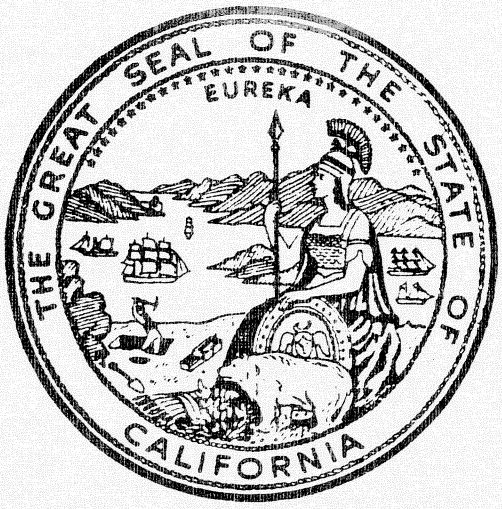

STATE OF CALIFORNIA
OFFICE OF THE AUDITOR GENERAL

REVISED FEASIBILITY STUDY REPORT FOR A STATEWIDE PUBLIC ASSISTANCE NETWORK

APRIL 1983

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April 12, 1983

Mr. Thomas W. Hayes
Auditor General
Office of the Auditor General
660 J Street
Sacramento, California 95814

Dear Mr. Hayes:

We are pleased to present this report which reviews and revises the Statewide Public Assistance Network (SPAN) Feasibility Study Report of January 31, 1981, and its subsequent two amendments. Our report also addresses several other questions posed related to Chapter 282 of the Statutes of 1979 and the ability of the Department of Social Services to complete future projects.

This report has been organized and structured as specified in the Request for Proposal. It therefore follows the Feasibility Study Report format as prescribed in the State Administrative Manual. We have supplemented this format where we believe that additional information or increased readability is necessary.

Because this was such a comprehensive task, it was necessary for the Arthur Andersen & Co. project team to meet and talk with many State, federal and county personnel. Therefore, it is not possible to individually recognize all of those people who met with us and provided significant input and assistance. We would, however, like to acknowledge several county welfare organizations, particularly Alameda, Los Angeles, Fresno, San Francisco and San Diego, that asisted us with significant information. We also wish to recognize the Auditor General's Office, particularly Steve Schutte, for the direction provided on this project.

Finally, we believe that this report provides the State with a realistic plan for improving the administration of public assistance programs in California. We look forward to discussing our report in more depth with you and other State personnel, if so desired.

Very truly yours,

Arthur Andersen & Co

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MANAGEMENT SUMMARY

Background

California's public assistance programs have been repeatedly studied and evaluated since their inception. A massive complement of State and county personnel are involved in the determination of eligibility and the delivery of benefits to over two million AFDC, Food Stamp and Medi-Cal clients. Current annual benefit payments for AFDC and Food Stamps approximate $3.5 billion, and Medi-Cal benefit payments account for another $4.4 billion. Current county administrative costs for these programs approximate $526 million, which includes approximately $150 million for Medi-Cal eligibility administration.

The Legislature has recognized that substantial improvements to the public assistance programs could be achieved through standardization and central systems support. The passage of AB 8 (Chapter 282 of the Statutes of 1979) mandated that the Department of Social Services (DSS) develop a "centralized delivery system" for the major welfare programs and, to the extent feasible, the Social Services and Child Support programs.

Since 1979, DSS has been working toward the development of that system, which has become known as the Statewide Public Assistance Network (SPAN). A Feasibility Study Report (FSR) issued by DSS in January 1981 described the proposed system, recommended specific implementation alternatives, and identified the costs and related benefits. Two subsequent amendments to the FSR redirected the implementation alternative selected, although the significant level of projected benefits remained the same.

In May 1982, the SPAN project was suspended. The reasons for the deletion of funding, as summarized in the Legislative Analyst's Report of April 26, 1982, were the significant expenditures incurred, a lack of accomplishments, and no confidence in the department's ability to implement the project in the future.

The conclusion of the current report is that the "centralized delivery system" concept (i.e., statewide direction, monitoring, and support of systems) is still appropriate, and a more efficient and effective management and data processing system is needed to standardize, coordinate and control the administration of public assistance programs in California. Furthermore, a systems development and implementation approach that is a feasible and cost-justified undertaking for the State is recommended.

Finally, a system management framework is recommended for the centralization and standardization of policies, procedures and system development efforts. However, this framework provides for the continued county administration of welfare programs, including responsibility for data processing operations. This centralization of policies and standards development and decentralization of administration and data processing supports the current approach of State supervision and county administration of public assistance programs in California.

While the concept and objectives underlying SPAN are still valid and some of the previous design work is usable, the scope of the system proposed in this report is redefined and the approach redirected.

The recommended alternative and implementation plan presented in this report are practical and achievable based on the following characteristics:

- Builds on the strengths of existing systems.
- Concentrates additional State and county investment in areas with the greatest potential benefit.
- Limits the scope to a manageable size.
- Provides substantial improvements and benefits to the public assistance programs in:
  - Increased administrative efficiency.
  - Improved control of fraud and abuse.
  - More efficient service delivery.
  - Improved quality of management information.
  - Additional standardization of policies, procedures and information systems.

Proposed System

The system recommendation presented in this report consists of decentralized, yet generally standardized, data processing capabilities to support county-level administration of the major welfare programs (AFDC, Food Stamps and Medi-Cal eligibility). These local-level systems are linked by a statewide central index that contains information about all individuals known to welfare in California. The major recommendations as to the scope and components of this system are presented below:

1. Develop a statewide central index by building on the existing MEDS index and network.
2. Retain and build upon the existing WCMIS/IBPS public assistance systems in Los Angeles County.
3. Develop a standard automated public assistance data processing system for use in the remaining counties.
   - The design will be based on the functional strengths of the Case Data System (CDS).
   - The design and implementation will facilitate conversion to the new system for those counties currently using CDS.

- The system will provide small automated and nonautomated counties with a new standard system alternative.

4. The scope of this project will be limited to three major public assistance programs: AFDC, Food Stamps and Medi-Cal eligibility.

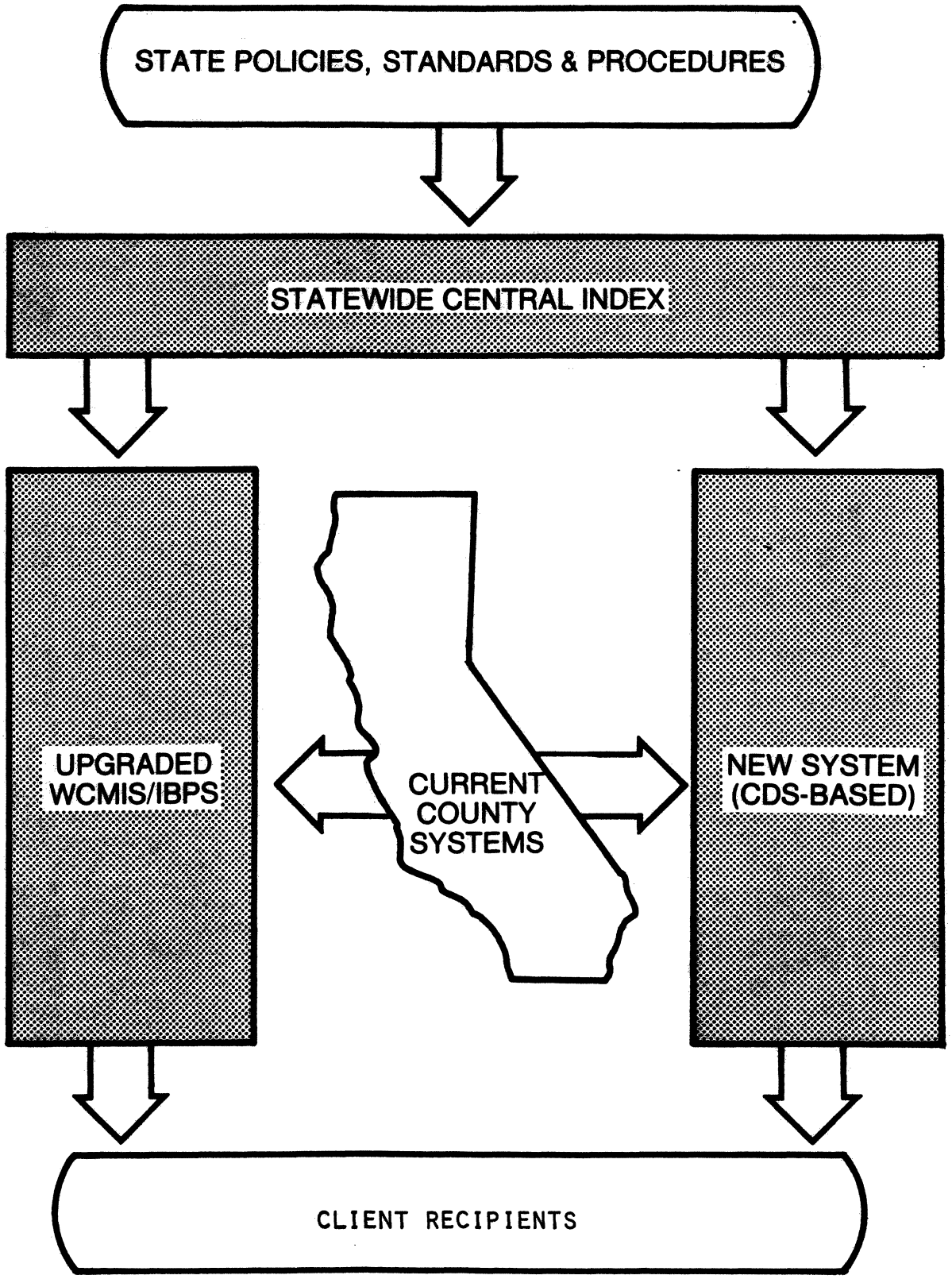
5. Standard statewide policies and procedures will be developed and a small centralized group created to ensure that systems developed to support county administration meet those standards.

The schematic on the next page illustrates the relationships among the major components of the proposed system. In particular, the development of statewide policies, standards and procedures guides the development and enhancement of systems to support the welfare programs. The statewide central index provides the link between county systems. The two county-level systems provide a choice for the direction counties may wish to pursue, yet builds on significant investment in current systems. We would expect every county in the State to eventually process on one of the systems. There may be several very small counties that will continue to process manually due to very limited volume, although they would be required to participate in the statewide index.

The following comparison highlights the major differences between the recommended system development and implementation approach presented in this report and that proposed in the original SPAN Feasibility Report.

SPAN	Proposed System
1. One computer hardware/software system.	1. An integrated system consisting of: - Statewide Central Index - WCMIS/IBPS - New System (CDS-based)
2. State operation of data processing at central site, including centralized delivery of benefits, i.e., warrant issuance.	2. County operation of computer systems and delivery of benefits.
3. New hardware.	3. Use existing county hardware.
4. Programs to be included: - AFDC - Food Stamps - Medi-Cal eligibility - Social Services - Child Support	4. Programs to be included: - AFDC - Food Stamps - Medi-Cal eligibility

SYSTEM OVERVIEW



Cost and Benefits of the Proposed System

As described above, the proposed system builds upon several investments already made by the State and counties, including:

- MEDS -- This system provides an existing statewide network and functional index upon which to build.
- Los Angeles County System -- WCMIS/IBPS provides a foundation upon which Los Angeles County can continue to build.
- Case Data System -- A number of the functions performed by this system provide a base for development of a new system.
- SPAN Design Work -- Many of the system functional requirements developed during the SPAN project can be incorporated into the design of the new system.

By building upon these investments and undertaking a more manageable project than previously proposed, future project costs can be better controlled and monitored. The estimated costs and benefits (in 1983 constant dollars) associated with the proposed system are as follows:

COST/BENEFIT SUMMARY

(In millions of dollars)

Annual Benefits:	
Administrative Cost Savings	$38
Benefit Payment Savings	29
Subtotal	67
Fiscal Sanction Avoidance	19
Total	$86
Incremental Annual Ongoing Costs, Operation and Maintenance	$11
One-time Costs:	
Development Effort	$ 9
County Conversion Effort	22
Total	$31

The costs and benefits of the proposed system as presented in this report are based on conceptual system planning specifications. Thus, the estimates have order-of-magnitude accuracy. The estimates for effort and costs will be further defined and will become more precise as the General Design and Installation phases of the proposed system projects are completed.

The timing of both costs and benefits is presented more fully in Section IV of this report. As normally expected, systems development costs must be incurred before benefits can be realized. However, in several of the projects recommended, such as the statewide central index and on-line food stamp issuance, benefits can be achieved beginning in approximately 12 months. Even in the development of the larger system, it is realistic to expect that counties can begin conversion to a new system and the realization of benefits in about three years.

It should be noted that a significant amount of the development costs identified above will continue to be incurred even if the State should elect to do nothing. These costs will result from continued development and enhancement projects conducted by individual counties. Although these projects will achieve some benefits, the continued duplication of effort and lack of planned integration will result in even greater cost to the federal, State and county governments.

Organization

To ensure the effective implementation of the proposed system, it is recommended that an organization be created at the State level to establish, monitor and coordinate the policies, procedures and development of data processing systems for public assistance programs. Not only will this organization give direction and set standards, it will also work closely with and support counties in administering and operating their systems.

This organization should be relatively small in size, since it will be responsible for overall system planning, defining system priorities, developing standards, approving funding requests, and monitoring and coordinating major system development and maintenance projects. The majority of development and maintenance efforts should be performed under contract with public- or private-sector organizations with the specific knowledge or skills required to successfully complete each project. Since much of the development work is a one-time effort, this type of project staffing avoids having to build a large permanent staff of State personnel.

The location of this organization logically should be in the Department of Social Services. However, a general lack of confidence in the Department's ability to address major systems development efforts has been expressed by both State and county representatives. An alternative would be to have this organization established as a separate group, similar to the Health and Welfare Data Center, reporting to the Secretary of Health and Welfare.

Implementation Plan

A realistic and reasonable implementation plan is essential to ensure a successful and timely data processing system, and to avoid problems encountered by the original SPAN project. Key characteristics of a successful implementation plan include:

1. Establishing a well-defined and manageable project(s).

2. Using a proven system development methodology that provides for phasing and interim checkpoints and deliverables. This allows for proper review, control and approval processes.

3. Setting realistic and achievable completion dates for system development and conversion.

4. Minimizing delays that result from requirements to obtain approvals for funding, system design changes, etc., assuming that the project progress is satisfactory.

5. Using private-sector resources that can provide the manpower and skills required to perform major system design and implementation functions.

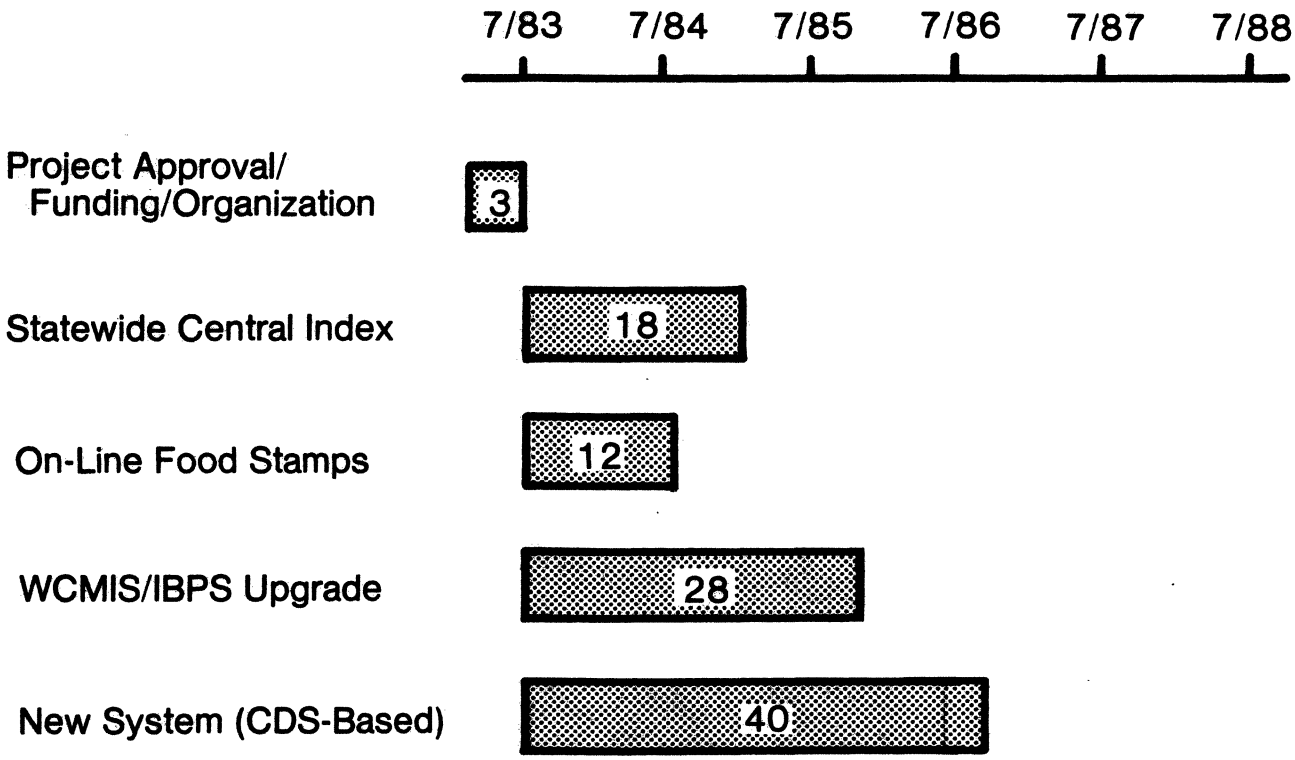
6. Involving county personnel in a significant role in system design, implementation and conversion to new systems.

7. Providing for pilot testing of system projects in a county environment before mandatory implementation to verify that the objectives can be achieved and that the estimated costs and benefits are reasonable.

An implementation timetable for the proposed system is shown on the next page. For purposes of this report, a starting date of July 1983 is used for the proposed system projections, recognizing that this may not be the actual starting date.

IMPLEMENTATION TIMETABLE

TIME (MONTHS)



Conclusion

In summary, to better control rising administrative costs, reduce errors and fraud, and avoid potential federal fiscal sanctions, changes must be made to the current public assistance data processing systems. The current proliferation of county systems, the lack of a statewide central index, and the absence of central direction, coordination and monitoring of systems development and operations indicate that action must be taken. The proposed system and associated implementation plan recommended in this report provide the opportunity to address these problems and realize significant potential benefits.

In particular, the recommended projects have been phased to realize benefits as soon as possible. A recommended plan for proceeding would be to:

1. Approve the development of the statewide central index and on-line food stamp issuance projects, since they can provide significant benefits in a relatively short period of time.

2. Approve the design phase of the new CDS-based statewide system. This would allow the project to be started, and a specific review point would be established for finalizing the design and refining the costs and benefits.

3. Approve enhancements to WCMIS/IBPS in Los Angeles County based upon an established system plan.

We believe that such a plan will result in benefits being realized in a timely manner, and will provde an approach that is manageable and controllable. This approach also builds upon current systems to the extent practical thus minimizing conversion costs and disruption to counties.

I. PROJECT BACKGROUND AND APPROACH

Introduction

Public assistance in California consists of multiple programs generally administered by county welfare departments and supervised by the State Department of Social Services. The diverse requirements and regulations associated with the different programs creates a highly complex environment for program administration and the delivery of benefits to eligible clients. Furthermore, the disparate characteristics of the counties of California and the size of the statewide caseload add to this complexity. In this section of the report, a brief history is presented of public assistance programs in California and prior attempts to develop a statewide welfare data processing system. In addition, each of the programs and the current level of automation is briefly described. The majority of this information was obtained from the March 1979 "Report to the Legislature on the State Administration of Welfare," and updated as necessary.

A. BACKGROUND

Public assistance programs have existed in California since California became a state in 1850. Although the characteristics of these programs have changed since then, the primary objective of providing assistance to the poor, sick, disabled, young and elderly who are unable to provide for themselves has remained basically the same. However, throughout its history, the responsibility for administration and/or funding of public assistance has vacillated between the State and the counties. During the period from 1850 to 1950, the State has:

- Assumed full responsibility for the administration and funding of some or all of these programs;
- Delegated administrative responsibility to the counties, but provided financial support; and
- Delegated both administrative and funding responsibility to the counties.

Since 1950, the basic structure of welfare administration in California has remained relatively stable. During this period, responsibility for administration of public assistance programs has been delegated, for the most part, to the counties. As required by the federal government as a condition of its financial participation, the State is responsible for the overall supervision of the counties' administration of these programs. Finally, California's Welfare and Institutions Code vests in the Department of Social Services (DSS) responsibility for the overall policymaking and supervision of public assistance programs in the State.

Although this structure has remained relatively unchanged since 1950, it also has been the subject of considerable attention. Several times

during the period 1967 to 1972, the Legislative Analyst's Office recommended that the State assume responsibility for direct administration of public assistance. During that same time, and several times since, a number of bills have been introduced in the Legislature proposing that the State assume full responsibility for administering these programs. This legislation has not had sufficient support to gain passage. However, several attempts have been made to develop a statewide welfare data processing system. These development efforts have been intended to provide greater uniformity, effectiveness and efficiency in the administration of public assistance programs. However, none of these projects have been successfully implemented.

In June 1978, the passage of Proposition 13 significantly affected the availability of funds to the counties to support the programs for which they were responsible. Recognizing the increased financial burden placed upon the counties, the Legislature enacted SB 154 (Chapter 292, Statutes of 1978). This bill altered the State and county financial participation ratios, thereby requiring the State to assume greater financial responsibility for public assistance. In September 1978, SB 768 required DSS to conduct a study and report to the Legislature on the State administration of public assistance programs in California.

The March 15, 1979 "Final Report to the Legislature on State Administration of Welfare" evaluated four alternatives for administration of public assistance:

- Maintain the current system of State-supervised/county-administered programs;
- Contract with counties for program administration;
- Continue the current system but provide expanded management and delivery support through a central delivery system; and
- State administration.

The analysis conducted in evaluating these alternatives concluded that the current system was working well. However, the analysis also concluded that increased standardization, coordination and control were needed to ensure the equitable delivery of benefits. Therefore, the recommended alternative was to maintain the current county administration of programs, but to develop a centralized delivery system to provide for standardization and more effective management.

B. HISTORY OF THE STATEWIDE PUBLIC ASSISTANCE NETWORK (SPAN)

Below is a brief description of the major events associated with the Statewide Public Assistance Network (SPAN) project from its origination in AB 8, and leading up to this revised feasibility study report (FSR).

September 1979 — AB 8 (Chapter 282, Statutes of 1979) -- The enactment of AB 8 required the Department of Social Services to implement a centralized delivery system in all counties by July 1, 1984. The objective of this system was to "ensure the efficient, effective and equitable administration of public assistance programs." It was from this mandate that the SPAN project originated.

January 1981 — SPAN Feasibility Study Report (FSR) -- The SPAN FSR evaluated a number of system alternatives to support the State's welfare, social services and child support enforcement programs. The recommended alternatives were:

- Welfare -- Los Angeles County's WCMIS/IBPS.
- Social Services -- Virginia/New Hampshire Social Services Information System (SSIS).
- Child Support -- Federal Model Child Support System.

August 1981 — FSR Amendment (#1) -- Based on difficulties encountered by Los Angeles County in the development and implementation of IBPS, and in response to concerns regarding the original FSR raised by the Department of Finance, an amendment was issued announcing the selection of a WCMIS/Case Data System hybrid system as the recommended alternative for the welfare portion of SPAN. One of the Department of Finance's concerns was the selection of a system that required specific computer hardware on which to operate. With the selection of a new alternative, the project team subsequently issued a Request for Proposal (RFP) in October 1981 to acquire hardware to pilot and implement SPAN.

January 1982 — FSR Amendment (#2) -- This amendment identified a revised implementation and procurement strategy for SPAN. The system recommendation included in the amendment was to use the Case Data System (CDS) as the foundation for the development of SPAN. Prior to this amendment, possible "surplus" computer equipment had been identified that could be used for development. As a result, the hardware RFP was withdrawn.

March 1982 — Deloitte, Haskins & Sells Report -- Deloitte, Haskins & Sells was engaged to conduct a comprehensive review of the SPAN project. The final report made a number of recommendations concerning the SPAN effort, including the project approach, implementation plan and project management. However, the basic conclusion was "that the SPAN project should be continued."

April 1982 — Legislative Analyst's Office Supplemental Budget Analysis -- In a supplemental analysis of the 1982-1983 budget, the Legislative Analyst's Office (LAO) recommended that funding for the SPAN project be deleted. The primary reasons given for this recommendation were that "(1) despite significant expenditure of state and federal money, little has been accomplished to date, and (2) there is no basis on which to have confidence in the department's ability to implement the project in the future."

September 1982 — Request for Proposal To Revise the SPAN Feasibility Study Report -- With the enactment of the Budget Act of 1982, the Legislature considerably restricted funding of the SPAN project from what had been requested by DSS. The funds authorized were to be used for:

1. The Office of the Auditor General to issue an RFP and engage a contractor to:
   - Revise the SPAN Feasibility Study Report, and
   - Conduct an assessment of Los Angeles County's WCMIS/IBPS.
2. The facilitation of a contract between Los Angeles and Orange Counties for Los Angeles County to provide the services of WCMIS to Orange County.

Arthur Andersen & Co. was selected to revise the SPAN FSR and assess WCMIS/IBPS. Work began on both phases of the project in late October 1982. A report on the assessment of WCMIS/IBPS was submitted to the Office of the Auditor General in January 1983. This report, the revised FSR, completes the other major portion of this study.

C. PROGRAM DESCRIPTIONS

The current administration of public assistance programs in California continues to be based on the concept of county administration with State supervision. Within this general framework, there are varying degrees of State and county administrative and financial responsibility on a program-by-program basis. Therefore, this section includes brief descriptions of the various programs identified in AB 8 to be included or considered for inclusion in a centralized delivery system. These programs are:

1. Aid to Families with Dependent Children
2. Food Stamps
3. Medi-Cal Eligibility
4. Aid for the Adoption of Children
5. Special Adult Programs
6. Social Services
7. Child Support Enforcement

1. Aid to Families with Dependent Children (AFDC)

Purpose -- AFDC was established by the Social Security Act of 1935. This program provides cash assistance to children and their parent(s) or caretaker relative whose income is insufficient to meet their basic needs. Eligibility is limited to needy children whose parent(s) are deceased, incapacitated, unemployed, continually absent, or have relinquished them. The AFDC program has three major components:

- Family Group (AFDC-FG) usually for families who are deprived of one parent;
- Unemployed Parent (AFDC-U) generally for infant families, with eligibility based on unemployment of one parent;
- Foster Care (AFDC-FC, formerly Boarding Homes and Institutions) for children who require placement in an environment other than their own home.

State Responsibility -- The federal government establishes the general criteria for eligibility and benefit levels associated with AFDC. The State Department of Social Services (DSS) is responsible for the supervision of the AFDC program in the State. Specific responsibilities include:

- The monitoring of county activities.
- Definition of eligibility criteria.
- Quality control reviews to determine error rates and identify required State-level corrective action.

- Conduct of fair hearings for recipients who do not agree with action taken on their cases.

- Review and monitoring of the Cost Control Program.

- Responsibility for reporting to the Legislature and the Federal Department of Health and Human Services.

County Responsibility -- The AFDC program is administered at the local level by each County Welfare Department (CWD). The county's specific responsibilities include:

- Determination of initial and continuing eligibility.

- Issuing benefits.

- Collection of amounts erroneously paid.

- Development and implementation of corrective actions related to errors identified during quality control reviews.

- Statistical reporting to the State.

Statistical and Cost Data -- The estimated monthly average number of AFDC cases for fiscal year 1981/1982 was 567,000. For the same period, AFDC grant costs were approximately $2.9 billion, and county AFDC administrative costs were $290.7 million. AFDC cash grant and administrative costs are shared by the federal, State and county governments based on the program and on client eligibility for federal reimbursement.

2. Food Stamps

Purpose -- The Food Stamp program was established in 1964 to allow low-income households to obtain a more nutritious diet by increasing their food purchasing power. This goal is accomplished by providing to eligible individuals coupons that may be used to purchase consumable food items. The criteria for eligibility and the level of benefits are determined by the United States Department of Agriculture. Twice a year, coupon allotments are adjusted by the USDA based on food prices and the cost of living. Special provisions also exist to provide benefits on an expedited basis when an applicant is determined to be in immediate need.

State Reponsibility -- As established by federal regulations, DSS supervises the Food Stamp program. In this capacity, DSS is responsible for:

- Issuance to the counties of regulations specifying eligibility criteria and benefit levels.

- Monitoring the efficiency, effectiveness and equity of county administration by conducting periodic program reviews.

