

"CAPACITY BUILDING FOR STATISTICAL ACTIVITIES"

GUAM DEPARTMENT OF EDUCATION



RESEARCH • **IN PROGRESS**

PART II
PROJECT APPROVAL INFORMATION

ITEM 2.

Does this assistance request require State, or local
advisory, educational or health clearances?

Name of Agency or
Board _____

☒ Yes ☐ No (Attach Documentation)

ITEM 10.

Is there other related assistance on this project previous,
pending, or anticipated?

See instructions for additional information to be
provided.

☐ Yes ☒ No

PART III - BUDGET INFORMATION

SECTION A - BUDGET SUMMARY

GRANT PROGRAM, FUNCTION OR ACTIVITY (a)	FEDERAL CATALOG NO. (b)	ESTIMATED UNOBLIGATED FUNDS		NEW OR REVISED BUDGET		
		FEDERAL (c)	NON-FEDERAL (d)	FEDERAL (e)	NON-FEDERAL (f)	TOTAL (g)
1. Capacity Building for Statistics	13.922	\$	\$	\$ 37,526	\$	\$ 37,526
2.						
3.						
4.						
5. TOTALS		\$	\$	\$	\$	\$

SECTION B - BUDGET CATEGORIES

6. OBJECT CLASS CATEGORIES	GRANT PROGRAM, FUNCTION OR ACTIVITY				TOTAL (5)
	Capacity Building (1) for Statistics	(2)	(3)	(4)	
a. PERSONNEL	\$	\$	\$	\$	\$
b. FRINGE BENEFITS					
c. TRAVEL	126				126
d. EQUIPMENT					
e. SUPPLIES	1,200				1,200
f. CONTRACTUAL	5,200				5,200
g. CONSTRUCTION					
h. OTHER	31,000				31,000
i. TOTAL DIRECT CHARGES	37,526				37,526
j. INDIRECT CHARGES					
k. TOTALS	\$	\$	\$	\$	\$
7. PROGRAM INCOME	\$	\$	\$	\$	\$

NEW-500T

SECTION C - NON-FEDERAL RESOURCES

(a) GRANT PROGRAM	(b) APPLICANT	(c) STATE	(d) OTHER SOURCES	(e) TOTALS
8.	\$	\$	\$	\$
9.				
10.				
11.				
12. TOTALS	\$	\$	\$	\$

SECTION D - FORECASTED CASH NEEDS

	TOTAL FOR 1ST YEAR	1ST QUARTER	2ND QUARTER	3RD QUARTER	4TH QUARTER
13. FEDERAL	\$ 37,526	\$ 12,463	\$ 8,280	\$ 8,250	\$ 8,533
14. NON-FEDERAL					
15. TOTALS	\$ 37,526	\$ 12,463	\$ 8,280	\$ 8,250	\$ 8,533

SECTION E - BUDGET ESTIMATES OF FEDERAL FUNDS NEEDED FOR BALANCE OF THE PROJECT

(a) GRANT PROGRAM	FUTURE FUNDING PERIODS (years)			
	(b) FIRST	(c) SECOND	(d) THIRD	(e) FOURTH
16.	\$	\$	\$	\$
17.				
18.				
19.				
20. TOTALS	\$	\$	\$	\$

SECTION F - OTHER BUDGET INFORMATION (attach additional sheets if necessary)

21. DIRECT CHARGES:

22. INDIRECT CHARGES:

23. REMARKS:

PART IV - PROGRAM NARRATIVE (attach per instructions)

NEWS-83T

PROGRAM NARRATIVE

Capacity Building For Statistical Activities In The Guam State Department of Education

Department of Education
Katherine B. Aguon
Director of Education

August 1980

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I. Current Statistical Activities

The Guam Department of Education, while small by U.S. Mainland Standards, nevertheless, must collect, process, analyze and report on the same types of statistical information as larger state Departments of Education (SEA's). In addition to fulfilling the SEA function the Department also functions as a local education agency (LEA) for certain purposes. This dual role often creates considerable burden for Department Staff in meeting local, state and federal information requirements. Most current statistical reporting requirements are fulfilled manually. The Department firmly believes it has an obligation to the Guam Legislature (State), federal government, Board of Education and Division Heads to provide any information they may require. However, there are times when the burden of collecting and presenting statistical information in meaningful report formats is so great that by the time the information is aggregated it is often too late to aid in the decision-making process. More often than not decisions are crisis oriented.

