.9 presents the individual impacts of the three basic corrective action variables on cases receiving assistance for three points in time. Additionally, Figures 11.4 through 11.6 graphically depict the individual impacts of those variables for the entire simulation period.

The first variables to be evaluated are those related to the Mass Review (REVIEW). Variants of the Mass Review variables affected all three of the rates in the caseload identity. The table indicates that by December 1974 this one-time mass recertification was responsible for reducing the caseload by about 1,040 relative to what it would have been had the review not occurred. By December 1976, the caseload reduction impact was only 325 cases. That is, had the review never been conducted, there would have been 325 more cases receiving assistance than the PSS indicated. Finally, the impact of the review by the end of the entire simulation period had declined to an insignificant level. Only 46 more cases would have been receiving assistance in December 1979 had the review never been undertaken.

Figure 11.4 indicates the relatively minor impact of the review on the caseload. Note the small distance between simulations (1) and (3) in the figure. It suggests that this recertification changed the caseload very little in relation to what it would have been in its absence.

Table 11.9

Individual Corrective Action Impacts

Florida

Cases Receiving Assistance

QC/CA Variable	at 12/74 (36 months)	at 12/76 (60 months)	at 12/79 (96 months)
1) Review	-1,041	-325	-46
2) ADDVER (Additional Verification)	-25,855	-39,835	-42,089
3) CONND (Consolidated Standard)	-1,347	+417	+59
Total (Excluding Interactions)	-28,243	-39,743	-42,076
Interactions	-534	-46	0
Total Impact	-28,777	-39,789	-42,076

Figure 11.4

Counterfactual Simulation: Florida

Impact of Mass Review-Related Variables on Cases Receiving Assistance

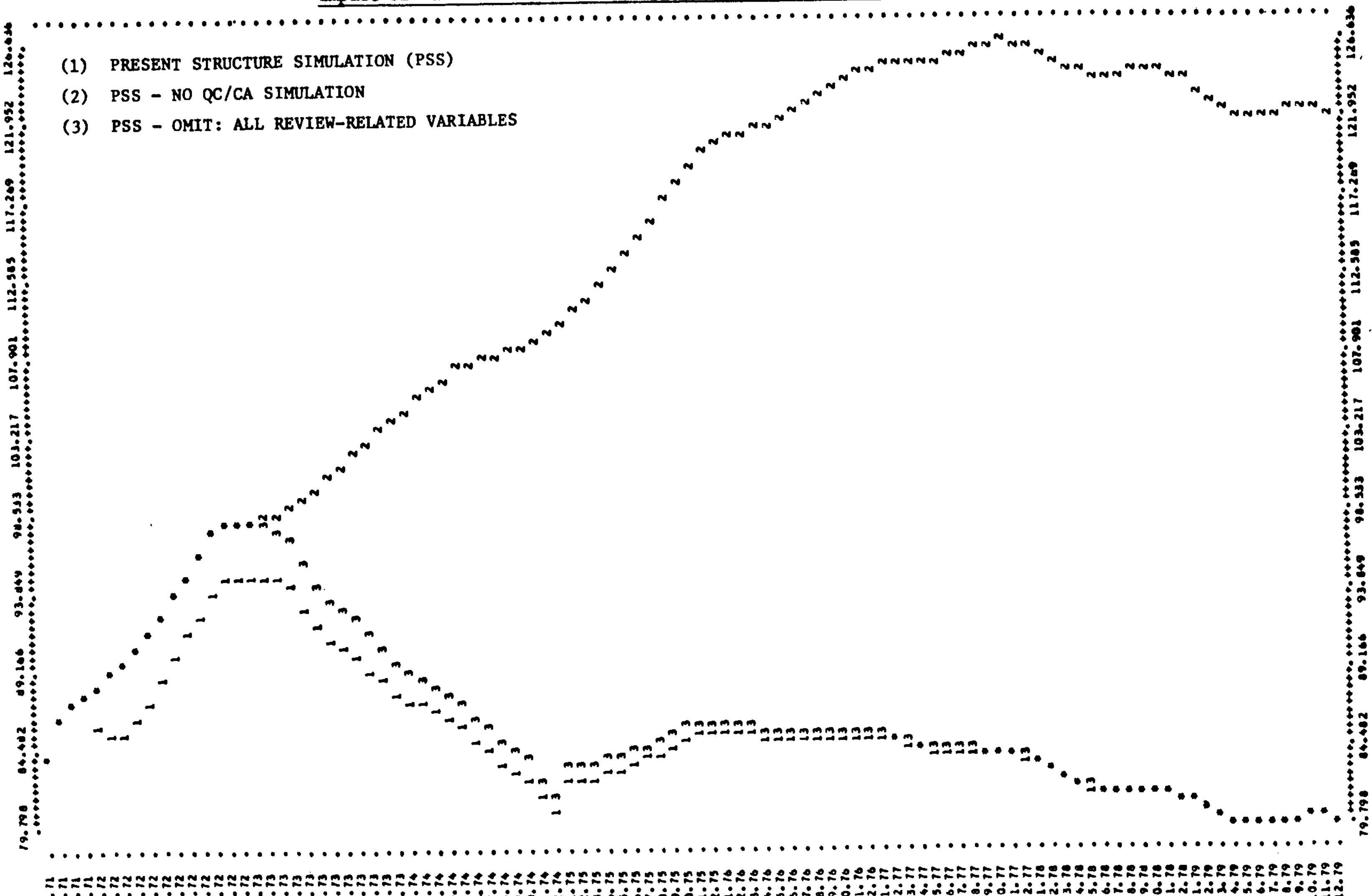


Table 11.9 also indicates the impact of additional verification requirements (ADDVER) in AFDC. By imposing strict verification / documentation policies in AFDC, the Department was able to reduce the caseload in December 1974 by about 25,850 cases relative to what it would have been had the earlier verification policies been maintained. By December 1976, 60 months out in the simulation, the caseload reduction impact was about 39,835 cases. And finally, in December 1979, had the stricter policies not been adopted, the caseload would have been almost 42,100 cases higher than our best model indicates. Figure 11.5 indicates graphically the impact of these requirements on the number of cases receiving assistance. The differential between simulations (1) and (4) represents their impact on the caseload. We see that from early 1973, when the requirements became effective, to the end of the simulation period, almost all of the caseload reduction impact of corrective acion is attributable to this one set of policies.

Finally, the impact of the consolidated standard phase-in was to reduce the caseload by nearly 1,350 by December 1974. By reducing additions through its negative impact on the processing rate, the changeover initially acted to reduce the caseload relative to what it would have been had the consolidated standard never been implemented. However, through its negative impact on the closing rate, the changeover acted to increase the caseload by about 400 by December 1976. By the end of the simulation, the impact of this policy change was negligible (see the differential between simulations (1) and (5) in Figure 11.6).

Figure 11.5

Counterfactual Simulation: Florida

Impact of Additional Verification (ADDVER) on Cases Receiving Assistance

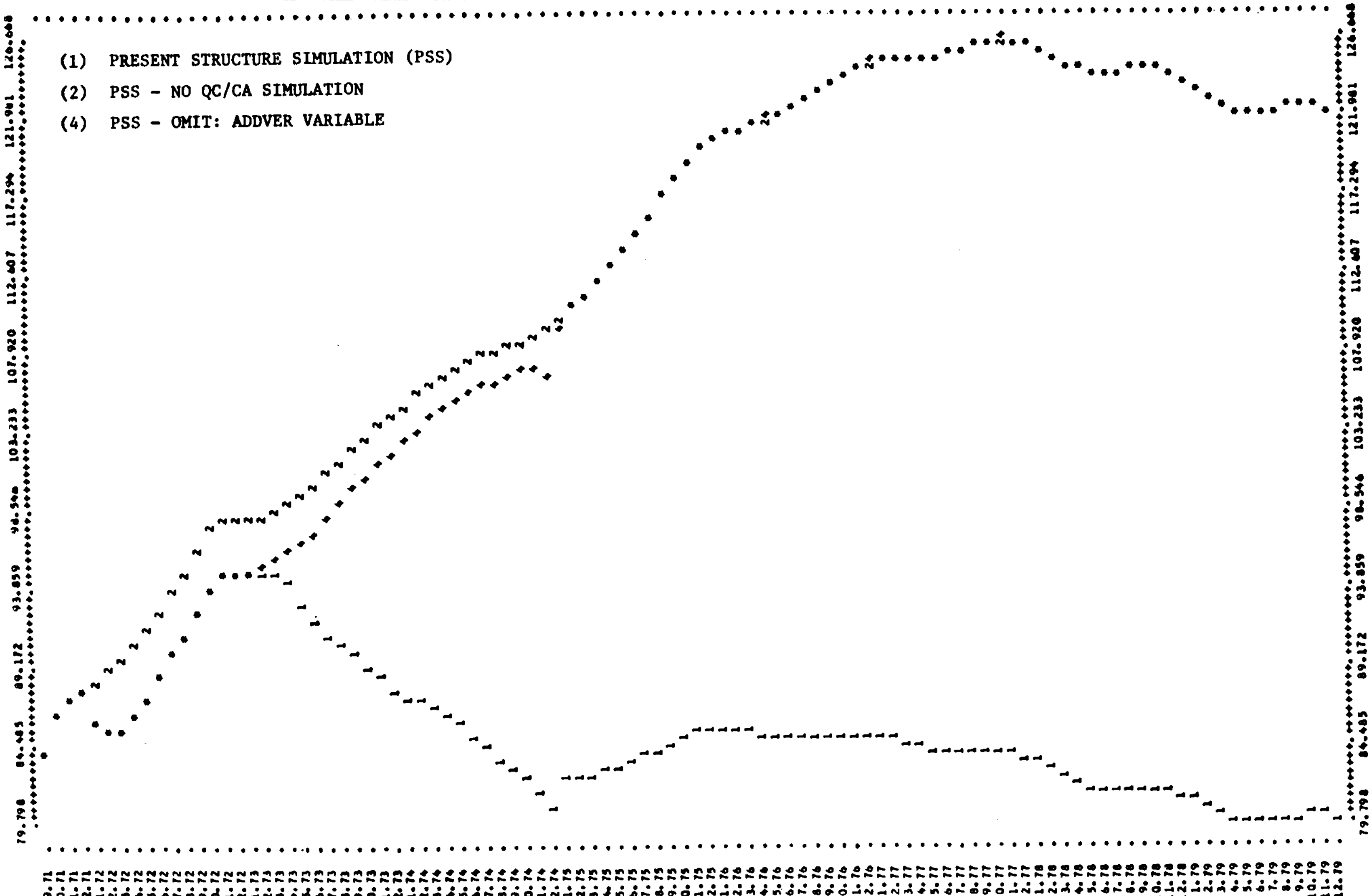
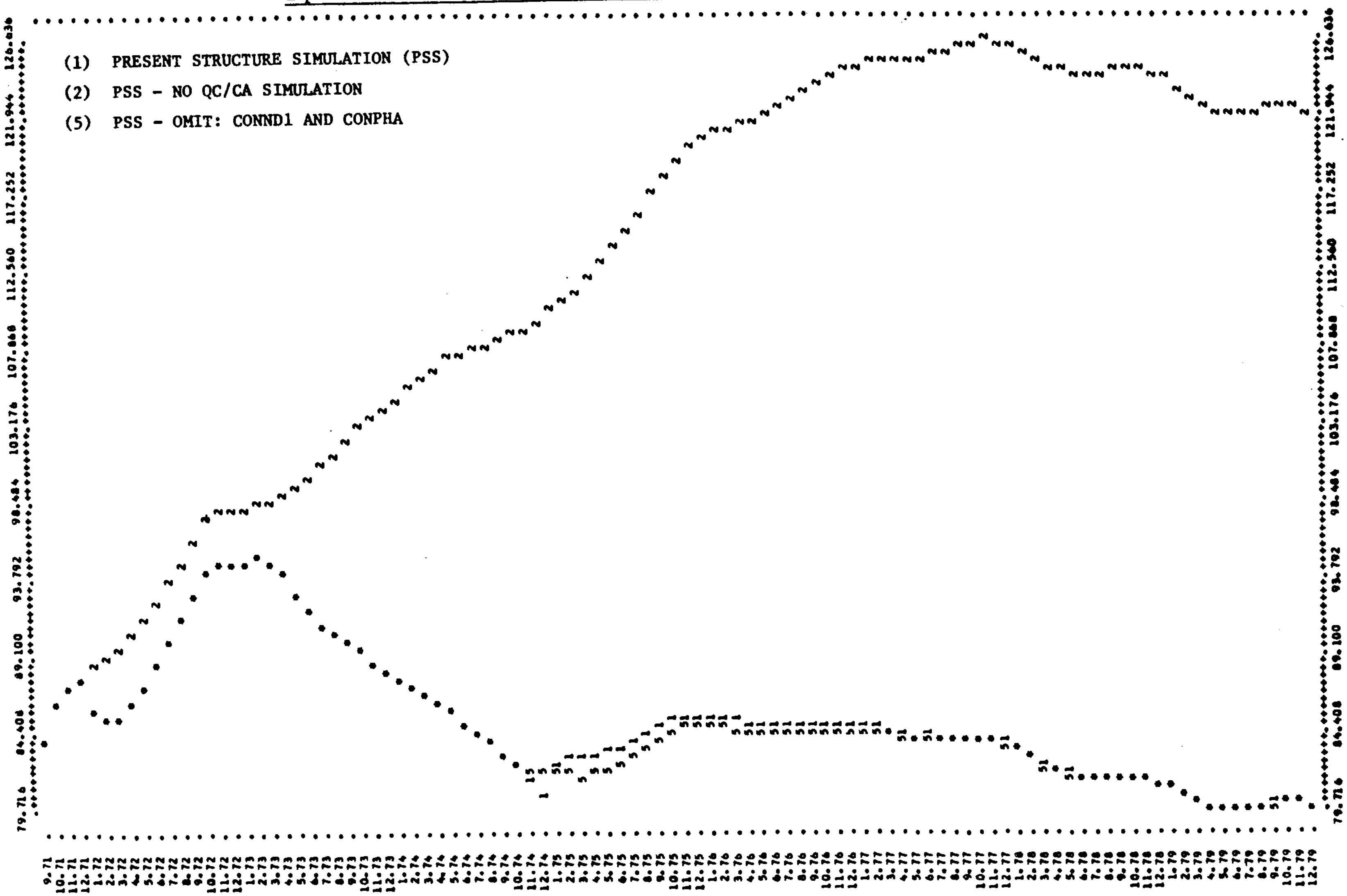


Figure 11.6

Counterfactual Simulation: Florida

Impact of Consolidated Need Implementation on Cases Receiving Assistance



Cases Added

Cases receiving assistance is disaggregated into openings and closings for the purpose of evaluating how the caseload reduction impact of each variable was achieved. Table 11.10 indicates the effects of each corrective action on the cases added component of the system. The table indicates that by increasing the rejection rate, the Mass Review reduced the number of cases added to the caseload. The cumulative impact on openings over all three time periods reported was less than 500 cases.

The additional verification requirements (ADDVER) which increased the closing rate significantly, had no impact whatsoever on cases added. This is because none of the feedback mechanisms found to be statistically significant in some of the other models, were found to be significant in the Florida model. While the closing rate was higher when ADDVER was in effect, the increased closings did not result in more applications, as far as our regression equations indicated.

Finally, through its direct and negative impact on the processing rate, the phase-in of the consolidated need standard reduced the number of openings by 1,440 by December 1974. Since fewer cases were actually disposed of in the months immediately prior to this major policy changeover, fewer disposed cases were left to be multiplied by a regression-determined rejection rate. This, of course, implies both fewer rejections and fewer acceptances. Thus, there were fewer openings in the program as a result of the consolidated standard variables. By 1976 and 1979 however, their impact had declined to

Table 11.10

Individual Corrective Action Impacts

Florida

Cases Added

QC/CA Variable	Cumulative to 12/74 (36 months)	Cumulative to 12/76 (60 months)	Cumulative to 12/79 (96 months)
1) Review	-497	-497	-497
2) ADDVER (Additional Verification)	0	0	0
3) CONND (Consolidated Standard)	-1,440	0	0
Total (Excluding Interactions)	-1,937	-497	-497
Interactions	+1	0	0
Total Impact	-1,935	-497	-497

zero.