- Conducting fair hearings.

- Responsibility for reporting to the State Legislature and various branches of the federal government.

County Responsibility -- As the administrator of the Food Stamp program at the local level, the counties are responsible for:

- Processing of applications and determination of eligibility.

- Determination of benefit levels to which a client is entitled, and issuance of those benefits.

- Followup and collection of over-issuances.

- Statistical and financial reporting to the State.

Statistical and Cost Data -- For fiscal year 1981/1982, the estimated average monthly caseload for the Food Stamp program was 624,000. Of this caseload, approximately 377,000 were AFDC cases, and 247,000 were Non-Assistance Food Stamps cases. Program costs (benefits) for the year were approximately $558.7 million, and administrative costs (Non-Assistance Food Stamps only) were $84.1 million. The program costs are funded completely by the federal government. The administrative costs for the Food Stamp program are shared by the federal, State and county governments.

3. Medi-Cal Eligibility

Purpose -- The Medicaid program (Medi-Cal in California) was established under Title XIX of the Social Security Act of 1966. This program is intended to provide needed health care to those individuals with assets and income insufficient to pay their medical bills and meet their basic monthly needs. Individuals already receiving aid through AFDC and SSI/SSP are automatically eligible for Medi-Cal.

State Responsibility -- The federal government establishes the basic and optional scope of benefits and eligibility criteria for the Medicaid program. The availability of the program and the level of benefits are determined by the Legislature by incorporation into State statute. This program is administered at the State level by the Department of Health Services (DHS).

County Responsibility -- The county welfare departments are responsible for completing eligibilility determinations and producing notices concerning eligibility status for AFDC and Medi-

Cal only applicants and clients. SSI/SSP applicants are handled by the Social Security Administration.

Statistical and Cost Data -- In December 1982, the total number of Medi-Cal eligibles (AFDC and Medi-Cal only) was more than 2.2 million. With the transfer to the counties of responsibility for medically indigent adults (MIAs), this monthly caseload dropped to approximately 2.0 million total eligibles in January 1983. Fiscal year 1981/1982 program costs for Medi-Cal were $4.4 billion, and county administrative costs for Medi-Cal eligibility were $151.2 million. The federal government provides matching funds for program costs, except for medically indigent adults and administrative costs.

4. Aid for the Adoption of Children

Purpose -- The Aid for the Adoption of Children program was established to assist in the placement of children in adoptive homes. This program provides direct adoption services for:

- Relinquishment, where the child is released by the natural parents or the courts for placement.
- Independent adoptions, where the child is placed by the natural parents and the adoptive parents file a petition for adoption.
- Interstate adoptions.
- Intercountry adoptions.

This program is also responsible for policy development for licensure of private adoption agencies.

State Responsibility -- The State has overall responsibility for the administration of the Aid for the Adoption of Children program. Those services provided directly by State agencies are administered by DSS. Services provided by counties or private agencies are supervised by the State.

County Responsibility -- Counties are responsible for the administration of this program to the extent that the courts are directly involved in the adoptions process. Furthermore, since licensed adoption agencies have certain statutory responsibilities, there is a grievance process available to adoptive parents.

Statistical and Cost Data -- For fiscal year 1981/1982, a monthly average of 2,260 children were served by this program. The associated program and county administrative cost was $22.9 million. These costs historically have been funded entirely by the State.

5. Special Adult Programs

Purpose -- The Special Adult programs currently consist of two specific programs, the Special Circumstances Program and the Guide Dog Program. The Special Circumstances Program provides benefits to State Supplementary Payments (SSP) recipients for nonrecurring special needs such as:

- Replacement of household items or clothing when lost, damaged or destroyed.
- Costs of moving and the purchase or rental of new housing when necessary due to eviction or when current housing is unsafe.
- Payments to prevent foreclosure on a recipient-owned home.

The Guide Dog program provides a monthly allowance to blind owners of certified guide dogs for the purchase of dog food.

State Responsibility -- The Guide Dog program is administered entirely by the State. The Special Circumstances Program is supervised by DSS, which issues regulations, monitors county operations, and conducts fair hearings.

County Responsibility -- County welfare departments are responsible for the administration of the Special Circumstances Program, including:

- Determination of eligibility for benefits.
- Payment issuance.
- Reporting of activity to DSS.

Statistical and Cost Data -- For fiscal year 1981/1982, the average monthly number of recipients for the Special Adult programs discussed above was 888 (584 for Special Circumstances and 304 for the Guide Dog program). For this same period, benefit payments were approximately $1.7 million, and county administrative costs (Special Circumstances only) were $1.1 million. Both programs are 100% State-funded.

6. Social Services

Purpose -- Federal participation in Social Services programs was established in Title XX by the "Social Services Amendments of 1974" contained in Public Law 93-641. Within Social Services, there are both mandated and optional programs. Currently mandated programs include:

- Information and Referral
- In-Home Supportive Services
- Protective Services for Children
- Protective Services for Adults

- Out-of-Home Care Services for Children
- Out-of-Home Care Services for Adults

Individual counties may elect to provide additional "optional" programs to supplement these mandated programs.

Information and Referral Services and Protective Services for Children or Adults are available to anyone, without regard to income. All other program services are available only to individuals meeting specific income criteria or who already receive SSI/SSP or AFDC.

State Responsibility -- The Social Services programs are State-supervised and county-administered. As part of its supervisory role, DSS is responsible for:

- Determination of State policy and definition of minimally acceptable program standards and requirements, including eligibility determination and fair hearings.

- Conduct of audits, quality control reviews and monitoring/evaluation reviews.

- The collection and reporting of statistical information.

County Responsibility -- Counties can provide services directly or through contracts with individual providers or public and private agencies. Regardless of the method of service delivery, the county welfare departments are accountable to the State for proper implementation of policies, standards and requirements.

Statistical and Cost Data -- For fiscal year 1981/1982, the estimated average monthly caseload was 134,000. Benefit payments for the year were $242 million, and administrative costs were $165 million. With the enactment by Congress of the Budget Reconciliation Act of 1981, federal funding for Social Services is now provided through the Social Services Block Grant. The federal government provides a block of monies to each state based on its percent of the national population. The state then allocates these funds on a per capita basis. The state also provides supplemental funds for certain services. Finally, any additional services are funded by the counties.

7. Child Support Enforcement

Purpose -- The Child Support Enforcement program provides services to any family in:

- Finding parents who have deserted their children.

- Determination of legal parent status.

- Determining how much should be paid by absent parents to support their children.
- Ensuring that absent parents pay support for their children.
- Collection and disbursement of support payments. For AFDC recipients, child support collections are offset against AFDC program costs.

State Responsibility -- The State-level responsibility for supervision of the Child Support program is vested in the State Attorney General's Office and DSS. The State Attorney General's Office is responsible for:

- The Reciprocal Enforcement of Support Act.
- Requests To Use the Federal Parent Locator System.
- Operation of the State Parent Locator System.

DSS is responsible for a variety of activities, including policy analysis, statistical reporting, incentive accounting, administrative claiming, county monitoring, and provision of technical assistance.

County Responsibility -- Each of California's 58 counties maintains within the District Attorney's Office a unit (usually called the Family Support Division) which is responsible for establishing and enforcing child support orders. The Department of Social Services maintains a plan of cooperation with each county District Attorney's Office for the administration of the following activities:

- Locating absent parents.
- Making paternity determinations when necessary.
- Establishing support obligations.
- Initiating civil and criminal proceedings to enforce the collection of support obligations. This includes the utilization of reciprocal arrangements with other states.

The Family Support Division of the District Attorney's Office performs most of the collection, enforcement, and distribution functions. These activities often require access to County Welfare/AFDC information to distribute welfare-related child support collections. Access is also sometimes necessary to support legal action against absent parents. The State Department of Social Services monitors and oversees the program, pays incentives for welfare-related collections, and accounts for State and federal funds.

Statistical and Cost Data -- During fiscal year 1981/1982, the Child Support Program collected $110.7 million in support payments for AFDC families and $105 million for non-AFDC families. Collections made on behalf of AFDC families are distributed to the AFDC program to offset the cost of benefit payments to those families. As of June 1982, the Child Support caseload consisted of 585,000 AFDC-related cases and 288,000 non-AFDC related cases. The administrative costs of operating this program were $77.9 million for AFDC cases and $22.6 million for non-AFDC cases. These county administrative costs are currently funded 70% by the federal government and 30% by the counties.

The federal and state governments also provide incentive payments to the counties for collections made on behalf of AFDC families. During fiscal year 1981/1982, federal incentive payments were $10.2 million, and State incentive payments were $6.2 million.

D. CURRENT SYSTEMS DESCRIPTION

The current level of data processing developed to support the major public assistance programs (Welfare, Social Services and Child Support) varies significantly from county to county throughout California. Within an individual county, the degree of automation may also vary from program to program. A general description of the current status of automation in each major program area is provided below:

Welfare (AFDC, Food Stamps and Medi-Cal Eligibility) -- Currently, about 45 counties, serving 90% to 95% of the welfare caseload, have some degree of automation related to the AFDC, Food Stamp and Medi-Cal programs. However, the degree of automation and the functions provided vary among these counties. Of the systems currently in use, two systems in particular, Los Angeles County's WCMIS/IBPS and the Case Data System, support welfare programs serving approximately 70% of the State caseload. Case Data System (CDS) is currently operational in 14 counties and is planned in two more counties. The remaining counties with some degree of automation have a variety of systems. Some counties have developed their own systems, while some of the smaller caseload counties in Northern California are served by a system operated by Butte County. In general, the welfare programs have similar system requirements in that they have the same or similar eligibility criteria, and a large percentage of clients are eligible for all three programs. Therefore, these requirements are frequently integrated in one system. Finally, the welfare programs are characterized by large caseloads, large volumes of activity and specifically defined eligibility and benefit levels, all of which are factors that suggest opportunities for automation.

Social Services -- Social services programs are generally much less automated than county welfare programs. Although there are a variety of reasons for this difference, the major reasons are:

- The determination of eligibility and benefit computations is less straightforward and prescribed than the same functions in welfare.
- Much of the processing of the social services cases has to do with the authorization of individual services to be provided by private agencies to individual clients.
- The social services caseload is smaller than the welfare caseload.
- Payments made are usually to service providers, as compared to benefit payments, which are made directly to clients.

As in the case of welfare, those social services systems that do exist vary from county to county both in terms of the specific software used and the functions available.

Child Support Enforcement -- The child support program also varies from county to county in terms of the degree of automation. In particular,

though, there is little uniformity in the specific software used in the child support area, although the functions performed are similar. Some counties use systems that interface with their county welfare system, while others have developed completely independent systems. In general, these systems support billing, collection and distribution functions as opposed to the payment of benefits to recipients.

E. STUDY APPROACH

Our approach to this project was determined, to a large extent, by the project scope and reports required in the Request for Proposal. The major tasks of this approach included:

- Background Review and Data Collection
- Evaluation of Alternatives and Cost/Benefit Analysis
- Development and Validation of Preliminary Recommendations
- Preparation of Final Report

These tasks are described in more detail below.

Background and Review and Data Collection

This task included a detailed review of documentation, and interviews with a number of key State representatives of various departments and the State Legislature concerning the history of the SPAN project. The intent of this review was to gain an understanding of the intent of the project as mandated by the Legislature, and the problems encountered relative to scope and approach.

Documentation of the detailed functional requirements defined during the SPAN project was also reviewed to determine the system requirements of each major public assistance program. These requirements were then reviewed with both State and county representatives of each program area to validate their appropriateness for inclusion in a system design, and update them to account for recent legislative and regulatory changes.

Evaluation of Alternatives and Cost/Benefit Analysis

During this task, a conceptual system design was developed based on the review of SPAN documentation, interviews with State and county personnel, consideration of federal system design guidelines, and the project team's knowledge and experience. This conceptual design then served as the basis for the evaluation of alternatives and identification of potential benefits.

As part of the evaluation of potential benefits, the project team reviewed documentation prepared during the SPAN project's analysis of benefits. Specific assumptions, methodologies and data were obtained from current funding requests, feasibility studies and other projects to be used in the quantification of benefits. Finally, the methodologies, assumptions and results of this current benefit analysis were reviewed with State and county personnel to validate their reasonableness.

Estimates of the development and implementation costs associated with alternatives analyzed in detail were based on our firm's systems development methodology and prior experience of the project team. These estimates were then reviewed with various State and county data processing personnel.

Development and Validation of Preliminary Recommendations

Based on the results of the detailed analysis of alternatives, preliminary recommendations were developed for a realistic approach to develop and implement the most cost-beneficial systems alternative to meet the objectives defined earlier. These recommendations were then reviewed with several State and county personnel. Their input was extremely helpful in refining the recommendations and developing a practical and achievable implementation plan.

Preparation of Final Report

The organization and requirements for this final report are prescribed in the Request for Proposal for this study, and the State Administrative Manual. These requirements have been followed in preparing this revised feasibility study report. Refinements have been made to this structure, when appropriate, to improve clarity and readability.

Organizations Contacted

During the various tasks of our study, we met with, discussed and obtained information from many State, federal and county personnel. We met with over 30 State departments, offices and bureaus, and with some 34 counties in the State. In many cases, we met with such groups several times -- first to obtain information, and then later to verify our findings. We also met with a number of other associations and groups in completing our work. See Appendix I for a complete list of organizations that were contacted.

II. PROBLEM STATEMENT

A. SCOPE DEFINITION

As mentioned earlier, this project included two major phases:

1. An assessment of Los Angeles County's WCMIS/IBPS, including a review of its development, current status, and plans for future enhancements. The report for this phase of work was delivered to the Legislature in January 1983.

2. A revision of the January 31, 1981 SPAN Feasibility Study Report (FSR) and its subsequent amendments. This report is the product of work conducted in this phase of the project.

In addition to these two overall objectives, the Request for Proposal required that the project address several other objectives outlined in the Budget Act of 1982. Among these objectives are the following two issues:

1. "The extent to which changes to Chapter 282 of the Statutes of 1979 (AB 8) should be considered in order to provide the most cost-effective delivery of benefits."

2. "The ability of the Department of Social Services to complete the development of SPAN successfully and in a cost-effective manner, as compared to alternative methods of implementation."

These two issues are very important in that the resolution of each establishes a general framework within which the identification and analysis of systems alternatives must take place. Three underlying questions subsequently were addressed:

1. Can one assume that California's "State-supervised/county-administered" approach to public assistance programs will continue? The answer to this question has a potential impact on the functional and technical requirements to be addressed by any proposed system. In particular, the system design must be responsive to the overall organizational structure, particularly with respect to the assignment of responsibilities and controls.

2. Which programs should the proposed system include? AB 8 emphasized the major public assistance programs of AFDC, Food Stamps and Medi-Cal eligibility, and stated that Social Services and Child Support Enforcement should be included "to the extent feasible."

3. How should the State be organized to direct and monitor the development and maintenance of statewide data processing systems for the public assistance programs? This question is important, since prior State efforts to develop a statewide welfare system, including SPAN, have encountered problems. Therefore, an approach to ensure the successful implementation of the proposed system must be developed.

Each of these questions is discussed in more detail below.

State Supervision/County Administration

During the initial review of documentation and discussions with many State and county officials, no specific desire or recommendation was expressed for the State to assume responsibility for the administration of welfare. In fact, most input received indicated a strong preference to have the counties retain responsibility for the administration of the public assistance benefit programs. Given this finding, the use of terms such as "Centralized Delivery System" and "Statewide Public Assistance Network (SPAN)" possibly has led to varying conclusions as to the objectives for a statewide automated welfare system. The terms "centralized" and "statewide" have been interpreted by a number of people, including the SPAN project, as requiring one centrally oriented automated welfare information and delivery system for the State. For example, a number of major processing functions (such as warrant issuance) were to be centralized.

The general consensus that the public assistance programs should continue to be State-supervised and county-administered suggests a different systems approach. That is, the system, or group of systems, recommended and developed should support the local level in administration and control of these public assistance programs. Therefore, this analysis has been conducted and recommendations developed based on the assumption that a State-supervised/county-administered welfare system will continue for the foreseeable future.

However, there is a definite leadership role the State must assume in this system. The State must provide the overall direction and supervision to ensure uniform and equitable treatment of clients and to support the counties in their administration of public assistance programs. Specifically, this statewide direction should address the following objectives:

- Define and maintain statewide standards.
  - Define and develop current standards for procedures, forms and training.
  - Interpret new regulations and define specific changes to be implemented.

- Assist in and monitor the implementation of required standards.

. Assist counties in developing/implementing improved systems.

- Develop and test new statewide required enhancements through pilot and demonstration projects.

- Encourage and support innovative and cost-effective local enhancement through pilots, demonstrations, etc.

- Be responsive to local county administrative requirements in the development of data processing systems.

Programs Included in the Proposed System

We believe that any major systems development effort should define the proper project scope and define the information needs to be addressed. One of the major problems attributed to the SPAN project was the failure to define the project scope such that it was reasonable and manageable. The inclusion of multiple major programs is one factor that contributed to the project's problems.

Therefore, to the extent the proposed system can be limited to programs that have common and integrated needs it will be more easily managed and controlled, thus having a lower risk of project failure.

During our study, we attempted to evaluate the following programs in terms of several criteria to determine whether each should be included as an integral part of the proposed system:

. AFDC
. Food Stamps
. Medi-Cal Eligibility
. Social Services
. Child Support
. Special Adult Program
. Aid to Adoptions

The criteria used to evaluate the programs and the work we performed are described below.

Similarity of Functional and User Requirements -- We documented and reviewed the functional and user requirements of the various programs. These requirements were then discussed with State and county program representatives to validate the program needs and priorities. Recent legislative and regulatory changes were also considered.

Magnitude of Programs -- In an attempt to evaluate the relative significance of each program, we compared them with respect to the following characteristics.

- Caseload
- Aid Payments
- County Administrative Expenditures

The following chart compares the relative magnitude of these programs.

	Average Monthly (1981-1982)		
	Caseload	Aid Payments	County Administrative Expenditures
		(000's) omitted	
Welfare (AFDC, food stamps, Medi-Cal)	3,191	$654,892	$43,833
Child Support (AFDC)	585	N/A [1]	6,492
Social Services	134	20,140[2]	13,711[3]
Special Adult	1	140	90
Aid to Adoptions	2	365	1,546

[1]Child Support collections were approximately $9 million per month for AFDC families and $9 million per month non-AFDC families for the year 1981-1982.

[2]Includes IHSS payments only.

[3]Includes all staff costs.

Program Administration -- We considered each program with respect to the need for integration of systems for proper administration which stems from already existing shared administrative responsibilities.

Conclusion

This evaluation led to the following conclusions:

Similarity of Functional and User Requirement -- The functional requirements (i.e., eligibility determination, calculation of benefits, client notification, etc.) for the three major welfare programs - AFDC, food stamps and Medi-Cal eligibility - are very similar. Therefore, these programs logically should be grouped together to define the appropriate scope for systems development.

A review of the functional requirements for Social Services and Child Support revealed that these programs have substantially different functions from the welfare programs. Although both programs exchange or share information with welfare, they have quite different program and information needs. Therefore, the divergent needs of Social Services and Child Support can best be met by separate systems development efforts.

Magnitude of Programs -- The relative magnitude of the caseload, aid payments and administrative expenditures from the previous chart strongly suggests that the potential benefits to be achieved are significantly higher in AFDC, food stamps and Medi-Cal eligibility programs.

The Child Support and Social Services programs are much smaller in magnitude, considering the characteristics of caseload, aid payments (collections), and administrative expenditures. Further, the state-mandated Social Services programs have been reduced to six, and optional programs actually offered by counties are much fewer than the possible 14.

The previous chart clearly shows that the Special Adult and Aid to Adoptions programs are extremely small by any measure in relation to the other programs. Further, the scope of the Special Adult program has been reduced since AB 8 was passed, so that it consists of only two subprograms, Special Circumstances and Guide Dogs.

Program Administration -- The administration of the Child Support program rests with the Family Support Division of the District Attorney's office, whereas the administration of all other programs is carried out by county welfare organization. Organization of the Child Support program into a separate systems project would enable more efficient system implementation.

During county interviews, it was apparent that the Family Support Divisions are further from agreement on a standard set of system requirements than the welfare organizations. This situation could impede a common system implementation effort.

This review and analysis led to the conclusion that the scope of the proposed system should include only the three major welfare programs, AFDC, food stamps and Medi-Cal eligibility. This provides a well-defined system project scope that will be easily managed and monitored and will be implemented in a timely manner.

We do recognize the need for exchange of data between major programs such as AFDC and Child Support, and the proposed system requirements have defined these interfaces. During the General Design phase exchanges of data between the proposed system and other programs will need to be more specifically defined.

Discussions with a number of counties revealed that there is a particularly significant need for data processing development and improvements for Child Support programs. However, as discussed above, the specific needs of this and the Social Services program indicate that a separate systems development efforts are the best solution. Because there appears to be considerable need for improvements and the realization of benefits in Child Support, we recommend that the development of an FSR for systems in this area begin as soon as possible. Aid to Adoptions and the Special Adult Program are small programs which currently function satisfactorily. Therefore, inclusion of these programs in a system development effort at this time is not considered practical.

Statewide Systems Direction

Although the assumption has been made that the administration of welfare programs will continue to be the responsibility of the counties, there is considerable support for the development of a single centralized State group to supervise, direct and support all public assistance data processing systems. Such an organization should provide guidance and support to the counties to ensure that their data processing systems support the efficient and cost-effective delivery of benefits to clients. Given this goal, the responsibilities of such a group would include:

- The overall supervision and monitoring of major systems development and implementation projects.
- The ongoing monitoring of county welfare systems operations to ensure uniformity and compliance with federal and State regulations and standards.
- The support of county-developed system improvements, demonstrations and pilot projects.

Specific recommendations regarding the organization of the system development effort presented in this report are discussed in the "Implementation Plan" section.

B. PROBLEM AREAS

During the initial phase of this project, a variety of documentation was reviewed, and both State and county representatives were interviewed to identify the major problems facing public assistance programs in California. In general, these problems offer opportunities to improve the efficiency, equity and cost-effectiveness of benefit delivery to eligible clients. Having identified a variety of problem areas, each was then evaluated to determine the degree to which automated systems and related changes in organization, policy and procedures can assist program administration to improve and/or resolve these problems.

The ten problem areas described below are those in which there is significant opportunity to improve the administration of welfare programs through data processing alternatives. Among these are several problem areas that need to be addressed to provide the organization and support necessary for the successful implementation of any data processing system alternative selected. Although the severity of individual problems varies from county to county, these are the major challenges that need to be addressed by California's public assistance system. Each of these problems is discussed in more detail in the remainder of this section.

Problem Area 1: The Degree of Manual Effort Required in the Processing of Applications, Determination of Eligibility, Computation of Benefits and Other Activities

Currently, there is a considerable amount of manual effort required of both eligibility workers and clerical staff in performing various activities related to data collection, eligibility determination and budget computation for public assistance cases. The fact that some counties have automated some of these activities indicates that there are opportunities to reduce the degree of manual effort needed in these areas. In particular, actual experience and study estimates have shown that significant productivity gains can be achieved through automation of:

- Intake processing and data collection
- Eligibility determination
- Budget computation
- Notices of action

Furthermore, other areas appear to offer an opportunity to increase productivity, although specific estimates are not currently available.

The actual impact of automation on individual county operations will vary depending on county-specific circumstances. One fairly automated county has increased its continuing cases per eligibility worker (EW), as compared to the statewide average. Although this statistic may be attributable to a variety of factors, it does suggest that there is a

positive impact resulting from automation. Furthermore, another county has projected that automation of the intake application, eligibility determination and budget computation processes would result in approximately a 20% reduction in its eligibility workers. A number of county representatives contacted concur with this projection. Others suggest that, while automation may not necessarily reduce the number of workers in their county, they would be able to redirect EW effort toward other activities that cannot be automated.

Problem Area 2: County Effort Required To Implement Frequent and Complex Changes in Regulations

The specific requirements of public assistance programs frequently change as the result of court decisions and new State and federal laws and regulations. Some of these changes may be minor, while others, such as changes required by the Omnibus Reconciliation Act of 1981, require major changes in county operations. Consequently, counties expend a great deal of effort revising their policies and procedures and retraining their staffs.

In many cases, the requirements of federal and State legislation and regulation affect those activities that are or could be automated, such as eligibility determination and budget computation. Therefore, to the extent to which these changes can be incorporated into automated processing, there is an opportunity to reduce the effort associated with the revision of procedures and training of personnel.

Problem Area 3: Worker Errors in the Determination of Eligibility and Computation of Benefits

Both the current level of manual effort and the frequency and complexity of regulatory changes discussed above contribute to the level of errors made by workers. These errors, in turn, can result in ineligible individuals receiving benefits, or clients receiving more or less than the benefits to which they are eligible. Some of the major worker-related errors that can occur include:

- Misinterpretation of regulations.
- Failure to request specific information and obtain required verification from clients.
- Failure to detect and/or adequately explore inconsistencies in client-reported information.
- Miscalculation of benefits (or "share of cost" for Medi-Cal recipients).
- Failure to update eligibility and/or benefit level.
- Failure to make required referrals to other programs.
- Failure to notify other workers of changes in a client's status.

According to quality control statistics for the six-month period from October 1, 1981 through March 31, 1982, worker-related (agency) errors resulted in an AFDC payment error rate in California of 3.0%, out of a total payment error rate in the State of 4.8%. Accounting for "technical" errors (those errors that would not have affected the level of benefits), the AFDC agency error rate was 1.4%, or $36.3 million in projected annual excess payments. During the same quality control period, the agency-caused payment error rate for the Food Stamp program was 3.9%, out of a total payment error rate of 7.2%. This agency error rate resulted in projected annual excess payments of $23.4 million.

Worker errors and associated excess payments cannot be attributed entirely to the lack of automation. However, automation can have a positive impact on agency error rates in three ways:

- Automation can reduce worker error rates in those areas where activities are fairly mechanical, such as budget computation and parts of eligibility determination.

- Automation can relieve eligibility workers of time-consuming tasks and, therefore, allow them more time to focus on activities that address potential errors.

- Automation can provide reporting and controls to ensure that the worker has obtained required information and verification, and validation to identify potential inconsistencies.

Therefore, although automation will not eliminate error rates and excess payments, automation can directly reduce some errors, as well as increase the time that eligibility workers have to focus on error reduction actitivities.

Problem Area 4: Fraud, Abuse and Client Error

In addition to the agency errors discussed above, clients receive benefits to which they are not entitled, resulting from fraudulent reporting and/or inadvertent errors. These include errors such as misreporting of income, resources, school attendance, living situation, employment status and household composition.

During the October 1981 - March 1982 quality control period, client-related errors in AFDC resulted in a payment error rate of 1.8%, or estimated excess payments of $46.6 million for the year. For Food Stamps, client errors were 3.3% of the total ineligible and overpayment errors, resulting in $19.6 million in estimated annual excess payments.

As discussed in Problem Area 3, data processing also offers counties an opportunity to address client-related errors. In this case, the benefit of automation is mostly indirect, by relieving the worker of routine and/or mechanical tasks. This allows the worker more time to perform case reviews and other activities that affect client errors. On a statewide basis, data processing offers an opportunity to reduce client error and increase fraud prevention and detection. For example, the

availability of a statewide index would allow individual counties to determine if a client applying for benefits is already receiving benefits in another county. Furthermore, by conducting periodic matches of the statewide index against other statewide files, such as unemployment and disability insurance recipients, it is possible to verify that client-provided information is correct.

A part of this problem has already been addressed by external file matches currently performed. However, a portion of the problem continues to exist because a single, comprehensive solution has not yet been developed.

Problem Area 5: Timely Issuance of Benefits to Eligible Clients

Federal and State requirements currently exist for timely authorization of benefits to clients. For example, an application for AFDC where immediate need does not exist must be processed in 45 days. An application for expedited food stamps for persons in immediate need must be processed in two working days. Delays in establishing eligibility and issuing benefits can cause hardship and/or inconvenience to individuals and families applying for assistance. Some of the reasons why delays do occur include:

- Failure to immediately process applications after all data has been collected from the client.
- Delays in clerical processing, including data entry.
- Delays in locating and transferring existing case records.
- Delays in communicating benefit level to benefit issuance site.
- Failure to track outstanding verifications due from clients.
- Delays in preparing notices of action at initial issuance or when the benefit level is changed.

As a result of these delays, some counties have been unable to meet requirements for timely authorization and issuance of welfare benefits. During the quarter ending June 1982, 3.6% of all AFDC applications exceeded the 45-day limit, with individual counties ranging from a low of 0% to a high of 66.6%.

Although it is not clear to what degree the delays described above are unavoidable, data processing can assist in improving timely benefit issuance by automating some functions and providing reports and controls to ensure that established limits are adhered to as much as possible. For example, automation can provide the monitoring of case status and required activities. Exception reporting can then highlight those cases approaching established limits and activities required in processing.