Current data collection efforts and activities are accomplished by manual methods that focus mainly on the following:

1. Monthly attendance/absence accounting,
ADA, ADM
2. Monthly enrollments broken down by:
Sex Ethnic background
Grade Attendance areas
Age
3. P.L. 81-874 Impact Aid Survey
4. Instructional and administrative staffing
patterns
5. Personnel data
6. NCES Common Core of Data Survey
7. ESEA Title I Low Income Survey

8. Withdrawals, dropouts, entries, re-entries
9. Budget expenditures, appropriations, projections

This information is collected by a data collection plan developed in the early 1960's and uses little or no automatic data processing.

During 1978 a data systems consultant was hired to develop a conceptual plan for an educational management information system (MIS). (See Appendix A) After two years of study and planning the Board of Education adopted Resolution 80-2 in support of establishing a Research, Planning and Evaluation Office under which a management information system function would play a key role. A concept, of timely and accurate information for improving decision making was the key theme of this resolution. A copy of the resolution may be viewed in Appendix B.

The MIS conceptual plan recommended the establishment of five linked data bases which would include Student, Personnel, Facilities, Finance and Instructional Programs. The plan further recommended that an in depth study be undertaken to determine the exact information needs of decision-makers and that data elements be defined and codes developed consistent with USOE handbooks. Local appropriations were used to conduct this study. The study was completed on July 31, 1980. The Department now has a standardized list of data elements, codes and an implementation plan for data processing. Funds for leasing a computer system have been budgeted locally and is scheduled for delivery in November 1980. A copy of the complete needs study, data element handbooks and codes as well as an implementation plan may be viewed in Appendix C.

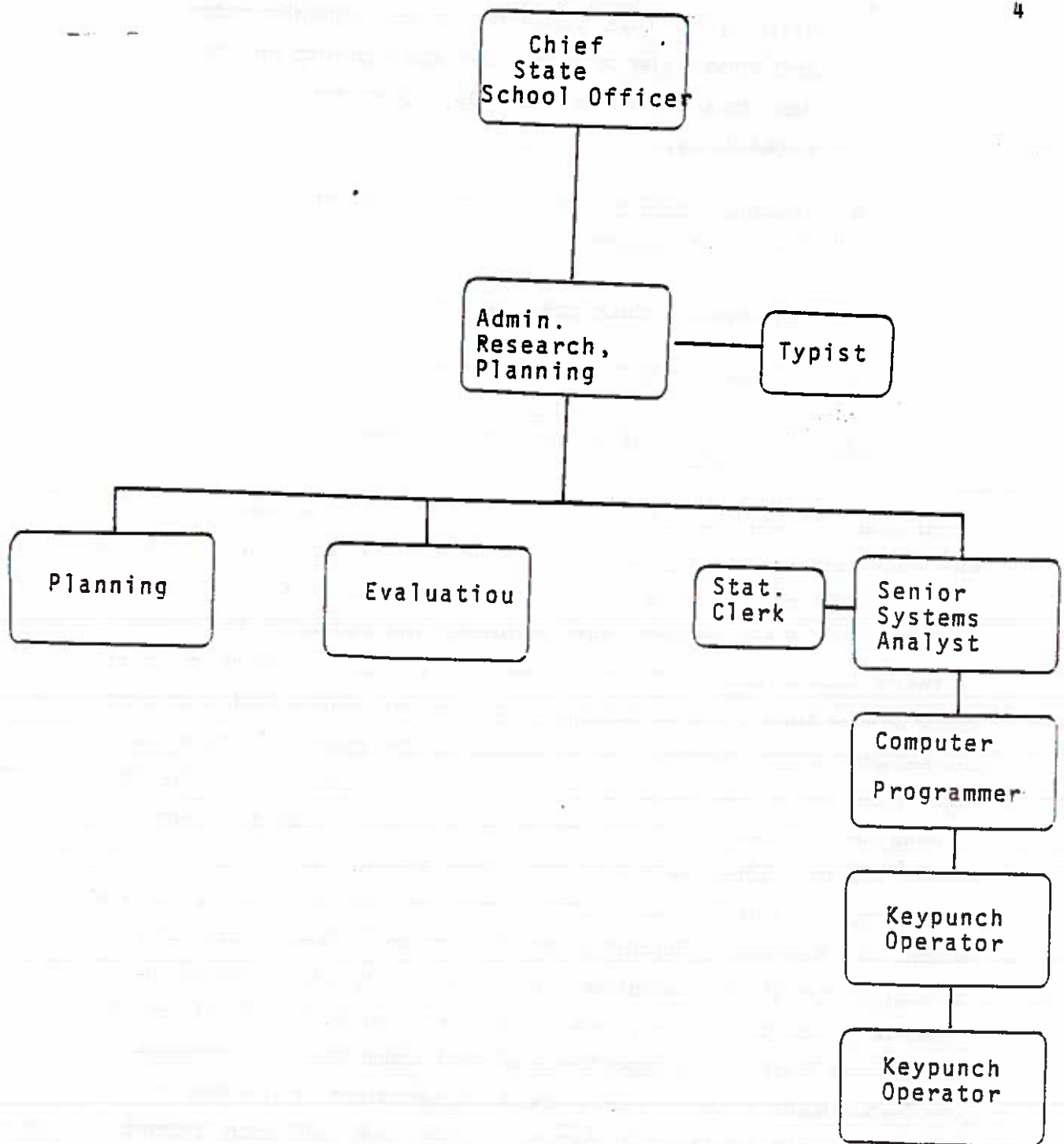
The study completed on July 31 also identified other needs crucial to the implementation of a management information system. There is a need to:

1. Study, organize and design statistical reports
2. Design input forms

3. Provide Research, Planning and Evaluation Staff, other DOE Divisions, school administrators and school clerks with inservice training on the new data element directories, codes and procedures.
4. Develop/acquire computer programs for statistical reports
5. Implement a data base system
6. Implement applications
7. Have access to a document scanner

Fortunately, Guam's Chief State School Officer saw a need to create a top level data processing advisory committee whose function would be to recommend data processing policy and serve as a top level screening committee for forms design, data requests and computer hardware/software acquisition. This committee was actively involved in several major areas during the development of the MIS conceptual plan and subsequent study carried out on behalf of the plan. To date the committee has served as a review panel for the data definitions and development of codes and has provided valuable input on preliminary forms design. They have also lent their support to the acquisition of a computer and complete staffing for the data processing function within the Research, Planning and Evaluation Office. This first official action of the committee, which ultimately led to Board of Education Resolution 80-2, was wholehearted endorsement of the MIS Conceptual Plan. The importance of this committee will increase as the Department moves towards the implementation of the MIS plan. The role, while advisory in nature at this time, will soon become concerned with Departmental Policy and be responsible for all data processing policy.

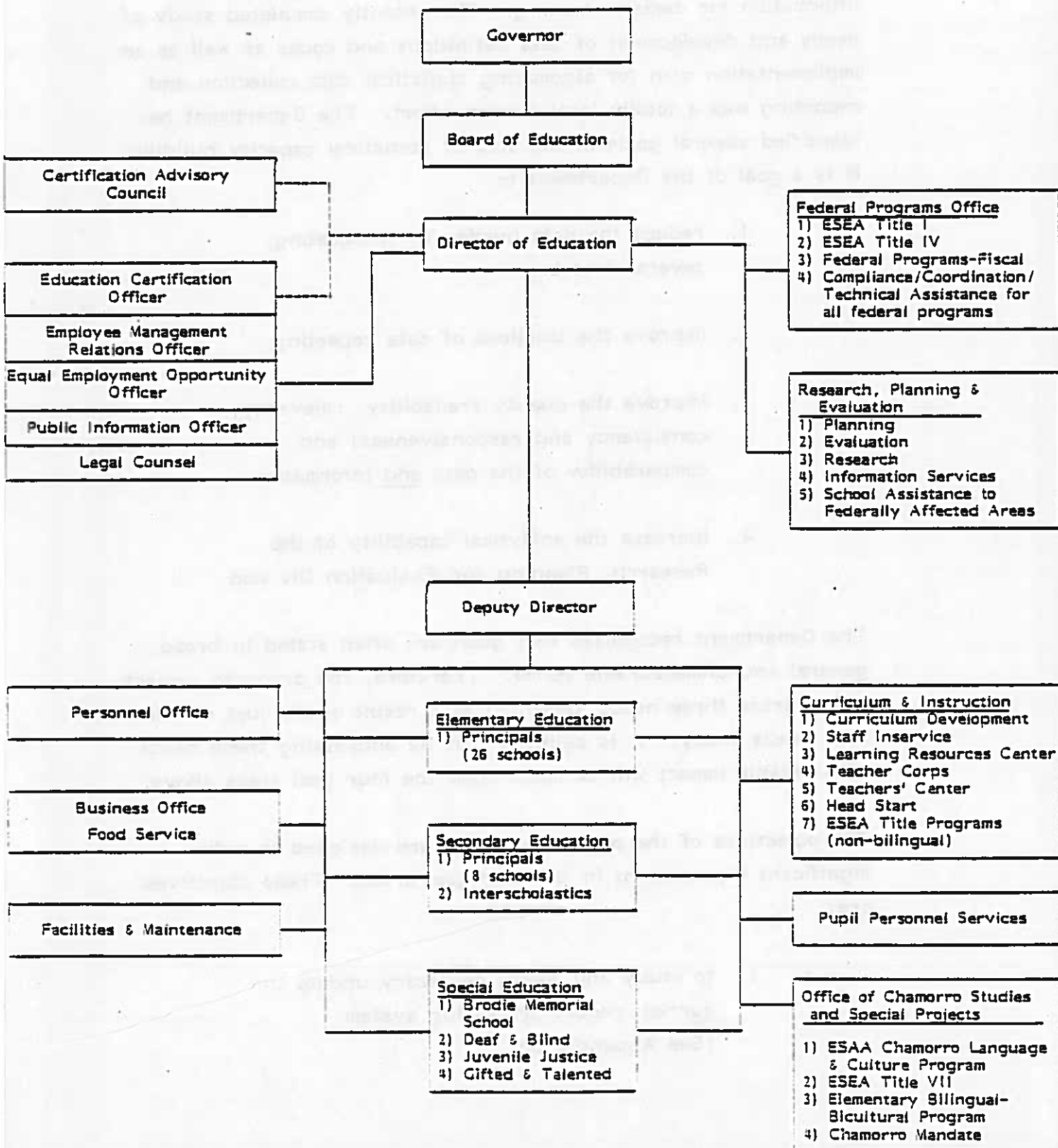
A copy of the Research, Planning and Evaluation, organizational structure may be viewed on the next page.



Research, Planning and Evaluation Organization

DEPARTMENT OF EDUCATION

Organizational Chart
Fiscal Year '80



II. Description of the Proposal Project

The Guam Department of Education has demonstrated a commitment to developing its capacity to collect, store, process and retrieve information for decision-making. The recently completed study of needs and development of data definitions and codes as well as an implementation plan for automating statistical data collection and reporting was a totally local funded effort. The Department has identified several goals in the area of statistical capacity building. It is a goal of the Department to:

1. reduce the data burden by integrating several data bases
2. improve the timelines of data reporting
3. improve the quality (reliability, relevancy, consistency and responsiveness) and comparability of the data and information
4. increase the analytical capability of the Research, Planning and Evaluation Division

The Department recognizes that goals are often stated in broad, general and unmeasurable terms. Therefore, the proposed project will address three needs identified as a result of the just completed data needs study. It is believed that by addressing these needs considerable impact will be made upon the four goal areas above.

The objectives of the proposed project are designed to make significant improvement in the four goal areas. These objectives are:

1. to study and where necessary update the current report processing system
(See Appendix D)

2. to design data collection input forms consistent with identified information needs and recently developed codes
3. to provide the Research, Planning and Evaluation staff, other Department decision-makers, division heads, school administrators and clerical staff with inservice training on the new data definitions, codes and procedures.

It is anticipated the activities associated with these objectives will directly benefit the Guam Department of Education in several manners. They will:

1. Improve the timelines of data reporting by outlining an up-to-date system of report processing and distribution
2. Improve the quality and comparability of the data by providing standardized input forms designed for computer processing from which data can be transformed into information for decision-making
3. Reduce the data burden by eliminating redundant data requests
4. Provide much needed training for key decision makers and their staffs on the use of the data definitions, codes and procedures.

One must keep in mind that Guam is a relatively isolated island in the Western Pacific. Data processing has only recently been recognized as a useful management tool in education. The dual SEA/LEA function and the relatively small size of the system creates a ripe climate for the

introduction of sound data processing techniques into the system. For the first time in the Department's history it will become possible to provide timely, reliable, consistent and responsive management information for the Department's internal and external publics.