Cases Closed

Table 11.11 presents the individual impacts of the three basic variables on cases closed. It indicates that the net impact of the Mass Review was to increase closings by less than 550 over the 36 month period ending in December 1974. We emphasize the term net impact because variants of the Mass Review entered three regression equations. The review directly increased closings via its impact on the closing rate, while it indirectly reduced closings by reducing the absolute level of the caseload (by way of its impacts on the processing and rejection rates). Recall that in a caseload components model a regression equation determined closing rate is multiplied by the caseload in the previous period plus cases added in the current period to derive closings for the current period. Mathematically:

$$CA.CLO(t) = CLO.RT * [CA.REM(t-1) + CA.ADD(t)]$$

Over the 60 month period ending in December 1976, the Mass Review's impact on the processing and rejection rates dominated the closing rate. The results indicate that because the absolute level of the caseload was lower as a result of a higher rejection rate and lower processing rate, the review actually resulted in fewer closings in the model. The same holds true for the longer simulation period ending in December 1979.

The additional verification requirements, obviously because they directly increased the rate at which cases were closed, resulted in greater closings in the program. Table 11.11 indicates that over the

Table 11.11

Individual Corrective Action Impacts

Florida

Cases Closed

QC/CA Variable	Cumulative to 12/74 (36 months)	Cumulative to 12/76 (60 months)	Cumulative to 12/79 (96 months)
1) Review	+544	-172	-450
2) ADDVER (Additional Verification)	+25,855	+39,834	+42,087
3) CONND (Consolidated Standard)	-92	-417	-58
Total (Excluding Interactions)	+26,307	+39,245	+41,579
Interactions	+534	+47	-1
Total Impact	+26,841	+39,292	+41,578

period ending in December 1974, ADDVER was responsible for 25,855 more closings than would have occurred in the absence of the requirements. By December 1976, the number of closings attributable to ADDVER had grown to about 39,840, and over the entire simulation period 42,087 more cases were closed than would have been, had the more "liberal" verification policies been allowed to continue.

Finally, by reducing both the measured closing and processing rates, the implementation of the consolidated standard reduced closings in the model. However, at no time is the impact of any significance.

Expenditures

Table 11.12 presents the individual corrective action impacts on Florida AFDC expenditures. Again, it is necessary to mention the assumption implicit in these estimates: every case affected by corrective action is assumed to receive the average expenditure for all cases. This assumption most likely overstates expenditure savings; however it was necessary to make the assumption given our methodology and the data.

The Mass Review variables are the first to appear in the table. Through their effects on the various rates of the model, especially the rejection and closing rates, these variables were responsible for reducing expenditures by December 1974 by about $8.7 million relative to what they would have been in the absence of the review. Relative to total corrective action induced savings, this constitutes about 20 percent of total savings.

Table 11.12

Individual Corrective Action Impacts

Florida

Expenditures (in thousands)

QC/CA Variable	Cumulative to 12/74 (36 months)	Cumulative to 12/76 (60 months)	Cumulative to 12/79 (96 months)
1) Review	$-8,702	$-10,503	$-11,212
2) ADDVER (Additional Verification)	-34,542	-137,301	-355,857
3) CONND (Consolidated Standard)	-200	+1,985	+2,896
Total (Excluding Interactions)	-43,444	-145,819	-364,173
Interactions	-786	-1,098	-1,169
Total Impact	$-44,230	$-146,917	$-365,342

Had the review never been undertaken, AFDC expenditures would have been about \$10.5 million more than the PSS estimate by December 1976. As a proportion of total expenditure savings over the period, however, it only accounted for approximately 7 percent. Finally, over the entire 96 month simulation period, expenditures were \$11.2 million less than they would have been had the review not occurred (3 percent of total expenditure savings for the period).

The additional verification requirements (ADDVER), because they acted directly to reduce the caseload through increased closings, were responsible for the overwhelming share of expenditure savings. The difference between two PSS simulations, one with the ADDVER variable operative and the other with it removed from the equation system, was about \$34.5 million by December 1974. Of total PSS expenditures for the 36 month period, this represents nearly 11 percent. Of total savings, however, this constitutes over 78 percent. Over the longer simulation period of January 1972 to December 1976, ADDVER was responsible for an expenditure reduction of \$137.3 million, or 93 percent of all corrective action induced savings. Finally, over the entire simulation period, additional verification requirements reduced expenditures by \$355.8 million relative to what they would have been had the requirements not been instituted.

The last corrective action activity to be evaluated consists of the consolidated standard impact variables. Beause the changeover to this new system acted to reduce the caseload through its impact on the processing rate, it was responsible for reducing expenditures. However, the savings were minor; only \$200,000 over the initial 36 month simulation period. Over the longer periods, the changeover to the consolidated standard, via its negative impact on the closing rate, actually boosted the caseload. Table 11.12 indicates that expenditures were actually $1.9 million greater by December 1976 as a result of the conversion to the new budgeting procedures. Over the entire simulation period, CONND was responsible for a modest increase of about $2.9 million in expenditures.

We therefore can conclude that the additional verification procedures were the only factors that ultimately affected the size of the caseload and the level of expenditures. But in Florida — if the model is to be believed — the procedures adopted were enormously powerful.

Appendix to Chapter 11

Transforming Semi-Annual Caseload Component Totals to a Monthly Series

For the period January 1968 through June 1969, only semi-annual totals were provided for the following Florida caseload components:

Applications Received
Applications Disposed
Applications Rejected
Applications Pending
Cases Closed
Cases Added
Cases Remaining at the end-of-month

In order to make the caseload component data for this 18-month period conform to the monthly data format required by the Florida model, these semi-annual totals were distributed to each of the 6 months in the corresponding semi-annual period according to a procedure outlined here. The methodology used in the transformation has the desirable properties that seasonal fluctuations observed in the actual data surrounding the 18-month gap are preserved in the calculated data and that semi-annual totals of the constructed data equal the given semi-annual totals. This was accomplished in four steps:

Step 1) Semi-annual caseload component functions were estimated from the surrounding actual data by regressions on 6-month intervals. These functions were used to specify the general shapes of the distributed monthly data, to estimate seasonal monthly fluctuations around these general shapes, and to determine boundary constraints for the calculated monthly data.

Step 2) For the three six-month gaps, coefficients for the corresponding semi-annual caseload functions were solved by a system of linear equations constrained so that caseload component functions were continuous and yielded semi-annual totals equal to the given semi-annual totals.

Step 3) The coefficients of the semi-annual caseload component functions from the previous step were used to calculate monthly data for the gap.

Step 4) Monthly seasonal fluctuations, estimated from the regressions of Step 1, were added to the data from Step 3 to yield the final monthly data.

This procedure was used to calculate monthly series for Applications Received, Applications Disposed, Applications Rejected, and Cases Closed. The caseload identities (see chapter 3) were then used to calculate the remaining caseload components.

This procedure is presented in detail below for one component -- Applications Received. The identical procedure was used for Applications Disposed, Applications Rejected, and Cases Closed.

Step 1. Ordinary least squares regressions were performed on actual monthly data to estimate semi-annual Applications Received (APREC) functions for 1967 I, 1967 II, 1969 II, and 1970 I. The regressions for 1967 I and 1970 I contained a constant term and a linear trend (time=t). The regressions for 1967 II and 1969 II contained a constant, time (t), and time squared (t**2). In each regression, t took on values ranging from 1 for the first month of the corresponding semi-annual period to 6 for the sixth month of the corresponding semi-annual period.

Two sets of monthly deviations were calculated from the regression residuals for use in step 4:

1) a set of six monthly deviations for the first half of a year, calculated by averaging the two residuals for each corresponding month from the 1967 I and 1970 I regressions.

2) a set of six monthly deviations for the second half of a year, calculated by averaging the two residuals for each corresponding month from the 1967 II and 1969 II regressions. The fitted values of these regressions and the regression residuals are in columns 2 and 3 of Table All.1. The estimated functions appear as a solid line in Figure All.1. The actual data is the dotted line.

Step 2. The general form for each of the three semi-annual APREC functions covering the data gap was specified as follows:

- for 1968 I $\quad APREC_t = a_1 + b_1 t$
- for 1968 II $\quad APREC_t = a_2 + b_2 t + c_2 t^2$
- for 1969 I $\quad APREC_t = a_3 + b_3 t$

In each case, t (for time) ranges from 1 for the first month in the corresponding period to 6 for the sixth month in the corresponding period.

The coefficients of these APREC functions (a_1, b_1, a_2, b_2, c_2, a_3, and b_3) were algebraically determined by imposing the following constraints, which can be divided into two categories -- boundary

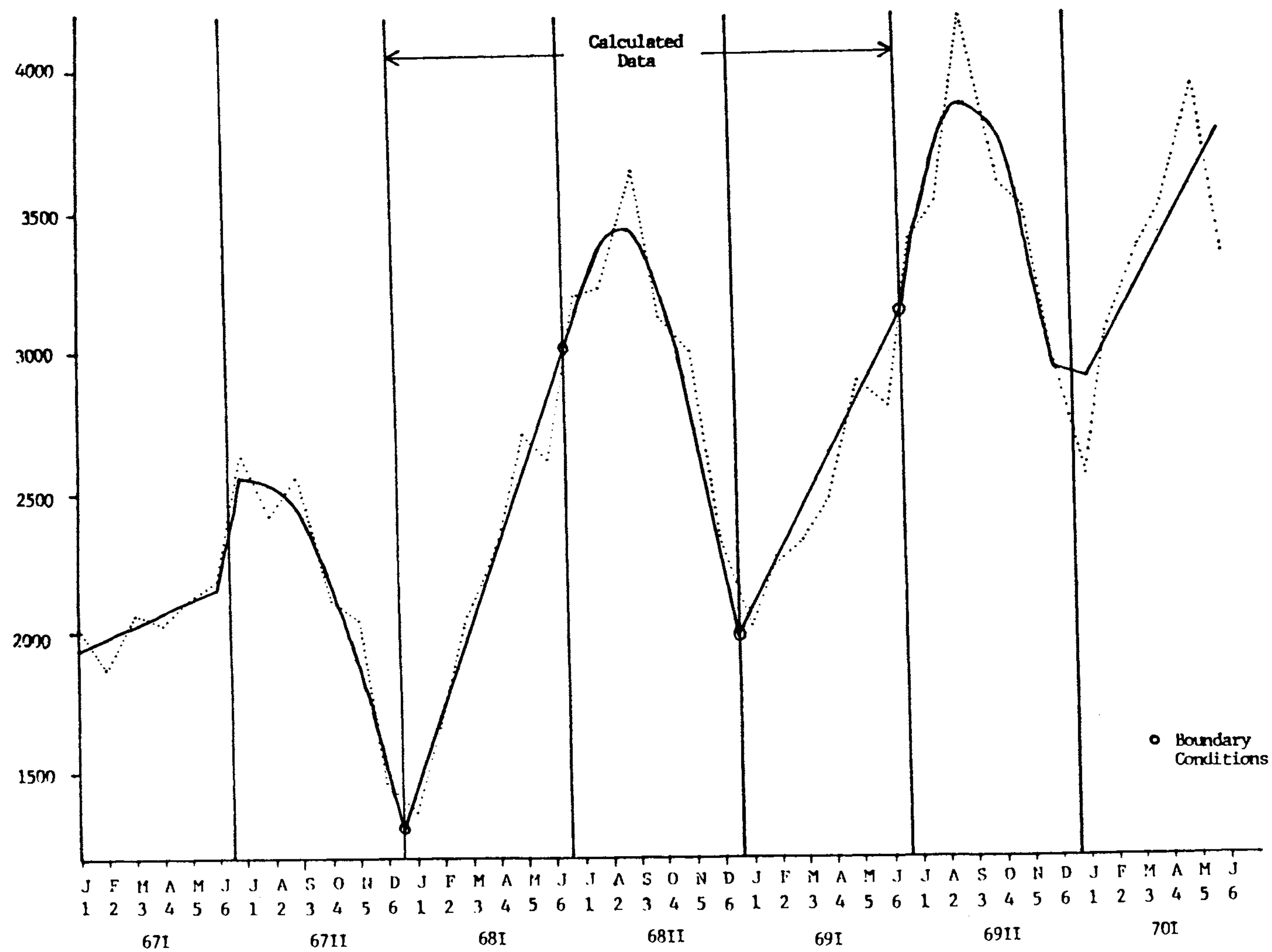
Table All.1

Actual and Calculated Applications Received Data for Florida

Date	(1) Actual	(2) Fitted (Regression) or Calculated (Algebra)	(3) Deviations	(4) Final Calculated Column (2) + Column (3)
1/67	2013	1941	72	
2/67	1886	1982	-96	
3/67	2056	2023	33	
4/67	2027	2064	-37	
5/67	2104	2106	-2	
6/67	2177	2147	30	
7/67	2616	2558	58	
8/67	2401	2538	-137	
9/67	2539	2424	115	
10/67	2108	2215	-107	
11/67	2038	1912	126	
12/67	1460	1515	-55	
1/68		1419	-72	1347
2/68		1696	-40	1656
3/68		1973	88	2061
4/68		2250	40	2290
5/68		2528	175	2703
6/68		2805	-191	2614
Total 1/68-6/68		12,671	0	12,671
7/68		3140	50	3190
8/68		3381	-165	3216
9/68		3423	213	3636
10/68		3265	-152	3113
11/68		2907	74	2981
12/68		2350	-20	2330
Total 7/68-12/68		18,466	0	18,466
1/69		2088	-72	2016
2/69		2268	-40	2228
3/69		2449	88	2537
4/69		2630	40	2670
5/69		2812	175	2987
6/69		2992	-191	2801
Total 1/69-6/69		15,239	0	15,239
7/69	3396	3353	43	
8/69	3528	3722	-194	
9/69	4176	3864	312	
10/69	3580	3778	-198	
11/69	3487	3464	23	
12/69	2937	2923	14	
1/70	2634	2851	-217	
2/70	3046	3029	17	
3/70	3351	3207	144	
4/70	3501	3384	117	
5/70	3914	3562	352	
6/70	3327	3740	-413	

FIGURE A11.1

Actual and Calculated Florida Applications Received Data



conditions and additivity constraints.[*]

Boundary conditions insure continuity in the data.

(1) $a_1 + .5b_1 = 1280$

Equation (1) states that the APREC functions for 1967 II and 1968 I must be equal at the point in time they have in common. This point in time is t = 6.5 for 1967 II and t = .5 for 1968 I. The number "1280" was determined from the coefficients of the 1967 II APREC regression equation evaluated at t = 6.5.

(2) $a_1 + 6.5b_1 = a_2 + .5b_2 + (.5)^2c_2$

Equation (2) states that the APREC functions for 1968 I and 1968 II must be equal at the point in time they have in common. This point in time is t = 6.5 for 1968 I and t = .5 for 1968 II.

(3) $a_2 + 6.5b_2 + (6.5)^2c_2 = a_3 + .5b_3$

Equation (3) states that the APREC functions for 1968 II and 1969 I must be equal at the point in time they have in common. This point in time is t = 6.5 for 1968 II and t = .5 for 1969 I.

(4) $a_3 + 6.5b_3 = 3083$

Equation (4) states that the APREC functions for 1969 I and 1969 II must be equal at the point in time they have in common. This point

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[*] Figure All.1 illustrates these conditions.

in time is t = 6.5 for 1969 I and t = .5 for 1969 II. The number "3083" was determined from the coefficients of the 1969 II APREC regression equation evaluated at t = .5.

Additivity constraints insure that semi-annual totals of monthly calculated data add up to the given semi-annual totals.

$$(5) \quad \sum_{t=1}^{6} (a_1 + b_1 t) \equiv 6a_1 + 21b_1 = 12{,}671$$

Equation (5) states that the monthly data for 1968 I must add up to the given semi-annual total for 1968 I of 12,671.

$$(6) \quad \sum_{t=1}^{6} (a_2 + b_2 t + c_2 t^2) \equiv 6a_2 + 21b_2 + 91c_2 = 18{,}466$$

Equation (6) states that the monthly data for 1968 II must add up to the given semi-annual total for 1968 II of 18,466.

$$(7) \quad \sum_{t=1}^{6} (a_3 + b_3 t) \equiv 6a_3 + 21b_3 = 15{,}239$$

Equation (7) states that the monthly data for 1969 I must add up to the given semi-annual total for 1969 I of 15,239.

Equations (1) through (7) form a system of seven linear equations in the seven unknown coefficients. These were then solved for the coefficients, a_1, b_1, ..., b_3, to yield the semi-annual APREC functions for 1968 I, 1968 II, and 1969 I. These are displayed as a solid line in Figure A11.1 for January 1968 through June 1969.

Step 3. The coefficients from the previous step were used to calculate monthly data for each of the three semi-annual gap periods. These are presented in column 2 of Table A11.1.

Step 4. The monthly deviations calculated in Step 1 were then added to the monthly data from Step 3 to yield the final monthly data series. The deviations are presented in Column 3 and the final data in Column 4 of Table All.1. Note that the additions of the monthly deviations do not change the semi-annual sums. This is because the residuals from the OLS regressions sum to zero. The final data for the calculated monthly values of APREC appear in Figure All.1 as the dotted line from January 1968 through June 1969.