Problem Area 6: Inadequate Management Reporting at Both the State and County Levels

Given the variety of systems, both automated and manual, that exist at the individual county level, there is a diversity of management reporting that is available for the ongoing administration of public assistance programs. To the extent that county-level management reporting is not automated, counties either have to prepare reports manually or they do not have the information needed to support effective administration.

Each county is also required to submit statistical and financial information to the State on a periodic basis. This information is used by the State as a general review of county operations and for reporting required by federal agencies. Several problems exist in this system of reporting:

- The information maintained by individual counties often is stored in formats other than those required by the State. Consequently, counties frequently expend additional manual effort in preparing reports for the State. Furthermore, individual county interpretation of the State's reporting requirements may affect what data the counties extract and report.

- Once county reports are received by the State, as much as three to six months may elapse before the State-level reports are prepared. This delay diminishes the usefulness of such reports to both the counties and the State in monitoring programs and addressing identified problems.

Automation can improve the effectiveness of management reporting at both the State and county levels. Since additional client information is captured at the county level, there is greater opportunity to provide automated reporting needed by local-level administration to monitor their operations. Furthermore, by establishing standard minimum data requirements to be collected by the counties, the counties will be better able to provide accurate and consistent data and reporting to the State, with a minimum of additional effort. Finally, depending on the data maintained in a statewide index, it may be possible to generate much of the required State-level reporting in a more timely manner from that index, as opposed to individual counties submitting reports.

The following problem areas are ones that are not addressed by specific data processing solutions. However, these problem areas must be addressed to provide the framework to facilitate the effective implementation and operation of the public assistance system alternative selected.

Problem Area 7: Duplication of Systems Development Effort

At present, each county is allowed, subject to State and federal funding approvals, to undertake individual systems development and enhancement projects. In addition, as new State and federal regulations require system changes, each county is responsible for implementing these on its own. As a result, there is currently a considerable amount of duplicate effort being expended by the counties in developing and maintaining multiple data processing systems. Furthermore, individual county interpretation of what is required can lead to variances and inaccuracies in how each system meets program requirements. The specification of minimum statewide system requirements by the State would substantially reduce the variances among counties. In addition, the degree to which a common software is implemented throughout the State would allow for enhancements and modifications to be developed centrally and distributed to the counties.

Problem Area 8: Inconsistent Minimum Statewide Standards

As part of its role in supervising the county administration of public assistance programs, the Department of Social Services historically has provided guidance and monitored the counties' implementation of State and federal law and regulation. Counties are generally responsible for determining the specific requirements and implementing systems and procedure changes. Under this approach, counties often find it difficult to know specifically what is required. Furthermore, since counties are responsible for interpretation and implementation, differences often arise. The end result is that clients do not necessarily receive the same treatment throughout the State.

The development and implementation of a standardized systems approach for public assistance programs offers an opportunity to address this problem. As specific system functions and features are implemented, DSS should take an active role, with county participation, in the development of associated procedures, forms and training. These additional tools will assist the counties in the implementation of regulatory changes and ensure greater equity in service provided to clients. For example, DSS could develop the minimum requirements for notices of action, including specification of necessary language. As a result, both the counties and the State would be assured that clients are treated equitably.

Problem Area 9: Inadequate State Recognition of the Complexities and Responsibilities of County Administration of Programs

The welfare programs in California are State-supervised and county-administered. Therefore, any system and statewide standards that are developed must recognize and support this county administrative role. While the Department of Social Services does work with counties to improve effectiveness and efficiency of county operations, DSS has not been consistent in this approach. Some counties reported that State regulations sometimes are issued requiring immediate or retroactive changes without recognizing the need for changes in procedures and training of personnel. Furthermore, to the extent that counties are not sufficiently involved in systems planning, development proposals have

been made that do not adequately recognize county administrative responsibilities and are therefore difficult to implement. To ensure the development of systems requirements and statewide standards that can be effectively implemented, there must be allowance for:

- Adequate input by counties.
- Adequate on-site development and testing of proposals.
- Recognition of differences in county operations due to population, rural vs. urban characteristics, caseload size and distribution, geography, etc.

Problem Area 10: Inconsistent Statewide Leadership

During discussions with numerous county officials, a dissatisfaction with the level of statewide direction and support of welfare programs was often expressed. This problem is illustrated by the following comments/examples:

- Dealing with multiple groups (individual programs, data processing, SPAN, etc.) within DSS and not receiving consistent and timely responses.
- Lack of support by DSS in developing and demonstrating new cost-effective systems and ideas.
- Lack of aggressiveness in developing and monitoring statewide standards, policies, procedures and forms as they relate to and impact data processing systems.

Although this "leadership" role is not a direct system problem, such leadership and support is particularly important before any data processing system can be effective.

C. SOLUTION OBJECTIVES

Based on the problem areas discussed above, the following objectives have been identified that a system, or systems, and the associated organization developed to support California's welfare programs, must meet. Each objective corresponds directly to the identified problem areas. Many of these objectives will result in cost savings or benefits after implementation of the proposed system. These benefits are quantified in Section IV of this report. The solution objectives are:

1. Reduce the manual effort and associated cost currently required to process applications, determine client eligibility and compute benefit levels.

2. Implement frequent and complex regulatory changes in such a manner as to ensure uniform and equitable treatment of clients throughout the State.

3. Reduce the percentage of worker errors associated with the determination of eligibility, computation of benefits, and other required activities.

4. Reduce payment of benefits that result from client error, fraud and abuse.

5. Issue benefits within the limits specified by State and federal law and regulation.

6. Provide timely and accurate management reporting and reduce the amount of manual effort required in preparing reports at both the State and county levels.

7. Minimize the duplication of effort in the development, enhancement and modification of data processing systems that support county-level administration of welfare.

8. Ensure the uniform and equitable treatment of clients by establishing statewide standards and support for systems, procedures and training.

9. Ensure recognition of county responsibilities and needs in systems development by defining a specific mechanism to obtain county input to that process.

10. Ensure a positive State-county relationship in the administration of public assistance programs, including systems development, by clarifying the role of the State and coordinating multi-departmental efforts and responsibilities.

D. CONSTRAINTS

A constraint is a factor or issue that must be addressed and/or resolved if the solution objectives are to be achieved. Each of the solution objectives defined above has one or more constraints associated with it that affect the degree of difficulty that may be encountered in achieving the objective. Some constraints also affect more than one of the solution objectives. We have identified constraints that will impact the development of an effective welfare data processing system. We also have considered these constraints in our analysis of alternatives. Each of these constraints is briefly described below.

1. Development and implementation of the proposed system is dependent upon the availability of adequate funding.

2. Development and implementation of the proposed system is dependent upon the availability of qualified personnel.

3. The proposed system and related requirements must incorporate federal and State laws and regulations.

4. The proposed system should meet federal system design guidelines such as FAMIS.

5. The proposed system must utilize existing hardware to the extent that it is cost-effective to do so.

6. The proposed system must support variations in county requirements related to caseload size, geography, population distribution and other county-specific characteristics.

7. The related information needs of and required interfaces to other programs, such as Social Services and Child Support, must be accounted for and incorporated in the proposed welfare system.

8. The development and implementation of the proposed system must respond to continuing changes in regulations.

E. PERFORMANCE CRITERIA

Performance criteria are specific measures by which one can determine how well the proposed system is meeting the solution objectives. Some of these criteria are directly attributable to specific system performance. Other criteria are more indirectly related to the system. That is, although the system will provide the functions to support achievement of the objective, other factors, such as program administration and policy, may have as much or more influence on the degree of achievement. In those instances, we have identified the performance criteria but have not quantified them. The performance criteria are identified below:

1. Increase the statewide average caseload per worker and decrease the statewide average cost per case to realistic and achievable levels to be established by the State.

    - Reduce the amount of manual effort required in the application, eligibility determination and budget computation processes. For benefit computation, this reduction was estimated to be approximately 20%.

    - Automatically produce a high percentage of required notices of action. For benefit computation, this production is estimated to be 90%.

    - Provide monthly caseload reports identifying all case actions required during that month and, when appropriate, in future months.

2. Implement changes in eligibility criteria and benefit levels within time frames prescribed by law and regulation or a target time frame to be established by the State.

    - Maintain automated tables of eligibility criteria and benefit calculations, and standardize their updating as regulatory changes occur.

    - Identify a State-level organization or group to assume responsibility for the interpretation of regulatory changes, definition of required changes in systems, procedures and training, and supervision of their implementation.

3. Reduce worker-related errors to realistic target levels to be established by the State.

    - Provide automated edits and validation to ensure that required information and verification is obtained by workers.

- Develop a standard error-prone client profile and notify workers when an individual client or case warrants review based on that profile.

- Automatically notify workers of case actions to be taken (such as redetermination of eligibility or required referrals) as required by regulations or other criteria.

4. Reduce client-related errors and fraud.

   - Maintain a statewide central index of all persons in California "known to welfare".

   - Check all new applications for assistance against the statewide central index and provide timely (for "immediate need" cases, on-line response; for routine checks, three- to five-day turnaround) notification to workers of individuals already "known to welfare".

   - Perform periodic (monthly, quarterly and annual) matches of statewide central index with external program data, such as the EDD (Employment Development Department), Franchise Tax Board and various federal files, to verify client information and identify possible fraud.

   - Provide workers with exception reports from external program data matches for further investigation.

5. Issue benefits to clients within time frames prescribed by State and federal law.

   - Automatically calculate and issue benefits within a specified period of time after initial application.

   - Provide workers with notification of cases approaching established limits for benefit issuance.

6. Maintain client/case information in local and statewide central indices to provide timely and accurate management reporting.

   - Update both indices on a daily and monthly basis.

   - Provide management reporting of:

     - Client population information.

     - Client activity information such as benefits issued, length of continuous eligibility, etc.

- Maintain on the statewide central index information required for reporting to State and federal agencies and departments.

7. Consolidate system development and modification efforts in such a way that duplication is minimized.

8. Establish statewide standards for procedures, forms and training.

F. SYSTEM REQUIREMENTS

In the preceding discussion, problems have been identified that exist in the current administration of welfare programs and delivery of benefits to clients. Subsequently, the objectives and performance criteria for the development of a welfare data processing system have been defined. Based on this analysis, a review of SPAN functional requirements, FAMIS design guidelines and other documents, input from State and county personnel, and our firm's knowledge of data processing, we have developed a conceptual design of a data processing system.

This conceptual design is a general framework for a system to serve the welfare programs in California. It will serve as the basis of comparison to the current systems to identify areas of major benefit potential. It will also serve as the standard against which various data processing system alternatives are compared.

The conceptual design is divided into two parts -- functional and technical requirements. The functional requirements generally describe what the welfare system should do to support welfare personnel in the performance of their responsibilities. The technical requirements describe how the system will work by identifying its general data processing characteristics. Each of these areas is described below.

Functional Requirements -- Based on a review of prior documentation and discussions with State and county personnel, the following nine functional categories were identified as those that a data processing system must address:

- Intake/data collection
- Eligibility determination/verification
- Benefit computation
- Benefit delivery
- Client notification
- Case management
- Management reporting
- Fiscal
- Information exchange

Some of these functions are automated or partially automated. However, as noted earlier, the degree of automation varies by category and, within each category, varies from county to county. Therefore, in this section are descriptions of major functional areas to be automated. Implementation of these system changes will support increased worker

productivity, reductions in errors, and detection/prevention of fraud. In identifying benefits of the proposed statewide system, these major enhancements are evaluated to determine potential cost savings and error reduction.

- Automated Intake, Eligibility Determination and Budget Computation -- These three functional areas include activities to gather and verify all required client information, determine a client's eligibility based on financial and nonfinancial factors, and calculate benefit levels for eligible clients. In general, current county systems provide varying degrees of automation for intake/data collection and budget computation. However, in the majority of counties, substantial manual effort is required in both areas, particularly in processing applications for assistance. For eligibility determination, there is essentially no automation provided by current county systems. Therefore, these areas offer a significant opportunity for automation.

  In Appendix II, a more detailed list of functions required to achieve the system objectives is provided.

  In general, automating intake, eligibility determination and budget computation will significantly reduce the amount of manual effort required of eligibility workers and the errors made by workers. This will be accomplished as follows:

  - Intake -- During intake, the eligibility worker reviews the client-prepared application form and obtains additional information from the client and other sources. This information is required to determine eligibility. This process will be automated such that either the worker or client can enter data directly into the system. Client information from the application can also be entered by data entry personnel. The system checks to ensure that all required information has been entered before further processing can occur. If an application cannot be completed, a list of items for followup by the worker and client verifications required will be computer-generated. Forms required for verification and referral will also be computer-generated.

  - Eligibility determination -- Once an application is complete, eligibility is determined based on nonfinancial (e.g.,

household composition) and financial (e.g., earned and unearned income, resources, etc.) criteria. Nonfinancial eligibility determination will be automated by having the system check that the client meets predetermined criteria. Automated financial eligibility determination includes any required calculations with regard to income, and other criteria to establish that the client's financial means are insufficient to support the client's basic needs. To the extent that the regulations concerning these criteria change frequently, automation significantly reduces the training and errors associated with that change.

- Benefit computation -- Once a client has been determined to be eligible, a calculation of the benefits to which he/she is entitled (or "share at cost" for Medi-Cal only) is required. Many counties have automated budget computation for one or two programs, but this process often still requires some manual effort. This computation will be almost entirely automated, thereby reducing both worker effort and errors. As in the case of eligibility determination, automated benefit computation greatly facilitates the incorporation of regulatory changes by minimizing training and changes in manual procedures.

- Benefit Delivery -- Benefit delivery includes issuance of AFDC warrants and food stamps. In general, the actual issuance of warrants is currently automated in most counties. However, in the case of food stamps, issuance is based to a large degree on Authorizations to Participate (ATPs). ATPs are mailed to eligible clients who then redeem them for food stamps. This procedure is subject to problems of duplicate issuance, fraud and reconciliation. Automated, on-line issuance of food stamps addresses all of these problems. The client presents a magnetic card at an issuance site. When the card is passed through a magnetic reader, the system identifies to the issuer the amount of food stamps to which the client is entitled. Once issued, the system automatically reconciles the issuance so that duplicate issuance cannot occur at another site.

- Client Notification -- Determination of eligibility or ineligibility, changes in benefit level or other case activity requires that the client be notified of such

action. Some counties have automated a large portion of these notices. However, because many counties generate some or all notices manually using preprinted forms or preparing them completely, automation in this area can be significantly increased. There are two ways in which automation will be used. First, notices of action (NOAs) will be generated when the system determines that a change has occurred that requires the client be notified. The second approach is one in which the worker determines the need for a notice and enters a code that will generate the NOA.

- Case Management/Error Control -- Eligibility workers are required to perform a variety of activities related to a case after the initial determination of eligibility. Automation will provide a great deal of assistance in this area of case management. In particular, the system will provide case management reports to workers, which will identify required actions and report delinquent actions. The system will also produce confirmation documents to the worker when case actions are made. A number of counties currently have automated capabilities in the production of confirmation documents and case management reporting. However, the availability and usefulness of these capabilities varies. Because of the volume of work associated with continuing cases, the availability of such automated reporting will be very useful to the worker in managing his/her caseload and reducing errors.

- Management Reporting -- Both the counties and State are required to report financial and statistical information regarding the welfare programs. In addition, management reporting is extremely important in monitoring and controlling these large and complex programs. Currently, most counties must manually prepare some or all of these reports. To the extent that an increased amount of data is collected, stored and retrievable using data processing systems, automation will more easily provide mandated reporting, as well as reports used to monitor caseload, worker activity, errors and other factors.

- Fiscal Management -- Automation of fiscal procedures includes the reconciliation of warrants and food stamps, management of repayment by clients of overissuances, accounting for AFDC benefit payment information for matching against child support collections, and tracking of information required to submit fiscal claims. Most counties have manual procedures in one or more of these areas. Increased automation will provide better fiscal controls, facilitate collection of overpayments to clients, and reduce worker effort.

- Information Exchange -- Welfare client information gathered at the county level is often required or would be useful to other programs or other counties. Automation will support much of this exchange of information. For example, AFDC and Child Support need to exchange client information so that support payments from absent parents can be collected and offset against AFDC benefit payments. Information about clients "known to welfare" in other counties will be valuable in detecting possible fraud. The availability of a statewide list of welfare clients and associated data will be used to verify client information against other statewide files such as employment (EDD), unemployment and disability insurance (UI/DI), and the Franchise Tax Board. Some of these activities are automated, but, as in many other areas, there is considerable variation in the degree of automation and coordination that exists.

The functions discussed above are all areas in which automation will address the problems that exist in the current welfare system in California. Maximization of the degree to which automation of these functions supports achievement of the system objectives is also partially dependent on some of the technical characteristics of the system. Some optional functions are briefly described in Appendix II-2. These functions could result in future cost savings. The next section briefly describes these technical requirements.

- Technical Requirements -- The general technical characteristics required to best support the functional requirements described above include:

  - Accessibility of system to eligibility workers
  - Reduced reliance on forms and paper flow
  - On-line availability of client information
  - Security and control of data
  - Maintainability

Each of these areas is discussed below.

- Accessibility of System to Eligibility Workers -- The functions to be supported by the proposed system, particularly intake and data collection, will require more interaction with the eligibility worker. Furthermore, information needed by the worker will be maintained on the system and must be more accessible to the worker. This accessibility can be supported by the availability of terminals in district offices for the input of client information or on-line inquiry to local indices by eligibility workers, clerical personnel or data entry operators.

- Reduced Reliance on Forms and Paper Flow -- The increased automation of data collection, eligibility determination and budget computation will greatly reduce dependence of most counties' systems on input and turnaround documents. This reduction depends on the extent to which eligibility workers have direct access to the system via terminals. Those counties that are partially or completely manual will require fewer documents for processing cases and retaining client information.

- On-line Availability of Client Information -- With increased client information maintained on the system, workers will need to readily access this information. Therefore, client information will need to be available on-line so that workers can determine if a client is receiving benefits in the county, determine current status, or verify that information is current or correct.

- Security and Control of Data -- With the increased availability and accessibility of the data described above, the system will need to control access to that data. This will be accomplished through the use of passwords and restricted functions available to different users. The duplication of information, particularly between local and statewide indices, will require controls to ensure that the integrity of the data on both files is maintained.

  Strict control will also be enforced for the standard version of the system and changes made to it. This control will ensure that the integrity of the system's programs is maintained and will facilitate maintenance by only those individuals authorized to do so. Changes will be distributed by way of new releases of the system programs, subject to the same level of control of integrity.

- Maintainability -- Frequent and complex regulatory changes that occur in the welfare programs will require that the system be easily maintained. This is particularly true for functions such as eligibility determination, budget computation and notices of action. In addition, the system will need to support variations in county needs. Therefore, the system must be flexible to facilitate changes to address specific problems and needs.

System Architecture

The functional and technical features of the system will be utilized by counties in a variety of environments. In some counties, existing mainframe sites can be utilized for processing. Other counties will prefer to share

mainframes located in other counties. Regardless of mainframe location, the need for client service and worker response is constant. This need for service and response will be satisfied by distributing access to the system to the many district offices.

Figure A presents a conceptual model of the architecture of the new system. HWDC would support all system requirements for the statewide central system. Local county mainframes would provide processing support for district offices in the same county or in adjacent counties. District offices would be provided with work stations for user access to data and the distribution of reports and benefits. Minicomputers could be utilized in the design of the system to decrease the workload on the mainframe sites and improve response to the user. The architecture of the system should be flexible enough to respond to the highly varied caseloads and geographical distributions that are present throughout the State.

CONCEPTUAL ARCHITECTURE

SYSTEM LEVELS	LOGICAL SYSTEM	INTERACTION BETWEEN LEVELS
STATE CENTRAL PROCESSING	. Statewide Central Index . MEDS Eligibility Processing . External Data Base Matches . Intercounty Transfer Control	BATCH
COUNTY/REGIONAL PROCESSING	. Client Registration . Notices to Clients . Food Stamp Issuance . Benefit Issuance . Interfaces to Other County Systems . Program Management Reporting	ON-LINE
DISTRICT OFFICE	. Application Processing . Eligibility Determination . Benefit Determination . Case Tracking . Immediate - Need Benefit Issuance . Case Management Reporting . Repayment Processing	DIAL-UP

Figure A

III. ALTERNATIVE ANALYSIS

The analysis of alternatives to meet the systems requirements and objectives involved two phases. First, there was the screening of alternatives, discussed in this section of the report, during which each identified alternative was evaluated qualitatively against a number of predefined criteria. This phase of analysis eliminated from further consideration those alternatives that clearly do not meet the objectives. The second phase was a detailed quantitative analysis of those alternatives that met the initial criteria. This analysis identified the projected benefits and costs of each remaining alternative and served as the basis for selection of the recommended solution. This phase is discussed in the next section, "Detailed Analysis", of this report.

This section of this report identifies all the alternatives considered and the criteria used to evaluate them. Then each alternative is discussed and either eliminated or accepted for further analysis based on its particular advantages and disadvantages.

The Request for Proposal required that the following alternatives be considered:

1. Continue the existing system and cancel the SPAN project.

2. Use WCMIS/IBPS as a basis for developing SPAN.

3. Use Case Data System as a basis for developing SPAN.

4. Upgrade both WCMIS/IBPS and the Case Data System, linking them together with a statewide central index.

5. Base a system on the WCMIS central index and a Case Data System benefits payment system.

6. Allow large counties to retain their existing systems and develop a standard system for the remaining counties.

7. Design and develop a totally new system statewide.

   In addition to these, one more alternative has been identified for evaluation in this analysis. This is:

8. Upgrade WCMIS/IBPS and develop a new system for the remainder of the counties, tying them together with a statewide central index.

As we began evaluating these alternatives, it became evident that each could be broken into two primary components: a statewide index and a benefits payment system. As a result, systems alternatives for each component

subsequently were evaluated. This analysis led to the conclusion that there were initial recommendations that could be made that would facilitate the screening of alternatives. Therefore, the remainder of this section is divided into the two subsections that follow.

- Initial Recommendations
- Preliminary Screening of Alternatives

A. INITIAL RECOMMENDATIONS

As mentioned above, the preliminary analysis of alternatives led to the identification of initial recommendations that would facilitate further screening of alternatives. These recommendations are as follows:

- The Development and Implementation of a Statewide Central Index -- Currently, each county in the State administers its own welfare program, yet there is no statewide system that records and keeps track of all welfare recipients. Therefore, it is difficult for individual counties to know those individuals who have applied for, or are already receiving, welfare benefits in another county. In addition, there is not a coordinated or complete matching of welfare files against other State and federal files to detect fraud. Some matching does currently exist or is under development; however, these efforts do not utilize a single statewide welfare file, are not necessarily complete in terms of the data matched, and often require additional effort to compile client information from other sources.

  Therefore, we recommend that a statewide central index of all welfare applicants and recipients in the State be developed. Such an index will assist in the prevention and detection of duplicate benefit payments.

  Several alternative index systems currently exist that can be used in the development of a statewide index to meet California's needs. These alternatives are discussed and analyzed in the "Detailed Analysis" section.

- Continue to Develop WCMIS/IBPS in Los Angeles County -- Los Angeles County's current welfare caseload represents 36% of the total caseload for the State. Therefore, any data processing system development efforts that occur in Los Angeles impact more than a third of the welfare program recipients and workers in California. Since the county has developed a good deal of automation in support of its welfare programs, a decision was made to

first evaluate the most cost-effective direction to pursue regarding data processing in Los Angeles. The conclusion of our review of WCMIS/IBPS (January 1983 report to the State of California Legislature) was that Los Angeles County should continue to use and develop WCMIS/IBPS for the following reasons:

- Both WCMIS and IBPS are operational and are currently experiencing very few major problems.
- Eligibility workers and other personnel express a high degree of satisfaction with both systems.
- Statistics for fiscal year 1981/1982 show that the county continuing caseload per worker and cost per case are close to the statewide average. However, with the recent conversion to IBPS, additional productivity and cost benefits may be achieved.
- The functions supported by the current system, as well as those that will be supported by already planned enhancements, meet a number of the data processing system requirements defined earlier in this report.
- A significant investment of both time and money already has been made in these systems. Therefore, conversion to a new system would incur significant new costs, as well as nullify the benefits of this previous investment.

The remainder of the preliminary analysis of alternatives is based on our recommendation that WCMIS/IBPS should continue to be operated and enhanced in Los Angeles County.

B. PRELIMINARY SCREENING OF ALTERNATIVES

The remainder of this "Alternative Analysis" section evaluates those alternatives that, in conjunction with the initial recommendations discussed above, could meet the defined objectives. The following areas are discussed:

- Methodology Used for Evaluating/Screening Alternatives
- Deficient Alternatives
- Alternatives Requiring Further Evaluation

1. Methodology Used for Evaluating and Screening Alternatives

The methodology used in the analysis of identified alternatives includes the evaluation of each alternative against predefined criteria. Based on the advantages and disadvantages of each alternative in relation to these criteria, alternatives are eliminated from further consideration. Those alternatives not eliminated are evaluated in detail in the next section of this report. The criteria used are as follows:

Alternative Supports the Scope and Objectives of a Statewide Welfare Data Processing System -- The criterion assesses the degree to which an alternative meets the current revised scope and objectives as defined in the Problem Statement section of this report. That is, does the alternative provide for standardized and uniform data processing, policies, and procedures in support of State-supervised/county-administered welfare programs. This criterion also addresses the Legislature's objectives of AB 8 for:

- Prompt and accurate verification of eligibility.
- Accurate computation and timely dispersal of benefits.
- Equitable, timely and consistent treatment of recipients.
- Reduction of administrative complexity.
- Strict enforcement of management and fiscal controls.
- Collection of management information.

Alternative Is Technically Feasible (At a Reasonable Cost) -- This criterion measures whether the alternative is feasible, given the current technical (hardware, software,

communications, etc.) environment. Areas such as hardware and software architecture, transferability, documentation, etc., are considered. A major reason for this analysis is to assess the degree to which the system can reasonably be upgraded and modified both functionally and technically.

Conversion Cost of Alternative Is Reasonable -- This criterion measures the level of conversion cost required by an alternative. The cost components considered were:

- Level of personnel effort.
- Extent of eligibility worker training.
- Volume of new procedures and policies.
- Magnitude of required file conversion.
- Amount of excess capacity created on existing county computer.

Some of these costs can be significant, given the fact that there are approximately 12,000 eligibility workers and supervisors in the State.

Alternative Minimizes Disruption to County Operations -- This criterion evaluates the level of disruption to ongoing county operations caused by an alternative during system conversion. It considers the impact that a conversion would have due to changes in personnel duties, personnel levels, hardware capacity, physical location, etc. This criterion also considers the magnitude of conversion effort and potential resistance to change. The magnitude of the conversion would also affect (normally increase) the number of errors for a period of time following conversion.

Alternative Facilities Development of a Statewide Central Index -- This criterion measures the level of effort required by an alternative to support a statewide central index that links all systems. The central index would maintain basic client data for all persons known to welfare in California. The more varied the systems components, the greater the technical complexity to develop such an index.

Alternative Provides for Technical Compatibility of Components -- This criterion measures the level of effort and technical complexity associated with the various components of the overall system. Alternatives requiring unique or specific types of hardware and/or system architectures may require more time and money to implement.

Alternative Utilizes Existing Resources and Structure -- This criterion measures the extent to which an alternative uses existing hardware, software, personnel expertise, etc., in the

State. Major investments already have been made in many county systems; therefore, consideration of available resources is appropriate. This criterion also assesses whether significant cost or effort is required to utilize and/or upgrade these resources.

Deficient Alternatives

Of the eight alternatives evaluated, several were considered to have deficiencies sufficient to eliminate them from further analysis. Furthermore, as mentioned earlier, the recommendations to implement a statewide central index and continue the development of WCMIS/IBPS in Los Angeles County also affect certain alternatives. A discussion of the rationale for eliminating these alternatives is presented below.

Alternative 1: Continue the Existing System and Cancel the SPAN Project -- This alternative does not adequately support the objectives for a State-supervised/county-administered public assistance delivery system for the State. This so-called "status quo" of maintaining all the existing county systems will make it difficult to standardize and upgrade all the current systems to meet recommended functional and technical requirements. It should be noted that this alternative also has a significant cost associated with the inefficiencies of current operations and cost duplication in maintaining and updating many individual county systems. Also, such fragmentation does not allow for implementing cost savings and productivity gains in an organized and timely manner.

Alternative 2: Use WCMIS/IBPS as a Basis for Developing a Statewide System -- This alternative would require 56 counties (roughly 60% of the State's welfare activity) to convert to WCMIS/IBPS. Such a conversion would have significant implications and problems related to computer hardware, retraining of personnel, disruption of operations, and use of existing investment and expertise. Each of these points is addressed below.