The isolated situation of Guam also makes it extremely difficult to attract data processing personnel. Those that do work on the island are, for the most part, employed by the Government of Guam's Data Processing Center or in private, service oriented business. Some progress has been made. The Community College currently operates a computer science associate degree program. Several staff members of the Department of Education's Research, Planning and Evaluation Division are in the process of receiving training at the College in anticipation of the November 1980 installation of the Department's computer system. However, it is doubtful these individuals will be able to perform the necessary systems analysis, programming and software maintenance for the system without additional training and experience.

This project proposes to use a portion of the grant money to contract an individual from off-island with experience in both data processing and education in order to assist in the study, organization and design of input forms and statistical reports. This individual will also be responsible for developing and implementing a training plan.

It is proposed that a nucleus of local educators representative of school administrators and Department of Education Central Office Personnel be trained on the new forms and procedures. These individuals will in turn be responsible for a certain number of schools and will hold cadre meetings of key staff members. These meetings will accomplish two things. First the meetings will serve to familiarize and orient staff members to the new system codes and procedures. Second, follow up meetings will be conducted to pinpoint problems with the System and to provide evaluative data to project management and the Chief State School Officer. Through these training and evaluation procedures it is anticipated key staff members will become more aware of their own information needs as well as the importance of providing the input data for the system in a timely and accurate manner.

The Government of Guam recently implemented a computerized Financial Management System (FMS). Several activities associated with the three objectives will be conducted. First, the FMS system appears to be fairly comprehensive in so far as financial management information. However, computer codes used to report and aggregate data are not consistent with Guam Department of Education computer codes, nor are they compatible with financial accounting codes of the U.S.O.E. Handbook II. The Guam Department of Education information needs go beyond the reporting needs of the Government of Guam. Therefore, it is proposed to develop a "crosswalk" Software program to convert the Department's program oriented budget codes into FMS coding structures. It is anticipated the Systems analysts and programmers for the Government of Guam computer division will be able to assist in this effort and the efforts of the contracted employee in this area will consist of developing the coding system for the Department's program structure using USOE Handbook II. Naturally input forms will be reviewed and where necessary developed, adapted or acquired to serve this function. Training efforts will also need to be directed towards users as well as program people in both the FMS and Department program oriented budget system.

III. Work Plan

A cursory review of the report processing system contained in Appendix D represents a preliminary effort by the principal investigator named in the application to characterize current information reporting efforts of the Department. This system of reporting would benefit from further study, organization and design that would take into consideration the automatic data processing plans recently developed. In other words, study and organization of this system would provide the necessary impetus to tie several loose ends together. Several outputs from this effort would be evident. Namely the creation of:

1. an organized, updated statistical reporting plan or summary
2. specification of the required data elements needed to produce each report

Once the study, organization and design of the statistical reports has been completed it will be possible to design the necessary input forms using the specified data elements. At this point it is not possible to specify the exact kind of input forms that would be developed. However, given the nature of education it is possible to speculate that forms having to do with registration of students, pupil accounting, personnel, budget, textbooks and equipment inventory, etc. would be the first to be designed. Fortunately, the Data Processing Advisory Committee has already been given the responsibility for forms control and screening as well as major responsibility for data collection authorization.

Concommitment with these major activities would be the development of a training plan to provide inservice training to Research, Planning and Evaluation staff, other Department of Education division heads, school administrators and key clerical staff on the newly developed data definitions, codes and procedures. The implementation of the training plan could actually begin before input forms were designed since a knowledge of the forms is not necessary in order to become familiar with the definitions and codes.

IV. Management Plan

For ease of management the project has been divided into several components. Overall responsibility for managing the project has been delegated to the Administrator, Research, Planning and Evaluation (See Appendix E for Vita). Figure 1 depicts the project organization. Basically the organization reflects the three major objectives of the project.