Section V

Summary of Results and Conclusions

Chapter 12

Summary of Results and Conclusions

The objective of this research was to evaluate the impact of various quality control induced corrective actions on AFDC caseload and expenditure levels. To fulfill this objective, econometric analyses of corrective action policies were conducted in six AFDC jurisdictions. These jurisdictions represent a diverse set of caseload and expenditure growth patterns, as well as diverse economic, political, administrative, and social characteristics.

A Brief Review of the Methodology

The results presented in this report are based on a methodology that required a detailed knowledge of the AFDC programs in each of the jurisdictions studied. The research project thus began with interviews of AFDC administrators who have been intimately involved in quality control/corrective action activities in their AFDC programs. These interviews provided information about the characteristics and actual operation of the corrective actions implemented in each jurisdiction. During the site visits to each area, most of the data were collected for the econometric models used in this analysis.

After the site visits were completed, time series data on model variables were developed for each jurisdiction. These data included the caseload components of the system, the exogenous economic, demographic, and administrative data, and special proxy variables for all corrective actions.

After the data collection phase was completed, caseload component equations were estimated using conventional OLS regression procedures. To evaluate the equation system, and specifically, the impact of corrective actions on caseload and expenditure levels, we relied on simulation techniques. This involved reassembling the caseload and expenditure components using the estimated parameters from each component equation. Then, by omitting corrective action related variables from the equation system (i.e., running counterfactual simulations), and observing the resulting differences in caseload and expenditure levels, we were able to isolate and thus evaluate the impact of each corrective action. Moreover, by estimating regression equations over a shorter time period (ending just prior to the period of corrective action emphasis) and comparing simulation estimates based on the resulting coefficients against our full period simulation results, we were able to estimate the effect of changing structural relationships on program size and cost.

How well a caseload simulation "tracks" an actual historical caseload series is one critical indication of the overall strength of a model. Based on this test, we believe that five of the six models constructed to evaluate corrective actions performed extremely well. The Florida model, owing to the lack of high quality data and little variance in the component equations, is the one exception. Because the other five models were so accurate in tracking the actual data, it was possible to generate counterfactual simulations of corrective action impacts with a high degree of confidence.

Major Findings

The major findings of the research are summarized in Tables 12.1 and 12.2. These tables indicate the total impact of all corrective action variables (incorporated into each jurisdiction's caseload components model) on caseload and expenditure levels.

In Table 12.1 we present, in order of increasing magnitude, the percentage reduction in each jurisdiction's caseload that can be attributed solely to corrective actions. In effect, these estimates represent the caseload reduction impact of corrective actions relative to our Present Structure Simulation estimate of caseload.[*] The numbers, therefore, indicate in percentage terms how much higher the caseload level would have been had corrective actions not been undertaken.

The results reported in Table 12.1 indicate that the caseload reduction impact of corrective actions was least powerful in Alameda County. While the initial impact of corrective action proved to be quite significant, the long-run effect on the caseload level was minor. By December 1974, corrective action (namely, monthly income

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[*] This percentage is the result of the following computation:

[(PSS-No QC/CA) - (PSS)] / [(PSS)]

Table 12.1

All Jurisdictions

Percent Reduction in Cases Receiving Assistance

Due to Corrective Actions

Jurisdiction	at 12/74	at 12/76	At Final Simulation Period*
Alameda County	8.6%	3.6%	1.0%
San Diego County	10.1	8.6	7.2
Los Angeles County	8.9	6.0	15.0
Upstate New York	10.0	14.9	16.0
New York City	5.7	18.9	31.3
Florida	35.6	46.7	52.5

* The final simulation period varies by jurisdiction because of data availability: Upstate New York and New York City (12/78), San Diego County (6/79), Los Angeles County (9/79), Alameda County and Florida (12/79).

and eligibility reporting) can be credited with reducing the caseload by about 8.6 percent. At the end of the following 24 month period, however, the number of cases receiving assistance was only 3.6 percent lower than it would have been in the absence of all corrective action activity. By the end of the entire period of analysis (December 1979), the caseload in Alameda was just one percent smaller than it would have been had corrective action not existed.

The impact of corrective actions was more powerful in San Diego County. The net impact of these activities, however, also declined over time, as it did in Alameda County. As Table 12.1 suggests, the caseload impact in this jurisdiction was greatest during the initial part of the full simulation period: if no corrective actions had been undertaken in San Diego, the caseload would have been about 10 percent higher in December 1974. By December 1976, the effect of corrective action had fallen to 8.6 percent, and by June 1979, there were 7.6 percent fewer cases receiving assistance than there would have been had corrective action not existed. As in the case of Alameda, the overall caseload reduction was primarily accomplished through increased case closing activity resulting from monthly income and eligibility reporting.

The Los Angeles AFDC-FG caseload was affected more significantly by corrective action activities. This is not surprising given the zeal and persistence with which the Los Angeles welfare administration has pursued quality control and corrective action. Had no corrective actions been implemented in Los Angeles County between 1972 and 1974, the December 1974 caseload would have been almost nine percent higher than our Present Structure model indicated. As in Alameda and San Diego, the impact of corrective action declined over the following two year period; by December 1976 corrective actions were responsible for producing a caseload some six percent lower than it would have been otherwise. However, in contrast to the other two California counties, the caseload reduction impact grew significantly over the remainder of the simulation period (January 1977 - September 1979). Had no corrective actions been initiated at all, the September 1979 AFDC-FG caseload would have been 15 percent greater than the Present Structure model indicated. Of the total reduction in caseload of more than 25,000 cases, policies aimed at maintaining tighter acceptance standards were responsible for over 73 percent. The elimination of home calls and the reversion from group intakes to individual intake interviews were the two key policies in this effort.

Unlike the results for the California counties, corrective actions had a consistently greater impact on the Upstate New York AFDC-Basic caseload over time. Had no corrective actions been implemented in this jurisdiction, the December 1974 caseload would have been about 10 percent higher than our best model indicated. By December 1976, the caseload reduction impact of corrective actions had grown to nearly 15 percent, and by December 1978 corrective actions had reduced the potential caseload by 16 percent of the Present Structure estimate. Most of the caseload reduction (72 percent) was the result of tightened application procedures that were implemented in 1973, and remain operational today.

The results of our research in New York City provide perhaps the most interesting tale. Among the five acceptable models estimated, corrective actions appear to have had by far the most significant impact on the New York City caseload. The City's fiscal crisis of 1974-1975 clearly played an important role in coercing the welfare administration to reduce both the caseload and AFDC expenditures. Forced to cope with a severe fiscal crisis during the period, New York City utilized a wide range of corrective actions to remove ineligible recipients from the rolls and to preclude ineligibles and most likely some marginally eligible recipients from gaining access to AFDC.

Table 12.1 indicates that during the initial 18 month period of simulation in New York City (July 1973 to December 1974), the effect of corrective actions on caseload reduction was modest. Only 5.7 percent fewer cases were receiving assistance in December 1974 as a result of the corrective action variables appearing in the Present Structure equation system. Over the following two year period, however, a period that perfectly coincided with the City's severe fiscal difficulties, corrective actions were responsible for a much greater reduction in caseload. Had corrective actions not been undertaken in New York City during 1975 and 1976, there would have been nearly 19 percent more cases receiving aid than our best estimate of caseload indicates. Again, it appears that as a result of the City's fiscal "crunch" and its immediate need to reduce budget outlays, the welfare administration made a serious commitment to reducing expenditures via the elimination of potential caseload growth as well as the removal of active cases from the rolls.

By the end of the final simulation period in New York City, corrective actions were responsible for reducing the potential caseload by nearly one-third. In the absence of New York City's corrective action program, we estimate that there would have been over 31 percent more cases receiving assistance than the December 1978 Present Structure estimate of caseload indicates.

Finally, Table 12.1 indicates that corrective actions had the greatest impact on the caseload level in the State of Florida. Again, however, we urge the reader to recall an earlier caveat with respect to the Florida model. The data used in this model were of much lower quality than the remaining five models. We therefore urge great caution in the interpretation of these results. We have, in particular, very little confidence in the December 1979, fifty percent caseload impact estimate that appears in Table 12.1.

Key Corrective Action Policies

Jurisdiction	Corrective Actions
Alameda County	Initial implementation of monthly reporting
San Diego County	Initial implementation and ongoing application of monthly reporting
Los Angeles County	Reversion from group intakes to individual intake interviews Elimination of home calls Monthly reporting
Upstate New York	Tightened application and verification procedures Recertification policies
New York City	General and persistent applications policy and case "cleansing" activity through recertification
Florida	Additional requirements to verify recipient eligibility

With the exception of Alameda County (and excluding Florida), all of these results indicate a substantial long-run impact of corrective actions on AFDC caseload levels. It is also clear, however, that the caseload reductions were accomplished by quite different means in each jurisdiction. The greatest impact — that recorded for New York City — suggests that local fiscal constraints provide by far the strongest incentive for corrective action enforcement. Nonetheless, even in the absence of fiscal crisis, attention to quality control — whether through monthly reporting or expanded verification policies — can have a highly significant impact on caseload levels.

Expenditures

Program expenditures are also important indicators of the effectiveness of quality control and corrective action. Table 12.2 presents the percentage reduction in AFDC benefit expenditures attributable solely to corrective actions. These figures represent the cumulative expenditure reduction impact of corrective actions as a percentage of our best estimate of actual expenditures (excluding the additional cost of corrective action implementation). They therefore indicate in percentage terms how much more cumulative expenditures would have been had corrective actions not been undertaken.

As we have stressed throughout this report, the methodology utilized in the preparation of expenditure estimates involved a crucial assumption: each case terminated from or never allowed to participate in AFDC by reason of corrective action was assumed to have received the monthly average expenditure for all cases. Therefore,

Table 12.2

All Jurisdictions

Percent Reduction in Cumulative Expenditures

Due to Corrective Actions

Jurisdiction	by 12/74	by 12/76	By Final Simulation Period*
Alameda County	5.1%	5.4%	3.6%
Los Angeles County	3.2	4.9	7.1
San Diego County	4.0	7.5	7.5
Upstate New York	7.3	9.4	12.3
New York City	3.4	8.6	14.7
Florida	13.8	25.6	36.6

* The final simulation period varies by jurisdiction because of data availability: Upstate New York and New York City (12/78), San Diego County (6/79), Los Angeles County (9/79), Alameda County and Florida (12/79).

the expenditure numbers summarized here are very likely to be overestimates of corrective action induced savings.

Table 12.2 indicates that the impact of corrective action on expenditures in Alameda County was greatest in the initial period of the analysis. Over the 30 month period ending in December 1974, corrective action (specifically the monthly income and eligibility reporting system) was responsible for a 5.1 percent reduction in cumulative expenditures. Over the longer simulation period ending in December 1976, this system of monthly recertification can be credited with reducing total potential expenditures by 5.4 percent of the Present Structure estimate. After 1976, however, the corrective action impact on expenditures fell gradually, as the initial impact of the monthly reporting system faded. Over the entire 90 month simulation period corrective action reduced total expenditures by 3.6 percent of our best estimate of actual expenditures.

In Los Angeles County, corrective actions were also responsible for a significant reduction in AFDC-FG expenditures. Total expenditures for the period January 1972 to December 1974 were 3.2 percent less than they would have been in the absence of the corrective actions undertaken during that initial period. By December 1976 the expenditure reduction impact had grown to nearly 5 percent of our best estimate, and by September 1979, corrective action can be credited with a 7.1 percent reduction in cumulative expenditures for the entire 93 month simulation period.

Expenditure savings in San Diego County were similar to those in Los Angeles. In the absence of all corrective actions there, total expenditures would have been about 4 percent greater for the period July 1972 to December 1974. Over the longer 54 month simulation period ending in December 1976, we estimate that corrective actions were responsible for reducing potential expenditures by about 7.5 percent. The expenditure reduction impact remained stable over the remainder of the simulation period, so that over the full period of analysis corrective action reduced total cumulative expenditures by 7.5 percent.

In Upstate New York, cumulative expenditures for AFDC-Basic would have been 7.3 percent greater by December 1974 than the Present Structure estimate if corrective actions had not been undertaken. Similar to our results with respect to caseload, corrective actions were responsible for an even greater reduction in total expenditures by the end of 1976. Had these activities not existed, expenditures would have been 9.4 percent greater. Finally, by December 1978, corrective actions were responsible for an expenditure reduction of 12.3 percent of our best estimate of cumulative actual expenditures.

Not surprisingly, our results indicate that, with the exception of Florida, corrective action had the most significant expenditure impact in New York City. As we suggested earlier in this chapter, the City's fiscal crisis during 1974 and 1975 ostensibly played a key role in the welfare administration's success in reducing both caseload and expenditure levels. Under severe pressure to reduce its budgetary outlays in all departments, New York City implemented a whole range of corrective actions to remove ineligibles from the welfare rolls and to limit new additions to the caseload.

Table 12.2 indicates that over the first 18 months of the full simulation period, the impact of corrective actions on expenditures was modest, as it was on caseload. Total expenditures for the period were only 3.4 percent less than they would have been had corrective actions not been undertaken at all. Over the following two year period, one which saw the City's fiscal crisis raise significant questions as to whether the City could maintain many of its essential services, corrective action had a much greater impact on expenditures. Over the 42 month period ending in December 1976, corrective actions were responsible for reducing total AFDC-Basic expenditures by 8.6 percent of the Present Structure estimate. Again, we suggest that the budgetary restraint mandated by the fiscal crisis forced the welfare administration to immediately reduce its benefit costs through the elimination of potential caseload growth and the removal of active cases from the welfare rolls. By the end of the entire simulation period in the City, corrective actions were responsible for reducing potential expenditures by nearly 15 percent. That is to say, total expenditures for the entire period would have been 15 percent more than our best estimate of expenditures had corrective actions not existed.

Based on the research presented here it is fair to conclude that corrective actions have had highly variable impacts on AFDC caseload and expenditure levels. Exclusive of the Florida results, the impact of corrective action on caseload levels ranged from a mere one percent to over 31 percent, with Alameda representing the low end and New York City the high end of the distribution. With respect to expenditures, we found that the variability is not as pronounced. Again, Alameda County represented the low end of the distribution with corrective actions responsible for a 3.6 percent reduction in expenditures over a 90 month period. In New York City the impact of corrective action on expenditures was nearly 15 percent, again representing the greatest impact of any of the jurisdictions (exclusive of Florida).

With respect to the effectiveness of specific corrective action policies, we found that the implementation and ongoing application of tighter acceptance standards has been extremely effective in reducing potential caseload and expenditure growth. By raising the measured rejection rate, these policies significantly reduce the number of openings that may occur in an AFDC program. As we have shown, the welfare administrations in Upstate New York and Los Angeles County have reduced their caseloads by 16 and 15 percent, respectively, in large part as a direct result of these policies.

A second type of corrective action policy that we found to be effective is the monthly income and eligibility reporting system utilized in the State of California. Although this system of monthly recertification often results in increased caseload turnover (i.e., increased opening/closing cycling), its long-run net impact has been shown to be substantial, at least in Los Angeles County. In San Diego, and especially Alameda, its impact was more of a short-run (start-up) nature. By raising the measured closing rate, this system acts to increase the number of active case closings. Many of the cases that are administratively closed, however, return to the welfare office within one or two months to reapply for assistance.

Finally, entire caseload recertification, as well as more frequent and thorough individual case recertifications were significant contributors to caseload reduction, especially in New York City. These programs, as the New York City welfare administration freely admits, also have an "unavoidable churning effect" on the caseload. As in the case of monthly reporting, many of the recipients that have their cases administratively closed by reason of recertification return in subsequent months to reapply for assistance.

While we have looked at only six jurisdictions, these results suggest that the national commitment to effective quality control begun by Health, Education, and Welfare nearly two decades ago, has had a significant impact on caseload and expenditure levels over the past seven years. There is no reason to believe that quality control programs will not only continue, but will increase in importance in a new decade of government austerity. It is clear, however, that families in need will best be served by programs which have a consistent definition of need and a uniform process for evaluating eligibility.