- Computer Hardware -- Most all of the counties mentioned, except one, have computer hardware that is not compatible with the Univac equipment that is required for WCMIS/IBPS. Furthermore, most of these welfare systems are processed on county-wide computer facilities where welfare processing represents approximately 20% of these counties' total computer usage.

  This current county environment presents a major problem with respect to computer hardware resources needed to convert to WCMIS/IBPS. Several alternatives are possible:

  (1) Replace current county hardware with compatible Univac equipment. This would require converting the other 80% of county applications.

(2) Add compatible Univac computer equipment in each county for welfare processing only.

(3) Rewrite WCMIS/IBPS in another computer language and data base management system.

(4) Replace the welfare processing in each county with several regional computer configurations throughout the state.

In evaluating these alternatives, the first three alternatives do not appear feasible from our viewpoint. The effort and/or cost required is more than the potential benefit or is duplicative in nature.

Regional processing is a possibility. However, this violates one of the guidelines we have established of permitting the larger counties to "administer" their own welfare program through decentralization of computer operations (i.e., controlling their own operations, issuing their own warrants, etc.). This was one of the major county complaints related to the original SPAN requirements.

There is one additional problem related to performing welfare processing regionally in that there would be an abrupt one-time reduction (20%) in county processing volume at conversion. Although in the longer term this excess capacity could be utilized, it would present short-term revenue loss problems to a number of county data processing facilities.

If two additional required processing centers were established in the State for the remaining 60% of the State, the additional computer hardware cost could be estimated to be twice that of Los Angeles County. Currently, Los Angeles County's annual cost of UNIVAC computer hardware and operations is approximately $6 million. Assuming two additional centers are established in the State, this figure would be approximately $12 million. This does not include the conversion costs of setting up the sites and converting the system.

Many other questions, such as responsibility for regional center operation, technical and maintenance support and current system constraints peculiar to Los Angeles (system software, requirements for laser printers, etc.), would also have to be resolved.

- Conversion and Retraining -- Converting to a WCMIS/IBPS system would require retraining all types of people (systems, operations, eligibility workers, etc.). This would require significant effort and cost, including the conversion of all data and files. For Case Data counties, this conversion effort would be more difficult than to a new CDS-based system.

- Disruption -- Due to the significant conversion effort, there would be significant disruption, which often leads to an increase in errors. Worker attitude and morale might also be affected.

- Existing Investment in Systems and Expertise -- Many counties have significant investments in systems features and expertise that have been developed over a long period of time. A number of these counties have already implemented functional capabilities that WCMIS/IBPS does not currently perform. Thus, there could be a significant number of development changes to make WCMIS/IBPS meet the current capabilities of these counties.

In summary, the cumulative effect of these considerations and problems leads to the conclusion that this alternative should be eliminated from further analysis for statewide implementation. However, it may make sense for smaller, neighboring counties such as Orange County to use WCMIS/IBPS, and have Los Angeles County do all the processing (service bureau type arrangement) at the county's option. Each county could evaluate the cost benefit of such an arrangement compared to the new CDS-based system alternative.

Alternative 3: Use Case Data System as a Basis for Developing a Statewide System -- This alternative would require Los Angeles County to convert from WCMIS/IBPS. Based upon the initial recommendations to continue using WCMIS/IBPS in Los Angeles County, the Case Data System (CDS) would not be used as a basis for one statewide system. However, Case Data System is evaluated as a basis for system development for the remaining counties, as discussed in Alternative 4.

Alternative 5: Implement a WCMIS/CDS Hybrid (WCMIS Central Index and Case Data Payment System) -- The major differences between these systems in terms of the hardware and software used makes technical integration of the two extremely complicated and costly. For example, the WCMIS central index is person-oriented, while the CDS is case-oriented. In addition, the cost associated with a technical integration or conversion of Univac's data base management system used in WCMIS to an IBM-compatible data base would be significant. Finally, this alternative would require Los Angeles County to convert to Case Data and discard IBPS, to which

it has recently converted. The combination of these factors and the initial recommendation to continue to operate WCMIS/IBPS in Los Angeles led to the elimination of this alternative.

Alternative 6: Allow Large Counties To Retain Their Existing System and Develop a Standard System for the Remaining Counties -- This alternative allows for the retention of WCMIS/IBPS and Case Data, as well as a number of other systems currently used in large counties. It also includes the development of a new system for the remaining counties. We believe that such an approach is duplicative and would result in excessive development and maintenance costs.

Alternative 7: Design and Develop a Totally New System Statewide (Replace all Other Systems) -- This alternative would involve the design and installation of a standard statewide system to replace all other systems in the State. This alternative disregards the significant investment already made in county and State systems and training of personnel.

Alternatives Requiring Further Evaluation

Our preliminary screening has rejected six of the eight alternatives identified for consideration. The two remaining alternatives generally meet the preliminary screening criteria and, therefore, will be evaluated in more detail. These alternatives are:

- Alternative 4 -- Upgrade WCMIS/IBPS for Los Angeles County, develop a system that builds on the Case Data System, and tie both systems together through a statewide central index.

- Alternative 8 -- Upgrade WCMIS/IBPS, develop a new statewide standard system for the remainder of the counties, and tie them together through a statewide central index.

Because both the statewide central index and WCMIS/IBPS for Los Angeles County are common to these alternatives, the primary distinction is whether the Case Data System should be used as a basis for a statewide system for remaining counties, or whether a new system should be developed.

We believe that further analysis of these two alternatives is necessary, even though initially it might appear that building on the Case Data System would be preferable. The Case Data System has many desirable user functions and features; however, it is very paper-oriented, has few on-line capabilities, and is presently case-oriented, not person-oriented. Upgrading the Case Data System to meet the preliminary system specifications we have defined will entail major redesign and restructuring, not just a few enhancements. Our detailed cost analysis will compare the cost and effort of building on Case Data against that of developing a new system.

IV. DETAILED ANALYSIS

This section presents the results of the detailed analysis of benefits of the proposed system and the costs of the primary system alternatives identified in the Preliminary Analysis section of this report. The discussion is divided into three parts:

- Cost/Benefit Summary
- Benefits
- Costs

The Cost/Benefit Summary identifies the major benefits and costs that are discussed in the subsequent two parts. The Benefits part describes six major benefit areas and the methodologies used to quantify them. The Costs part details the one-time implementation and ongoing costs for each component of the proposed system: the statewide central index and county processing systems. The county processing systems section addresses WCMIS/IBPS, the statewide on-line food stamp issuance subsystem, and compares the cost of a custom system or a CDS-based system.

A. COST/BENEFIT SUMMARY

This part summarizes the detailed cost/benefit analysis performed for the major components of the proposed system: a statewide central index, a statewide on-line food stamp issuance subsystem, a WCMIS/IBPS upgrade, and the remaining counties' system.

Benefits and costs estimates were developed using recently compiled State and county feasibility studies, cost analyses and administrative cost claims data. In addition, current data was gathered from counties during initial interviews and subsequent telephone conversations. These county contacts are identified in Appendix I. To the fullest extent possible, counties were grouped to account for system and functional/procedural differences related to a specific cost or benefit. The detailed methodologies for each benefit and cost are outlined in Appendices IV-1 and IV-2.

The costs of the proposed system as presented in this section are based on conceptual system planning specifications. Thus, the cost and benefit estimates have order-of-magnitude accuracy. The estimates for effort and costs will be further defined and will become more precise when the General Design and Installation phases of the proposed system projects are completed. Consequently, the cost/benefit values in this report should be used only as a basis to determine whether to proceed with a revised SPAN project and to decide between alternatives. The cost estimates should not be used for future budgeting, except possibly for the first year. Future budgeting of costs should be based on refined estimates made at specific times during the General Design and Installation phases of each project.

The following charts show the estimated annual and cumulative net benefits for the proposed system. An estimated annual avoidance of $18.9 million in federal fiscal sanctions is not projected to occur until Year 9, and is not shown in the chart.

Annual Cost/Benefit Summary

(In millions of dollars)

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
Annual Benefit	$ -	$11.6	$ 15.1	$ 36.6	$ 41.2	$ 67.2	$ 67.2
Annual Cost	(9.1)	(9.5)	(24.5)	(11.8)	(11.1)	(11.1)	(11.1)
Annual Net Benefit	$(9.1)	$ 2.1	$ (9.4)	$ 24.8	$ 30.1	$ 56.1	$ 56.1

Cumulative Cost/Benefit Summary

(In millions of dollars)

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
Cumulative Benefit	$ -	$ 11.6	$ 26.7	$ 63.3	$104.5	$171.7	$238.9
Cumulative Cost	(9.1)	(18.6)	(43.1)	(54.9)	(66.0)	(77.1)	(88.2)
Cumulative Net Benefit	$(9.1)	$ (7.0)	$(16.4)	$ 8.4	$ 38.5	$ 94.6	$150.7

The net benefit amounts indicate that the proposed system would be highly cost beneficial for the State. Specific cost and benefit amounts are discussed later in this section.

B. BENEFITS

It is anticipated that significant benefits will result from implementation of the proposed system. Six major benefit areas have been identified that will result in an estimated $67.2 million a year in cost savings.

These major benefit areas are:

- Statewide central index
- Automated eligibility determination
- Automated budget computation
- Automated and standardized notices of action
- On-line food stamp issuance
- Duplicate systems development

Each major benefit area listed above involves specific quantified cost savings. Cost savings elements include administrative cost savings and benefit payment savings. In addition to cost savings, fiscal sanctions estimated to be $18.9 million per year will possibly be avoided. Finally, a number of "intangible" benefits have been identified for each major benefit area. The chart on the following page summarizes the major benefit areas and related quantified and intangible benefits. The methodologies used to quantify the major benefit areas are discussed in Appendix IV-1.

Benefit Area	Quantified Benefits (In millions of dollars)			Intangible Benefits
	Cost Savings			
	Administrative	Benefit Payments	Fiscal Sanctions	
Statewide Central Index		$ 2.9		. Reduced reporting effort . Reduced report followup . Decreased/deterred fraud
Automated Eligibility Determination	$16.6	26.0*	$18.9**	. Improved client service . Improved caseload information . Improved employee morale . Enhanced management control . Decreased training . Improved consistency . Improved implementation . Reduced duplicate data collection
Automated Budget Computation	3.4			. Improved consistency . Improved implementation . Multiple program consideration . Reduced erroneous payments
Automated and Standardized Notices of Action	6.5			. Improved accuracy . Improved timeliness . Reduced development efforts
On-Line Food Stamp Issuance	10.9			. Improved client service . Improved reporting
Duplicate Systems Development	.9			
Total	$38.3	$28.9	$18.9	

*Cost savings due to automation of both eligibility determination and budget computation.
**Cost avoidance due to automation of both eligibility determination and budget computation.

The chart on the previous page indicates estimated annual benefits of $86.1 million. This includes an avoidance of $18.9 million in federal fiscal sanctions which will be imposed on the State if established error rate guidelines are not met. The remaining benefit amount of $67.2 million will be shared by federal, State and county governments. The chart below shows the approximate annual benefit share to each government unit.

Benefit Shares*

(In millions of dollars)

	Federal	State	County
Total	$43.6	$15.3	$8.3

*Shares for each government unit vary by program. Appendix IV-1 details the methodology and assumptions used.

Based on a detailed review of the original SPAN FSR and supporting documentation, it was determined that it would be difficult to utilize the SPAN benefit computations in preparing this report. The major reasons for this conclusion are as follows:

- Many of the system recommendations included in this report are different from those recommended by SPAN; therefore, the benefits are different.
- A number of the SPAN benefit computations were based on data that was difficult to substantiate or was inconsistent with current information received from counties.
- The original SPAN data is several years old.

MAJOR BENEFIT AREAS

A discussion of each major benefit area is presented below. The methodologies used to quantify these benefits are detailed in Appendix IV-1. Related intangible benefits are also described in Appendix IV-1.

Statewide Central Index

The primary purpose of a statewide central index is to reduce fraudulent benefit payments. There are two separate classifications of benefit payment savings attributable to the central index:

Fraud Prevention -- A major function that will be implemented by the statewide central index is intercounty checking for persons "known to welfare". "Known to welfare" is defined as a client receiving benefits from the three programs included in the proposed system: AFDC, food stamps or Medi-Cal. This function may be accessed on-line for immediate-need cases. Daily batch reports will be distributed for routine cases. The turnaround time is expected to be three to five days. These intercounty fraud checks will prevent duplicate benefit payments from being issued. The methodology used to quantify the estimated annual $1 million in benefit payment savings is detailed in Appendix IV-1.

Fraud Detection/Recovery -- The statewide central index will carry the following AFDC, food stamp and Medi-Cal client income data:

- Earned income
- Unearned income
  - Social security supplements (SSI/SSP)
  - Social security (RSDI)
  - Unemployment/disability insurance (UI/DI)
  - Dividends/interest
  - Other (may vary by county)

This income information will be matched against external program data to detect misreported client income. Discrepancy reports will be issued to workers for followup on unmatched information. The estimated annual $1.9 million in fraudulent benefit payment recovery is in addition to the currently recovered amount. The methodology used to quantify this savings is detailed in Appendix IV-1. It should be noted that the quantified savings are minimum amounts which may prove to be greater after implementation of the index.

Matching information from the welfare programs to external program data has been partially implemented by the State Welfare Fraud and Audits Branch. The following points summarize the current situation:

- The current fraud detection system, ECS (Earnings Clearance System), matches AFDC, Medi-Cal and limited food stamp and General Relief client earned income data with wages and UI/DI claims-filed data from the Employment Development Department (EDD). Matched listing reports are issued to workers for followup.

- Federal State Data Exchange (SDX) files are used to update MEDS information.

- A match with federal BENDEX files has recently been implemented statewide to verify RSDI claims.

- A pilot is being conducted to match UI/DI data from EDD and BENDEX RSDI payment amounts to public assistance data.

- A pilot is being conducted to match AFDC data to FTB dividends/interest earned data.

- ECS will be superceded in the first quarter of fiscal year 1983/1984 with a new system which will match AFDC and Food Stamp data with EDD, SDX and BENDEX files. This system will issue discrepancy reports on a quarterly basis.

Implementation of the statewide central index will limit these duplicate efforts by centralizing all income data for matching with external program data. A description of other intangible benefits related to the statewide central index is in Appendix IV-1.

The chart which follows summarizes statewide central index quantified benefits and related intangible benefits.

Central Index Benefits

(In millions of dollars)

Benefit Area	Quantified	Intangible
Fraud prevention	$1.0	
Fraud detection		
NAFS	1.1	. Decreased manual report production
AFDC	.8	. Decreased county staff effort
		. Decreased duplicate systems development
		. Deterred/decreased fraud
Total benefit	$2.9	

Automated Eligibility Determination

Determination of eligibility for AFDC, food stamps and Medi-Cal is a complex, time-consuming manual effort. Massive changes in eligibility requirements (such as the Omnibus Reconciliation Act of 1981) can cause unmanageable work loads and result in high error rates. Automation of this function will primarily affect the processing of intake actions from data collection through eligibility determination. An estimated $16.6 million per year can be saved by implementing a comprehensive automated eligibility determination function. Automation of eligibility determination will provide for:

- On-line entry of client application information by the worker or client
- On-line validation/checking of applicant data
- Capturing/retaining additional client data
- System determination of eligibility (financial and nonfinancial, and programs for which the client is eligible)
- System control of verification
- System referrals and followup actions
- System validation of eligibility requirements when client circumstances or regulations cause change
- System redetermination/recertification of eligibility as required
- System notification of required verification actions
- System tracking of required actions' status

Administrative Cost Savings -- Administrative cost savings include reduction of eligibility worker effort, quality assurance clerk effort, and an increase in data entry/pre-clearance effort. This cost savings is based on an approximately 20% reduction in worker effort to determine eligibility.

Benefit Payment Savings -- The estimated benefit payment savings are based on the automation of both eligibility determination and budget computation. The automation of these functions should reduce manual effort and increase error control, thus reducing erroneous benefit payments. Agency-caused errors such as failure to verify earned income or unearned income will be reduced through automation, thus reducing erroneous benefit payments. The estimated AFDC annual payment error reduction is $10.9 million. This expected benefit payment savings is approximately 14% of the

projected annual erroneous benefit payments due to agency errors. The estimated annual food stamp issuance error reduction is $15.1 million. This expected benefit payment savings is approximately 65% of the projected annual erroneous food stamp issuance due to agency error. The method used to determine the benefit payment savings is based on quality control statistics and is outlined in Appendix IV-1.

Fiscal Sanction Avoidance -- The estimation of the avoidance of federal fiscal sanctions is also based on automation of both eligibility determination and budget computation. Increased automation involves calculation of budgets, computation of benefit amounts, notifications of workers, etc. This will decrease errors caused by manual calculation and inefficient followup procedures. Current federal fiscal sanctions for AFDC and food stamps are mandated by federal law for payment errors exceeding federal tolerance levels beginning October 1, 1982. These tolerance levels will decrease to 3% for AFDC in October 1983 and 5% for food stamps in October 1984. If program overpayment and ineligible payment errors for the federal fiscal year exceed these limits, fiscal sanctions will be levied. Increased automation will result in cost avoidance of federal fiscal sanctions of $14.2 million per year for AFDC and $4.7 million per year for food stamps. These sanctions will equal the federal share of erroneous benefit payments exceeding the tolerance level for AFDC. For food stamps, sanctions will be levied against the federal share of the food stamp administrative costs. The methodology used to determine the sanction avoidance is outlined in Appendix IV-1.

Automated Budget Computation

The degree of automation of budget computation varies between counties. Computation for Medi-Cal-only cases is almost entirely manual. Many counties do have automated budget computation for AFDC and food stamps. Even with automated budgeting, manual budget calculations are generally performed for intake actions. Workers may also need to do full or partial calculation for certain types of income cases. This is an extremely time-consuming and error-prone process.

An estimated $3.4 million can be saved per year by implementing a comprehensive automated budget computation function. Complete automation of this function would eliminate the necessity of manual calculations for AFDC grants, food stamp coupon allotments, and Medi-Cal recipient share-of-cost.

Automated Notices of Action

An estimated $6.5 million can be saved by implementing an automated notice of action function. The degree of automation of issuance of notices of action to clients varies widely between counties. Statewide, approximately half of the notices are prepared manually, and approximately half are computer-

generated. This is extremely time-consuming. Full automation will substantially eliminate manual efforts for approximately 90% of the notices. These will be automatically issued by the system, where possible, or generated through the use of worker- or clerical-entered codes. The remaining 10% will be prepared using preformatted text that can be modified by the worker before being printed by the system.

The content of notices of action is not standardized statewide for AFDC, but varies between counties. There are certain requirements that are mandated by the State and/or court orders. In accordance with these requirements, the wording of preprinted and computer notices is developed in each county and individually approved by DSS.

Standardization of notices statewide would reduce effort at both the county and State levels. For such standardization to occur, the State should take a more aggressive role in defining and monitoring these standards. This may require the State to assume legal responsibility for the content of such notices. Even if this is not the case, the State should be more supportive of counties when notices of action are questioned.

On-Line Food Stamp Issuance

Food stamps are currently issued either through direct mail or through Authorization to Purchase (ATP) cards which are turned in at issuance sites for food stamps. Reconciliation of food stamp issuance ranges from full automation in some counties to manual reconciliation in others.

This issuance process is error prone and inefficient. Mail loss rates are very high in some counties. An estimated $10.9 million per year can be saved by implementing on-line food stamp issuance statewide.

On-line food stamp issuance would replace all ATPs and some direct mail. Permanent magnetic cards would be issued to recipients. These cards, along with signature match, would be used by issuance sites to identify rightful recipients and issue food coupons. Reconciliation of food stamps would be fully automated. Currently, this project is under consideration and should be pursued immediately to obtain projected benefits.

Duplicate Systems Development

Currently, counties submit funding requests for system development to the Department of Social Services. The funding requests are often for duplicate or redundant county systems and/or feasibility studies. As much as $.9 million can be saved annually after implementation of the proposed system. As systems get older, these duplicate costs will undoubtedly increase in the future.

The proposed system will standardize county systems and centralize the system planning function. This will reduce the number of duplicate systems development efforts and avoid the associated costs.

C. COSTS

The costs of the proposed system are divided into two sections: statewide central index costs and county processing systems costs. The central index section compares the cost of two primary alternatives and describes the recommended alternative. The county processing systems section describes the major county components of the proposed system: the WCMIS/IBPS upgrade and the alternatives for remaining counties -- a CDS-based system or a custom system. The costs of a CDS-based system and a custom-designed system are compared, and a recommendation is made. The county processing systems section also discusses the costs of a statewide on-line food stamp issuance subsystem.

General Methodology

One-time implementation costs were based on days of project team personnel effort, county personnel effort, and nonpersonnel costs such as data processing. Days of effort were estimated using our firm's development methodology and estimating guidelines, as well as the experience of State and county systems personnel. Personnel costs were estimated for two development phases -- General Design and Installation, as well as for county conversion. The personnel cost was based on an estimated public sector/private sector team composition and related daily rates unless otherwise stated. This is detailed in Appendix IV-2. Data processing costs were based on estimated usage and current costs for equipment, etc.

Ongoing costs were included if they represented an addition (i.e., incremental value) to current operating or maintenance costs. Incremental ongoing costs were considered immaterial if the annual amount was less than $50 thousand. Ongoing costs were estimated based on proposed technical requirements, expected usage, and current costs for equipment, etc. All of these costs are summarized in the chart below for each system component discussed in this section and detailed in Appendix IV-2.

Cost Summary

(In millions of dollars)

System Component	One-Time Implementation: Development*	One-Time Implementation: County Conversion	Incremental Ongoing Costs
Organization	$ - **	$ - **	$ .8
Statewide Central Index	.8	.6	-**
On-Line Food Stamp Issuance	.5	2.1	2.5
WCMIS/IBPS Upgrade	1.2	1.8	.4
New System (CDS-based)	6.3	17.7	7.4
Total	$8.8	$22.2	$11.1

*Includes General Design and Installation.
**Less than $50 thousand.

1. Statewide Central Index Costs

The primary functions to be performed by a statewide central index are:

- Identification of persons "known to welfare" ("known to welfare" means that a client is receiving benefits from one or more of the three programs included in the proposed system)
- Matching of client income information with external program data

Several index alternatives were considered to implement these functions. These were:

- Alameda Index
- Alberta Index
- Custom Designed Index
- MEDS
- WCMIS Index

After a preliminary analysis (described in Appendix IV-2), the primary alternatives were limited to two: modifying MEDS and a custom designed index. The cost of modifying MEDS was compared to the cost of custom designing a central index for two phases of development:

- General Design
- Installation

A detailed explanation of these development phases and the tasks involved in each are discussed in Appendix V-1.

The implementation costs for a MEDS modification were estimated using MEDS project staff experience and our firm's development methodology and estimating guidelines. The costs for a custom-developed index were estimated using our firm's development methodology. Implementation costs are primarily based on project team personnel and county personnel effort. Days of effort for each implementation phase for MEDS and a custom-designed index can be found in Appendix IV-2. The chart on the following page summarizes these costs.

Statewide Central Index -- Cost Comparison

(In millions of dollars)

	Alternative	
Implementation Phase	MEDS	Custom System
General Design	$ .3	$ .4
Installation	.5	1.0
Subtotal	.8	$1.4
County Conversion	$ .6	Significantly higher than MEDS
Total	$1.4	

The above comparison shows that the modification of MEDS would be less costly to design and install than a custom-developed central index. The county conversion costs for a custom index were not estimated for two reasons:

- The General Design and Installation phase costs of a custom index were significantly higher than a MEDS modification.
- The MEDS system has teams of personnel already in place working with counties which will facilitate conversion. A custom system would require a larger effort to accomplish statewide conversion.

On the basis of this comparison, it was concluded that a modification of MEDS would be the most advantageous method of implementing a statewide central index.

In addition to one-time costs, incremental annual ongoing costs attributable to a MEDS modification were examined. Operating and maintenance costs considered were computer time, hardware and software, communications and report production. Since these costs were not materially higher than the current costs, they were not included in our estimates.

2. County Processing Systems Costs

In addition to the statewide central index, the proposed system involves county processing systems. The Alternative Analysis section of this report identified two county processing alternatives:

a. A WCMIS/IBPS upgrade and a new CDS-based system.

b. A WCMIS/IBPS upgrade and a new custom-developed system.

This part of the report examines the costs of a WCMIS/IBPS upgrade, and compares the costs of a CDS-based system and a custom system for the remaining counties. Since on-line food stamp issuance is a subsystem that can be implemented fairly independently, we have separately identified its costs.

WCMIS/IBPS Upgrade

Since both the proposed system component groups described in Section III involve the upgrade of WCMIS/IBPS, this upgrade is defined and evaluated separately.

Los Angeles County currently has several projects in process in addition to those identified as part of the WCMIS/IBPS upgrade. Some of these projects are required to meet the new functional requirements of the system, but were not included in our cost/benefit analysis because they are currently part of the WCMIS/IBPS planned enhancements. Projects currently in process and their relationship to the proposed system requirements are described below.

Conversion from CDMS to IBPS should result in simplification of data processing operations by eliminating CDMS processing and in simplification of manual processing by combining input forms. IBPS General Relief will enable the IBPS system to handle issuance of aid to recipients with no child dependents.

IBPS Foster Care is intended to automate almost all of the current manual processes used to reimburse foster parents and institutions for the care they provide to children. This project must be implemented to meet requirements for inclusion of all AFDC programs in the proposed system. It was not included in the cost/benefit analysis, since it was part of the original IBPS implementation plan and is considered part of the basic IBPS system.

Repayments System will be used to provide records of collectible overpayments for welfare cases and track amounts recovered. It will meet specific proposed fiscal functional requirements. While it will provide considerable improvement and control for overpayment collections, it was not included in the cost/benefit analysis, since development costs and ongoing quantified costs and benefits which will result from its implementation are immaterial.

The WCMIS/IBPS upgrade costs have been analyzed on a project basis. Three separate projects have been identified which will upgrade WCMIS/IBPS to the proposed system requirements described in Section II of this report. These projects are:

1. Automate Eligibility Determination -- This is currently a manual process that is performed by eligibility workers in Los Angeles County.

2. Automate Notices of Action -- Los Angeles County has automated positive notices of action only. This project will involve the design and installation of a negative notices of action capability.

3. Automate Budget Computation -- Currently, this process is only partially automated in Los Angeles County. This project will involve the design and installation of functions to calculate net income for earned income cases and Medi-Cal recipient "share of cost".

A discussion of the methodologies used to estimate the one-time implementation and incremental annual ongoing costs of each of these projects follows the chart below, which summarizes the costs for the three projects.

WCMIS/IBPS -- Cost Summary

(In millions of dollars)

One-Time Costs	Automate Eligibility Determination	Automate Notices of Action	Automate Budget Computation
Development**	$1.0	$.1	$.1
County Conversion***	1.7	-*	.1
Total	$2.7	$.1	$.2
Incremental Annual Ongoing Cost	$ .4	$-*	$-*

*Less than $50 thousand.

**This includes the General Design and Installation phases of implementation.

***This includes the project team personnel and county personnel effort and related costs.

The implementation costs for the three identified projects were estimated using Los Angeles County data processing input and our firm's systems project experience. Costs were based on estimated days of effort for the General Design and Installation phases of development. A description of these phases and the tasks performed in each is in Appendix V-1. Days of effort and related costs for each implementation phase are detailed in Appendix IV-2. User training effort was identified as the major county conversion cost and was estimated on the basis of past systems training experience. User training costs and personnel costs for automation of budget computation and notices of action were estimated using a daily rate based on Los Angeles County personnel salary rates. Personnel costs for automation of eligibility determination were based on rates for a project team composed of public- and private-sector personnel. Costs and related workdays for each phase are presented in Appendix IV-2. The project to automate eligibility determination will involve an incremental annual ongoing cost of $.4 million. The other upgrade projects involve immaterial incremental annual ongoing costs. Detailed costs can be found in Appendix IV-2.

Multi-County Processing -- Another consideration of the WCMIS/IBPS upgrade for the proposed system relates to development of capabilities for processing additional counties on WCMIS/IBPS. The WCMIS index currently has multi-county capability, but IBPS does not. Orange County is considering use of IBPS either on its own UNIVAC hardware, or on Los Angeles County hardware. In either case, the system would be run separately, with duplicate master files and programs. For use by additional counties, IBPS would have to be enhanced to process multiple counties on the same master file and with the same programs. The costs of developing this multi-county capability were estimated by Los Angeles County to be approximately $2.7 million and are detailed in Appendix IV-2. The analysis is confined to processing additional nearby counties on the Los Angeles County Data Center (as an option to the new CDS-based system).

On-Line Food Stamp Issuance Subsystem

On-line food stamp issuance is identified as a subsystem within the new system. The benefits of implementing the food stamp subsystem previously described. A summary of costs associated with implementing this subsystem is presented in a chart later in this section.