Figure 1
Project Organization

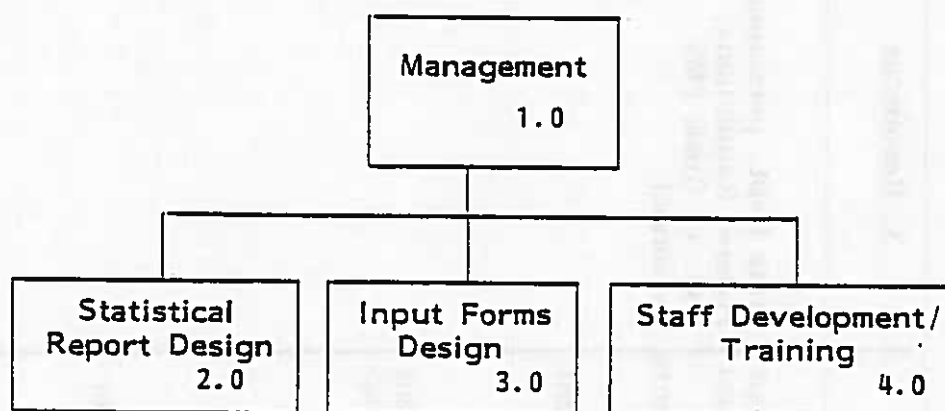


Table I depicts the management plan expressed in terms of outcomes and activities. Table II presents the major milestone chart.

TABLE I
MANAGEMENT MATRIX

Component: Management 1.0

Goal Statement

It is the goal of the management component to provide coordination and document and evaluate processes and procedures of the project

1. Output	2. Activities	3. Resources	Date	Staff	Evaluation
1.1 Management plans for each component	1.1.1 Develop a management plan for studying and updating statistical reporting requirements	State Dept. personnel Federal Regulations, Gov. of Guam FMS personnel	August 1980	Admin. RPE	
	1.1.2 Develop a management plan for designing input forms				
	1.1.3 Develop a management plan for staff development and training				
1.2 Hire Personnel	1.2.1 Conduct search for personnel		October 1980	Admin. RPE, Assoc. Supt. Personnel	

To study, organize and design
statistical reports

1. Output	2. Activities	3. Resources	Date	Staff	Evaluation
2.1 Update information reporting needs of department	2.1.1 Conduct survey of management personnel on current reporting system	Central office staff, Legislative, Principals	Dec. 1980	Consultant, Admin. RPE	
	2.1.2 Assess information needs of management personnel				
	2.1.3 Assess information needs of Guam Legislature				
	2.1.4 Develop reporting time lines				
2.2 Design output reporting forms	2.2.1 Determine reports that can be generated from the planned data bases	Data Processing Needs Assesment, Data Definitions, Codes, File structures	Jan. 1980	Admin. RPE, Consultant, Division Associates Supt.'s, Systems Analyst	
	2.2.2 Specify required data elements needed to produce reports				

1. Output	2. Activities	3. Resources	Date	Staff	Evaluation
2.3 Updated report processing Summary Charts	2.3.1 Determine reporting dates requirements	Reporting/Information needs of department internal and external publics	March 1981	Admin RPE	
	2.3.2 Schedule distribution of reports				
2.4 Program oriented coding structure	2.4.1 Develop a DOE program structure	USOE Handbook II FMS Personnel DOE Business Office Personnel, Bureau of Budget Mgt. Research	May 1981	Consultant, Division Heads	
	2.4.2 Develop codes consistent to USOE Handbook II.			Consultant	
	2.4.3 Develop "crosswalk" software to relate			Consultant, Computer Programmer	

Goal Statement

MANAGEMENT MATRIX

Component: _____

[illegible]

1. Output	2. Activities	3. Resources	Date	Staff	Evaluation
	DOE accounting codes to Gov. Guam FMS system.				

To develop input forms for
computer processing

1. Output	2. Activities	3. Resources	Date	Staff	Evaluation
3.1 Forms Design	3.1.1 Develop forms design guidelines	DOE forms now in use, Data Processing Advisory Committee information reporting requirements from 2.1	Feb. 1981	Consultant	
	3.1.2 Collect and review all current forms used		Feb. 1981	Admin. RPE	
	3.1.3 Using information reporting requirements and data bases design, determine data elements needed on forms		April 1981	Consultant, Admin. RPE, Systems Analyst	
	3.1.4 Develop forms for printing complete with computer codes		July 1981	Consultant	

MANAGEMENT MATRIX

Component: _____

1. Output	2. Activities	3. Resources	Date	Staff	Evaluation
3.2 Forms Control Function/Centralized forms design function established	3.2.1 Establish forms review criteria	List of current forms and Data elements	Dec. 1980	Data Processing Committee	
	3.2.2 Assign responsibility for forms control to data processing advisory committee		Sept. 1980	Director of Education	
	3.2.3 Design forms review schedule			Data Processing Committee	
	3.2.4 Develop formal procedures and inform division heads, other personnel				
	3.2.5 Develop procedures for periodic review of forms			Admin. RPE, Consultant	