Appendix

Pre-QC/CA Regressions

Upstate New York

Pre-QC/CA Regressions

Table A-1

Upstate New York AFDC-Basic: Short Period Applications Equation (1st Stage)

```
EQN NO. 1   165 OBSERVATIONS (   4-> 168)
DEP VAR(  8): APREC
INDEPENDENT VAR(S):  16
V(S) IN XPX= 71   M= 71
DETERMINANT=      0.8145476E-09
```

	INDEP.VAR.	REGR.COEFF.	STD.ERR.	T-RATIO	MEAN
(8)					0.493644E+01
(1)	CONS	-0.536381E+01	0.881064E+00	0.608787E+01	0.100000E+01
(23)	B/Z	0.157922E+01	0.405807E+00	0.389156E+01	0.122598E+01
(24)	B/ZD	0.457488E+00	0.123711E+00	0.369803E+01	0.577332E+00
(55)	UNRTE	0.236920E+00	0.392717E-01	0.603285E+01	0.566667E+01
(53)	DXHT	-0.488271E+01	0.794717E+00	0.614396E+01	0.490727E-02
(54)	DXAG	-0.782829E+00	0.162060E+00	0.483050E+01	-0.385758E-02
(40)	UR*ADC	-0.195340E+00	0.225442E-01	0.866478E+01	0.553939E+00
(52)	WDAYS	0.625739E-01	0.283450E-01	0.220758E+01	0.209515E+02
(47)	FSDMY	0.257243E+01	0.190418E+00	0.135094E+02	0.545455E-01
(33)	SIMPL4	0.174930E+01	0.296331E+00	0.590319E+01	0.242424E-01
(37)	SPSER2	0.746792E+00	0.219315E+00	0.340511E+01	0.363636E-01
(39)	USTRT2	0.904391E+00	0.294108E+00	0.307503E+01	0.181818E-01
(60)	7/71D	-0.485740E+01	0.557000E+00	0.872064E+01	0.606060E-02
(61)	10/71D	-0.187548E+01	0.493692E+00	0.379890E+01	0.606060E-02
(45)	DECDUM	0.813503E+00	0.157792E+00	0.515553E+01	0.848485E-01
(25)	FHF	0.521068E-01	0.497925E-02	0.104648E+02	0.102118E+03

```
RSQBAR=   0.9441 RSQ=   0.9492    SEE= 0.4564540E+00 SEEBAR= 0.4803368E+00

TSS= 0.6769977E+03   RSS= 0.3437780E+02     FSTAT( 15, 149)= 0.1856826E+03

MBAR=  -0.7205        DW STAT:  1.6029       RHO:  0.20988231
```

Rho-corrected

```
EQN NO. 1   164 OBSERVATIONS (   5-> 168)
DEP VAR( 88): APREC
INDEPENDENT VAR(S):  16
V(S) IN XPX= 88   M= 71
DETERMINANT=      0.2310026E-08
RHO=      0.2098823E+00
Y( 168)=        0.0000000E+00
```

	INDEP.VAR.	REGR.COEFF.	STD.ERR.	T-RATIO	MEAN
(88)					0.392402E+01
(72)	CONS	-0.573359E+01	0.899649E+00	0.637314E+01	0.790118E+00
(73)	B/Z	0.156356E+01	0.479509E+00	0.326075E+01	0.969957E+00
(74)	B/ZD	0.452795E+00	0.148875E+00	0.304145E+01	0.460583E+00
(75)	UNRTE	0.245181E+00	0.445666E-01	0.550144E+01	0.446915E+01
(76)	DXHT	-0.444167E+01	0.791121E+00	0.561440E+01	0.360633E-02
(77)	DXAG	-0.675433E+00	0.164407E+00	0.410830E+01	-0.521518E-02
(78)	UR*ADC	-0.198239E+00	0.280449E-01	0.706863E+01	0.398212E+00
(79)	WDAYS	0.761240E-01	0.250283E-01	0.304151E+01	0.165539E+02
(80)	FSDMY	0.244673E+01	0.221573E+00	0.110425E+02	0.433601E-01
(81)	SIMPL4	0.160730E+01	0.315756E+00	0.509032E+01	0.192712E-01
(82)	SPSER2	0.738268E+00	0.253223E+00	0.291548E+01	0.289067E-01
(83)	USTRT2	0.768178E+00	0.326814E+00	0.235050E+01	0.144534E-01
(84)	7/71D	-0.477806E+01	0.494332E+00	0.966567E+01	0.481779E-02
(85)	10/71D	-0.200042E+01	0.472627E+00	0.423256E+01	0.481779E-02
(86)	DECDUM	0.678782E+00	0.159875E+00	0.424570E+01	0.687288E-01
(87)	FHF	0.529137E-01	0.594760E-02	0.889664E+01	0.809078E+02

```
RSQBAR=   0.9190 RSQ=   0.9265    SEE= 0.4451444E+00 SEEBAR= 0.4685888E+00

TSS= 0.4418729E+03   RSS= 0.3249717E+02     FSTAT( 15, 148)= 0.1242931E+03

MBAR=  -0.6640        DW STAT:  1.9041       RHO:  0.05798247
```

Table A-2

Upstate New York AFDC-Basic: Short Period Processing Rate (Basic Segment)

(1st Stage)

```
EQN NO.  1   150 OBSERVATIONS (  19-> 168)
DEP VAR(  9): PRORR
INDEPENDENT VAR(S):    5
V(S) IN XPX= 67   M= 67
DETERMINANT=       0.6278901E-04
```

INDEP.VAR.		REGR.COEFF.	STD.ERR.	T-RATIO	MEAN
(9)					0.509545E+00
(1)	CONS	0.284409E-01	0.645404E-01	0.440668E+00	0.100000E+01
(32)	SIMPL7	0.275708E+00	0.134379E-01	0.205173E+02	0.170000E+00
(36)	WRKLOD	-0.164703E-01	0.471627E-02	0.349222E+01	0.746112E+00
(51)	ADAIX	0.370414E-02	0.365913E-03	0.101230E+02	0.650050E+02
(52)	WDAYS	0.981872E-02	0.286299E-02	0.342954E+01	0.209533E+02

```
RSQBAR=    0.7704 RSQ=    0.7765    SEE= 0.4921856E-01  SEEBAR= 0.5005996E-01

TSS= 0.1626034E+01    RSS= 0.3633699E+00        FSTAT(   4, 145)= 0.1259641E+03

MBAR=    0.0671         DW STAT:  0.4755         RHO:  0.76417917
```

Rho-corrected

```
EQN NO.  1   149 OBSERVATIONS (  20-> 168)
DEP VAR( 73): PRORR
INDEPENDENT VAR(S):    5
V(S) IN XPX= 73   M= 67
DETERMINANT=       0.3215891E-02
RHO=        0.7641792E+00
Y( 168)=        0.0000000E+00
```

INDEP.VAR.		REGR.COEFF.	STD.ERR.	T-RATIO	MEAN
(73)					0.121764E+00
(68)	CONS	0.853975E-01	0.753022E-01	0.113406E+01	0.235821E+00
(69)	SIMPL7	0.255777E+00	0.325570E-01	0.785628E+01	0.454873E-01
(70)	WRKLOD	-0.122567E-01	0.300358E-02	0.408070E+01	0.146087E+00
(71)	ADAIX	0.349748E-02	0.995365E-03	0.351377E+01	0.154162E+02
(72)	WDAYS	0.765255E-02	0.131146E-02	0.583515E+01	0.494787E+01

```
RSQBAR=    0.3912 RSQ=    0.4077    SEE= 0.3172840E-01  SEEBAR= 0.3227454E-01

TSS= 0.2532317E+00    RSS= 0.1499970E+00        FSTAT(   4, 144)= 0.2477679E+02

MBAR=    0.1056         DW STAT:  1.9271         RHO:  0.03755889
```

Table A-3

Upstate New York AFDC-Basic: Short Period Processing Rate (UP Segment)

(1st Stage)

```
EQN NO.  1     60 OBSERVATIONS ( 109-> 168)
DEP VAR( 11): PRORO
INDEPENDENT VAR(S):    5
V(S) IN XPX= 67   M= 67
DETERMINANT=      0.7531523E-03
```

INDEP.VAR.		REGR.COEFF.	STD.ERR.	T-RATIO	MEAN
(11)					0.949866E-01
(1)	CONS	0.747296E-01	0.134411E-01	0.555978E+01	0.100000E+01
(28)	CO/CR	0.228225E+00	0.152223E+00	0.149928E+01	0.639600E-01
(34)	WNT*RT	0.978339E-03	0.152017E-03	0.643571E+01	0.708333E+01
(35)	WRKFR2	-0.749210E-01	0.109985E-01	0.681190E+01	0.500000E+00
(55)	UNRTE	0.680888E-02	0.315599E-02	0.215745E+01	0.531517E+01

```
RSQBAR=    0.8494 RSQ=    0.8596    SEE= 0.1875625E-01  SEEBAR= 0.1959027E-01

TSS= 0.1503907E+00     RSS= 0.2110782E-01       FSTAT(   4,   55)= 0.8421709E+02

MBAR=  -0.6179         DW STAT:   1.1317        RHO:   0.44394285
```

Rho-corrected

```
EQN NO.  1     59 OBSERVATIONS ( 110-> 168)
DEP VAR( 73): PRORJ
INDEPENDENT VAR(S):    5
V(S) IN XPX= 73   M= 67
DETERMINANT=      0.2106582E-02
RHO=       0.4439428E+00
Y( 168)=       0.0000000E+00
```

INDEP.VAR.		REGR.COEFF.	STD.ERR.	T-RATIO	MEAN
(73)					0.508215E-01
(68)	CONS	0.726367E-01	0.188259E-01	0.385833E+01	0.556057E+00
(69)	CO/CR	0.187587E+00	0.185610E+00	0.101065E+01	0.349310E-01
(70)	WNT*RT	0.631077E-03	0.152984E-03	0.412511E+01	0.288297E+01
(71)	WRKFR2	-0.763792E-01	0.127890E-01	0.597227E+01	0.290265E+00
(72)	UNRTE	0.819317E-02	0.366962E-02	0.223270E+01	0.295730E+01

```
RSQBAR=    0.6860 RSQ=    0.7077    SEE= 0.1625828E-01  SEEBAR= 0.1699432E-01

TSS= 0.5335164E-01     RSS= 0.1559557E-01       FSTAT(   4,   54)= 0.3268280E+02

MBAR=  -0.3900         DW STAT:   1.4844        RHO:   0.20004719
```

Table A-4

Upstate New York AFDC-Basic: Short Period Rejection Rate (1st Stage)

```
EQN NO.  1   168 OBSERVATIONS (   1-> 168)
DEP VAR( 10): REJRT
INDEPENDENT VAR(S):  10
V(S) IN XPX= 67   M= 67
DETERMINANT=      0.4254779E-05
```

INDEP.VAR.		REGR.COEFF.	STD.ERR.	T-RATIO	MEAN
(10)					0.214508E+00
(1)	CONS	0.505247E+00	0.247907E-01	0.203805E+02	0.100000E+01
(26)	C/F-1	-0.125039E+01	0.154429E+00	0.809690E+01	0.453972E+00
(27)	2C/F-1	0.112082E+01	0.149390E+00	0.750263E+01	0.238896E+00
(57)	DLT*RT	0.428850E-02	0.676083E-03	0.634315E+01	-0.529405E-01
(43)	APTIT1	0.105197E+00	0.912910E-02	0.115232E+02	0.357143E-01
(41)	REJHCL	0.223860E-01	0.348368E-02	0.642597E+01	0.250000E+00
(38)	USTRT1	-0.104465E+00	0.190916E-01	0.547179E+01	0.595238E-02
(49)	7/73D	0.143942E+00	0.206485E-01	0.697105E+01	0.595238E-02
(44)	APTIT3	0.805904E-01	0.142330E-01	0.566221E+01	0.119048E-01
(51)	ADAIX	0.174321E-04	0.192830E-03	0.904015E-01	0.611622E+02

```
RSQBAR=   0.8369 RSQ=   0.8457   SEE= 0.1809890E-01 SEEBAR= 0.1866287E-01

TSS= 0.3566467E+00   RSS= 0.5503182E-01     FSTAT(  9, 158)= 0.9621738E+02

MBAR=  -0.4094       DW STAT:  1.5873       RHO:  0.21062583
```

Rho-corrected

```
EQN NO.  1   167 OBSERVATIONS (   2-> 168)
DEP VAR( 78): REJRT
INDEPENDENT VAR(S):  10
V(S) IN XPX= 78   M= 67
DETERMINANT=      0.4692556E-05
RHO=       0.2106258E+00
Y( 168)=        0.0000000E+00
```

INDEP.VAR.		REGR.COEFF.	STD.ERR.	T-RATIO	MEAN
(78)					0.169363E+00
(68)	CONS	0.500908E+00	0.301869E-01	0.165936E+02	0.789374E+00
(69)	C/F-1	-0.121595E+01	0.188705E+00	0.644365E+01	0.359711E+00
(70)	2C/F-1	0.108647E+01	0.182750E+00	0.594513E+01	0.188216E+00
(71)	DLT*RT	0.354534E-02	0.703510E-03	0.503950E+01	0.107791E-02
(72)	APTIT1	0.105611E+00	0.105808E-01	0.998136E+01	0.283607E-01
(73)	REJHCL	0.213867E-01	0.372530E-02	0.574092E+01	0.198525E+00
(74)	USTRT1	-0.106935E+00	0.180261E-01	0.593220E+01	0.472679E-02
(75)	7/730	0.157917E+00	0.196337E-01	0.804316E+01	0.472679E-02
(76)	APTIT3	0.763457E-01	0.153735E-01	0.496605E+01	0.107148E-01
(77)	ADAIX	-0.298195E-04	0.238592E-03	0.124981E+00	0.484349E+02

```
RSQBAR=   0.7987 RSQ=   0.8097   SEE= 0.1763979E-01 SEEBAR= 0.1819290E-01

TSS= 0.2730053E+00   RSS= 0.5196409E-01     FSTAT(  9, 157)= 0.7420396E+02

MBAR=  -0.3739       DW STAT:  1.9152       RHO:  0.04609449
```

Table A-5

Upstate New York AFDC-Basic: Short Period Closing Rate (1st Stage)

```
EQN NO.  2   168 OBSERVATIONS (   1-> 168)
DEP VAR( 16): CLCRT
INDEPENDENT VAR(S):  11
V(S) IN XPX= 67  M= 67
DETERMINANT=      0.7952830E-04
```

INDEP.VAR.		REGR.COEFF.	STD.ERR.	T-RATIO	MEAN
(16)					0.514857E-01
(1)	CONS	0.124188E-01	0.105732E-01	0.117456E+01	0.100000E+01
(24)	B/ZD	-0.359959E-02	0.109428E-02	0.328945E+01	0.567023E+00
(42)	CLSHCL	0.107847E-01	0.285886E-02	0.377238E+01	0.714285E-01
(46)	WINTER	-0.462368E-02	0.163571E-02	0.282672E+01	0.250000E+00
(51)	ADAIX	-0.118031E-03	0.424122E-04	0.278295E+01	0.611622E+02
(52)	WDAYS	0.228431E-02	0.488281E-03	0.467828E+01	0.209464E+02
(50)	5/66D	-0.268456E-01	0.878289E-02	0.305658E+01	0.595238E-02
(62)	4/63-4	0.378838E-01	0.625767E-02	0.605397E+01	0.119048E-01
(38)	USTRT1	0.466952E-01	0.909708E-02	0.513299E+01	0.595238E-02
(60)	7/71D	-0.222334E-01	0.878853E-02	0.252982E+01	0.595238E-02
(48)	RECRT2	0.143668E-01	0.412546E-02	0.348247E+01	0.297619E-01

```
RSQBAR=   0.5653 RSQ=   0.5913   SEE= 0.8403212E-02 SEEBAR= 0.8692608E-02

TSS= 0.2902640E-01   RSS= 0.1186315E-01       FSTAT( 10, 157)= 0.2271429E+02

MBAR=  -0.1916         DW STAT:  1.6538         RHO:  0.17810771
```

Rho-corrected

```
EQN NO.  2   167 OBSERVATIONS (   2-> 168)
DEP VAR( 79): CLCRT
INDEPENDENT VAR(S):  11
V(S) IN XPX= 79  M= 67
DETERMINANT=      0.1545790E-03
RHO=       0.1781077E+00
Y( 168)=        0.0000000E+00
```