The number of workdays was estimated for the General Design, Installation and Conversion phases, using our firm's estimating guidelines. Conversion phase estimates include training time for both county personnel and issuance-site vendor personnel. The projected functional and technical requirements of the on-line food stamp issuance system were analyzed using these guidelines to determine workday efforts.

In addition to project personnel costs, significant costs will be incurred as part of user training. The cost of county personnel training time at average rates is included in user training costs.

Additional hardware will be required by the on-line food stamp issuance system. It was assumed that equipment costs would be borne by counties instead of issuance vendors. The equipment cost used is the average of costs estimated as part of The Case Data System Food Stamp Automated Issuance and Recording Subsystem Feasibility Study.

The sum of the cost categories discussed above results in a one-time implementation cost of $2.6 million to design, install, and convert the on-line food stamp issuance system statewide. Incremental annual ongoing costs to operate the system are $2.5 million. Refer to Appendix IV-2 for a more detailed explanation of the cost analysis methodology.

On-Line Food Stamp Issuance Cost Summary

(In million of dollars)

Cost Item	Cost
Development*	$ .5
County Conversion**	2.1
Total	$2.6
Incremental Annual Ongoing Cost	$2.5

*This includes the General Design and Installation phases of implementation.

**This includes the project team personnel and county personnel effort and related costs.

Remaining Counties' Systems

Two system alternatives have been identified for the remaining counties:

1. Utilize the Case Data System as the basis for the design of a new system.

2. Develop a custom system.

CDS is an established system that is being utilized in 14 counties. However, it has an outdated technical architecture and will require significant redesign effort to meet the proposed system requirements. A custom system could be developed using current data processing technology, and could satisfy all system requirements.

A comparison of these two alternatives was made based on the project team development effort required to implement either system. The workday efforts were estimated utilizing our firm's development methodology and estimating guidelines. Workdays and related costs for each phase of

implementation are shown in Appendix IV-2. Specific workday estimates are found in Appendix V-4. The characteristics of the proposed system were examined, and an estimate was made of the effort needed to define the functional and technical requirements. This General Design effort would be based on functional requirements, and would have to be performed regardless of the system alternative chosen. An estimate of workdays was also made for the installation effort for each system. By utilizing existing CDS programs, a reduction of effort in some tasks was estimated. These reductions were quantified based on a review of CDS documentation and our firm's experience in modifying existing systems. This reduction of programming and testing efforts constitutes the primary difference between alternatives.

The effort required for conversion of the counties to the system was also estimated. The table that follows summarizes the project team implementation effort costs for each alternative. Based on the potential reduction of effort during the Installation phase, the CDS redesign is considered to be the least costly alternative. These savings are based on initial estimates that must be reconfirmed at the conclusion of the General Design phase.

Other County Systems - Cost Comparison

(In millions of dollars)

	Cost	
Implementation Phase	CDS	Custom
General Design	$ 1.3	$ 1.3
Installation	3.9	5.3
Total	$ 5.2	$ 6.6
Conversion	$ 6.2	Higher than CDS design

Implementation costs related to county conversion efforts were also projected for the CDS redesign. County personnel effort will be a major cost during the Conversion phase. User training will be conducted for thousands of eligibility workers and administrative personnel. The preparation of conversion files will require a significant commitment by county personnel. The total county conversion effort is estimated at $17.7 million. These costs are detailed in Appendix IV-2.

A detailed explanation and chart of these cost estimates can be found in Appendix IV-2. The chart on the next page summarizes these costs.

County Processing Systems Cost Summary

(In million of dollars)

One-Time Costs	New System (CDS-based)
Development*	$ 6.3
County Conversion**	17.7
Total	$24.0
Incremental Annual Ongoing Cost	$ 7.4

*This includes the General Design and Installation phases of implementation.

**This includes the project team personnel and county personnel effort and related costs.

Summary

This section has detailed the cost/benefit analysis for the proposed system. The cumulative net benefit is shown in the chart at the beginning of this section. This cumulative net benefit includes a $.8 million annual cost for a new organization. This organization is recommended for proper management and control of the proposed system's implementation and ongoing operations. It is described in detail in Section V, Recommended Solution. The cost will vary depending on the number and mix of personnel. The chart on the following page summarizes the annual development and ongoing costs for each component of the proposed system, the statewide on-line food stamp issuance subsystem, and the recommended organization.

COST SUMMARY

(In millions of dollars)

	Total	Year 1		Year 2		Year 3		Year 4		Year 5		Year 6		Year 7	
	One-Time Cost	One-Time Cost	Ongoing Cost	One-Time Cost	Ongoing Cost	One-Time Cost	Ongoing Cost	One-Time Cost	Ongoing Cost	One-Time Cost	Ongoing Cost	One-Time Cost	Ongoing Cost	One-Time Cost	Ongoing Cost
Organization	$ -	$ -	$ .8	$ -	$ .8	$ -	$ .8	$-	$ .8	$ -	$ .8	$ -	$ .8	$ -	$ .8
Statewide Central Index	1.4	1.0	-	.4	-	-	-	-	-	-	-	-	-	-	-
On-line Food Stamp Issuance	2.6	2.6	1.3	-	2.5	-	2.5	-	2.5	-	2.5	-	2.5	-	2.5
WCMIS/IBPS Upgrade	3.0	.7	-	1.2	-	1.1	.4	-	.4	-	.4	-	.4	-	.4
New System (CDS-based)	24.0	2.7	-	4.6	-	16.0	3.7	.7	7.4	-	7.4	-	7.4	-	7.4
Total	$31.0	$7.0	$2.1	$6.2	$3.3	$17.1	$7.4	$.7	$11.1	$ -	$11.1	$ -	$11.1	$ -	$11.1

The previous chart shows one-time and ongoing costs over a seven-year period of the proposed system. These costs will be shared by federal, State and county governments. In the chart below, the total one-time cost of $31.0 million and the annual ongoing cost of $10.3 million are allocated to each government unit. The annual cost of $10.3 million does not include $.8 million for the recommended State organization to manage and monitor for the proposed system. This cost is likely to change and would be incurred by the State.

Cost Share*

(In millions of dollars)

	One-Time (Total)			Ongoing (Annual)		
	Federal	State	County	Federal	State	County
Total	$17.6	$9.8	$3.6	$5.8	$2.5	$2.0

*Government shares vary by program. This does not assume enhanced federal funding. If enhanced funding is received, the federal share will increase and the State and county shares will decrease. An explanation of assumptions and allocation methodology is detailed in Appendix IV-2.

We believe that it will also be necessary to perform a comprehensive study of the proposed system features for each project to identify a reasonable and more specific allocation of development and implementation costs among the three major programs.

V. RECOMMENDED SOLUTION

Introduction

This section presents the results of the solution analysis for the proposed system. The Detailed Analysis section validated the cost/benefit of a development project for a statewide benefit delivery system. The discussion that follows describes a recommended implementation approach for the proposed system. The section is divided into six parts:

- Solution Description
- Project Description
- Organization Plan
- Implementation Plan
- Staffing Plan
- Action Plan

The discussion presents the development methodology and organizational requirements for a timely implementation of the proposed system. The Action Plan highlights the items recommended for immediate action.

A. SOLUTION DESCRIPTION

The recommended benefit delivery system for the State of California contains two components:

- A statewide central index that identifies all clients in the State applying for or receiving benefits. This statewide central index will be developed through an enhancement project that builds upon the existing MEDS system.
- Data processing delivery systems to support the administration of welfare programs at the county level. Statewide system standards and program policies will be developed to provide uniform and equitable treatment of clients. Two data processing systems have been identified to accomplish this statewide standardization:

  1. WCMIS/IBPS will be upgraded to perform all current and proposed functional requirements, and will continue to operate in Los Angeles County. The system may be available on an optional basis to adjacent counties.

2. A second system will be developed for all other counties. It will build on the functionality of the Case Data System, although significant modifications to the system have been identified. The degree of utilization of the existing CDS programs need not be finalized until the completion of the next phase of the project (General Design). In this phase, additional detailed design analysis will determine exactly how much of the CDS programs/features can/should be utilized. Existing non-major county welfare programs (e.g., General Relief) will also be reviewed during the General Design phase to determine the extent to which they should be included in the design. If it is determined that they should not be included, then the new system should provide support for these requirements to the extent feasible. Based on this analysis, the implementation effort and costs presented in this report will need to be refined. This modified version will continue to operate in counties on compatible mainframe equipment.

All counties should utilize one of the two specified EDP systems, except for possibly several very small counties that, due to limited volume, may remain nonautomated. However, the new system (CDS-based) will be designed to accommodate even the smallest counties by providing a "shared system" environment. The standardization of system requirements and the linking of the two county systems under the statewide central index will ensure that benefit delivery is accomplished in an efficient, effective and equitable manner. It is anticipated that all counties will participate in the statewide central index.

Impact on County Operations

The impact of the proposed systems on county operations should not be significant in most counties. Counties will continue to administer welfare programs, and the proposed systems should assist them in this effort.

The impact on the counties can be summarized by the table on the following page, which groups the counties in four categories -- Los Angeles County, Case Data counties, other automated counties, and nonautomated counties.

	Los Angeles County	Case Data Counties	Other	
			Automated	Nonautomated
Interim period	Low	Low/Medium	Low/Medium	Low
Conversion	Low	Medium	Medium/High	High
Ongoing operations	Medium	Medium	Medium/High	High

Impact

High
Medium
Low

Interim Period -- This is the period beginning immediately and lasting until the proposed systems are implemented in the counties. The impact will be greatest in the Case Data counties and the other automated counties. It will be necessary to continue the maintenance on the current systems. However, it will be necessary to set up guidelines for control of enhancements and modifications during the proposed development period for county systems currently in place. Generally, the following guidelines should be established.

- Enhancements required to meet legislative mandates will normally have to be made.

- Other enhancements/modifications should be done only if there is sufficient payback within a relatively short period of time -- normally one or two years. If the paybacks of the enhancements do not occur before conversion is planned, then such enhancements should not be approved.

Any current maintenance agreements should be reviewed and monitored so as not to incur significant enhancement costs that cannot be recovered before conversion to the new system.

Conversion -- This is the period during which the county converts from its current system to the proposed system. The effect on Case Data counties should not be great, since many of the Case Data features will be retained and the same type of hardware will be used. The conversions of the other automated counties and the nonautomated counties will be the greatest, since they will be converting to a new system.

Ongoing Operations -- This refers to the period after a county has converted to the proposed system. The impact should be positive in all counties, particularly those counties that have not previously had automated systems. There should also be a positive impact in both Los Angeles County and the Case Data counties where new automated features will replace tasks that are presently done manually.

B. PROJECT DESCRIPTIONS

The proposed system will not be implemented as a whole, but rather will be approached as four development efforts. Each of these projects is described below.

1. Develop a statewide central index using MEDS. MEDS will be modified to perform statewide central index functions in addition to its current functions. The required functions for a statewide central index are listed in Appendix IV-2. The Installation phase will include conversion of two to four county pilot sites. The Conversion phase will involve a phased conversion of the remaining counties over a period of 18 months. The total elapsed time for this project is 8 months. It is expected that this project could begin immediately after the proposed system's administrative organization is in place.

2. Develop on-line food stamp issuance subsystem. The development of this subsystem has been identified as a separate project to facilitate a timely implementation schedule. Since this subsystem can operate fairly independent of a specific case management system, a single issuance system should be considered to operate statewide. Alternative implementation approaches available for this subsystem are:

   - Implement a software package solution. Although SPAN did not identify any available packages at that time, there are systems currently in operation in other states that may provide a viable option to California.

   - Design and implement a custom system similar to the model developed by SPAN and now being updated by Case Data counties.

   The choice of alternatives should be based on the lowest total cost to the State. The selection of an alternative should provide for county option for the operation of the system. To provide for the most competitive bidding environment, the Request for Proposal should divide the implementation effort between development and installation, and the ongoing operation of the system. The operation of the issuance sites could make use of the existing local-issuance vendors.

3. Upgrade of WCMIS/IBPS to conform to statewide system standards. The upgrade of WCMIS/IBPS will include three sub-projects: Automated Notices of Action, Automated Budget Computation, and Automated Eligibility Determination. These sub-projects will be implemented over a four-year period.

- Automated Notices of Action (NOA) will further automate NOA issuance. Currently, only positive NOAs are automated for AFDC and Food Stamps, while negative NOAs are manually prepared by the eligibility worker using preprinted forms. NOAs for Medi-Cal are totally manual. Automation of some Medi-Cal NOAs is currently under development in Los Angeles, with implementation anticipated in six to nine months.

- Automated budget computation will affect only Medi-Cal recipient share-of-cost and AFDC earned income cases. Automation of the Medi-Cal share-of-cost is currently under development by Los Angeles County staff. Automation of budget computation for AFDC earned income cases will initially be developed as a stand-alone system with no interface to IBPS. It would perform the gross-to-net calculation for AFDC, as well as related food stamps computation.

- Automated eligibility determination will provide for system control of the eligibility determination process. Budget computation would also be incorporated into the eligibility determination process. Information required for eligibility determination will be obtained from the client in the district offices, and immediately transmitted to a central minicomputer that will determine client eligibility. A batch interface will occur nightly between the minicomputer and WCMIS/IBPS.

These enhancements are in addition to the current projects planned by Los Angeles County.

4. Develop a new system building on CDS to conform to statewide system standards. The migration from the existing CDS system to the proposed system will be accomplished as a statewide, coordinated development effort. The foundation provided by CDS and requirements of all counties will be integrated into the design of the system. The size and complexity of this systems development effort will require very experienced project management. This project will be the most difficult of the four projects identified in this report due to the widely varying administrative requirements and caseloads of the user counties.

5. Development and Conversion Methodology. Each of the four development efforts is defined as a distinct development project. A separate project team will be identified for each project. Successful implementation of the proposed system can best be accomplished using such a phased project orientation due to the size and complexity of the programs included.

The scope of each project is clearly defined and deliverables identified. The identified deliverables and interim project progress reports will assure project administration that the project team is on schedule. By dividing the overall system into more manageable-sized projects, implementation of the system can be more easily controlled. Because the projects are not directly dependent on each other, problems incurred in one project will not adversely affect other projects.

Each development project should be implemented using a phased approach. The overall effort is divided into phases, and each phase is divided into tasks. The phased approach provides project administration with a means to control the development effort. Decisions can be made at the end of each phase regarding the scope of and alternatives for the next phase. Our firm's experience installing large systems indicates that project management is more successful if the effort has been divided into definable tasks with specific review checkpoints and defineable products. The review of these work products provides project management with administrative control of the project team, and ensures interim project progress reporting and monitoring as well as timely project completion.

The three phases of the systems projects are presented below. The phases represent the completion of significant portions of the development effort. More detailed descriptions of the tasks in each phase are described in Appendix V-1.

General Design Phase -- The primary objectives of the first phase will be to determine how the proposed system should be implemented to meet the user's functional needs, and to obtain commitment to the project before significant systems installation costs have been incurred. The major deliverable of the phase will be a set of functional and technical specifications which describe in detail what the system will do from the user's viewpoint, and the technical features required to support these functions. A tentative installation timetable will also be developed. Approval to proceed with the installation of the pilot system will be obtained at the end of the General Design phase.

Installation Phase -- During the Installation phase, the systems design will be finalized, and the pilot will be installed and tested in an operational environment. The required hardware and software will be installed, all programming and system testing will be performed, and user procedures will be developed. Only after the pilot system has been successfully installed and accepted by computer operations and user management will the conversion of the remaining sites be started. The major deliverables of this phase will be an operational prototype and a conversion plan for the remaining counties.

Conversion Phase -- In the Conversion phase, a fully operational system will be implemented in each county. A significant amount of effort is required to prepare for conversion activities. This includes developing conversion procedures, creating special data files, and training personnel. After the conversion has been completed, the system must be monitored in the production environment to identify potential improvement areas. A fully operational statewide system and documented enhancements will be the major deliverables of the Conversion phase. A high degree of user and operations staff participation will be required to ensure the successful implementation of the new system.

Throughout the system development and implementation process, there will be frequent communication among project administration, users and the project teams. This approach facilitates control over project development and ensures that the final product is a system that is both cost-effective and responsive to user needs. Formal avenues of communication will be utilized throughout all phases of each project. The deliverables described above for each project phase constitute one means of communication. Progress reporting is a second vehicle of communication that will be used during system implementation. Chapter 282 of the Statutes of 1979, Section 10822, states that an annual report should be provided to the Legislature each March 1. The annual report is to relate progress in implementing the system, and is included in the development timetable presented below. Interim reports are more informal means of communication that will be used in developing the proposed system. Interim progress reports will be given to project administration at 30-day intervals. Because of their frequency and regularity, they are not shown on the development timetables.

A review was performed of the methodology used for development of State systems and the methodology used in this report. The system utilized for a State system development process and Arthur Andersen & Co.'s methodology, METHOD/1, are similar. Both methodologies define development processes that contain the key tasks that should be performed in a system design and implementation effort. The significant difference between the methodologies is the grouping of the development efforts into the METHOD/1 phases. These phases of effort are further divided into tasks for administrative control. The State methodology has divided the development effort into "phases" that are equivalent to METHOD/1 tasks. No higher grouping of "phases" is provided. With minor exception, the analysis performed in each phase of the State methodology is comparable to the analyses performed in each METHOD/1 task.

6. Other Project Considerations. The following issues as required by the Feasibility Study Report guidelines are addressed for all projects:

   - Privacy, Security and Confidentiality
   - Use of OCR Equipment
   - Microfilm Usage

   Security issues will be a major consideration in upgrading or redesigning the proposed system. Safeguards will be built into the system to prevent inappropriate change or the release of sensitive information through fraud or error.

   Several specific tasks will be carried out to ensure that adequate controls are included in the proposed system. General Design will include an assessment of both the functional and technical risks in the following categories:

   a. Access to system processing and information.

   b. Processing and information integrity.

   c. System failure or loss (e.g., backup and recovery requirements).

   An initial approach toward reducing risk will be to design controls into the technical architecture as an integral part of the system.

   The use of OCR equipment for the proposed system has been considered in the light of State Administrative Manual criteria. The State Administrative Manual states "...the potential cost savings expected from the use of OCR for some applications is so large that its use must be considered." Current analysis indicates that OCR equipment will not be utilized in the new system. Potential use of OCR equipment will continue to be considered during the General Design phase of each project.

   State administrative guidelines on the use of microfilm require Computer Output Microfilm (COM) to be used in lieu of printed hard copy for written reports of more than 200 pages in length used for reference, historical or backup purpose. In compliance with State policy, microfilm or microfiche will be used for computer output and reports wherever feasible. Specific uses of microfilm or microfiche will be delineated as part of the General Design phase of the proposed system implementation.

C. ORGANIZATION PLAN

The Request for Proposal requires an assessment of the ability of the Department of Social Services to complete the development of the proposed system successfully and in a cost-effective manner. This issue is addressed in this section.

We recommend that a centralized data processing organization be established to direct, monitor and support development and maintenance of public assistance data processing systems in the State. The major responsibilities of this group are detailed below:

1. Project Administration -- Supervise and administer all major system development and maintenance projects for the statewide welfare data processing systems.

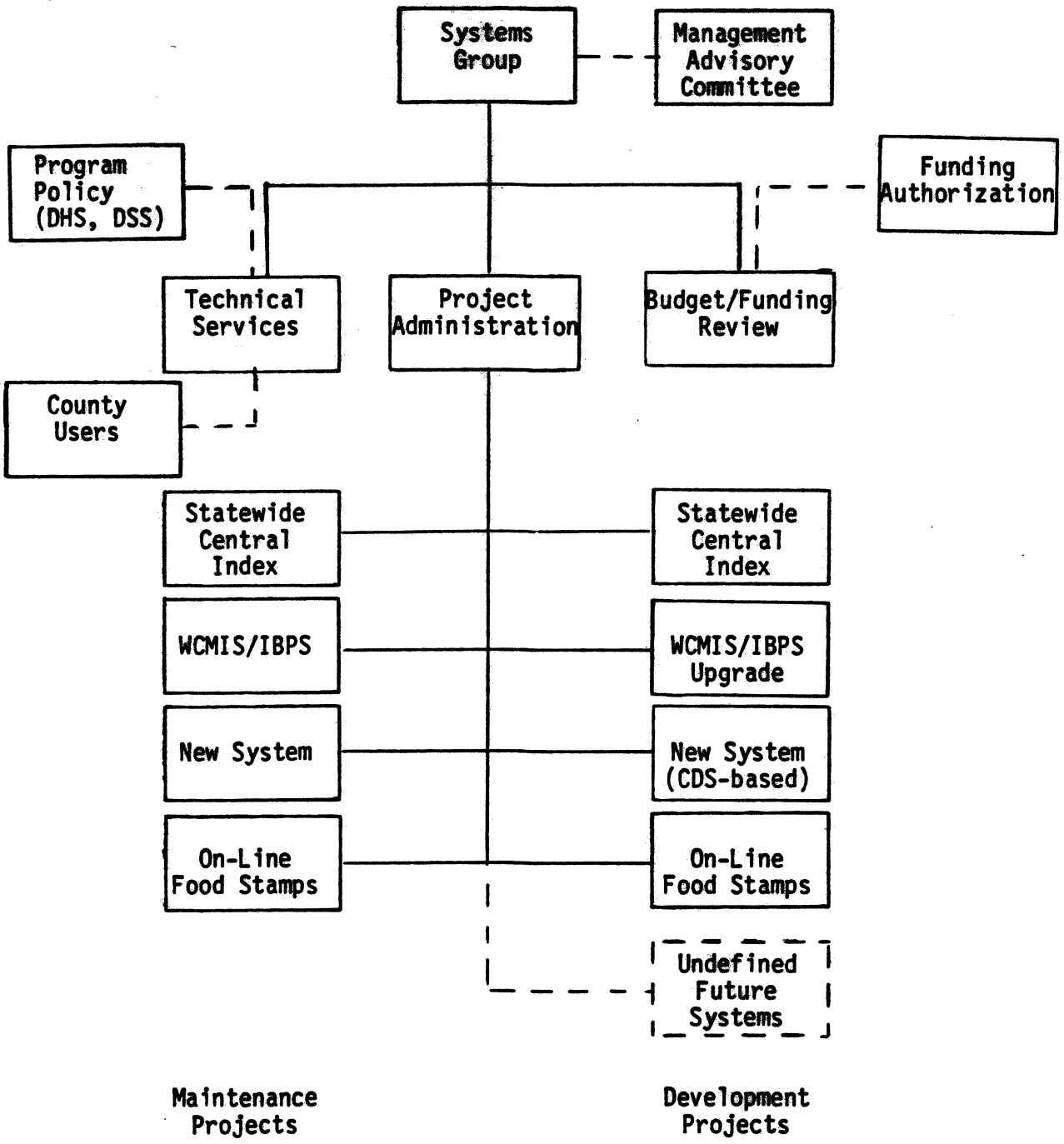
2. Technical Services -- Translate program policy and regulations into system requirements. Interpret county user requirements for enhancements to the statewide system standards.

3. Budget/Funding -- Review funding requirements related to the development/maintenance projects. Review requests from counties for funding for data processing projects.

The project administration and technical service activities are new responsibilities that need to be centralized.

The chart on the next page depicts this organization and its relationship to various State agencies and departments, as well as its communication with individual counties.

ORGANIZATION CHART



Location of Organization

We recommend that this organization be a separate unit reporting to the Director of the Department of Social Services. It is appropriate to locate this organization within this department, since almost all of the systems designed and maintained by this group support policies, regulations and standards supervised by DSS. This location would also facilitate internal communication and cooperation, as well as provide the counties with a single point of contact. However, given the problems associated with the original SPAN project, there is an expressed lack of confidence in the Department's ability to conduct a major system development effort. An alternative is that it be established as a separate entity reporting directly to the Health and Welfare Agency.

Organizational Functions

A description of each unit in the systems group is outlined below. The function of each unit will contribute to the overall objective of a statewide, uniform benefit delivery system. Specific responsibilities during the system implementation process are outlined in Appendix V-2.

Systems Group Head

This organizational unit will have overall responsibility for the planning, implementation and maintenance of all benefit delivery systems in the State. The unit head will be supported by a small staff for administrative and supervisory requirements. The primary function of this unit is to coordinate the activities of the Technical Services Group, Project Administration, and Budget and Funding Review. The Systems Group Head also provides liaison with the Management Advisory Committee for guidance in planning and policy issues.

Management Advisory Committee

The Management Advisory Committee (MAC) will provide department-level input on major policies and priorities, as well as address interdepartmental issues. It will serve as an advisory group to the systems group head. Management Advisory Committee members should be representatives from various State departments such as Department of Social Services, Department of Health Services, Department of Finance, and Health and Welfare Data Center. Also, there should be county representation, possibly several county welfare directors and other county representative as deemed appropriate. They will ensure that the proposed system meets user needs and program regulations.

The committee will advise the systems group during the development and implementation phases of the proposed system, and should remain as a permanent advisory unit. It will perform the same function for continuing development projects and maintenance of continuing systems.

Technical Services Group

The Technical Services Group (TSG) will ensure that specific user functional requirements are met by the proposed system. This objective

is accomplished by means of day-to-day detailed input by county and State functional experts. The Technical Services Group will report to the Systems Group Head. Its activities include consulting, conceptual design, and review and approval of new systems and enhancements to current systems.

The Technical Services Group members should consist of personnel with both State and county experience. County personnel will bring knowledge of county needs and system requirements will ensure that county requirements are addressed. State personnel with a thorough knowledge of program functions will make up the remainder of the Technical Services Group. All members will serve as full-time staff, but will have limited terms of commitment. This will ensure current knowledge of day-to-day program functions on an ongoing basis. The mix of State and county personnel will enhance the interaction of this group with both policy and operations personnel.

The proposed system requires open lines of communication between State and county personnel. Many counties perceive that decision-making was not shared with them by the SPAN team during system development. The TSG would include the counties in the development process.

Project Administration

Responsibility for the development and implementation of the proposed system will lie with a project administrative group composed of eight to ten people. During the development and implementation of the proposed system, project administration will perform several functions. One person would be assigned responsibility for each of the proposed system projects in order to supervise and monitor its progress. The project administrator will ensure that each project is progressing according to plan, and that deliverables are acceptable to project funding departments.

It is recommended that this project administration group be an ongoing organizational unit after the implementation of the proposed system in order to monitor the maintenance of the systems and direct the project teams for additional systems, or major enhancements to ongoing systems.

Project Teams

Project teams will be formed and selected to ensure the timely completion of the projects by applying proven management techniques and technical skills. The teams will be responsible for performance of each development and implementation task. There should be one project team for each of the proposed system projects. Each team will report directly to a project administrator.

We would recommend that private or public sector resources, as opposed to permanent State staff, be used for all major development projects. We believe that a similar rationale (project management skills, system expertise, etc.) could be used for contracting for ongoing maintenance of major systems.

The private sector will be able to provide a proven system development methodology and specific technical skills and expertise required to implement the proposed system. In instances where a county is selected to staff the project team, the mix of the project team will reflect the availability of qualified county personnel.

The use of private-sector personnel is also advantageous from a resource standpoint. The project teams can be quickly formed without a drain on State staffing, and can easily be disbanded at the project's end. Fewer numbers of permanent State personnel would need to be absorbed at the completion of a project. The project teams are therefore not permanent organizational units.

The system maintenance projects will implement routine maintenance and modifications to the proposed system after it has been installed. The system maintenance team will ensure continued efficient operation of the proposed system. Maintenance-type projects will have ongoing personnel requirements as opposed to the one-time personnel requirements of new system development.

Budget/Funding Review

Responsibility for control will be vested in the budget/funding review unit. This unit will monitor all county requests for funds related to new or enhanced systems. If the Technical Services Group initiates a proposal or recommends approval of a county request, the budget/funding review unit will forward the proposal to the appropriate department for funding. If funds are authorized, this unit will perform an audit and review of the expenditures of the various project and maintenance teams.

D. IMPLEMENTATION PLAN

To properly plan for the recommended projects, it is necessary to develop a realistic projection of the effort required. By utilizing a standard, proven methodology for making these project estimates, reasonable approximations can be made for each phase of the development and implementation effort. These approximations have been used in the determination of costs for each project, and provide a reference point during each subsequent phase of the projects. However, these approximations of effort are based on preliminary determinations of system characteristics and technical operating environments. They are intended to provide a basis for management's evaluation of the reasonableness of the project, as well as to provide a basis for selection among alternatives. On longer-term projects, these estimates will be reevaluated and refined during both the General Design and Implementation phases of the development process. Therefore, these projections should be viewed as order-of-magnitude estimates and only used as such.