Goal Statement**MANAGEMENT MATRIX**Component: Training 4.0

To provide RPE, Division heads,
principals and clerical staff with
training on the new forms, definitions,
codes and procedures

1. Output	2. Activities	3. Resources	Date	Staff	Evaluation
4.1 Training Plan	4.1.1 Identify exact target groups to undergo training		Nov. 1980	Admin. RPE	
	4.1.2 Fix training needs of target groups		Dec. 1980	Admin. RPE	
	4.1.3 Schedule training sessions on data definitions, codes, forms and procedures		Dec. 1980		
	4.1.4 Identify codes of trainers and train them on system		Dec. 1980	Trainers	
	4.1.5 Develop measurable training objectives		Dec. 1980	Admin. RPE/Cons.	
4.2 Training packets and materials	4.2.1 Using objectives from 4.1.5 develop training packets for each target group with input from trainers	Xerox paper, typing, copying services	April 1980	RPE Staff	

Goal Statement

MANAGEMENT MATRIX

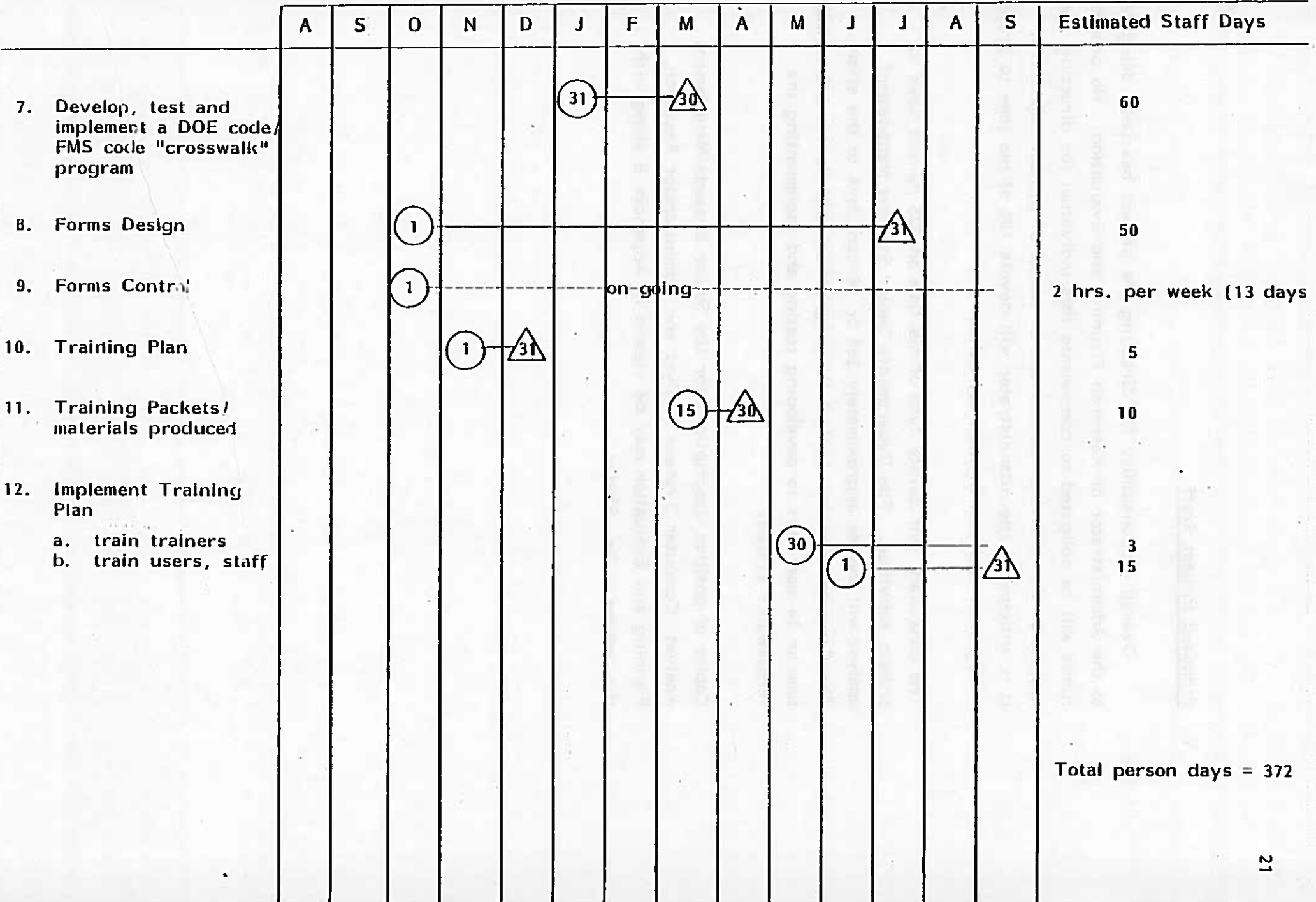
Component: _____

1. Output	2. Activities	3. Resources	Date	Staff	Evaluation
4.3 Implement Training Plan	Conduct training as called for in schedule	Schedule of training	June - Sept. 1981	Trainers	

TABLE II - Major Milestone Chart

Major Activity	A	S	O	N	D	J	F	M	A	M	J	J	A	S	Estimated Staff Days
1. Complete Management plans for all components and make modifications as needed	8			1											5
2. Hire data processing / education consultant		1	1												4
3. Update information reporting needs of department internal and external publics			1		30										60
4. Design output reporting formats			1			31									80
5. Update report processing summary chart				1				1							20
6. Develop program coding structure			1			31									60

TABLE II - Major Milestone Chart



V. Proposed Project Staff

Overall responsibility for directing the project has been delegated to the Administrator of Research Planning and Evaluation. No project funds will be obligated to compensate this individual for directing the project or the activities carried out on behalf of project objectives. It is anticipated the Administrator will devote 10% of his time to project management and coordination activities.

The consultant will devote 100% of his time on 225 person days to project activities. The Departments Senior Systems Management analyst will devote approximately 25% or 56 man days to the effort. The Computer Systems Analyst IV(programmer) will devote 25% of his time or 54 man days to developing testing and implementing the "crosswalk" system.

Copies of position descriptions for the Senior Systems/Management Analyst, Computer Systems Analyst and Administrator Research, Planning and Evaluation may be viewed in Appendix E along with the resume of Dr. Shafer.

VI. Long-Term Effort of Proposed Activities