INDEP.VAR.		REGR.COEFF.	STD.ERR.	T-RATIO	MEAN
(79)					0.423159E-01
(68)	CONS	0.119240E-01	0.982168E-02	0.121404E+01	0.821892E+00
(69)	B/ZD	-0.368095E-02	0.128891E-02	0.285587E+01	0.470190E+00
(70)	CLSHCL	0.947434E-02	0.298050E-02	0.317878E+01	0.590581E-01
(71)	WINTER	-0.496622E-02	0.174616E-02	0.284409E+01	0.201782E+00
(72)	ADAIX	-0.119593E-03	0.512444E-04	0.233378E+01	0.504859E+02
(73)	WDAYS	0.232754E-02	0.442112E-03	0.526459E+01	0.172214E+02
(74)	5/66D	-0.310077E-01	0.847607E-02	0.365826E+01	0.492151E-02
(75)	4/63-4	0.332779E-01	0.606492E-02	0.548694E+01	0.984302E-02
(76)	USTRT1	0.518651E-01	0.874333E-02	0.593196E+01	0.492151E-02
(77)	7/71D	-0.218107E-01	0.848382E-02	0.257085E+01	0.492151E-02
(78)	RECRT2	0.130189E-01	0.467175E-02	0.278674E+01	0.246076E-01

```
RSQBAR=   0.5449 RSQ=   0.5723   SEE= 0.8267297E-02 SEEBAR= 0.8553808E-02

TSS= 0.2668695E-01   RSS= 0.1141415E-01       FSTAT( 10, 156)= 0.2087370E+02

MBAR=  -0.1540         DW STAT:  1.9352         RHO:  0.03684246
```

New York City

Pre-QC/CA Regressions

Table A-6

New York City AFDC-Basic: Short Period Applications Equation (1st Stage)

EQN NO. 1 168 OBSERVATIONS (1-> 168)
DEP VAR(8): APREC
INDEPENDENT VAR(S): 12
V(S) IN XPX= 95 M= 95
DETERMINANT= 0.4028611E-07

	INDEP.VAR.	REGR.COEFF.	STD.ERR.	T-RATIO	MEAN
(8)					0.649212E+01
(1)	CONS	-0.576232E+01	0.871740E+00	0.661014E+01	0.100000E+01
(45)	WDAYS	0.194223E+00	0.348990E-01	0.556529E+01	0.209464E+02
(25)	DFHF	0.100679E+01	0.182552E+00	0.551507E+01	0.638250E+00
(22)	B/ZM*3	0.835325E+00	0.153234E+00	0.545129E+01	0.382576E+00
(23)	ACRT-3	0.350941E+01	0.866647E+00	0.404941E+01	0.638921E+00
(34)	PROOF	-0.405597E+00	0.285239E+00	0.142195E+01	0.357143E-01
(44)	ADAIX	0.570103E-01	0.563982E-02	0.101085E+02	0.874673E+02
(39)	SWANTS	-0.344681E+01	0.658908E+00	0.523109E+01	0.595238E-02
(36)	CHP992	0.215859E+01	0.491567E+00	0.439123E+01	0.148810E-01
(31)	DWNRF	0.233490E+00	0.645412E-01	0.361769E+01	0.208750E-01
(47)	DXHT	-0.573773E+01	0.139589E+01	0.411044E+01	-0.594046E-03
(52)	12/72D	-0.170743E+01	0.654986E+00	0.260681E+01	0.595238E-02

RSQBAR= 0.8095 RSQ= 0.8220 SEE= 0.6159042E+00 SEEBAR= 0.6391540E+00

TSS= 0.3580824E+03 RSS= 0.6372879E+02 FSTAT(11, 156)= 0.6550365E+02

MBAR= -0.4853 DW STAT: 0.9830 RHO: 0.51620713

Rho-corrected

EQN NO. 1 167 OBSERVATIONS (2-> 168)
DEP VAR(108): APREC
INDEPENDENT VAR(S): 12
V(S) IN XPX=108 M= 95
DETERMINANT= 0.5869676E-06
RHO= 0.5162071E+00
Y(168)= 0.0000000E+00

	INDEP.VAR.	REGR.COEFF.	STD.ERR.	T-RATIO	MEAN
(108)					0.314920E+01
(96)	CONS	-0.643674E+01	0.965359E+00	0.666771E+01	0.483793E+00
(97)	WDAYS	0.238489E+00	0.232652E-01	0.102509E+02	0.101396E+02
(98)	DFHF	0.889211E+00	0.251369E+00	0.353748E+01	0.310745E+00
(99)	B/ZM*3	0.838974E+00	0.235856E+00	0.355715E+01	0.188851E+00
(100)	ACRT-3	0.331396E+01	0.115726E+01	0.286363E+01	0.309877E+00
(101)	PROOF	-0.539012E+00	0.392301E+00	0.137398E+01	0.204728E-01
(102)	ADAIX	0.565208E-01	0.940901E-02	0.600709E+01	0.424329E+02
(103)	SWANTS	-0.360804E+01	0.495722E+00	0.727836E+01	0.289696E-02
(104)	CHP992	0.191802E+01	0.532533E+00	0.360169E+01	0.724241E-02
(105)	DWNRF	0.249601E+00	0.516447E-01	0.483304E+01	0.791864E-02
(106)	DXHT	-0.600442E+01	0.104985E+01	0.571932E+01	0.515847E-03
(107)	12/72D	-0.214877E+01	0.510328E+00	0.421057E+01	0.289696E-02

RSQBAR= 0.7399 RSQ= 0.7572 SEE= 0.5216568E+00 SEEBAR= 0.5414736E+00

TSS= 0.1871542E+03 RSS= 0.4544502E+02 FSTAT(11, 155)= 0.4393904E+02

MBAR= -0.2619 DW STAT: 1.8812 RHO: 0.06484513

Table A-7

New York City AFDC-Basic: Short Period Processing Rate (Basic Segment)

(1st Stage)

```
EQN NO. 1   150 OBSERVATIONS (  19-> 168)
DEP VAR(  9): PRORR
INDEPENDENT VAR(S):    6
V(S) IN XPX= 95   M= 95
DETERMINANT=       0.2312485E-03
```

INDEP.VAR.		REGR.COEFF.	STD.ERR.	T-RATIO	MEAN
(9)					0.666702E+00
(1)	CONS	0.676099E+00	0.515357E-01	0.131190E+02	0.100000E+01
(30)	CU/CR	-0.316195E+01	0.198543E+00	0.159258E+02	0.605466E-01
(45)	WDAYS	0.737721E-02	0.237112E-02	0.311127E+01	0.209533E+02
(38)	SIMPL6	0.142316E+00	0.136857E-01	0.103989E+02	0.170000E+00
(33)	PHOTO	0.960423E-01	0.265020E-01	0.362396E+01	0.283333E-01
(39)	SWANTS	0.834973E-01	0.418755E-01	0.199394E+01	0.666666E-02

```
RSQBAR=    0.9090 RSQ=    0.9120     SEE= 0.4059924E-01 SEEBAR= 0.4143642E-01

TSS= 0.2810848E+01     RSS= 0.2472447E+00      FSTAT(  5, 144)= 0.2986182E+03

MBAR=  -0.6747          DW STAT:   0.7199        RHO:  0.64263344
```

(Rho-corrected)

```
EQN NO. 1   149 OBSERVATIONS (  20-> 168)
DEP VAR(102): PRORR
INDEPENDENT VAR(S):    6
V(S) IN XPX=102   M= 95
DETERMINANT=       0.4142735E-02
RHO=       0.6426334E+00
Y( 168)=       0.0000000E+00
```

INDEP.VAR.		REGR.COEFF.	STD.ERR.	T-RATIO	MEAN
(102)					0.240296E+00
(96)	CONS	0.705269E+00	0.391966E-01	0.179931E+02	0.357366E+00
(97)	CU/CR	-0.291072E+01	0.379808E+00	0.766365E+01	0.213020E-01
(98)	WDAYS	0.520955E-02	0.130878E-02	0.398045E+01	0.749462E+01
(99)	SIMPL6	0.152459E+00	0.260817E-01	0.584544E+01	0.654730E-01
(100)	PHOTO	0.916226E-01	0.401272E-01	0.228330E+01	0.101933E-01
(101)	SWANTS	0.125396E+00	0.262911E-01	0.476951E+01	0.239843E-02

```
RSQBAR=    0.7191 RSQ=    0.7286     SEE= 0.3060413E-01 SEEBAR= 0.3123958E-01

TSS= 0.5141680E+00     RSS= 0.1395553E+00      FSTAT(  5, 143)= 0.7677184E+02

MBAR=  -0.4691          DW STAT:   2.0310        RHO: -0.01392286
```

Table A-8

New York City AFDC-Basic: Short Period Processing Rate (UP Segment)

(1st Stage)

```
EQN NO.  2    150 OBSERVATIONS (  19-> 168)
DEP VAR( 11): PRORU
INDEPENDENT VAR(S):    5
V(S) IN XPX= 95   M= 95
DETERMINANT=       0.4029706E-01
```

INDEP.VAR.		REGR.COEFF.	STD.ERR.	T-RATIO	MEAN
(11)					0.116358E+00
(1)	CONS	0.183638E-01	0.688109E-02	0.266873E+01	0.100000E+01
(30)	CU/CR	0.155841E+01	0.939246E-01	0.165921E+02	0.605466E-01
(41)	WRKFR	-0.136942E-01	0.613563E-02	0.223191E+01	0.200000E+00
(39)	SWANTS	0.610811E-01	0.197464E-01	0.309327E+01	0.666666E-02
(40)	WNT*RT	0.409789E-03	0.435213E-04	0.941582E+01	0.145667E+02

```
RSQBAR=    0.8749 RSQ=    0.8783    SEE= 0.1873078E-01  SEEBAR= 0.1905099E-01

TSS= 0.4323652E+00    RSS= 0.5262633E-01       FSTAT(  4, 145)= 0.2615710E+03

MBAR=  -0.5606        DW STAT:  0.5743        RHO:  0.71474458
```

Rho-corrected

```
EQN NO.  2    149 OBSERVATIONS (  20-> 168)
DEP VAR(101): PRORU
INDEPENDENT VAR(S):    5
V(S) IN XPX=101   M= 95
DETERMINANT=       0.8246167E-01
RHO=      0.7147446E+00
Y( 168)=       0.0000000E+00
```

INDEP.VAR.		REGR.COEFF.	STD.ERR.	T-RATIO	MEAN
(101)					0.324254E-01
(96)	CONS	0.237263E-01	0.126218E-01	0.187979E+01	0.285255E+00
(97)	CU/CR	0.150691E+01	0.175542E+00	0.858430E+01	0.169141E-01
(98)	WRKFR	-0.206392E-01	0.102123E-01	0.202102E+01	0.622309E-01
(99)	SWANTS	0.694824E-01	0.107096E-01	0.648788E+01	0.191447E-02
(100)	WNT*RT	0.311097E-03	0.309113E-04	0.100642E+02	0.424547E+01

```
RSQBAR=    0.6859 RSQ=    0.6944    SEE= 0.1273273E-01  SEEBAR= 0.1295190E-01

TSS= 0.7905270E-01    RSS= 0.2415624E-01       FSTAT(  4, 144)= 0.8181209E+02

MBAR=  -0.2251        DW STAT:  1.9557        RHO:  0.02323660
```

Table A-9

New York City AFDC-Basic: Short Period Rejection Rate Equation (1st Stage)

```
EQN NO.  1   168 OBSERVATIONS (   1-> 168)
DEP VAR( 10): REJRT
INDEPENDENT VAR(S):    7
V(S) IN XPX= 98   M= 98
DETERMINANT=       0.1476205E-03
```

INDEP.VAR.		REGR.COEFF.	STD.ERR.	T-RATIO	MEAN
(10)					0.358282E+00
(1)	CONS	0.119390E+01	0.255367E-01	0.467522E+02	0.100000E+01
(33)	PHOTO	-0.158814E+00	0.180823E-01	0.878281E+01	0.252976E-01
(34)	PROOF	0.445590E-01	0.117624E-01	0.378824E+01	0.357143E-01
(39)	SWANTS	-0.582712E-01	0.275724E-01	0.211339E+01	0.595238E-02
(52)	12/72D	0.123207E+00	0.278101E-01	0.443029E+01	0.595238E-02
(26)	C/F-1	-0.299692E+01	0.104245E+00	0.287487E+02	0.725012E+00
(98)	1.6C/F	0.206378E+01	0.779930E-01	0.264611E+02	0.648918E+00

```
RSQBAR=    0.9214 RSQ=    0.9242    SEE= 0.2684504E-01 SEEBAR= 0.2742242E-01

TSS= 0.1597976E+01    RSS= 0.1210703E+00      FSTAT(   6,  161)= 0.3273330E+03

MBAR=  -0.1514        DW STAT:  0.6611        RHO:  0.67230981
```

Rho-corrected

```
EQN NO.  1   167 OBSERVATIONS (   2-> 168)
DEP VAR(106): REJRT
INDEPENDENT VAR(S):    7
V(S) IN XPX=106   M= 98
DETERMINANT=       0.1653683E-03
RHO=      0.6723098E+00
Y( 168)=       0.1101029E+01
```

INDEP.VAR.		REGR.COEFF.	STD.ERR.	T-RATIO	MEAN
(106)					0.116418E+00
(99)	CONS	0.119620E+01	0.570488E-01	0.209680E+02	0.327690E+00
(100)	PHOTO	-0.144037E+00	0.269696E-01	0.534073E+01	0.833942E-02
(101)	PROOF	0.393725E-01	0.167831E-01	0.234596E+01	0.157991E-01
(102)	SWANTS	-0.686307E-01	0.167394E-01	0.409995E+01	0.196222E-02
(103)	12/72D	0.155271E+00	0.167626E-01	0.926294E+01	0.196222E-02
(104)	C/F-1	-0.300272E+01	0.230581E+00	0.130224E+02	0.241050E+00
(105)	1.6C/F	0.206638E+01	0.171556E+00	0.120449E+02	0.217120E+00

```
RSQBAR=    0.7468 RSQ=    0.7560    SEE= 0.1973549E-01 SEEBAR= 0.2016258E-01

TSS= 0.2665501E+00    RSS= 0.6504476E-01     FSTAT(   6,  160)= 0.8261195E+02

MBAR=  -0.0677        DW STAT:  1.8644       RHO:  0.06962555
```

Table A-10

New York City AFDC-Basic: Short Period Closing Rate Equation (1st Stage)

EQN NO. 1 168 OBSERVATIONS (1-> 168)
DEP VAR(15): CLURT
INDEPENDENT VAR(S): 9
V(S) IN XPX= 95 M= 95
DETERMINANT= 0.2257559E-06

	INDEP.VAR.	REGR.COEFF.	STD.ERR.	T-RATIO	MEAN
(15)					0.237298E-01
(1)	CONS	0.588326E-01	0.966175E-02	0.608922E+01	0.100000E+01
(45)	WDAYS	0.827104E-03	0.265627E-03	0.311378E+01	0.209464E+02
(92)	LNURT	-0.665981E-02	0.279679E-02	0.238124E+01	0.173434E+01
(44)	ADAIX	-0.399541E-03	0.451595E-04	0.884733E+01	0.874673E+02
(39)	SWANTS	-0.181223E-01	0.494465E-02	0.366503E+01	0.595238E-02
(21)	B/Z	-0.131696E-01	0.728759E-03	0.180713E+02	0.452521E+00
(52)	12/72D	0.293409E-02	0.495274E-02	0.592418E+00	0.595238E-02
(71)	1/73D	0.105415E-01	0.495661E-02	0.212675E+01	0.595238E-02
(72)	3/73D	0.952746E-02	0.495281E-02	0.192365E+01	0.595238E-02

RSQBAR= 0.7210 RSQ= 0.7344 SEE= 0.4750632E-02 SEEBAR= 0.4883233E-02

TSS= 0.1427564E-01 RSS= 0.3791508E-02 FSTAT(8, 159)= 0.5495755E+02

MBAR= 0.0043 DW STAT: 0.3741 RHO: 0.81814113

Rho-corrected

EQN NO. 1 167 OBSERVATIONS (2-> 168)
DEP VAR(105): CLURT
INDEPENDENT VAR(S): 9
V(S) IN XPX=105 M= 95
DETERMINANT= 0.8860701E-04
RHO= 0.8181411E+00
Y(168)= 0.0000000E+00

	INDEP.VAR.	REGR.COEFF.	STD.ERR.	T-RATIO	MEAN
(105)					0.417908E-02
(96)	CONS	0.448235E-01	0.126816E-01	0.353453E+01	0.181859E+00
(97)	WDAYS	0.924109E-03	0.100577E-03	0.918810E+01	0.381522E+01
(98)	LNURT	-0.599331E-02	0.286645E-02	0.209085E+01	0.314969E+00
(99)	ADAIX	-0.302136E-03	0.114197E-03	0.264575E+01	0.159992E+02
(100)	SWANTS	-0.175838E-01	0.213201E-02	0.824750E+01	0.108898E-02
(101)	B/Z	-0.904820E-02	0.166625E-02	0.543027E+01	0.877504E-01
(102)	12/72D	0.736525E-02	0.243791E-02	0.302114E+01	0.108898E-02
(103)	1/73D	0.142330E-01	0.246422E-02	0.577586E+01	0.108898E-02
(104)	3/73D	0.120217E-01	0.213391E-02	0.563366E+01	0.108898E-02