Assessments have been made of the complexity of the proposed systems and their comparability to existing systems. Assumptions were also made regarding the composition and experience of the project teams and the difficulty of obtaining user concurrence on design issues. The enormity of the conversion effort is recognized, and substantial time is allocated for user training. Detailed assumptions made during the estimating process are identified in Appendix V-3. The work plans contained in this report are based upon the use of our firm's system development methodology and guidelines developed from actual major systems development experiences. These plans include all tasks necessary to ensure a successful systems development project. Adequate time has been provided for:

- Project management.
- System design, including State and county user interviews.
- System implementation, including programming.
- Complete systems testing prior to piloting.
- Complete procedure documentation for users, computer operations personnel, and maintenance personnel.
- Comprehensive training of user and operations personnel prior to implementation in each county.
- Ongoing management review and approval throughout the project.

Each project has been defined within a specified scope, and is based upon the stated assumptions. Interviews with State and county personnel and review of existing system documentation were used as a basis for

determining the workday estimates. These approximations are believed to fairly represent the general level of effort required for these projects. Confirmation of these work plans by State data processing personnel familiar with the particular applications will ensure that our approximations are reasonable.

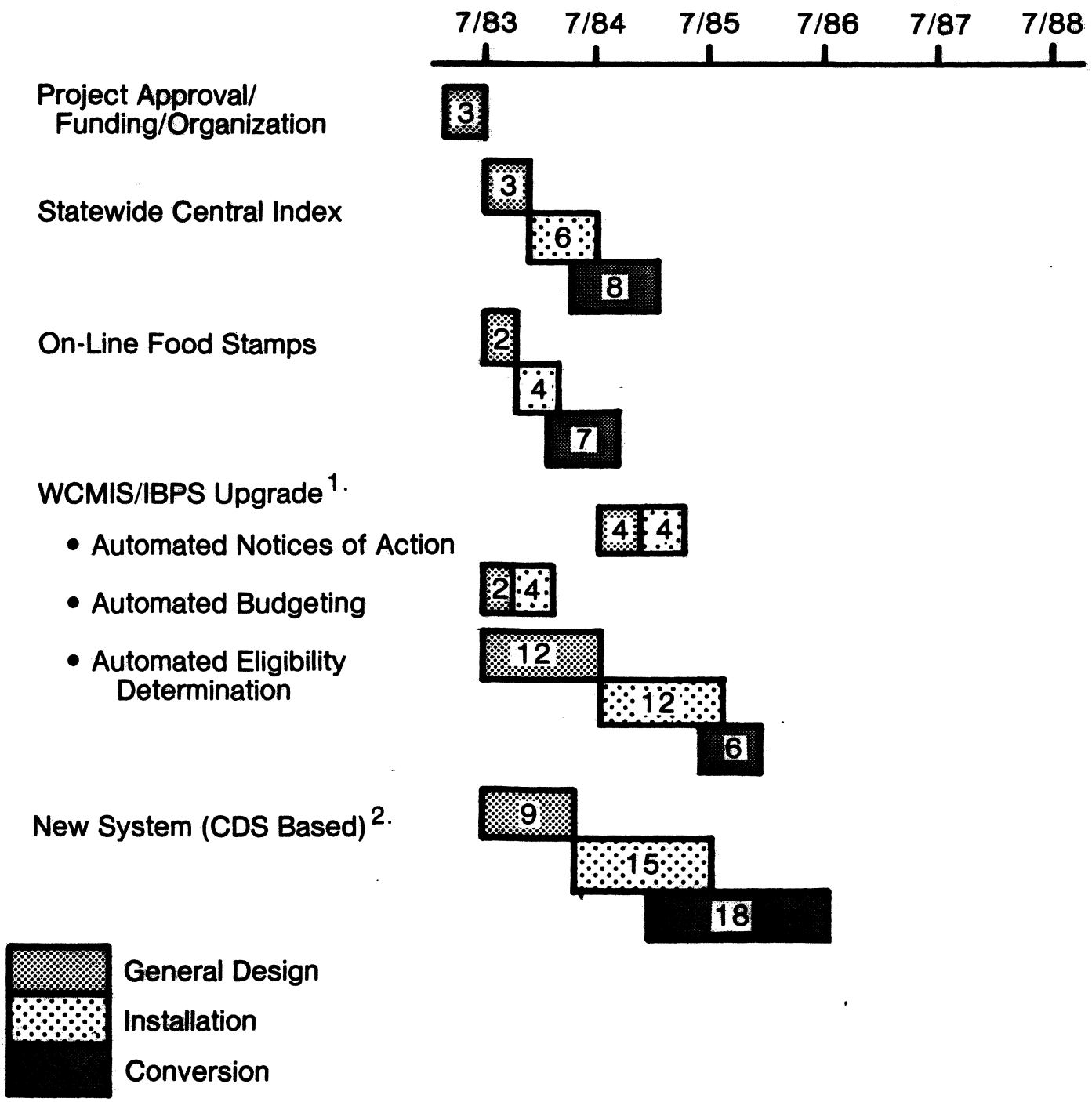
Appendix V-4 summarizes the workday approximations for each phase of the four projects. These approximations are for project team efforts. Efforts by State/county personnel for administration of the projects, the actual training time of county personnel, and manual file conversion and review are not included in these figures. The payroll costs (including benefits) for these State and county personnel have been included in the cost/benefit analysis.

Project timetables are used to administer the project effort as a sequence of events. They were prepared in conjunction with the staffing plans to predict the manpower loading requirements for each phase and the duration of each project. The tasks defined for each phase represent logical segments of work. By properly controlling the relationships among tasks, project management will be able to anticipate delays and apply corrective actions, thereby maintaining the required implementation schedule.

The Implementation Timetable is presented on the following page. Each project phase is shown separately to highlight the major milestones of implementation. The milestones represent completion of significant project deliverables. Project management and appropriate State and county personnel will be involved in approval of these deliverables to ensure satisfactory completion of the phase by the project team. More detailed project timetables are presented in Appendix V-5.

These timetables represent a reasonable estimate of the elapsed time for each phase of the projects. Delays between phases caused by special reviews, funding approvals or other external factors are not included in the project timetable. Such delays increase the possibility of projects not being completed on time or benefits not being realized. Ongoing structured review and communication among project administration, project management and county users will facilitate the timely progression from one phase to the next. A well-organized project administration is necessary to ensure that funding requests and requests for proposal are prepared and submitted in a timely manner.

IMPLEMENTATION TIMETABLE



Note 1: Continuing Enhancement Projects
Note 2: Redesign of Case Data System

E. STAFFING PLAN

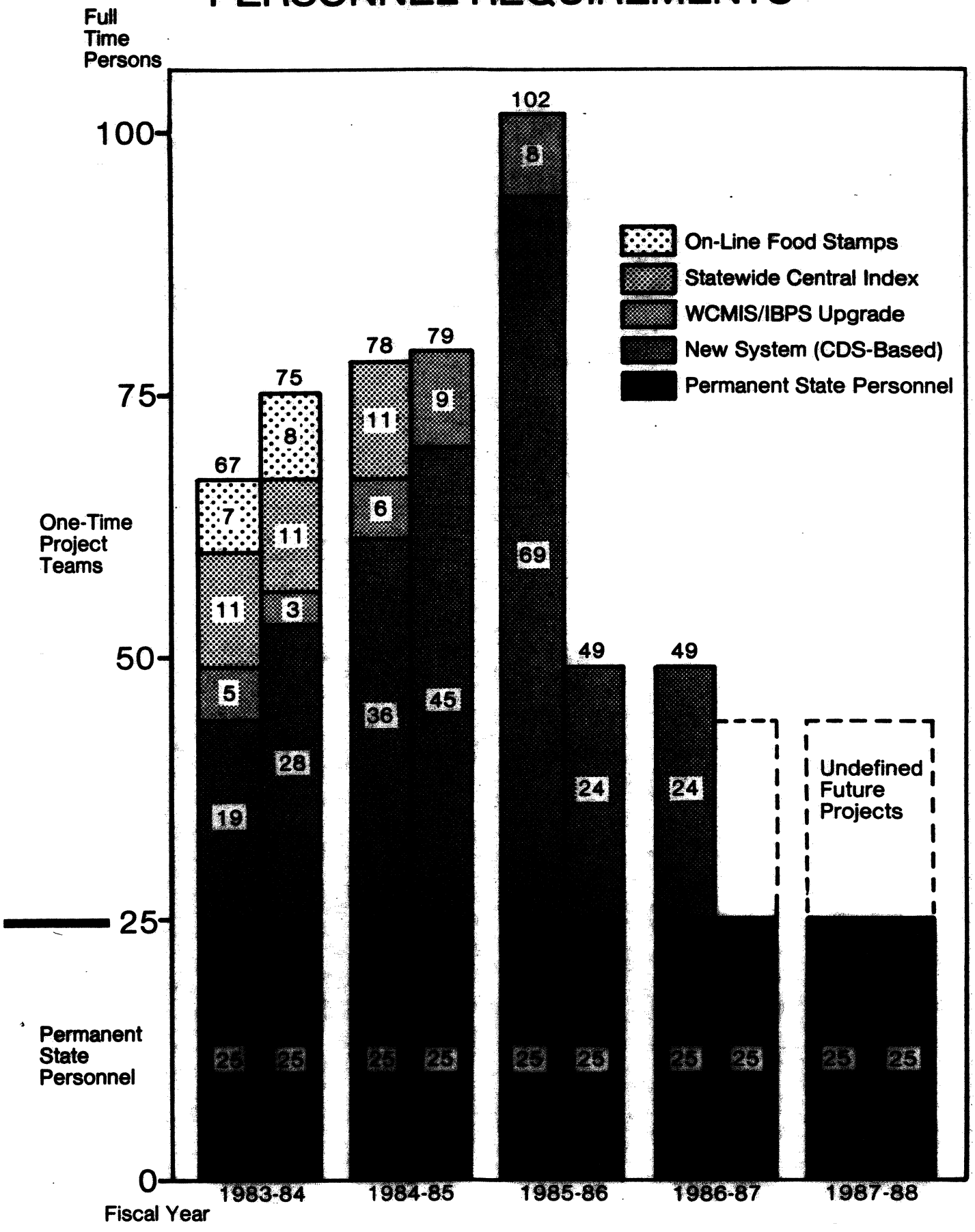
The proposed staffing plan for the four major projects makes maximum use of available State and county personnel, while minimizing the hiring of additional employees. As discussed earlier, a small permanent staff will be required to administer the project, provide system design expertise, and approve funding for county data processing requests. However, the majority of development and maintenance efforts should be performed under contract with public- or private-sector organizations with the specific knowledge and skills required to successfully complete the project.

The use of contracts with other organizations to manage and staff individual projects will provide the flexibility to obtain the specific skills and manpower required during the development and implementation of the proposed system. Each project phase will require specific project team skills. The design project team must initially possess strong functional and analytical skills. During the Installation and Conversion phases, the team skills must shift toward technical skills and competence in data processing. In the Conversion phase, skills related to training and file conversion are required. Finally, the maintenance team must possess a combination of functional, technical and training skills, and must perform as a responsive, service-oriented entity. In addition, each project and its component phases will require varying numbers of personnel.

The manpower requirements for each project were identified earlier in the Detailed Implementation Plan. Appendix IV-2 presents the proposed mix of State/county and private-sector personnel for each phase of the development project. This blend of staffing at each level of the project team is intended to optimize the utilization of private-sector expertise, yet provide State personnel with overall project supervision and familiarity with the system for long-term operation. Properly controlled, this should minimize the overall cost of the development effort.

The public-sector staff requirements for the project teams are assumed to be supported from existing State/county personnel. From the State's perspective, the projects should be viewed as a focusing of current program and system personnel efforts, rather than as an increased workload. Private-sector personnel are utilized to fulfill the peak staff requirements evident during the projects. The chart on the following page highlights the overall personnel requirements for the statewide development effort. The incremental permanent State staff requirements are identified on the chart.

PERSONNEL REQUIREMENTS



F. ACTION PLAN

The benefits identified in this report can only be achieved through a coordinated and concerted effort by federal, State and county agencies. The implementation plan will require prompt action in order to begin the projects on a timely schedule. The following actions are recommended during the period of approval, funding and organization:

1. Review and approve the overall "proposed system" concept as defined in this report.

2. Approve funding for the first-year development efforts for:

   - The statewide central index
   - On-line food stamp issuance project
   - The design phase of the CDS-based system
   - WCMIS/IBPS planned enhancements

   First-year funding for this effort is approximately $9 million.

3. Modify Assembly Bill 8 to redefine the concept of the "centralized delivery system", the programs it supports, and the implementation time frame.

4. Establish the Systems Group, and empower it to begin the implementation plan outlined in this report.

5. Authorize and approve funding for a feasibility study for a Child Support system for this coming year.

Several changes are recommended to Assembly Bill 8 (Chapter 282 of the Statutes of 1979). Two changes concern Section 10815, which states:

> The department shall ensure the efficient, effective and equitable administration of public assistance programs by implementing in all counties by July 1, 1984 in accordance with the provisions of this chapter a centralized delivery system for the following public assistance programs: AFDC-U, AFDC-FG, AFDC-BHI, food stamps, Medi-Cal eligibility, aid for adoption of children, special adult programs, and to the extent feasible, social services and child support enforcement programs.

The implementation date of July 1, 1984 is no longer feasible and should be deleted from the Bill authorizing this project. Further, a mandated completion date may adversely affect the implementation of the system, if

unforeseen delays are encountered. The conversion schedule shown in this report represents feasible project implementation dates. Project administration should be able to provide the control to maintain these schedules.

Section 10815 of the Assembly Bill 8 also mandates the inclusion of a number of programs. Aid to Adoption of Children and Special Adult Programs are small programs which currently function satisfactorily. The Special Adult Program has been reduced in scope since AB 8 was passed. Also, Social Services and Child Support should be addressed separately. Therefore, it is recommended that these programs be deleted from the Statute as required for inclusion in the proposed system.

In addition to these changes in Section 10815, it is recommended that the term "centralized delivery system" used throughout AB 8 be changed. In developing the proposed system, the term "centralized" was difficult to interpret. Therefore, we suggest use of the term "uniform or standard public assistance delivery system" rather than "centralized delivery system", since this would eliminate any differing interpretations of the term "centralized".

No other required changes in State law or regulations or required federal waivers have been identified. During the Design phase, it will be important to be cognizant of applicable laws and regulations. Any additional changes or waivers should be addressed at that time.

LIST OF APPENDICES

ORGANIZATIONS CONTACTED

WELFARE PROGRAMS

Federal

- Office of Family Assistance, Region IX
- Health Care Funding Administration

State

- Office of Art Agnos, Assemblyman
  - Legislative Consultant
- Office of John Garamendi, Senator
  - Legislative Consultant
- Office of Bill Greene, Senator
  - Legislative Consultant
- Office of the Legislative Analyst
- Office of the State Controller
- Department of Finance
- Department of Finance - Office of Information Technology
- Department of General Services - Communications Division
- Health and Welfare Agency
- Health and Welfare Data Center
- Department of Health Services
  - Medi-Cal Program Branch
  - MEDS Project
  - Center for Health Statistics
  - Estimates Bureau
  - Quality Control
- Department of Social Services
  - Administration Division
    - -- Budget Bureau
    - -- County Administrative Expense Control Bureau
    - -- Estimates Branch
    - -- Statistical Services Branch
  - Information Systems Management Division
    - -- Statewide Public Assistance Network Project
    - -- Information Systems Analysis and Support Branch
    - -- County Information Systems Approval Bureau

- Welfare Program Operations Division
  - -- AFDC Program Management Branch
  - -- AFDC Program Systems Bureau
  - -- AFDC Foster Care Bureau
  - -- AFDC Policy Coordination Bureau
  - -- Food Stamp Program Management Branch
  - -- Adult Program Management Branch
  - -- Child Support Program Management Branch
- Planning and Review Division
  - -- Welfare Fraud and Audits Branch
  - -- Quality Control Bureau

County

Welfare Directors or Deputies, as well as other county staff, were contacted in the following counties:

- Alameda
- Fresno
- Los Angeles
- Marin
- Nevada
- Placer
- Riverside
- Sacramento
- San Diego
- San Francisco
- San Joaquin
- San Mateo
- Santa Clara
- Tulare

Staff personnel in the following counties were contacted for information during the preparation of this feasibility study report:

- Alpine
- Butte
- El Dorado
- Humboldt
- Imperial
- Kern
- Lake
- Madera
- Mendocino
- Monterey
- Napa
- Orange
- San Bernardino
- San Luis Obispo
- Santa Barbara
- Shasta

- Stanislaus
- Sutter
- Ventura
- Yolo

Other organizations external to State or county government:

- Alpha Beta Associates
- California Association of County Data Processors
- County Supervisors' Association of California
- County Welfare Directors Association
- Deloitte, Haskins and Sells, Sacramento office
- State of Wisconsin, Department of Health and Social Services

OTHER PROGRAMS

State

- Department of Social Services
  - Adult and Family Services Division
    - -- Social Services Support
    - -- Adoptions Branch
    - -- Family and Children's Services Branch
    - -- Adult Services Branch
  - Welfare Program Operations Division
    - -- Adult Program Management Branch
    - -- Child Support Program Management Branch

County

The District Attorney's Office was contacted in the following counties:

- Los Angeles
- Sacramento
- San Francisco
- Santa Clara
- Yolo

Other organizations external to State or county government:

- California District Attorney's Association
- Family Support Council

AUTOMATED DATA COLLECTION/ELIGIBILITY DETERMINATION/BUDGET COMPUTATION

DATA COLLECTION	ELIGIBILITY DETERMINATION	BUDGET COMPUTATION
. On-line entry of client application/ change of status/redetermination/ recertification information during interview or from client-submitted documents.	. System determination of non-financial eligibility (e.g., citizenship, work registration, household composition).	. System calculation of entire budget computation for AFDC, Food Stamps and Medi-Cal recipient "share of cost".
. On-line validation/checking of applicant/recipient data.	. System determination of financial eligibility (including necessary budget computation).	. System recalculation of budget computations for all affected programs when client circumstances or regulations change.
. Capturing/retaining complete client information required for eligibility determination, budget computation and caseload management.	. System determination of eligibility/ ineligibility for all affected programs when client circumstances or regulations change.	
. System notification/tracking of required verifications.	. System redetermination/ recertification of eligibility as required.	
. System-generated referrals.		
. System production of required referral/verification forms.		
. System identification/tracking of followup actions.		

OPTIONAL FUNCTIONS

Certain system functions have been identified which may result in cost savings that are difficult to quantify at this time. This difficulty is largely due to the lack of adequate historical data and a limited basis for assumptions of future situations. It is expected that, during the implementation of the proposed system, a more reasonable basis for quantification will be found. These functions are discussed following the chart below.

OPTIONAL FUNCTION SUMMARY

Function	Potential Result
Automated Monthly Status Reports	. Improved caseload management . Reduced effort . Improved accuracy . Improved control
Cycle Payments	. More even workload . Positive community impact
Multi-County Processing of WCMIS/IBPS	. Reduced operating costs

Automated Monthly Status Reports

All AFDC recipients are required to submit monthly status reports (CA-7s) to report income and change of circumstances. Medi-Cal recipients are required to submit quarterly status reports. Beginning October 1, 1983, food stamp recipients will be required to submit monthly status reports.

The worker must review each status report, determine if there is a change that affects case status or benefit level, and take action to implement these changes. Changes are made manually or through completion of computer documents. Data is entered by data entry operators.

This function could be automated using a screen of the monthly status report that could display data from the previous month's report. The staff would enter the changes from the current month's report or enter a code indicating non-receipt of the report. The system would automatically update the case status for all affected programs and send required notices to the client and other programs/agencies.

Cycle Payments

Currently, benefit payments are issued on the first and fifteenth days of each month. Each payment covers a two-week period. A cycle payment function allows benefit payments to be issued for two-week periods ending on days other than the first and the fifteenth. These periods may overlap calendar months. The cycle payment function also involves cyclical certification periods for food stamps and cyclical eligibility periods for AFDC. The proposed system will have the capability to issue benefit payments on a cyclical basis. Counties could make use of this function at their option.

The main purpose of a cycle payment system is to even out workloads. Cycle payments have been successfully implemented in two California counties. The county welfare departments currently using cycle payments have received several benefits from implementation of cycle payments. These are:

- Evenly Distributed Workload -- Improved eligibility worker time management and caseloads, data processing workloads, and clerical tasks. One of the two counties believes that this contributes to its current caseload management for AFDC. The county has a very high continuing caseload per worker for AFDC.

- Positive Impact on Community -- Smooth traffic flow in county welfare offices and check cashing centers. Mail volume arriving at the post office at one time is reduced.

Multi-County Processing of WCMIS/IBPS

If a multi-county processing capability is added to IBPS, some counties located close to Los Angeles could process welfare program information at the Los Angeles County Data Center at their option. This possibility is discussed in the costs part of Section IV. The potential result is:

- Reduced Operating Costs -- Participating counties would not incur additional operating and maintenance costs for duplicate systems.

BENEFITS - DETAILED INFORMATION

Introduction

This appendix outlines the methodologies used to compute the major benefits for the proposed system. It also describes the intangible benefits in more detail for each benefit area discussed in Section IV of this report.

Statewide Central Index - Methodology

Fraud Prevention -- Overpayments due to duplicate issuance of AFDC benefit payments were estimated using the State Fraud and Audits statistical data for the period October 1980 to March 1981. Steps involved were:

- Annualize duplicate issuance amount for most recently available six-month period.
- Assume no significant change since data was gathered.
- Assume that the statewide central index will eliminate 100% of the duplicate issuance.

Fraud Detection -- Overpayments due to NAFS fraud were estimated using data supplied by the State Estimates Branch for the new Earnings Clearance System (ECS). Steps involved were:

- Annualize fraud savings estimated for last two quarters of fiscal year 1982/1983.
- Assume that central index will replace the new ECS.

Overpayments due to AFDC clients' misreporting of bank deposits were estimated using quality control statistics for October 1981 through March 1982. Steps involved were:

- Use projected annual loss due to client misreporting of bank deposits from quality control statistics as base amount.
- Apply historical AFDC fraud recoupment rate of 20%.

Statewide Central Index - Intangible Benefits

The effort to produce reports will be reduced at both the county and State levels. Currently, data is compiled manually for many management and statistical reports. The following units could access data on the central index:

- State Fraud and Audits Branch
- State Estimates Branch

- State Statistical Services Branch
- Quality Control Bureau
- County Report Units
- County Fraud Units

In addition, the time spent by counties on followup of the voluminous matched lists generated by external program matches should be considerably reduced through the issuance of reports identifying only discrepant items. There will also be savings generated by combining the various external program data matches into one system. The central index will maintain data required to perform all external program matches and issue discrepancy reports for AFDC, Food Stamps and Medi-Cal. This will eliminate the need for duplicate development and maintenance of fraud detection systems for AFDC, Food Stamps and Medi-Cal.

Automated Eligibility Determination

Automation of eligibility determination will result in a projected annual benefit of $16.6 million in reduced administrative costs. These will result from (1) increased productivity for eligibility workers by decreasing the time required to process an application for assistance; (2) reduction in time required for data entry and inquiry by clerical staff at intake; and (3) reduction of clerical time required to review, batch and log data entry documents completed by the eligibility worker.

An annual benefit of approximately $26 million in reduced payment of erroneous benefits to clients is also anticipated due to increased control of agency errors. Federal fiscal sanctions of $18.9 million associated with the reduced errors will also be avoided.

The methodologies used to project each of these quantified benefits are outlined below.

1. Administrative Benefits

Three methodologies were used to project the following:

(1) Reduced eligibility worker (EW) effort,

(2) Reduced data entry/preclearance effort, and

(3) Reduced clerical effort in handling data entry documents.

Reductions in EW effort are projected only for the processing of intake actions. It is anticipated that automated eligibility determination will assist the EW with continuing caseloads, but will not significantly reduce this workload. Since budget computation at intake continues to be a manual process until eligibility determination is automated, the automated budgeting is also included in this benefit amount.

a. Reduced EW effort was estimated using San Diego County's projected staffing reductions for implementing automated eligibility determination. Specific steps were:

   . Survey the State of Wisconsin and a limited number of California counties, including Los Angeles and representative CDS, other automated and nonautomated counties in order to verify San Diego's estimated reductions.

   . Apply San Diego reductions statewide, with adjustments for Los Angeles County due to operational and system differences.

b. Data entry/preclearance effort was projected using minimum current times for these functions.

   . Assume minimum current times applied to all counties with similar procedures.

   . Project cost of current time per intake action over total intake actions for AFDC, NAFS and Medi-Cal eligibility.

c. Reduced clerical effort for quality assurance review, batching and logging of computer documents was projected using current staffing levels from a representative sample of counties.

   . Assume savings only for selected automated counties.

   . Project average staffing reductions from sampled counties to counties with similar procedures.

2. Benefit Payment Savings

Reductions in erroneous payments of food stamps and AFDC grants were projected using October 1981 through March 1982 quality control (QC) statistics. Specific steps were:

. Establish probable rates of error reduction for agency errors for each QC error category.

. Assign high, medium or low probability to expected error reduction for agency errors in each category.

. Apply rate of reduction (80% for high probability, 50% for medium probability, 0% and 10% for low probability) against projected annual payment error.

. Exclude "technical" errors for AFDC where errors do not result in erroneous payment.

3. Fiscal Sanctions

Fiscal sanctions were projected using the average of five recent quality control period data for food stamps and six recent quality control periods for AFDC. Specific steps were:

- Apply payment error reduction established for benefit payment savings, including "technical" errors for AFDC. For food stamps, apply payment error reduction.
- Calculate difference above/below federal tolerance level.
- Apply reduction against fiscal sanction for the tolerance level.

Automated Eligibility Determination - Intangible Benefits

- Decreased Training Requirements -- Extensive time is now spent training staff on complex and frequently changing regulations. In many computerized counties, staff must also learn complex coding systems. Since the computer will determine eligibility, and intake workers will no longer be completing computer documents in most counties, there should be a reduction in the number of training staff and the time spent in training.
- Improved Consistency in Eligibility Determination -- With the system applying regulations uniformly to all cases, inconsistency of policy interpretation should be eliminated. Clients will be treated fairly and equally. In addition, with more consistent application of regulations, there should be a reduction in time required to correct errors.
- Improved Ability To Implement Changes -- It will be possible to modify programs utilized by the system as regulations change. The system will automatically apply these changes to all affected cases, update case status, and produce necessary notices to clients and workers. This will reduce worker effort to implement changes affecting large groups of clients.
- Increased Accuracy and Efficiency of Form Completion -- The system will automatically produce all forms required for intake, and on-line entry will eliminate the need to complete computer documents for intake actions unless entry is performed by data entry operators. This will reduce time spent correcting documents that contain errors, reduce data entry time, reduce expenditures on forms and ensure that all necessary client/case record forms are produced accurately.

- Improved Notification to Other Programs -- The system will automatically produce timely notifications to other programs/agencies of changes in client status. This will save worker time currently spent manually preparing these notifications and ensure that the required notices are actually sent.

- Reduced Duplicate Data Collection -- The system will keep a permanent record of required verification documentation. It will also maintain records for all programs with a single point of entry of data. This should eliminate the need for duplicate collection and copying of data for separate programs at redetermination and reapplication points.

- Improved Services to Clients -- Clients will submit application and verification forms only once, even when applying for more than one program. Fewer office visits will be required. It will also be possible to improve the timeliness of application processing and benefits issuance.

- Improved Caseload Information -- The system will maintain more complete case information, which will assist the worker at case update, redetermination and reapplication. In addition, the system will provide assistance in caseload management by tracking actions required, missing or inconsistent information, and required verifications/compliances.

- Improved Employee Morale -- The system will both increase productivity and reduce the amount of routine paperwork. The worker will have more time to deal directly with clients and meet their needs. This should promote worker job satisfaction and increase employee morale.

- Enhanced Management and Workload Control -- Improved management information will enhance management and workload control. Benefits include:

  - Improved ability to monitor EW performance
  - Easier coordination of interprogram impact
  - Increased control of data processing
  - Improved control of workflow and workload balancing
  - Improved management statistical reports

Automated Budget Computation - Methodology

Quantified benefits for budget computations for intake were included in eligibility determination, since these benefits cannot be realized for intake unless eligibility determination is also automated. Complete automation of budget computation will result in reduced eligibility worker effort for continuing cases, since current manual effort will be performed entirely by the system. Annual benefits are anticipated to be $3.4 million. This projection was established using information from counties on current times to perform budget computations for AFDC, Food Stamps and Medi-Cal. Specific steps include:

- Establish reduced time per budget computation for partially automated and nonautomated counties.

- Project time per budget computation across number of cases recomputed annually for partially automated and nonautomated counties.

Automated Budget Computation - Intangible Benefits

- Improved Consistency in Budget Computation -- Since the system will automatically compute benefits, inconsistency and errors in budget computation should be eliminated. This will ensure that clients are authorized an appropriate level of benefits.

- Enhanced Ability To Implement Changes -- It will be possible to rapidly change benefit tables and other aspects of the system that are dictated by regulations and utilized by the system to determine benefit level. The system will then automatically recompute benefits for all affected recipients. To the extent that such changes are currently performed manually, this will improve timeliness and accuracy as well as reduce worker effort.

- Enhanced Ability To Consider Benefit Changes in Multiple Programs -- A change in benefit level for one program will frequently affect the benefit level for another program. The system will automatically change benefit levels for all programs impacted by a benefit change in another program. This will reduce worker effort currently spent on such calculations and, more importantly, ensure that the required changes are made.

- Reduced Effort on Underpayments and Overpayments -- Since the system will accurately compute benefits, there will be reduced time required to correct overpayments and underpayments. When overpayments do occur (e.g., due to client misreporting), the system will facilitate establishment of the appropriate grant level for collection of the overpayment.

Notices of Action - Methodology

Benefits for Notice of Action automation were determined by comparing estimated current costs of production with estimated costs of production if NOAs were automated statewide. Specifically:

- Information was obtained from a county sample to determine the number of NOAs produced.
- Counties were categorized into four groupings -- WCMIS/IBPS, Case Data System, and other automated and nonautomated, based upon production methods for each group.
- Unit cost rates were developed for each group, and total current costs computed.
- It was assumed that 90% of all NOAs (the current level of automation for CDS counties) will be computer-generated.
- A new unit cost was applied to this number and the projected cost for enhanced automation computed.
- The total benefit was determined by subtracting the projected cost of enhanced automation from the current cost estimates.

Automated and Standardized Notices of Action - Intangible Benefits

- Improved Accuracy of Content -- Current legal requirements mandate precise wording for Notices of Action sent to clients. With manual preparation, workers sometimes send an incomplete or inaccurate notice. Increased automation will significantly reduce the potential for error and decrease the likelihood of court action and fair hearing losses.
- Improved Timeliness of Delivery -- There are requirements for timeliness of Notice of Action issuance, particularly for termination or reduction of benefits. The system will ensure that these timeliness requirements are met, thus avoiding payments for extension of benefits due to untimely notification. Automated notices will also speed delivery of initial benefits.
- Reduced Worker Effort -- Many manual notices currently carry preprinted messages for specific case actions. Counties have as many as 50 different messages. The worker must choose the correct message and manually add any additional information. When there is no preprinted message that applies, the worker must compose the message. This effort will be substantially reduced.

- Improved Ability To Implement Mass Changes -- All clients affected by a change in regulations and/or benefit levels must be notified of that change. Full automation of Notices of Action will ensure timely, accurate and cost-effective notification to affected clients.

- Reduced Development Efforts -- If Notices of Action are standardized statewide (with the State assuming reponsibility for the content), efforts to develop and approve notices will be significantly reduced at both the State and county levels.

On-Line Food Stamp Issuance - Methodology

Benefits were projected using unit costs of ATPs and direct mail issuances and projected costs of on-line issuances in the Case Data System feasibility study. Specific steps were:

- The current number of ATPs and direct mail issuances was calculated by annualizing the number of participating households in July 1982 and applying the July 1982 ratio of ATP issuances to direct mail for each county.

- Unit costs for ATP and direct mail issuances were derived from costs in the CDS feasibility study, and adjusted with data representative of the State.

- Current costs were calculated by applying ATP and direct mail volumes to their respective unit costs.

- On-line issuance costs were projected based on the CDS feasibility study, adjusted for statewide salary differences, and for the reduction of duplicate issuance costs.

- The volume of on-line and direct mail issuances under the on-line system was estimated using a 1981 analysis from the Department of Social Services Food Stamp Program Management Branch.

- The cost of issuance under the on-line system was calculated by applying the estimated on-line and direct mail volumes to their respective unit costs.

- The projected benefit was calculated by comparing costs of continuing ATP/direct mail issuance to the cost of on-line/direct mail issuance.

On-Line Food Stamp Issuance - Intangible Benefits

- Improved Services to Clients -- On-line issuance will provide more efficient, timely issuance of food stamps to clients.

- Improved Fiscal Reporting -- Improved reconciliation will result in more timely and accurate fiscal reports. In addition to providing improved information to management, there will be a reduction in the effort currently required to prepare these reports.

Duplicate Systems Development - Methodology

Cost savings were based on approved county systems-related projects during 1982 for welfare programs. Data were furnished by the Department of Social Services for projects that have been approved. Specific steps were:

- These categories were further subdivided into types of projects, e.g., feasibility studies, hardware acquisitions, systems development.

- Costs were summed for Income Maintenance and Food Stamp projects that had been approved in one of the established categories.

GOVERNMENT SHARING RATIOS

Benefit Methodology

For each benefit area, the benefit amount was allocated among AFDC, food stamps and Medi-Cal, using one of the following methods:

- Where subtotals were available by program area, those amounts were used.
- Where subtotals by program area were not available, a formula based on fiscal year 1981/1982 administrative cost ratios was applied to the total projected benefit amount.

Benefits were then allocated among federal, State and county governments by program area for each project, using normal cost participation ratios. See the chart on the following page.

Assumptions

- Benefits would accrue to program and governmental unit in accordance with ongoing funding responsibility.
- When benefits were not clearly identified by program area, historical cost-sharing ratios were applied.

GOVERNMENT SHARING RATIOS

Benefit/Program	Federal	State	County
Central Index			
AFDC	.50	.45	.05
Food Stamps	1.00	-	-
On-line Food Stamps	.50	.25	.25
Eligibility Determination - benefit payments			
AFDC	.50	.45	.05
Food Stamps	1.00	-	-
Eligibility Determination - fiscal sanctions	-	1.00	-
Eligibility Determination - administration			
AFDC	.50	.25	.25
Food Stamps	.50	.25	.25
Medi-Cal	.75	.25	-
Budget Computation - Notices of Action			
AFDC	.50	.25	.25
Food Stamps	.50	.25	.25
Medi-Cal	.75	.25	-
Duplicate Systems			
AFDC	.50	.25	.25
Food Stamps	.50	.25	.25

BENEFIT AREA/FUNCTIONAL AREA RELATIONSHIPS

Major Benefit Areas	Functional Areas							
	Data Collection	Eligibility Determination	Budget Computation	Benefit Delivery	Notices of Action	Caseload Management	Management Reports	Fiscal
Automated Eligibility Determination	X	X	X			X		
Automated Budget Computation		X	X		X			X
Automated and Standardized Notices of Action					X			
On-Line Food Stamp Issuance				X				X
Statewide Central Index	X	X				X		
Duplicate Systems Development	X	X	X	X	X	X	X	X

X = Benefit Area affects activities in this functional area.

COSTS - DETAILED INFORMATION

Introduction

This appendix details the method used to compare system alternatives for the statewide central index. It also includes the detailed costs for all components of the proposed system: statewide central index, WCMIS/IBPS upgrade, statewide on-line food stamp issuance, and a CDS redesign compared to a custom-developed county processing system.

Statewide Central Index

The statewide central index has been identified as a primary project for California welfare programs. Our analysis considered a number of alternatives:

- Alameda index
- Alberta index
- Custom designed
- MEDS
- WCMIS

MEDS, Alameda and WCMIS, currently operating in California, incorporate many of the central index functions. The Alberta index operates in Canada and Alaska, and also incorporates most of the required functions. The custom designed alternative would necessarily include all required functions. These alternatives are discussed below.

WCMIS

Although WCMIS has a high degree of functionality, it was eliminated from further investigation. WCMIS has a multi-county capability installed to help with the implementation of Orange County, but the index functions of WCMIS are directed at Los Angeles County's needs and therefore have a great many specific and detailed elements. A statewide central index does not require many of these functions. In addition, counties would have to develop many new forms of transactions to accommodate WCMIS as a central index. This would create a significant development cost.

Alameda

Alameda was dropped from further investigation because it satisfied fewer statewide central index requirements than other alternatives. Also, Alameda is designed as a county index with a case rather than a person orientation. This would require modification and result in an increased development cost.

Custom Designed

The custom designed index would incorporate all required functions of the statewide central index. It would not include unrelated functions as some of the other alternatives do. It would, however, require extensive training by county personnel.

MEDS

Our review has identified the following advantages and disadvantages of MEDS as a statewide central index:

Advantages:

- MEDS already incorporates a major portion of the functions required for a central index.
- Easily modifiable -- MEDS has a highly structured code with separate I/O modules.
- MEDS already has a major portion of the data which would be needed in a central index.
- MEDS already has an existing terminal network operating throughout much of the State.
- County acceptance of MEDS as a central index would be high because the counties are already familiar with MEDS.

Disadvantages:

- MEDS would have to serve two departments -- Health Services and Social Services. This potential conflict would require an external organization to allocate resources and establish priorities for development and maintenance of the statewide central index.

Alberta

Our review has identified the following advantages and disadvantages of Alberta as a statewide central index.

Advantages:

- Already incorporates many of the functions required for a central index.
- Easily modifiable -- Alberta has highly structured COBOL code.

Disadvantages:

- Does not carry any client data necessary for the index, since it is not currently operating in California.
- Would require network conversions throughout the State.
- Would require retraining of county personnel on usage of the index.

After this preliminary analysis, two primary alternatives were selected for further cost analysis for the statewide central index: MEDS and a custom designed system.

A comparison of the costs of implementing a central index using MEDS or a custom system is discussed in Section IV of this report. The table on the following page compares the days of effort and related costs for these alternatives.

This chart compares the estimated days of personnel effort and related costs for the two statewide central index primary alternatives discussed earlier.

Statewide Central Index - Cost Comparison

Implementation	Days of Effort		Cost (In millions of dollars)	
	MEDS	Custom	MEDS	Custom
Development - General Design	600	900	$ .3	$ .4
Development - Installation	1,210	2,810	.5	1.0
Subtotal	1,810	3,710	$ .8	$1.4
Conversion	1,580	- *	.6	- *
Total	3,390		$1.4	

*Significantly higher than MEDS

This chart details the days of implementation effort and related costs for the WCMIS/IBPS upgrade projects.

WCMIS/IBPS Upgrade

(In millions of dollars)

Implementation	Project: Automate Eligibility Determination		Automate Notices of Action		Automate Budget Computation	
	Days of Effort	Cost	Days of Effort	Cost	Days of Effort	Cost
Development						
General Design	1,560	$ .5	80	$ -*	80	$ -*
Installation	1,500	.5	280	.1	360	.1
Subtotal	3,060	$1.0	360	$.1	440	$.1
County Conversion	9,665	1.7	-*	-*	750	.1
Total	12,725	$2.7	360	$.1	1,190	$.2

*Less than $50 thousand

This chart details the costs for each of the three projects required for the WCMIS/IBPS upgrade.

Cost Detail - WCMIS/IBPS Upgrade

(In millions of dollars)

	Project		
	Automate Eligibility Determination	Automate Notices of Action	Automate Budget Computation
Development			
Project Team	$1.0	$.1	$.1
Subtotal	$1.0	$.1	$.1
County Conversion			
Project Team	$ .6	$ -*	$ -*
County Effort	1.1	-*	.1
	$1.7	$ -	$.1
Total	$2.7	$.1	$.2
Ongoing	$ .4	$ -*	$ -*

*Less than $50 thousand

WCMIS/IBPS - MULTI-COUNTY PROCESSING

We requested that the Los Angeles County Data Processing Department provide an estimate of costs to modify IBPS for processing multiple county data. This capability, discussed in Section IV, could result in benefits for the State and counties. This page and the following three pages contain information provided to us by Los Angeles County.

Assumptions

The following assumptions were made to allow Los Angeles County to develop the estimate. If any or all of the assumptions prove not to be true, then it is understood that the estimate is no longer valid.

- Adding additional local Southern California counties[1] would mean a 30% increase in the case load currently maintained by IBPS. This percentage was used to estimate the ongoing hardware cost.

- Payment processing would become the number one priority (the current priority is to produce confirmation documents). To meet time constraints for issuing warrants and ATPs, the Los Angeles County Auditor/Controller and the Department of Public Social Services would be designated State agents for the issuance of warrants and ATPs, respectively, using State warrant and ATP stock with State signature plates. This assumption has not been cleared through the three parties.

- The bank reconciliation interface would be through the Bank of America.

- There would be no changes to the existing programs for unique county requirements other than for identification needs. This includes all subsystems (e.g., data entry, daily update, monthly automatic claims, DPSS reports, State reports, etc.). All currently produced reports would be generated. State interfaces such as MEDS, UIB, (Unemployment Insurance Benefits), and Earnings Clearance would be treated as single files. All counties would use WCMIS.

- Due to the file size and the priority position stated by Mr. Eddy Tanaka (i.e., DPSS would require no less than the same priority and service levels that it is now experiencing), there would be two master files: one for DPSS and one for all other counties.

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[1]The Southern California counties would include: San Bernardino, Riverside, Ventura, Santa Barbara, Kern, and Orange.

- Billing would be prorated by case load counts at the time of the monthly automatic update. All unique county runs would be direct-charged.

- Transportation of data to counties would be via hardcopy reports and/or tapes. There will be no on-line transmission of reports, other than through UNIVAC-supported RJE interfaces via NTR protocol. This would be only for transmission of report files.

- Input to the system would be through UTS 400-compatible terminals via the current data entry subsystem. Costs of the additional terminals are included in the WCMIS operations cost, but not the cost of lines and modems.

Unresolved Issues

- Logistics of transporting voluminous reports.

- Hardware capacity questions. Without a detailed feasibility study, there is no way to estimate when additional equipment would be needed. Therefore, the enclosed hardware cost estimates are based solely on adding 30% to the current WCMIS and IBPS monthly bills. (Assumption: additional revenue will pay for additional equipment.)

- Operations staffing would also vary depending on workload. The enclosed hardware cost estimates include labor.

- Ongoing maintenance of the system. This estimate is based on the assumption that there will be a single IBPS system. How will change requests be submitted and in what order implemented? Cost of maintenance is not included in estimate.

- Customer Help function will have to be established at both the application and operational levels. The cost of this function is not included in the estimate.

- Unique county file conversion costs. These could be considerable!

Estimate

- For purposes of this estimate, IBPS will consist of the following:

  - WCMIS central index.

  - Existing IBPS production subsystems (not including food stamp reconciliation and checkwriting).

- Foster care subsystem (currently in project definition).

- Aids repayments (awaiting State and federal funding approval).

- Hardware costs are based on prorating the current IBPS/WCMIS hardware costs by 30%.

- The programming costs are based primarily on work required to produce separate case controls for multiple counties.

- The estimate does not include any work effort for data conversion of existing county files to IBPS.

Development Costs

WCMIS	$ -
IBPS (current production subsystems, except checkwriting and food stamp reconciliation)	1,042,000
Foster Care Subsystem	- (1)
Aids Repayment	- (2)
Total cost	$1,042,000(3)

Hardware Costs (based on 30% increase in cash load)

WCMIS	$1,325,996
IBPS	1,287,820
Aids Repayment	51,600
Total cost	$2,665,416(3)

(1) Foster Care estimate assumes that the multi-county capability will be included in the design.

(2) Aids Repayment assumes that the multi-county capability will be included in the design.

(3) The cost for on-line food stamp issuance has been removed. This cost is included in the statewide on-line food stamp project discussed in Section IV and detailed later in this appendix.

On-Line Food Stamp Issuance

This chart details the days of project team implementation effort and related costs for the on-line food stamp issuance subsystem.

	On-Line Food Stamp Issuance	
Implementation Phase	Days of Effort	Cost (In millions of dollars)
Development:		
General Design	210	$.1
Installation	650	.2
Subtotal	860	.3
County Conversion	990	.4
Total	1,850	$.7

Cost Detail -- On-Line Food Stamp Issuance

(In millions of dollars)

One-Time Implementation Costs	
Development:	
Project Team	$ .3
Other (travel, pilot)	.2
Subtotal	$ .5
County Conversion:	
Project Team	$ .4
County Effort	.7
Other (travel, site preparation)	1.0
Subtotal	$2.1
Total	$2.6
Incremental Annual Ongoing Cost	$2.5

ON-LINE FOOD STAMP ISSUANCE

The methodology used to calculate costs for the on-line food stamp issuance subsystem is described in detail below.

Project Personnel Effort

The cost of the time of project team staff was estimated for the General Design, Installation and Conversion phases of development as follows:

- Our firm's methodology for systems implementation was used to identify required tasks within each phase.
- An estimate was made of the workdays required to complete each task. Estimated workdays were totaled by task.
- Average daily staff rates unique to each phase were applied to total estimated workdays for that phase.

User Training

One of the cost subcategories within user training is the cost of producing training manuals. The steps involved in estimating this cost include the following:

- It was assumed that one manual is required for each district office and issuance site.
- The cost to produce the On-Line Food Stamp Issuance Manual was estimated to be $30.
- The number of district offices and proposed issuance sites was totaled statewide. This total was applied to the unit cost of producing the training manual.

Added to the cost of training manual production was the labor cost of county personnel involved in training. The result is the total user training cost. The county personnel cost portion was estimated in the following way:

- The number of eligibility workers and supervisors was totaled for all counties. Other categories of workers were not included.
- An average staff rate for a half day of training was applied to the statewide total number of workers to arrive at the total county personnel cost.

Conversion Preparation

Conversion preparation costs are made up of four cost subcategories:

- Site preparation for pilot sites
- County cost to operate the pilot
- Magnetic card production
- File conversion costs

The following methodology was used to estimate the cost of pilot site preparation:

- The number of pilot sites was assumed to be the same as that estimated by The Case Data System Food Stamp Automated Issuance and Recording Subsystem Feasibility Study for Fresno and San Francisco county pilots.

- An estimated average site preparation cost was applied to the total number of sites. This cost was obtained from San Diego County's estimated cost to install the Automated Income Maintenance System (AIMS) equipment configuration.

The county cost to operate the pilot was estimated in the following manner:

- The cost of operating a three-month pilot in Fresno and San Francisco counties was assumed to be typical. (This cost was estimated in the CDS feasibility study referenced above.) The total cost was used as the county cost of operating a pilot.

Magnetic card production costs were estimated as follows:

- A market rate of $0.50 per card was assumed.

- This unit rate was applied to the total number of magnetic cards initially produced. Since it was assumed that one card would be produced per household, statewide household participation was used as the total for which the unit cost was applied.

File conversion cost analysis steps include the following:

- It was assumed that WCMIS and CDS counties would require minor file conversion efforts for the food stamp issuance system. The 27 counties with other automated food stamp systems were assumed to be those for which significant conversion efforts were required. Counties without automated food stamp files would undergo file conversion at the time of the full system conversion.

- It was assumed that 290 programmer workdays were required to write file conversion programs for the existing county systems.

- An average computer processing cost for each programmer workday was applied to the total programmer workdays.

Estimated costs for the above conversion preparation categories were summed to arrive at the total conversion preparation cost.

Hardware

The hardware cost category includes both development and ongoing costs for the on-line food stamp issuance project. The following methodology was used to estimate development costs:

- Site preparation costs were calculated by applying an estimated unit rate to the total number of sites. The estimated number of issuance sites was prepared as a part of the benefit analysis. The number of pilot issuance sites was deducted from this total.

- Total site preparation costs were added to the cost of equipment used during the development phase. The hardware equipment cost for development is the average cost of installed equipment throughout the period.

The ongoing hardware costs were estimated as follows:

- The equipment cost per issuance was estimated for Fresno and San Diego counties for the CDS feasibility study. This cost was assumed to be based on a typical equipment configuration.

- This unit equipment cost was applied to the total number of annual issuances estimated as a part of the on-line food stamp benefit analysis.

Computer Usage

The computer usage cost category represents the equipment cost involved in developing programs. The methodology used to arrive at this cost is the same as that used for the CDS redesign project which is described later in this Appendix.

Communications

- The communications cost per issuance estimated for Fresno and San Diego counties within the CDS feasibility study was assumed to be representative of the remaining counties.

- The unit communications cost was applied to the total number of annual issuances estimated within the on-line food stamp benefit analysis.

Miscellaneous

Miscellaneous costs include such categories as travel and lodging. They were estimated as 15% of the cost of project personnel.

Remaining Counties' System

Implementation Phase	CDS Redesign - Custom System: Days of Effort CDS	Days of Effort Custom	Cost (In millions of dollars) CDS	Cost (In millions of dollars) Custom
Development:				
General Design	2,860	2,860	$ 1.3	$1.3
Installation	10,400	14,000	3.9	5.3
Subtotal	13,260	16,860	5.2	6.6
County Conversion	15,400	- *	6.2	- *
Total	28,660		$11.4	

*Significantly higher than CDS redesign

Cost Detail -- New System (CDS-Based)

(In millions of dollars)

One-Time Implementation Costs	
Development:	
Project Team	$ 5.2
Other (travel, computer usage, etc.)	1.1
Subtotal	$ 6.3
County Conversion:	
Project Team	$ 6.2
County Effort	10.1
Other (travel, site preparation)	1.4
Subtotal	$17.7
Total	$24.0
Incremental Annual Ongoing Cost	$ 7.4

CDS REDESIGN

The methodologies used to determine costs for a redesign of CDS is described below. Development and ongoing costs were projected in seven categories. They are:

- Project personnel effort
- User training
- Conversion preparation
- Hardware
- Computer usage
- Communications
- Miscellaneous

The methodology used to calculate each of these costs is described below.

Project Personnel Effort

Personnel effort includes the labor cost of project staff members. The methodology used to estimate this cost is as follows:

- Workdays required to complete tasks were estimated and totaled for the General Design, Installation and Conversion phases. Our firm's estimating guidelines were used to estimate hours required to complete each task.

- Average daily staff rates unique to each phase were applied to total estimated workdays for each phase.

User Training

The user training cost category includes two subcategories of cost: the cost of producing training manuals, and the labor cost of county personnel involved in training. The methodology used to determine the cost of producing training manuals is as follows:

- Manuals were identified for each category of user. The cost of each type of manual was calculated by estimating its approximate size.

- The quantity of each user manual was calculated after making assumptions about the number of manuals required for each type of user.

- The cost of each type of manual was applied to the quantity to calculate the total cost for each manual. The costs of the user manuals were summed, yielding total training aid production cost.

An estimate of the labor cost of county personnel involved in training included the following steps:

- Training days were estimated for seven categories of county workers. These were summed to achieve total days of county personnel time.
- A weighted average daily staff rate was applied to total days of county personnel involvement.

Conversion Preparation

Conversion preparation costs are the labor costs of county personnel involved in file conversion. The cost of this involvement was calculated as follows:

- The time to create and review each case created on the new file was estimated.
- Unit time per case was applied to total cases to derive total workdays.
- Total workdays were multipled by an average daily staff rate to arrive at total conversion cost.

Hardware

The hardware cost category includes both development and ongoing costs. The following methodology was used to estimate development costs.

- District office site preparation costs were calculated by applying an estimated average unit preparation cost to the total number of district offices. A unit cost of site preparation was obtained from San Diego's estimated cost to install the Automated Income Maintenance System (AIMS) equipment configuration.
- Total site preparation costs were added to the cost of equipment used during the development phase. Because there will be a phased conversion, the hardware equipment cost for development is the average cost of installed equipment throughout the period. Equipment installation is assumed to progress uniformly throughout the Conversion phase.

The ongoing hardware cost represents the annual cost of leasing mainframe capacity, terminals, controllers, modems and printers. This cost was estimated as follows:

- Additional mainframe capacity was estimated by analyzing existing environments at each host site and projecting the costs for capacity enhancements. Capacity requirements to support the caseload of counties without

mainframes was also estimated and included in these cost figures.

- A unit cost for each type of equipment was estimated by calculating an average monthly lease cost from a sample of vendors using Datapro.

- One piece of equipment per district office was assumed for printers, controllers and modems. The unit cost of each type of equipment was applied to the total number of district offices.

- The terminals needed to support processing of each intake action and continuing-case change action was estimated. This number was applied to the total number of intake actions and continuing-case change actions to derive total terminals required.

- The total number of terminals was applied to the unit cost to determine the total cost of terminals.

- The total costs for each type of equipment were summed to achieve total ongoing equipment costs.

Computer Usage

The computer usage cost category represents the equipment cost incurred during the development of new programs.

- Average computer usage for a programmer day was estimated. This estimate was based on our previous system engagement experience.

- Usage estimates were applied to typical computer processing costs. The Health and Welfare Data Center (HWDC) processing costs were assumed to represent typical costs. By applying average computer usage for a programmer day to computer processing costs, computer processing costs per programmer day were derived.

- Estimated computer cost per programmer day was applied to total number of programmer days to arrive at the total computer usage cost.

Communications

The communications cost category includes both development and ongoing costs. Development costs were estimated according to the following methodology:

- The installation charge per communication line was obtained from the Pacific Telephone Business Office.

- The unit line charge was applied to the estimated total number of lines.

- Communication lines connect district offices to their host computer sites. Multi-drop and point-to-point lines were designed to serve cities with district offices within each county. The lines for all counties were summed for total number of lines.

The following steps were taken to calculate ongoing communication costs:

- The distances between the nodes of multi-drop and point-to-point lines were taken from the SPAN network analysis wherever the nodes were identical. If distances were not available in SPAN documentation, they were calculated from point to point.

- Lease line charges by mileage factor were obtained from the Pacific Telephone Business Office.

- Distances between nodes were applied to lease line charges for that distance.

- The total ongoing communication cost was derived by summing the costs of individual lines.

Miscellaneous

Miscellaneous costs include such categories as travel and lodging. They were estimated as 15% of the cost of project personnel.

The total cost of developing the redesigned CDS system is the sum of the costs of project personnel, user training, conversion preparation, hardware, computer usage, communications, and miscellaneous costs. Ongoing costs of the CDS system represent the total of hardware and communication costs.

This chart summarizes the steps used to estimate a daily rate for each identified project. A base team of 11 persons is used for illustration.

PERSONNEL COST

ESTIMATED DAILY RATE

	Phase (Number of Persons)[1]			Team Composition[2]		Hourly Rate		Hourly Cost[5]		
Personnel Category	General Design	Installation	Conversion	% Private	% Public	Private[3]	Public[4]	General Design	Installation	Conversion
Project Management	1	1	1	75	25	$160	$28	$127	$127	$127
Systems Analyst	5	3	4	75	25	85	21	345	207	276
User Analyst	5	3	5	25	75	50	19	135	81	135
Programmer	-	4	1	50	50	30	16	-	92	23
Total project team	11	11	11				Total hourly cost	$607	$507	$561
							Project daily rate[6]	$450	$375	$400

NOTES: [1]Relative proportion of team in each personnel category by phase.

[2]Recommended percentage of private and public sector personnel in each category.

[3]Based on private sector rates effective January 1, 1983 through March 31, 1983.

[4]Based on State Department of Social Services rates effective October 15, 1982.

[5]Number of persons in each category and phase times the weighted average hourly rate for each category.

[6]Total hourly cost divided by the number of project team personnel times eight hours (workday), founded to the nearest $25 increment

GOVERNMENT COST-SHARING RATIOS

Cost Methodology

- Costs were projected for each project -- Statewide Central Index, On-Line Food Stamp Issuance, WCMIS/IBPS Upgrade, and Case Data System Redesign.

- For each project, costs were allocated to AFDC, food stamps and Medi-Cal, using one of the following methods:

  - For Central Index, costs were allocated between AFDC and food stamps based on fiscal year 1981/1982 administrative cost claims ratio.

  - For On-Line Food Stamp Issuance, all costs were attributed to the Food Stamp program.

  - For the remaining projects, costs were allocated among AFDC, food stamps and Medi-Cal based on the 1981/1982 administrative cost ratio.

- Costs were then allocated among federal, State and county governments, using anticipated funding ratios for development and ongoing costs. (See the chart on the following page.)

Cost Assumptions

- System will be used exclusively for AFDC, food stamps and Medi-Cal; therefore, cost sharing by other programs does not apply.

- Cost sharing by non-federal AFDC program was considered but was omitted from cost allocation projections, since it would have immaterial impact on the cost-sharing ratios. Further refinement should be done after General Design is completed.

- Non-federal share of costs for the central index will be funded by the State.

- Non-federal share of all projects except the central index will be allocated between the State and the counties based on normal participation ratios.

GOVERNMENT COST-SHARING RATIOS

Project/Program	Development			Ongoing		
	Federal	State	County	Federal	State	County
Central Index:						
AFDC	.50	.50	-	.50	.50	-
Food Stamps	.50	.50	-	.50	.50	-
On-Line Food Stamp Issuance	.50	.50	-	.50	.25	.25
New System (CDS-based):						
AFDC	.50	.25	.25	.50	.25	.25
Food Stamps	.50	.50	-	.50	.25	.25
Medi-Cal	.75	.25	-	.75	.25	-
WCMIS/IBPS Upgrade:						
AFDC	.50	.25	.25	.50	.25	.25
Food Stamps	.50	.50	-	.50	.25	.25
Medi-Cal	.75	.25	-	.75	.25	-

PROJECT TASK DESCRIPTIONS

PHASE: GENERAL DESIGN

Overview

The objectives of this phase will be to determine how the proposed system should be implemented to meet the needs of the State and counties. The detailed functional requirements must be defined, and the decision made as to which functions will be implemented. The technical architecture of the system must be designed in such a way that the total implementation costs can be better determined. The installation approach and timetable for the pilot site will be developed and reviewed with project administration. A cost/benefit analysis will be performed to confirm that the proposed functional and technical features are cost-effective. The validation of these deliverables with users and project administration will increase the likelihood of the pilot system being installed on schedule and satisfying the requirements of the end users.