RSQBAR= 0.6233 RSQ= 0.6415 SEE= 0.2662270E-02 SEEBAR= 0.2737045E-02

TSS= 0.3301377E-02 RSS= 0.1183643E-02 FSTAT(8, 158)= 0.3533601E+02

MBAR= -0.0344 DW STAT: 2.3893 RHO: -0.19234368

Los Angeles County

Pre-QC/CA Regressions

Table A-11

Los Angeles AFDC-FG: Short Period Applications Equation (1st Stage)

EQN NO. 1 105 OBSERVATIONS (4-> 108)
DEP VAR(5): APREG
INDEPENDENT VAR(S): 8
V(S) IN XPX=112 M=112
DETERMINANT= 0.2532749E-05

INDEP.VAR.		REGR.COEFF.	STD.ERR.	T-RATIO	MEAN
(5)					0.563282E+01
(1)	CONS	-0.320351E+01	0.142684E+01	0.224518E+01	0.100000E+01
(41)	WDAYS	0.133744E+00	0.506246E-01	0.264188E+01	0.208762E+02
(54)	DSREMP	-0.136742E+00	0.461820E-01	0.296093E+01	0.412752E+00
(44)	SIMPLE	0.131524E+01	0.193053E+00	0.681281E+01	0.228571E+00
(74)	B/Z*30	0.176268E+01	0.292161E+00	0.603327E+01	0.492370E+00
(65)	FHF	0.351600E-01	0.769724E-02	0.456787E+01	0.138515E+03
(70)	WRAMOD	-0.185952E+01	0.552709E+00	0.336438E+01	0.214286E-01
(71)	SUMRDY	0.396092E+00	0.156234E+00	0.253525E+01	0.257143E+00

RSQBAR= 0.8708 RSQ= 0.8795 SEE= 0.6594883E+00 SEEBAR= 0.6861449E+00

TSS= 0.3790672E+03 RSS= 0.4566710E+02 FSTAT(7, 97)= 0.1011663E+03

MBAR= -0.7092 DW STAT: 0.6918 RHO: 0.66367686

Rho-corrected

EQN NO. 1 104 OBSERVATIONS (5-> 108)
DEP VAR(121): APREG
INDEPENDENT VAR(S): 8
V(S) IN XPX=121 M=112
DETERMINANT= 0.1296206E-03
RHO= 0.6636769E+00
Y(108)= 0.0000000E+00

INDEP.VAR.		REGR.COEFF.	STD.ERR.	T-RATIO	MEAN
(121)					0.192290E+01
(113)	CONS	-0.488227E+01	0.179732E+01	0.271641E+01	0.336323E+00
(114)	WDAYS	0.175985E+00	0.274199E-01	0.641816E+01	0.700475E+01
(115)	DSREMP	-0.728940E-01	0.279339E-01	0.260952E+01	0.139526E+00
(116)	SIMPLE	0.120315E+01	0.286178E+00	0.420420E+01	0.776130E-01
(117)	B/Z*30	0.126600E+01	0.445412E+00	0.284231E+01	0.173548E+00
(118)	FHF	0.429632E-01	0.131058E-01	0.327819E+01	0.470122E+02
(119)	WRAMOD	-0.182609E+01	0.474906E+00	0.384517E+01	0.727622E-02
(120)	SUMRDY	0.260658E+00	0.134022E+00	0.194489E+01	0.873146E-01

RSQBAR= 0.6573 RSQ= 0.6806 SEE= 0.4760356E+00 SEEBAR= 0.4954735E+00

TSS= 0.7377572E+02 RSS= 0.2356742E+02 FSTAT(7, 96)= 0.2921706E+02

MBAR= -0.3376 DW STAT: 1.7790 RHO: 0.11701078

Table A-12

Los Angeles AFDC-FG: Short Period Processing Rate Equation (1st Stage)

```
EQN NO. 1   105 OBSERVATIONS (   4-> 108)
DEP VAR( 15): PRORT
INDEPENDENT VAR(S):  10
V(S) IN XPX=111   M=111
DETERMINANT=      0.2715503E-04
```

INDEP.VAR.		REGR.COEFF.	STD.ERR.	T-RATIO	MEAN
(15)					0.570187E+00
(1)	CONS	0.513348E+00	0.505786E-01	0.101495E+02	0.100000E+01
(41)	WDAYS	0.887512E-02	0.229997E-02	0.385880E+01	0.208762E+02
(44)	SIMPLE	-0.490385E-01	0.856864E-02	0.572302E+01	0.228571E+00
(29)	UNRTE	-0.165392E-01	0.296459E-02	0.557891E+01	0.702733E+01
(45)	WRA	-0.978062E-01	0.184948E-01	0.528830E+01	0.285714E-01
(89)	SWSTK1	-0.116864E+00	0.174996E-01	0.667813E+01	0.447619E-01
(90)	2/65D	-0.762964E-01	0.312553E-01	0.244108E+01	0.952381E-02
(102)	WATRTS	0.657467E-01	0.129602E-01	0.507296E+01	0.571429E-01
(103)	STAFRO	0.613088E-01	0.137374E-01	0.446292E+01	0.571429E-01
(101)	WRKLOD	0.392097E-03	0.161228E-02	0.243194E+00	0.124094E+01

```
RSQBAR=   0.7272 RSQ=   0.7508   SEE= 0.2856805E-01 SEEBAR= 0.3003402E-01

TSS= 0.3439109E+00   RSS= 0.8569402E-01    FSTAT(  9,  95)= 0.3180644E+02

MBAR=  -0.2184       DW STAT:  1.3647      RHO:  0.32964121
```

Rho-corrected

```
EQN NO. 1   104 OBSERVATIONS (   5-> 108)
DEP VAR(122): PRORT
INDEPENDENT VAR(S):  10
V(S) IN XPX=122   M=111
DETERMINANT=      0.7332124E-04
RHO=      0.3296412E+00
Y( 108)=       0.0000000E+00
```

INDEP.VAR.		REGR.COEFF.	STD.ERR.	T-RATIO	MEAN
(122)					0.382004E+00
(112)	CONS	0.496640E+00	0.471278E-01	0.105382E+02	0.670359E+00
(113)	WDAYS	0.991454E-02	0.196102E-02	0.505582E+01	0.139810E+02
(114)	SIMPLE	-0.468565E-01	0.109707E-01	0.427104E+01	0.154698E+00
(115)	UNRTE	-0.160276E-01	0.374992E-02	0.427411E+01	0.470840E+01
(116)	WRA	-0.889909E-01	0.206486E-01	0.430978E+01	0.193373E-01
(117)	SWSTK1	-0.114352E+00	0.206802E-01	0.552953E+01	0.302951E-01
(118)	2/65D	-0.991241E-01	0.271608E-01	0.364952E+01	0.644576E-02
(119)	WATRTS	0.616685E-01	0.157831E-01	0.390726E+01	0.386745E-01
(120)	STAFRO	0.559719E-01	0.165037E-01	0.339147E+01	0.386745E-01
(121)	WRKLOD	-0.852948E-02	0.401753E-02	0.212306E+01	0.650682E+00

```
RSQBAR=   0.6439 RSQ=   0.6750   SEE= 0.2637382E-01 SEEBAR= 0.2774124E-01

TSS= 0.2225896E+00   RSS= 0.7234016E-01    FSTAT(  9,  94)= 0.2169295E+02

MBAR=  -0.1363       DW STAT:  2.0484      RHO: -0.01520525
```

Table A-13

Los Angeles AFDC-FG: Short Period Rejection Rate Equation (1st Stage)

```
EQN NO.  1   105 OBSERVATIONS (    4-> 108)
DEP VAR( 16): REJRT
INDEPENDENT VAR(S):    7
V(S) IN XPX=111   M=111
DETERMINANT=      0.2999089E-03
```

INDEP.VAR.		REGR.COEFF.	STD.ERR.	T-RATIO	MEAN
(16)					0.345612E+00
(1)	CONS	0.651505E+00	0.164111E-01	0.396991E+02	0.100000E+01
(68)	PRT	-0.907138E+00	0.554995E-01	0.163450E+02	0.623330E+00
(69)	SQPRT	0.610780E+00	0.405941E-01	0.150460E+02	0.452323E+00
(42)	SWSTK	-0.755435E-01	0.170447E-01	0.443207E+01	0.952381E-02
(44)	SIMPLE	-0.452833E-01	0.482407E-02	0.938695E+01	0.228571E+00
(92)	5/65D	0.656225E-01	0.171404E-01	0.382852E+01	0.952381E-02
(96)	LIBSS	-0.927411E-01	0.906620E-02	0.102293E+02	0.676190E-01

```
RSQBAR=   0.8915 RSQ=   0.8977   SEE= 0.1629229E-01 SEEBAR= 0.1686412E-01

TSS= 0.2724993E+00   RSS= 0.2787107E-01      FSTAT(  6,  98)= 0.1433599E+03

MBAR=  -0.1457        DW STAT:  1.6071        RHO:  0.20171095
```

Rho-corrected

```
EQN NO.  1   104 OBSERVATIONS (    5-> 108)
DEP VAR(119): REJRT
INDEPENDENT VAR(S):    7
V(S) IN XPX=119   M=111
DETERMINANT=      0.2995866E-03
RHO=      0.2017109E+00
Y( 108)=      0.0000000E+00
```

INDEP.VAR.		REGR.COEFF.	STD.ERR.	T-RATIO	MEAN
(119)					0.275270E+00
(112)	CONS	0.658038E+00	0.205501E-01	0.320212E+02	0.798289E+00
(113)	PRT	-0.926757E+00	0.691211E-01	0.134077E+02	0.501384E+00
(114)	SQPRT	0.623858E+00	0.504089E-01	0.123760E+02	0.365510E+00
(115)	SWSTK	-0.743977E-01	0.162666E-01	0.457365E+01	0.767585E-02
(116)	SIMPLE	-0.446527E-01	0.574970E-02	0.776610E+01	0.184220E+00
(117)	5/65D	0.602444E-01	0.163249E-01	0.369034E+01	0.767585E-02
(118)	LIBSS	-0.929520E-01	0.107330E-01	0.866042E+01	0.544986E-01

```
RSQBAR=   0.8477 RSQ=   0.8566   SEE= 0.1591943E-01 SEEBAR= 0.1648384E-01

TSS= 0.1837492E+00   RSS= 0.2635654E-01      FSTAT(  6,  97)= 0.9654204E+02

MBAR=  -0.1131        DW STAT:  1.8947        RHO:  0.05737004
```

Table A-14

Los Angeles AFDC-FG: Short Period Closing Rate Equation (1st Stage)

```
EQN NO.  1   105 OBSERVATIONS (   4-> 108)
DEP VAR( 26): CLORT
INDEPENDENT VAR(S):  13
V(S) IN XPX=111  M=111
DETERMINANT=      0.3999538E-04
```

INDEP.VAR.		REGR.COEFF.	STD.ERR.	T-RATIO	MEAN
(26)					0.331889E-01
(1)	CONS	0.171690E-01	0.687015E-02	0.249908E+01	0.100000E+01
(41)	WDAYS	0.109451E-02	0.302663E-03	0.361628E+01	0.208762E+02
(29)	UNRTE	-0.729919E-03	0.431127E-03	0.169305E+01	0.702733E+01
(79)	LBDSR	-0.925603E-02	0.131639E-02	0.703140E+01	0.180952E+00
(80)	9/64D	-0.131639E-01	0.403082E-02	0.326581E+01	0.952381E-02
(81)	6/65D	0.107737E-01	0.407093E-02	0.264650E+01	0.952381E-02
(82)	3/66D	0.148616E-01	0.407539E-02	0.364668E+01	0.952381E-02
(83)	WINTAL	0.108345E-01	0.404150E-02	0.268080E+01	0.952381E-02
(84)	10/68D	0.136550E-01	0.405824E-02	0.336477E+01	0.952381E-02
(85)	5/68D	0.175925E-01	0.405489E-02	0.433858E+01	0.952381E-02
(88)	WRA1	0.966932E-02	0.405998E-02	0.238162E+01	0.952381E-02
(86)	67/68D	-0.127571E-01	0.172266E-02	0.740550E+01	0.571429E-01
(110)	3/71D	0.967755E-02	0.420514E-02	0.230136E+01	0.952381E-02

```
RSQBAR=   0.7104 RSQ=   0.7438    SEE= 0.3735703E-02 SEEBAR= 0.3990921E-02

TSS= 0.5720367E-02   RSS= 0.1465325E-02     FSTAT( 12,   92)= 0.2226262E+02

MBAR=  -0.1884       DW STAT:  1.8945       RHO:  0.06904144
```

Rho-corrected

```
EQN NO.  1   104 OBSERVATIONS (   5-> 108)
DEP VAR(125): CLORT
INDEPENDENT VAR(S):  13
V(S) IN XPX=125  M=111
DETERMINANT=     0.5070448E-04
RHO=      0.6904144E-01
Y( 108)=      0.0000000E+00
```

INDEP.VAR.		REGR.COEFF.	STD.ERR.	T-RATIO	MEAN
(125)					0.307893E-01
(112)	CONS	0.171234E-01	0.676132E-02	0.253255E+01	0.930958E+00
(113)	WDAYS	0.108969E-02	0.292760E-03	0.372214E+01	0.194235E+02
(114)	UNRTE	-0.724563E-03	0.447605E-03	0.161876E+01	0.654109E+01
(115)	LBDSR	-0.913983E-02	0.137207E-02	0.666137E+01	0.170079E+00
(116)	9/64D	-0.127931E-01	0.393759E-02	0.324896E+01	0.895152E-02
(117)	6/65D	0.108545E-01	0.397910E-02	0.272787E+01	0.895152E-02
(118)	3/66D	0.152149E-01	0.398862E-02	0.381458E+01	0.895152E-02
(119)	WINTAL	0.102966E-01	0.394903E-02	0.260739E+01	0.895152E-02
(120)	10/68D	0.131843E-01	0.396482E-02	0.332531E+01	0.895152E-02
(121)	5/68D	0.171004E-01	0.396839E-02	0.430916E+01	0.895152E-02
(122)	WRA1	0.985884E-02	0.396041E-02	0.248935E+01	0.895152E-02
(123)	67/68D	-0.125528E-01	0.179015E-02	0.701213E+01	0.537091E-01
(124)	3/71D	0.896514E-02	0.409769E-02	0.218785E+01	0.895152E-02

```
RSQBAR=   0.7021 RSQ=   0.7368    SEE= 0.3661352E-02 SEEBAR= 0.3914150E-02

TSS= 0.5297351E-02   RSS= 0.1394172E-02     FSTAT( 12,   91)= 0.2123059E+02

MBAR=  -0.1874       DW STAT:  1.9800       RHO:  0.02595154
```

Alameda County

Pre-QC/CA Regressions

Table A-15

Alameda AFDC-FG: Short Period Cases Added Equation (1st Stage)

```
EQN NO.  1   102 OBSERVATIONS (    1-> 102)
DEP VAR(  4): CAADO
INDEPENDENT VAR(S):    5
V(S) IN XPX= 66   M= 66
DETERMINANT=      0.1772194E-02
```

INDEP.VAR.		REGR.COEFF.	STD.ERR.	T-RATIO	MEAN
(4)					0.726323E+00
(1)	CONS	0.258922E+00	0.195952E+00	0.132135E+01	0.100000E+01
(25)	DMNEMP	-0.541640E-02	0.506201E-02	0.107001E+01	-0.318626E-02
(58)	B/Z*30	0.572713E+00	0.344085E-01	0.166445E+02	0.338109E+00
(20)	WDAY	0.118935E-01	0.937087E-02	0.126920E+01	0.209019E+02
(44)	WR&TRB	0.855010E+00	0.968795E-01	0.882550E+01	0.294118E-01

```
RSQBAR=   0.8180 RSQ=    0.8252    SEE= 0.1181430E+00 SEEBAR= 0.1211497E+00

TSS= 0.8143107E+01    RSS= 0.1423693E+01       FSTAT(   4,   97)= 0.1144529E+03

MBAR=  -0.1805          DW STAT:  1.1525         RHO:  0.42710716
```

Rho-corrected

```
EQN NO.  1   101 OBSERVATIONS (    2-> 102)
DEP VAR( 72): CAADO
INDEPENDENT VAR(S):    5
V(S) IN XPX= 72   M= 66
DETERMINANT=      0.8284560E-02
RHO=      0.4271072E+00
Y( 102)=       0.1000000E+01
```

INDEP.VAR.		REGR.COEFF.	STD.ERR.	T-RATIO	MEAN
(72)					0.420783E+00
(67)	CONS	0.139206E+00	0.146469E+00	0.950412E+00	0.572893E+00
(68)	DMNEMP	-0.428386E-02	0.431287E-02	0.993274E+00	0.167063E-02
(69)	B/Z*30	0.553465E+00	0.518652E-01	0.106712E+02	0.198968E+00
(70)	WDAY	0.182044E-01	0.694674E-02	0.262057E+01	0.119684E+02
(71)	WR&TRB	0.766367E+00	0.103303E+00	0.741861E+01	0.170166E-01

```
RSQBAR=   0.6727 RSQ=    0.6858    SEE= 0.1056127E+00 SEEBAR= 0.1083281E+00

TSS= 0.3585877E+01    RSS= 0.1126558E+01       FSTAT(   4,   96)= 0.5239290E+02

MBAR=  -0.1074          DW STAT:  2.2019         RHO: -0.09885089
```

Table A-16

Alameda AFDC-FG: Short Period Closing Rate Equation (1st Stage)

```
EQN NO.  1    102 OBSERVATIONS (    1-> 102)
DEP VAR( 14): CLURT
INDEPENDENT VAR(S):    8
V(S) IN XPX= 66   M= 66
DETERMINANT=      0.1124893E-04
```

INDEP.VAR.		REGR.COEFF.	STD.ERR.	T-RATIO	MEAN
(14)					0.390206E-01
(1)	CONS	0.317775E-01	0.736184E-02	0.431651E+01	0.100000E+01
(27)	UNRTE	-0.139274E-02	0.559733E-03	0.248822E+01	0.599333E+01
(58)	B/Z*30	-0.493404E-02	0.127253E-02	0.387735E+01	0.338109E+00
(65)	FEB	-0.217873E-02	0.176108E-02	0.123716E+01	0.784314E-01
(20)	WDAYS	0.830874E-03	0.342191E-03	0.242810E+01	0.209019E+02
(40)	ANTWRA	0.158792E-01	0.304730E-02	0.521092E+01	0.196078E-01
(39)	IMPWRA	0.263595E-01	0.340672E-02	0.773751E+01	0.196078E-01
(63)	LBDSR2	-0.520710E-02	0.125992E-02	0.413289E+01	0.147059E+00

```
RSQBAR=   0.6046 RSQ=    0.6320    SEE= 0.3761690E-02 SEEBAR= 0.3918494E-02

TSS= 0.3921751E-02    RSS= 0.1443332E-02        FSTAT(  7,   94)= 0.2305888E+02

MBAR=  -0.1122          DW STAT:  1.7190         RHO:  0.14745243
```

Rho-corrected

```
EQN NO.  1    101 OBSERVATIONS (    2-> 102)
DEP VAR( 75): CLURT
INDEPENDENT VAR(S):    8
V(S) IN XPX= 75   M= 66
DETERMINANT=      0.1914777E-04
RHO=      0.1474524E+00
Y( 102)=       0.1000000E+01
```

INDEP.VAR.		REGR.COEFF.	STD.ERR.	T-RATIO	MEAN
(75)					0.334253E-01
(67)	CONS	0.260344E-01	0.661936E-02	0.393306E+01	0.852547E+00
(68)	UNRTE	-0.103398E-02	0.562534E-03	0.183807E+01	0.510240E+01
(69)	B/Z*30	-0.542493E-02	0.131053E-02	0.413949E+01	0.292264E+00
(70)	FEB	-0.192311E-02	0.154801E-02	0.124231E+01	0.675285E-01
(71)	WDAYS	0.102207E-02	0.295403E-03	0.345992E+01	0.178106E+02
(72)	ANTWRA	0.149813E-01	0.285510E-02	0.524721E+01	0.168821E-01
(73)	IMPWRA	0.260289E-01	0.330262E-02	0.788128E+01	0.168821E-01
(74)	LBDSR2	-0.533225E-02	0.128373E-02	0.415372E+01	0.126616E+00

```
RSQBAR=   0.6279 RSQ=    0.6539    SEE= 0.3354912E-02 SEEBAR= 0.3496233E-02

TSS= 0.3284850E-02    RSS= 0.1136799E-02        FSTAT(  7,   93)= 0.2510416E+02

MBAR=  -0.1295          DW STAT:  2.2435         RHO: -0.11632290
```

San Diego County

Pre-QC/CA Regressions

Table A-17

San Diego AFDC-FG: Short Period Cases Added Equation (1st Stage)

```
EQN NO. 2   108 OBSERVATIONS (   1-> 108)
DEP VAR( 4): CAADD
INDEPENDENT VAR(S):   8
V(S) IN XPX= 70  M= 70
DETERMINANT=      0.2932117E-07
```

INDEP.VAR.		REGR.COEFF.	STD.ERR.	T-RATIO	MEAN
(4)					0.759092E+00
(1)	CONS	-0.127139E+01	0.318076E+00	0.399713E+01	0.100000E+01
(22)	UNRTE	0.180327E-01	0.779949E-02	0.231203E+01	0.732407E+01
(37)	WDAY	0.147593E-01	0.963179E-02	0.153236E+01	0.208796E+02
(45)	FHF2	0.511525E-01	0.108568E-01	0.471158E+01	0.252482E+02
(28)	DMNEMP	-0.477462E-01	0.360217E-01	0.132548E+01	0.193056E-01
(56)	DMY99	0.466512E+00	0.137348E+00	0.339657E+01	0.925926E-02
(60)	B/Z*30	0.270285E+00	0.543410E-01	0.497386E+01	0.474213E+00
(9)	CACL-2	0.276801E+00	0.733774E-01	0.377229E+01	0.603916E+00

```
RSQBAR=   0.9082 RSQ=   0.9142   SEE= 0.1275933E+00 SEEBAR= 0.1325988E+00

TSS= 0.2049311E+02   RSS= 0.1758244E+01    FSTAT(  7, 100)= 0.1522206E+03

MBAR=  -0.8437        DW STAT:  0.9357        RHO:  0.54054190
```

Rho-corrected

```
EQN NO. 2   107 OBSERVATIONS (   2-> 108)
DEP VAR( 79): CAADD
INDEPENDENT VAR(S):   8
V(S) IN XPX= 79  M= 70
DETERMINANT=      0.1443295E-05
RHO=      0.5405419E+00
Y( 108)=       0.0000000E+00
```

INDEP.VAR.		REGR.COEFF.	STD.ERR.	T-RATIO	MEAN
(79)					0.356954E+00
(71)	CONS	-0.117204E+01	0.330034E+00	0.355128E+01	0.459458E+00
(72)	UNRTE	0.197427E-01	0.125195E-01	0.157696E+01	0.332379E+01
(73)	WDAY	0.148990E-01	0.642958E-02	0.231726E+01	0.957840E+01
(74)	FHF2	0.452305E-01	0.123161E-01	0.367248E+01	0.116854E+02
(75)	DMNEMP	-0.366861E-01	0.234756E-01	0.156273E+01	0.106555E-01
(76)	DMY99	0.647674E+00	0.987076E-01	0.656154E+01	0.429400E-02
(77)	B/Z*30	0.247025E+00	0.816425E-01	0.302569E+01	0.225146E+00
(78)	CACL-2	0.351081E+00	0.584270E-01	0.600888E+01	0.286503E+00

```
RSQBAR=   0.7925 RSQ=   0.8062   SEE= 0.1056219E+00 SEEBAR= 0.1098065E+00

TSS= 0.6159483E+01   RSS= 0.1193690E+01    FSTAT(  7,  99)= 0.5883479E+02

MBAR=  -0.5868        DW STAT:  2.0016        RHO:  0.00470485
```

Table A-18

San Diego AFDC-FG: Short Period Closing Rate Equation (1st Stage)

```
EQN NO.  1   108 OBSERVATIONS (    1-> 108)
DEP VAR(  7): CLORT
INDEPENDENT VAR(S):   8
V(S) IN XPX= 68   M= 68
DETERMINANT=       0.1733484E-03
```

INDEP.VAR.		REGR.COEFF.	STD.ERR.	T-RATIO	MEAN
(7)					0.535509E-01
(1)	CONS	0.146850E-02	0.117661E-01	0.124808E+00	0.100000E+01
(48)	C/F	0.456139E-01	0.743166E-02	0.613777E+01	0.389814E+00
(37)	WDAY	0.163187E-02	0.549669E-03	0.296882E+01	0.208796E+02
(61)	LBDSR	-0.731596E-02	0.255204E-02	0.286670E+01	0.175926E+00
(57)	ANTWRA	0.631374E-01	0.786366E-02	0.802900E+01	0.925926E-02
(55)	IMWR-1	0.400859E-01	0.776646E-02	0.516141E+01	0.925926E-02
(56)	DMY99	0.177404E-01	0.785587E-02	0.225823E+01	0.925926E-02
(67)	RBUGDY	0.284926E-01	0.712106E-02	0.400117E+01	0.138889E-01

```
RSQBAR=    0.6764 RSQ=    0.6976    SEE= 0.7253664E-02 SEEBAR= 0.7538229E-02

TSS= 0.1879003E-01    RSS= 0.5682489E-02     FSTAT(  7, 100)= 0.3295219E+02

MBAR=  -0.1928        DW STAT:  1.1747       RHO:  0.42035531
```

Rho-corrected

```
EQN NO.  1   107 OBSERVATIONS (    2-> 108)
DEP VAR( 77): CLORT
INDEPENDENT VAR(S):   8
V(S) IN XPX= 77   M= 68
DETERMINANT=       0.8479341E-03
RHO=       0.4203553E+00
Y( 108)=        0.0000000E+00
```

INDEP.VAR.		REGR.COEFF.	STD.ERR.	T-RATIO	MEAN
(77)					0.312037E-01
(69)	CONS	-0.551833E-02	0.957110E-02	0.576562E+00	0.579645E+00
(70)	C/F	0.485477E-01	0.106218E-01	0.457059E+01	0.228312E+00
(71)	WDAY	0.192837E-02	0.421359E-03	0.457655E+01	0.120888E+02
(72)	LBDSR	-0.810612E-02	0.349173E-02	0.232152E+01	0.102928E+00
(73)	ANTWRA	0.568993E-01	0.661322E-02	0.860387E+01	0.541724E-02
(74)	IMWR-1	0.316008E-01	0.628848E-02	0.502519E+01	0.541724E-02
(75)	DMY99	0.192457E-01	0.639545E-02	0.300928E+01	0.541724E-02
(76)	RBUGDY	0.255009E-01	0.694922E-02	0.366961E+01	0.100901E-01

```
RSQBAR=    0.6548 RSQ=    0.6776    SEE= 0.6520305E-02 SEEBAR= 0.6778634E-02

TSS= 0.1410776E-01    RSS= 0.4549038E-02     FSTAT(  7,  99)= 0.2971783E+02

MBAR=  -0.1270        DW STAT:  2.0095       RHO:  0.00074635
```

Florida

Pre-QC/CA Regressions

Table A-19

Florida AFDC-Basic: Short Period Applications Received Equation

(1st Stage)

```
EQN NO.  1     83 OBSERVATIONS (  26-> 108)
DEP VAR(  7): APPREC
INDEPENDENT VAR(S):   6
V(S) IN XPX= 84   M= 84
DETERMINANT=      0.5063451E-04
```

INDEP.VAR.		REGR.COEFF.	STD.ERR.	T-RATIO	MEAN
(7)					0.340660E+01
(1)	CONS	-0.201803E+01	0.660948E+00	0.305324E+01	0.100000E+01
(53)	BZ*30	0.107332E+01	0.420934E+00	0.254984E+01	0.389582E+00
(66)	SIMPLE	0.948220E+00	0.228347E+00	0.415253E+01	0.144578E+00
(25)	DSKEMP	-0.274973E-01	0.127618E-01	0.215465E+01	0.826506E+00
(43)	FHF	0.327770E-01	0.849510E-02	0.385834E+01	0.113630E+03
(15)	URATE	0.284548E+00	0.120317E+00	0.236498E+01	0.410361E+01

```
RSQBAR=   0.7621 RSQ=    0.7766    SEE= 0.6425777E+00 SEEBAR= 0.6671436E+00

TSS= 0.1534179E+03    RSS= 0.3427120E+02      FSTAT(  5,   77)= 0.5353937E+02

MBAR=  -0.6348          DW STAT:  1.9269        RHO:  0.04183828
```

Rho-corrected

```
EQN NO.  1     82 OBSERVATIONS (  27-> 108)
DEP VAR( 91): APPREC
INDEPENDENT VAR(S):   6
V(S) IN XPX= 91   M= 84
DETERMINANT=      0.5341683E-04
RHO=       0.4183828E-01
Y( 108)=       0.8179999E+02
```

INDEP.VAR.		REGR.COEFF.	STD.ERR.	T-RATIO	MEAN
(91)					0.328339E+01
(85)	CONS	-0.202121E+01	0.694876E+00	0.290874E+01	0.958162E+00
(86)	BZ*30	0.106220E+01	0.439841E+00	0.241495E+01	0.378219E+00
(87)	SIMPLE	0.960579E+00	0.238054E+00	0.403513E+01	0.140219E+00
(88)	DSKEMP	-0.276447E-01	0.132282E-01	0.208983E+01	0.740526E+00
(89)	FHF	0.333204E-01	0.882940E-02	0.377380E+01	0.109188E+03
(90)	URATE	0.270745E+00	0.122938E+00	0.220228E+01	0.393690E+01

```
RSQBAR=   0.7420 RSQ=    0.7580    SEE= 0.6460399E+00 SEEBAR= 0.6710571E+00

TSS= 0.1414033E+03    RSS= 0.3422414E+02      FSTAT(  5,   76)= 0.4760158E+02

MBAR=  -0.6128          DW STAT:  2.0226        RHO: -0.00612833
```

Table A-20

Florida AFDC-Basic: Short Period Processing Rate Equation (1st Stage)

```
EQN NO.  2     83 OBSERVATIONS (  26-> 108)
DEP VAR( 49): PROC
INDEPENDENT VAR(S):  11
V(S) IN XPX= 84   M= 84
DETERMINANT=      0.3351381E-03
```

INDEP.VAR.		REGR.COEFF.	STD.ERR.	T-RATIO	MEAN
(49)					0.576853E+00
(1)	CONS	0.491103E+00	0.506434E-01	0.969727E+01	0.100000E+01
(62)	SREMP	0.580859E-03	0.378461E-03	0.153479E+01	0.156614E+03
(70)	AIDES	0.416058E-01	0.222985E-01	0.186586E+01	0.108434E+00
(68)	STAFF	0.162803E+00	0.347616E-01	0.468340E+01	0.301205E-01
(65)	SIMPHA	0.396210E-01	0.161823E-01	0.244841E+01	0.180723E+00
(56)	SEPSV1	0.214290E+00	0.436581E-01	0.490836E+01	0.120482E-01
(71)	MRIMP	-0.102311E+00	0.423248E-01	0.241728E+01	0.120482E-01
(72)	69D1	0.126623E+00	0.310991E-01	0.407161E+01	0.355422E-01
(73)	68/69D	0.127747E+00	0.255389E-01	0.500207E+01	0.663855E-01
(74)	MEDSTR	-0.685831E-01	0.350439E-01	0.195706E+01	0.210843E-01
(53)	BZ*30	-0.890194E-01	0.291511E-01	0.305372E+01	0.389582E+00

```
RSQBAR=   0.6004 RSQ=    0.6492    SEE= 0.3871281E-01 SEEBAR= 0.4156497E-01

TSS= 0.3545535E+00    RSS= 0.1243906E+00      FSTAT( 10,  72)= 0.1332233E+02

MBAR=  -0.0720         DW STAT:  1.3193        RHO:  0.36419767
```

Rho-corrected

```
EQN NO.  2     82 OBSERVATIONS (  27-> 108)
DEP VAR( 96): PROC
INDEPENDENT VAR(S):  11
V(S) IN XPX= 96   M= 84
DETERMINANT=      0.6356006E-03
RHO=       0.3641977E+00
Y( 108)=       0.8179999E+02
```

INDEP.VAR.		REGR.COEFF.	STD.ERR.	T-RATIO	MEAN
(96)					0.365581E+00
(85)	CONS	0.480720E+00	0.597496E-01	0.804559E+01	0.635802E+00
(86)	SREMP	0.596236E-03	0.440371E-03	0.135394E+01	0.999993E+02
(87)	AIDES	0.416231E-01	0.256338E-01	0.162376E+01	0.742246E-01
(88)	STAFF	0.163630E+00	0.374934E-01	0.436422E+01	0.238256E-01
(89)	SIMPHA	0.455425E-01	0.200176E-01	0.227512E+01	0.116305E+00
(90)	SEPSV1	0.178785E+00	0.344510E-01	0.518954E+01	0.775369E-02
(91)	MRIMP	-0.936386E-01	0.337530E-01	0.277423E+01	0.775369E-02
(92)	69D1	0.133400E+00	0.344665E-01	0.387044E+01	0.228734E-01
(93)	68/69D	0.136076E+00	0.304204E-01	0.447317E+01	0.427228E-01
(94)	MEDSTR	-0.659718E-01	0.330575E-01	0.199567E+01	0.135689E-01
(95)	BZ*30	-0.810835E-01	0.345089E-01	0.234964E+01	0.254063E+00

```
RSQBAR=   0.5711 RSQ=    0.6241    SEE= 0.3324118E-01 SEEBAR= 0.3572351E-01

TSS= 0.2410336E+00    RSS= 0.9060803E-01      FSTAT( 10,  71)= 0.1178727E+02

MBAR=  -0.0533         DW STAT:  2.3760        RHO: -0.17327411
```