Organization

During this task, the responsibilities required to complete the general design are defined. Work plans and standards are developed for the project, and personnel assignments are made. A training program is then established to communicate the project scope, standards and administrative procedures to team members.

Hardware and Systems Software Direction

This task involves identification and evaluation of alternative combinations of available hardware and systems software products. A preliminary evaluation is performed for each alternative to determine how well it supports the functional requirements of the system. The relative strengths and weaknesses of each alternative are evaluated until a best approach is determined. This decision establishes the direction for the design of the systems technical architecture.

Existing Systems Evaluation (Prototyping)

Functional requirements which must be met are ranked in significance and used as criteria to evaluate the appropriateness of each system under consideration. The technical architecture and documentation of existing systems are also evaluated, since these factors may have a significant impact on systems development efforts.

User Requirements

The primary objective of this task is to define the requirements of the system that support the users' functional needs. These requirements are then translated into a user design. The present system must be reviewed to develop an understanding of the procedural flow, information requirements, transaction volumes and processing costs. This information is used to define the new system's processing functions, inputs and outputs, and data requirements.

Technical Requirements

During this task, the technical architecture and the database are designed. Processing modules, programs and procedures required to support each function are identified to provide a basis for estimating system resource requirements. The performance, security and integrity control processes are also designed. This entails evaluating the impact of the system architecture on risks and controls, as well as assessing controls over system access, data integrity, and recovery/restart procedures.

Installation Schedule

During this task, a plan is developed for installing the system. First, the total effort is divided into manageable steps and tasks. Personnel requirements are established by determining the skill level and estimating the effort required to complete each step of the installation. A conversion timetable is established by identifying key target dates, the critical path of each of the installation tasks, and the phasing of the pilot installation. The information generated by each of these steps is then translated into a workable plan for installing the system.

Cost/Benefit Analysis

This task involves estimating the operating costs and benefits of the new system, estimating the installation costs, and documenting any intangible considerations. The net operating costs are estimated by comparing the ongoing costs of operation of the proposed system to the costs of the present system. Installation costs are nonrecurring expenses incurred in developing and converting to the new system. These include personnel costs for staff participating in the installation, equipment and related costs for testing and converting the files, and costs incurred for preparing the site and installing the equipment. The benefits of the new system are developed by summarizing the net cost or savings of implementing the proposed system, including any potential intangible benefits.

Hardware and Software Selection

The final selection of the hardware and systems software needed to meet the functional and technical requirements of the system is completed in this task. In addition, the Request for Proposal is prepared, and the contract is negotiated for hardware, systems software, and outside services such as contract programmers, service bureaus and consultants. During this task, specific criteria are established to ensure that the selection process is systematic, thorough, and objective. The actual negotiation of contract terms is performed by project administration, with the project team providing technical expertise as required.

Management Review and Approval

The objective of this task is to request and obtain senior management's approval to proceed with the Installation phase of the project. The conclusions developed during the General Design phase will be summarized in a manner that will enable management to make an informed decision. The functional and technical specifications are published to illustrate the overall operation of the proposed system. A management report is prepared to summarize the considerations which may affect senior management's decision. Based upon these reports, the project administrator must decide whether and how to proceed with the Installation phase.

PHASE: INSTALLATION

Overview

The objectives of this phase will be to finalize the systems design and successfully install the pilot in a county operational environment. Detailed programming designs will be completed and the designs coded into programs. These programs will be thoroughly tested, both individually and as part of the overall system. Procedures will be developed for each type of system user and the personnel who will operate the system. The county in which the pilot will be installed will be thoroughly prepared for, and assisted with, the operation of the pilot. The pilot will be observed by both State and county personnel to ensure that all prescribed requirements have been successfully installed.

Organization

This task links the General Design phase and the Installation phase. The installation work plan prepared earlier is developed further to include detailed staff assignments and start and complete dates. Training requirements for all personnel are defined in this task, and project standards are established. Initial training is completed, and materials for use in subsequent project training are developed.

Detailed Design

At the beginning of this task, all technical design tasks not finished in the General Design phase are completed. The program and programming work unit specifications are developed, and the sequence of module processing is determined. Logical data views and physical database designs are analyzed and specified in detail. Common test data is prepared, as well as methods for updating the data to test unique conditions. The cost/benefit analysis is reconfirmed to ensure that management is informed if any significant scope changes result from this task.

Systems Software Development

The objective of this task is to implement the systems software and testing environment required to install and support the system being developed. To develop the testing environment, an organized set of procedures must be established. In addition, job control language for all testing software and training presentations on how to use the testing environment must be prepared.

Hardware and Software Installation

Early in the Installation phase, the detailed planning for the pilot physical site must be initiated. During this task, the hardware and software are installed after the site preparation has been completed. The equipment undergoes a thorough operational performance review after installation to ensure that it functions properly. Then the software is installed and thoroughly tested prior to acceptance. Special supplies needed to convert to the new system are also identified and acquired during this task.

User Procedures Development

The user performance, security, control and computer operating procedures are established during this task. These procedures describe the user's functions and identify the timing and personnel requirements for the system. The design of all preprinted input documents, special stationery and output forms is completed. All the detailed procedures are combined and published in the documentation manuals. Finally, the system users and computer operations personnel are trained prior to the system's acceptance testing and conversion.

Conversion Preparation

This task involves the development of detailed work programs, the creation of special data files, the establishment of conversion procedures, the training of personnel, and the identification of resource requirements. The system test is also planned, detailing specific tests to be performed, the timing and method of the testing, and the personnel who will be involved. The system test model is created to simulate the production environment. Additional resource requirements (personnel, equipment or supplies) are identified, and resource requests are initiated.

Programming

During this task, the programming work units are coded into fully tested executable modules ready for system testing. The programming effort was divided into easily manageable work units during the General Design phase. By dividing the work into small units of 20 work days or less, the effort can be better controlled. Test data is also prepared to perform the unit testing. The unit tests are then conducted to obtain error-free code which processes the data accurately according to programming specifications.

System Test

The objective of this task is to verify, before conversion, that the new system contains all required functions and that the functions are performed accurately. System testing consists of two major stages -- integration and user testing. The two stages enable the system's capabilities to be independently tested against the technical and functional specifications. The system test simulates the expected operating environment. This provides training for future users in the operation of the system, and ensures that the new system meets users' functional requirements.

Conversion - Pilot

During this task, the pilot site is converted, and the new system is monitored in the production environment. Through evaluation of the system, potential areas for improvement can be identified and documented. The use of a pilot site for performing the initial conversion ensures that unanticipated problems can be resolved prior to the large-scale conversion effort.

Post-Conversion Review - Pilot

The primary objective of the post-conversion review is to analyze the performance of the new pilot system. The review is performed after the system has been in operation for a significant period of time. The system is monitored to analyze how it performs compared to the planned results from the design phases. Any key areas for improvement are documented to ensure that these suggestions are considered during conversion of the remaining sites.

PHASE: CONVERSION

Overview

During this phase, the new system will be installed in each of the counties. The large number and distribution of system users makes thorough training and conversion preparation extremely difficult, and most important. The system will have to be installed in each of the host sites. Data files will have to be converted to the new system in each county. Many of these case files will have to be converted manually. The varying degrees of user familiarity with data processing will necessitate a training program that can be tailored to each county. The final deliverable of this phase will be a fully operational system at each user site.

Organization

The objective of this task is to plan and prepare the framework for a successful conversion of the counties to the new system. Proper organization will facilitate project communications and control. State and county personnel who will actively participate in the conversion effort must be identified, and sufficient time allocated to the project. Due to the complexity of the conversion effort, this task will be instrumental in completing the systems installation on schedule.

Conversion Planning

A tentative conversion plan was prepared during the Installation phase. This plan must be updated and refined. The plan must assign responsibilities to specific individuals, assess levels of required effort, and identify the time frame for conversion of each county. Detailed work programs and conversion procedures will be developed. The preparation of the conversion plan and detailed conversion schedule will ensure the proper level of user involvement.

Site Survey/Preparation

The purpose of this task is to identify the location and physical requirements of all processing sites and work stations. Proper planning will include selection of the sites, layout considerations, and physical security and safety precautions. Thorough documentation of the site requirements ensures that equipment delivery and site installation are completed prior to the scheduled start date of the conversion.

Training Aids Preparation

To accomplish the conversion in a timely and controlled manner, it will be essential that all users of the new system be fully trained prior to conversion. The users of the system possess varying levels of familiarity with data processing systems. The aids used during the training program must account for these differences. Independent training lessons and access to a working test model will facilitate the training of county personnel.

Software Installation

The new system will have to be installed at each processing site that will operate the system. Programs will have to be loaded and space allocated for the processing of the new system. Acceptance testing is performed to ensure that each site has a fully operational system.

User Training

The long-range success of the system will depend on its acceptance by the people who use the information supplied by the system. A strong training program will foster this acceptance. Users should have a basic understanding of how the system operates, and how it can be used effectively. The training program should include seminars, classroom instruction, and independent study.

Conversion Preparation

The purpose of this task is to create the conversion files necessary to implement the new system. Extensive manual effort is anticipated to prepare the case files for input to the system. The system test model is also updated, if required, to account for any unique county requirements. The involvement of both system personnel and user personnel allows them to become familiar with the new operating procedures gradually.

Conversion

Conversion to the new system consists of more than just using the new programs. The old system must be entirely replaced by the new system. User and operations personnel must be assessed to determine if they have been adequately prepared for the conversion. The system is evaluated to identify potential areas for improvement. These enhancements are documented so that changes can be made to the system by the maintenance team. The phased conversion of the counties will require file maintenance and coordination among the various phases until the conversion date. Once the new files have been created and the system test performed, the system is transferred to routine operational status.

Post-Conversion Review

In this task, an audit of the new system is completed. This review is performed after the system has been operational for a period of time. The savings of personnel time should be measured so that the projected benefits can be realized. As problems are identified, they should be recorded for future consideration. A final project progress report should compare the results of the conversion to the planned results.

APPENDIX V-2

ORGANIZATION TASK RESPONSIBILITIES

PHASE: GENERAL DESIGN	Responsibility			
TASK DESCRIPTION	Project Administration	Management Advisory Committee	Technical Services Group	Project Team
Organization	A		R	P
Hardware and Systems Software Direction			R	P R
Existing Systems Evaluation (Prototyping)			C R A	P R
User Requirements			C R A	P R
Technical Requirements			C R A	P R
Installation Schedule	R	R	C	P
Reconfirm Cost/Benefit Analysis	A	R	R	P R
Hardware and Software Selection	A	R	C	P
Management Review and Approval	A	R	C	P

Legend

P = Perform
C = Consult and Assist
R = Review and Evaluate
A = Approve

APPENDIX V-2

ORGANIZATION TASK RESPONSIBILITIES

PHASE: INSTALLATION	Responsibility			
TASK DESCRIPTION	Project Administration	Management Advisory Committee	Technical Services Group	Project Team
Organization	A	R	R	P
Technical Design		R	R	P R
Systems Software Development				P R
Hardware and Software Installation			R	P R
User Procedures Development			C R A	P R
Conversion Preparation			C R A	P R
Programming				P R
Systems Test			R A	P R
Conversion - Pilot			A	P R
Post Conversion Review	A	R	R	P R

Legend

P = Perform
C = Consult and Assist
R = Review and Evaluate
A = Approve

APPENDIX V-2

ORGANIZATION TASK RESPONSIBILITIES

PHASE: CONVERSION	Responsibility			
TASK DESCRIPTION	Project Administration	Management Advisory Committee	Technical Services Group	Project Team
Organization	A	R	R	P
Conversion Planning	A	R	C	P R
Site Survey/Preparation				P R
Training - Aids Preparation			C	P R
Software Installation				P R
User Training			C	P R
Conversion Preparation			C	P R
Conversion			A	P R
Post - Conversion Review	A	R	R	P R
Administration				P

Legend

P = Perform
C = Consult and Assist
R = Review and Evaluate
A = Approve

IMPLEMENTATION ASSUMPTIONS

1. Established technology will be used to implement the system. The technology is available and the personnel easily obtained in the marketplace. No custom development of system software will be undertaken during the project.

2. Only fixed reporting requirements will be estimated. Ad hoc report requirements will be satisfied using utility languages for reporting/query.

3. The transaction flow will be processed by custom-designed and developed code. To the extent that productivity aids can be utilized, a savings in workdays can be achieved.

4. The estimate for conversion of the counties provides for a systematic review of data files. Any cleanup of the data files or enrichment of data represents an additional effort.

5. Training of county personnel has been included and budgeted, but not included as project team effort.

6. Procedures for users, computer operations personnel and ongoing maintenance personnel are included as part of the development effort.

7. The dollars associated with the system development effort include total project costs -- both project management and program development.

8. A mixed rate has been utilized for costing. A private contractor will have control of the project and State/county personnel will participate on the project teams.

9. Computer utilization has been budgeted during the development. Computer time and supplies equal $149/programmer hour.

10. Other miscellaneous costs (e.g., travel, lodging, etc.) equal 15% of the total personnel costs.

11. Interview and periodic review time of county personnel has not been included.

12. Office furniture and space have not been included.

13. The effort to accomplish necessary or desired regulatory changes is not included in the workday approximation.

14. The approximations for conversion training assume advance installation of hardware and the availability of the systems test model for user training.

DETAILED IMPLEMENTATION PLAN

WORKDAY SUMMARY

Implementation Phase	Statewide Central Index	O/L Food Stamps	WCMIS/IBPS Upgrade			New System (CDS-Based)
			Automated Notices	Automated Budgeting	Automated Eligibility	
General Design	600	210	80	80	1,560	2,860
Installation	1,210	650	280	360	1,500	10,400
Conversion	1,580	990	-	-	9,665	15,400
Total	3,390	1,850	360	440	12,725	28,660

IMPLEMENTATION

WORKDAY APPROXIMATIONS

STATEWIDE CENTRAL INDEX - MEDS MODIFICATION

Development

General Design		Installation		Conversion	
Task	Workdays	Task	Workdays	Task	Workdays
Organization	10	Organization	40	Organization	20
User requirements	250	Detailed design	250	Conversion planning	10
Technical requirements	140	User procedures development	10	Training aids preparation	50
Installation schedule	40	Conversion preparation	60	User training	250
Cost/benefit analysis	20	Programming	380	Conversion preparation	700
Other tasks	10	System test	160	Conversion	450
Management review and approval	50	Conversion	70	Post-conversion review	10
Administration	80	Post-conversion review	10	Administration	90
	---	Training	40		-----
Phase total	600	Administration	190	Phase total	1,580
	===		-----		=====
		Phase total	1,210		
			=====		

IMPLEMENTATION

WORKDAY APPROXIMATIONS

ON-LINE FOOD STAMPS

Development

General Design		Installation		Conversion	
Task	Workdays	Task	Workdays	Task	Workdays
Organization	5	Organization	10	Organization	5
Hardware/software direction	5	Detailed design	120	Conversion planning	10
Existing systems evaluation	10	System software development	5	Site survey/preparation	60
User requirements	65	Hardware/software installation	70	Training aids preparation	50
Technical requirements	40	User procedures development	40	Software installation	85
Installation schedule	5	Conversion preparation	55	User training	110
Cost/benefit analysis	10	Programming	135	Conversion preparation	290
Hardware/software selection	10	System test	60	Conversion	90
Review and approval	20	Conversion - pilot	35	Post-conversion review	100
Administration	40	Post-conversion review - pilot	10	Administration	190
Phase total	210	Training	30	Phase total	990
		Administration	80		
		Phase total	650		

IMPLEMENTATION

WORKDAY APPROXIMATIONS

NEW SYSTEM - CDS-BASED

Development

General Design

Task	Workdays
Organization	70
Hardware/software direction	30
Existing systems evaluation	130
User requirements	1,130
Technical requirements	570
Installation schedule	20
Cost/benefit analysis	70
Hardware/software selection	80
Review and approval	270
Administration	490
Phase total	2,860

Installation

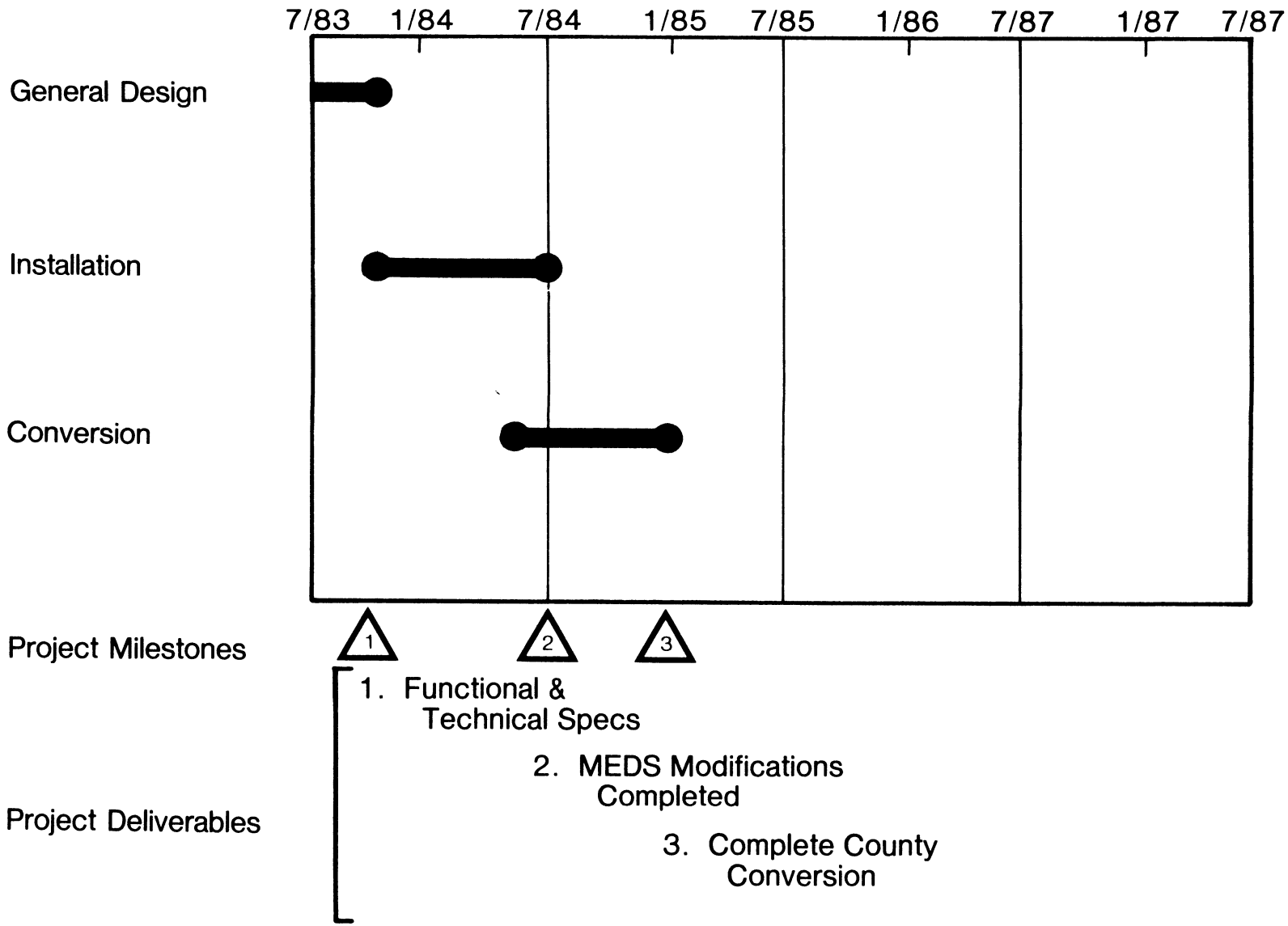
Task	Workdays
Organization	100
Detailed design	2,000
System software development	100
Hardware/software installation	1,100
User procedures development	700
Conversion preparation	900
Programming	2,300
System test	1,000
Conversion - pilot	600
Post-conversion review - pilot	100
Training	500
Administration	1,000
Phase total	10,400

Conversion

Task	Workdays
Organization	100
Conversion planning	100
Site survey/preparation	900
Training aids preparation	900
Software installation	600
User training	7,100
Conversion preparation	1,200
Conversion	800
Post-conversion review	1,700
Administration	2,000
Phase total	15,400

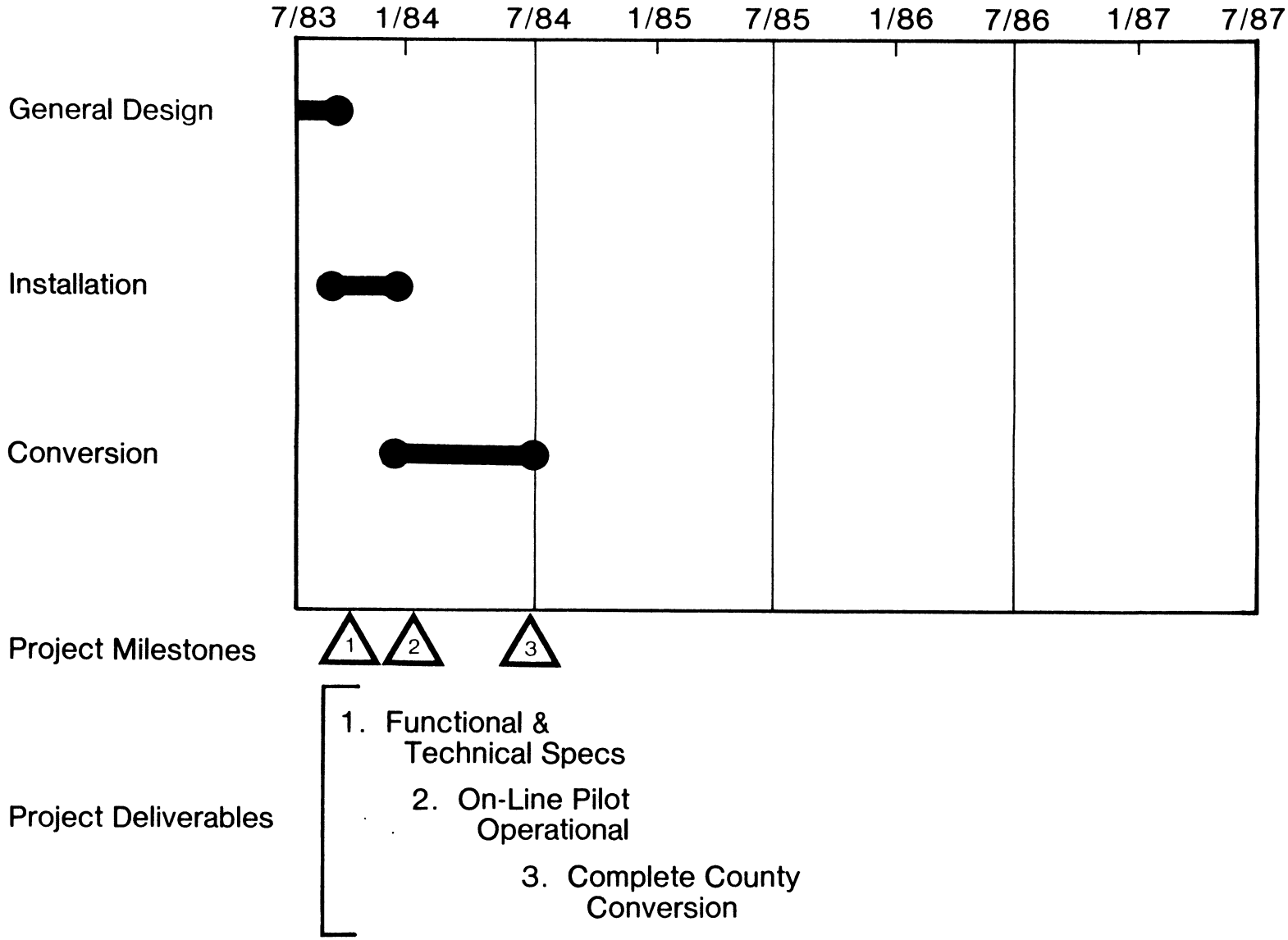
STATEWIDE CENTRAL INDEX

Project Timetables

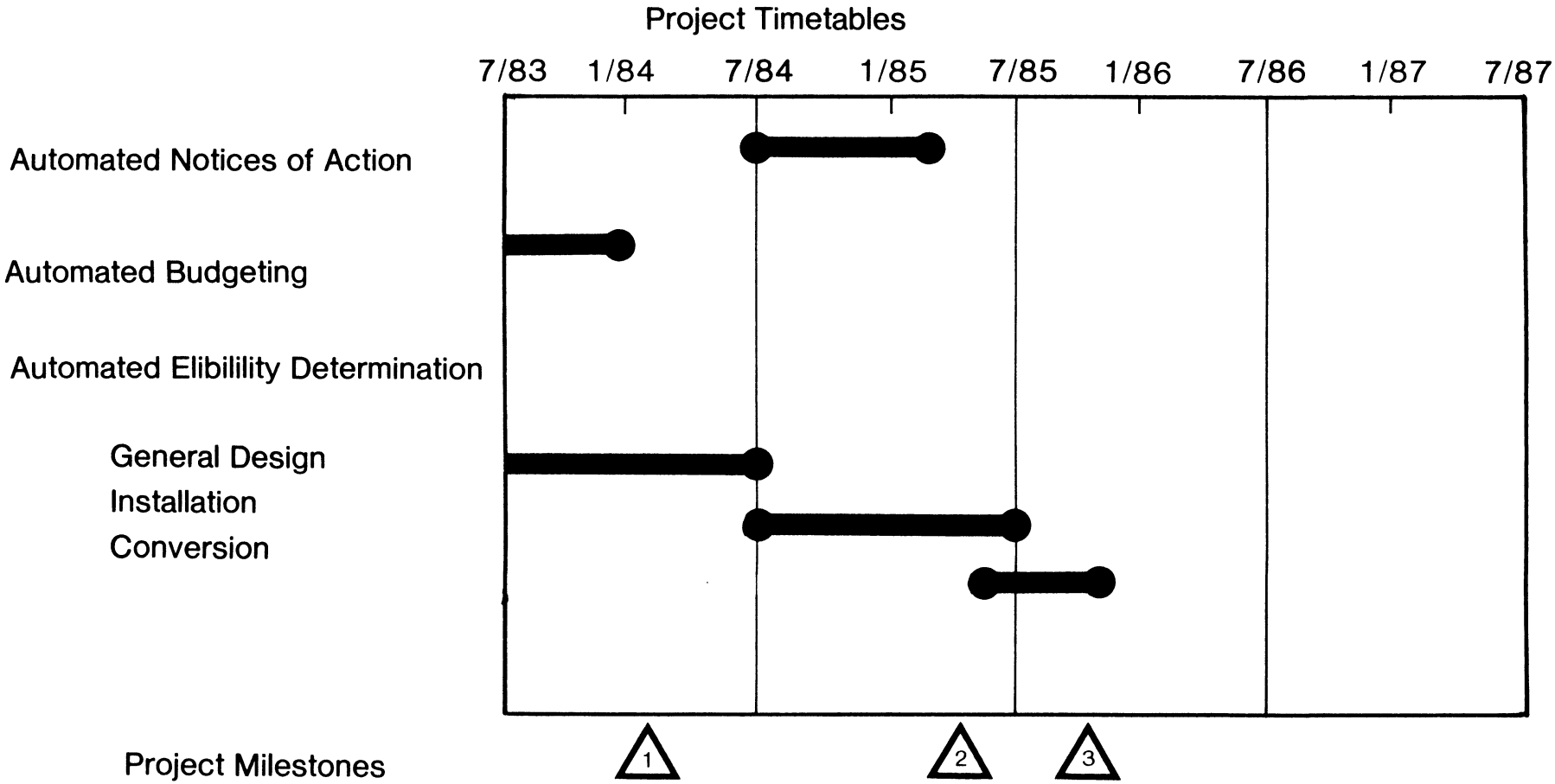


ON-LINE FOOD STAMP ISSUANCE

Project Timetables



WCMIS/IBPS UPGRADE



Project Deliverables

1. – Automated Budgeting Operational
   – Eligibility Determination Functional & Technical Specs
2. – User Procedures
   – Conversion Plan
   – Automated Notices of Action Operational
3. County Conversion Complete

NEW SYSTEM (CDS BASED)

Project Timetables