Table A-21

Florida AFDC-Basic: Short Period Rejection Rate Equation (1st Stage)

```
EQN NO.  4     83 OBSERVATIONS (  26-> 108)
DEP VAR( 48): REJRT
INDEPENDENT VAR(S):   6
V(S) IN XPX= 84  M= 84
DETERMINANT=      0.3518791E+00
```

INDEP.VAR.		REGR.COEFF.	STD.ERR.	T-RATIO	MEAN
(48)					0.316998E+00
(1)	CONS	0.347102E+00	0.606083E-02	0.572696E+02	0.100000E+01
(57)	REVMON	0.172051E+00	0.271422E-01	0.633888E+01	0.475904E-01
(55)	68/692	0.503558E-01	0.178761E-01	0.281693E+01	0.109036E+00
(56)	SEPSV1	-0.127300E+00	0.390636E-01	0.325880E+01	0.120482E-01
(38)	SEPSVC	-0.111181E+00	0.104702E-01	0.106189E+02	0.325301E+00
(50)	SIMANT	-0.168228E+00	0.228274E-01	0.736958E+01	0.361446E-01

```
RSQBAR=   0.7294 RSQ=   0.7459   SEE= 0.3671552E-01 SEEBAR= 0.3811916E-01

TSS= 0.4403223E+00   RSS= 0.1118864E+00      FSTAT(  5,  77)= 0.4520576E+02

MBAR=  -0.0007        DW STAT:  1.2833        RHO:  0.36534431
```

Rho-corrected

```
EQN NO.  4     82 OBSERVATIONS (  27-> 108)
DEP VAR( 91): REJRT
INDEPENDENT VAR(S):   6
V(S) IN XPX= 91  M= 84
DETERMINANT=      0.3695604E+00
RHO=      0.3653443E+00
Y( 108)=      0.8179999E+02
```

INDEP.VAR.		REGR.COEFF.	STD.ERR.	T-RATIO	MEAN
(91)					0.199432E+00
(85)	CONS	0.339047E+00	0.843260E-02	0.402067E+02	0.634656E+00
(86)	REVMON	0.177930E+00	0.335243E-01	0.530749E+01	0.305716E-01
(87)	68/692	0.729854E-01	0.222047E-01	0.328693E+01	0.700443E-01
(88)	SEPSV1	-0.116676E+00	0.341630E-01	0.341528E+01	0.773970E-02
(89)	SEPSVC	-0.104179E+00	0.142290E-01	0.732163E+01	0.213427E+00
(90)	SIMANT	-0.136100E+00	0.263595E-01	0.516321E+01	0.232191E-01

```
RSQBAR=   0.6009 RSQ=   0.6255   SEE= 0.3309496E-01 SEEBAR= 0.3437652E-01

TSS= 0.2398185E+00   RSS= 0.8981265E-01      FSTAT(  5,  76)= 0.2538716E+02

MBAR=   0.0195        DW STAT:  2.0641        RHO: -0.02697100
```

Table A-22

Florida AFDC-Basic: Short Period Closing Rate Equation (1st Stage)

```
EQN NO.  3     83 OBSERVATIONS (  26->.108)
DEP VAR( 11): CLOSRT
INDEPENDENT VAR(S):    6
V(S) IN XPX= 84   M= 84
DETERMINANT=      0.2666727E-02
```

INDEP.VAR.		REGR.COEFF.	STD.ERR.	T-RATIO	MEAN
(11)					0.279965E-01
(1)	CONS	0.159838E-01	0.492672E-02	0.324431E+01	0.100000E+01
(56)	SEPSV1	0.557847E-01	0.485077E-02	0.115002E+02	0.120482E-01
(64)	REVEND	0.243072E-01	0.442606E-02	0.549185E+01	0.210843E-01
(62)	SREMP	0.986074E-04	0.360432E-04	0.273581E+01	0.156614E+03
(52)	30+1/3	-0.676419E-02	0.163529E-02	0.413639E+01	0.650602E+00
(63)	IBM	-0.104697E-01	0.399803E-02	0.261872E+01	0.204819E-01

```
RSQBAR=    0.6861 RSQ=     0.7052    SEE= 0.4601248E-02 SEEBAR= 0.4777155E-02

TSS= 0.5961198E-02    RSS= 0.1757233E-02       FSTAT(  5,  77)= 0.3684261E+02

MBAR=    0.0370         DW STAT:  1.7840       RHO:  0.11367791
```

Rho-corrected

```
EQN NO.  3     82 OBSERVATIONS (  27-> 108)
DEP VAR( 91): CLOSRT
INDEPENDENT VAR(S):    6
V(S) IN XPX= 91   M= 84
DETERMINANT=      0.2804739E-02
RHO=      0.1136779E+00
Y( 108)=        0.8179999E+02
```

INDEP.VAR.		REGR.COEFF.	STD.ERR.	T-RATIO	MEAN
(91)					0.248931E-01
(85)	CONS	0.164438E-01	0.536691E-02	0.306393E+01	0.880322E+00
(86)	SEPSV1	0.560960E-01	0.474593E-02	0.118198E+02	0.108088E-01
(87)	REVEND	0.243523E-01	0.455448E-02	0.534688E+01	0.189154E-01
(88)	SREMP	0.970484E-04	0.392036E-04	0.247550E+01	0.139097E+03
(89)	30+1/3	-0.692257E-02	0.180638E-02	0.383228E+01	0.585062E+00
(90)	IBM	-0.107460E-01	0.413579E-02	0.259831E+01	0.183750E-01

```
RSQBAR=    0.6925 RSQ=     0.7115    SEE= 0.4542759E-02 SEEBAR= 0.4718672E-02

TSS= 0.5864879E-02    RSS= 0.1692206E-02       FSTAT(  5,  76)= 0.3748044E+02

MBAR=    0.0321         DW STAT:  2.1510       RHO: -0.07067244
```

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Executive Summary

In April 1973, the Department of Health, Education, and Welfare (HEW) instituted a policy that tied fiscal sanctions directly to rates of ineligibility and overpayment in the Aid to Families with Dependent Children (AFDC) program. The development of the new "Quality Control" sanctions clearly reflected an increased level of commitment on the part of HEW to error reduction and the elimination of potential fraud and abuse in the program.

While many states had been admittedly lax in their approaches to quality control throughout the 1960s and very early 1970s, the announcement of a federal sanctions policy prompted states to respond to HEW's initiative by implementing a full range of corrective actions intended to reduce their measured error rates. Although the specific corrective actions developed and subsequently implemented differed substantially between jurisdictions, the goals remained the same — to reduce fraud, abuse, and administrative error, and to mitigate the potential for incurring fiscal penalties.

Since the introduction of the HEW sanctions policy, measured error rates have declined in virtually all jurisdictions, and in some jurisdictions dramatically. In 1979, however, it was still unclear precisely how various corrective actions affected AFDC caseload and expenditure levels. While it was generally recognized that a wide range of factors interact to generate a monthly caseload in each AFDC jurisdiction, the independent impact of corrective actions themselves remained unknown and unmeasured. Have the majority of corrective actions, for instance, acted to reduce the number of applications received by welfare agencies, to raise the proportion of applications that are rejected, or have the corrective action programs tended to increase the proportion of active cases removed from the public assistance rolls? Indeed, have the corrective action programs affected caseload levels and expenditures at all?

In order to determine what the true impact of corrective actions has been on the AFDC program, the Public Assistance Data Analysis Laboratory at the Social Welfare Research Institute (SWRI), Boston College, conducted a series of studies in six jurisdictions: Upstate New York, New York City, the California counties of Los Angeles, Alameda, and San Diego, and the State of Florida. Through both qualitative and quantitative methods of analysis, the research staff attempted to isolate and measure the independent impacts of quality control induced corrective actions on the caseloads and expenditures of these six carefully selected jurisdictions. The six were chosen in cooperation with the Division of Family Assistance Studies of the Department of Health and Human Services, the agency funding the research.

An Overview of the Research Methodology

While the first stage of the research involved detailed interviews of AFDC program administrators in order to provide expanded information about the characteristics and operation of the various corrective actions, by themselves these interviews could not provide accurate quantitative estimates of the independent impact of these activities. To accomplish this, individual multi-equation time series econometric models were constructed for each of the jurisdictions involved in the study. Similar models, first constructed by SWRI in the mid 1970s, have been used to quantitatively estimate the individual contributions of a wide range of economic, social, political, and administrative factors to changes in caseload and expenditure levels. These factors included changes in relative benefit levels, economic and employment opportunity conditions, and most important for this research, changes in administrative factors such as corrective actions.

The SWRI methodology of analyzing caseload and expenditure dynamics begins with the disaggregation of the caseload into a mathematical identity that contains several individual equations. In the most disaggregated version, regression equations are estimated for each of the following components of the "caseload identity:"

1) Applications Received
2) Application Processing Rate
3) Acceptance (Rejection) Rate
4) Closing Rate

Using this methodology the determinants of each component can be estimated, focusing explicit attention on the corrective actions implemented in each jurisdiction. This permits us to provide accurate quantitative estimates of the impact of these activities on the separate components. In this manner, the ability to model the dynamics of the AFDC program is greatly enhanced, for a large number of independent factors, including corrective actions, can enter the model and each can be statistically evaluated.

Once the caseload component equations have been estimated, it is necessary to reaggregate the caseload identity from its estimated component parts. This is accomplished with a computer simulation program that uses the values of estimated relationships between the caseload components and their determinants and all exogenous or predetermined data to produce simulated estimates of actual caseload and expenditure levels.

One further step is necessary to evaluate the independent impact of the various corrective actions. "Counterfactual" simulations are run which, in effect, remove the corrective action related factors from the equation system. This process yields a set of counterfactual caseload and expenditure estimates. In essence, these estimates reveal what the caseload and expenditures would have been had corrective actions not been undertaken. The difference between the original simulated caseload and expenditure estimates and the counterfactual estimates indicates the independent impact of corrective actions.

Major Findings

The major findings of this research are presented in Tables 1 and 2. Table 1 indicates the total impact of all corrective action related factors (incorporated into each jurisdiction's AFDC model) on caseload and expenditure levels for three points in time. It presents, in order of increasing magnitude, the percentage reduction in each jurisdiction's caseload and expenditures attributable to corrective actions alone. In effect, these percentage estimates represent the caseload reduction impact of corrective actions relative to our best model estimate of actual caseload. As such, they indicate how much higher the caseload would have been had corrective actions not been undertaken.

Table 2 indicates the total impact of all corrective action related factors on cumulative expenditures over three time periods (i.e., between the beginning of the simulation period in a jurisdiction and December 1974; between the beginning of the simulation period and December 1976; and over the entire simulation period). Again, these percentage estimates indicate how much higher total cumulative expenditures would have been had corrective actions not existed.

As these tables indicate, corrective actions have had highly variable effects on AFDC caseload and expenditure levels, but in almost all cases they have been highly successful in reducing these levels.

Table 1

All Jurisdictions

Percent Reduction in Cases Receiving Assistance

Due to Corrective Actions

Jurisdiction	at 12/74	at 12/76	At Final Simulation Period*
Alameda County	8.6%	3.6%	1.0%
San Diego County	10.1	8.6	7.2
Los Angeles County	8.9	6.0	15.0
Upstate New York	10.0	14.9	16.0
New York City	5.7	18.9	31.3
Florida	35.6	46.7	52.5

* The final simulation period varies by jurisdiction because of data availability: Upstate New York and New York City (12/78), San Diego County (6/79), Los Angeles County (9/79), Alameda County and Florida (12/79).

Table 2

All Jurisdictions

Percent Reduction in Cumulative Expenditures

Due to Corrective Actions

Jurisdiction	by 12/74	by 12/76	By Final Simulation Period*
Alameda County	5.1%	5.4%	3.6%
Los Angeles County	3.2	4.9	7.1
San Diego County	4.0	7.5	7.5
Upstate New York	7.3	9.4	12.3
New York City	3.4	8.6	14.7
Florida	13.8	25.6	36.6

* The final simulation period varies by jurisdiction because of data availability: Upstate New York and New York City (12/78), San Diego County (6/79), Los Angeles County (9/79), Alameda County and Florida (12/79).

Exclusive of the Florida results[*], the impact of corrective actions on caseload ranged from a mere one percent to over 31 percent, with Alameda County representing the low end and New York City the high end of the distribution. The reason for this differential variability is that while some corrective actions tend to have only short-term "implementation" effects, others produce long-term results.

In the case of Alameda County, we found that the only corrective action variable to significantly affect caseload and expenditure levels was a short-term (25 month) monthly reporting variable. The monthly income and eligibility reporting system requires that all recipients complete a computer generated form each month on the basic factors affecting their eligibility and grant. In effect, the monthly reporting form is used to recertify the entire caseload on a monthly basis. Failure to complete the form results in the termination of aid. Since the introduction of such a system acts as a type of exogenous "shock" to the true underlying determinants of program size and cost, it is not surprising to find that it had a significant <u>initial</u> impact in caseload reduction. However, it appears that as the welfare population in Alameda became more familiar with reporting requirements and deadlines, recipients were less apt to have their cases administratively closed for failure to comply. As the requirements became more of a permanent fixture of the AFDC program,

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[*] The data used in the Florida model were of much lower quality than the remaining five models. As a result, we urge great caution in the interpretation of these results. We ourselves have very little confidence in them.

they represented less of an obstacle to the ongoing receipt of aid.

While the monthly reporting system had only an initial (or start-up) impact on caseload and expenditure levels in Alameda, in San Diego and Los Angeles we found that this system had a continuing or ongoing effect. In Los Angeles the impact of the program on the caseload has been a function of two separate effects, one which partially counteracts the overall caseload impact of the other. First, monthly reporting directly affected the closing or termination rate because it led to a greater number of closings. However, many of the recipients that had their cases terminated returned within three months to reapply for assistance. Monthly reporting has therefore resulted in an increased level of "churning", or opening/closing cycling, in the program. While the number of closings has been greater with monthly reporting, reapplications, and consequently the number of openings have been greater as well, resulting in a smaller realized impact on the caseload. Nevertheless, the effect of monthly reporting continues to be felt in these two counties years after its implementation.

Other corrective actions that contributed significantly to caseload and expenditure reduction included policies directed at tightening the process of initial aid determination. Specifically, in Los Angeles County and Upstate New York, the implementation of tighter application procedures was responsible for nearly three-fourths of all corrective action induced caseload reduction. These policies allowed for the more thorough verification and documentation of factors affecting eligibility, and therefore reduced potential caseload growth by limiting access to AFDC.

With the exception of Florida, corrective actions appear to have had by far the most powerful impact on the New York City caseload. The City's fiscal crisis of 1974-1975 played an important role in forcing the welfare administration to take steps to sharply reduce AFDC benefit expenditures. Facing a severe fiscal crisis during the period, New York City utilized a wide range of corrective actions to remove ineligible recipients from the active caseload and to preclude ineligible and possibly some marginally eligible recipients from gaining access to AFDC. Entire caseload recertification programs, more frequent and thorough individual case recertifications, and tighter controls in initial aid determination were significant contributors to caseload and expenditure reduction in New York City.

Overall, the most significant corrective actions with respect to caseload and expenditure reduction in the six jurisdictions studied have been tighter application procedures which limit additions to the AFDC caseload, monthly income and eligibility reporting which recertifies each AFDC family on a monthly basis, and large-scale recertification programs which verify continuing eligibility of all recipients on an intermitent basis.

These results suggest that implementation of the Quality Control Program has not only led to measured reductions in error rates, but more importantly has led to real reductions in caseload and expenditure levels. How much further these can be reduced by more strenuous implementation of "Quality Control" cannot be determined, although we see the need for using caution before becoming overly zealous in attempts to cut caseload and expenditure levels much further through these mechanisms. This might only occur by eliminating from the rolls families who are rightfully enrolled in the program. In the past, this has only led to extremely high and costly caseload "churning" effects that benefit neither AFDC recipients nor the goals of Quality Control.