The successful implementation of this project will result in a system that will be "up" for the coming years. Any revision of the system will be accomplished through routine maintenance functions normally associated with computer software and hardware. Beyond evaluating the entire system of reporting management information for decision-making, there will be the yearly assessment of the responsiveness of the system to use needs with modifications coming only as a result of use feedback or new information needs of the internal and external publics. As long as the system continues to provide accurate and timely information to decision-makers the system will be maintained by the Department.

Appendix A

GUAM EDUCATIONAL MANAGEMENT
INFORMATION SYSTEM CONCEPT
PAPER (G.E.M.I.S.)

PREPARED BY
DR. JEFFREY E. SHAFER
DECEMBER 1979



RESEARCH
PLANNING & EVALUATION

MARY ELAINE CADIGAN/
DIRECTOR OF EDUCATION

Guam Educational Management Information System
(GEMIS) Concept Paper

Part I - Context, Scope and Issues

Part II - Needs, Alternatives, Development
and Implementation

November - December 1979

Dr. Jeffrey E. Shafer
Research, Planning & Evaluation

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INTRODUCTION

The purpose of this paper is to describe the process the Department of Education should follow to accomplish the implementation of a comprehensive educational management information system.

The paper is presented in two parts. Part I presents the Context, Scope and Issues facing the decision to develop an integrated Management Information System. Part II, which is based on a needs assessment conducted by Dr. Ralph Van Dusseldorp of WEO Systems, Incorporated of Portland, Oregon, presents Needs of the Department of Education, MIS Alternatives and Plans for Development and Implementation of the MIS programs. Portions of this paper were founded by ESEA Title IV-C. The opinions expressed in this report do not necessarily reflect the position or policy of the U.S. Office of Education.

, Today's educational decision-makers have many more activities to consider, more outside influences to cope with and a greatly increased tempo of operation than at any time in the past. Federal regulations, guidelines and laws have greatly increased the necessity of developing, maintaining and generating reports from data bases. The quality of educational decision-making is only as good as the information brought to bear upon the decision.

It has been observed that real power in the computer age will go to those who control the information: information influences people and events, hence information is power.

Information systems have one important by product of providing data for research which ultimately leads to formulating new alternatives for the decision-makers.

An educational information system should:

1. Collect all relevant data in the easiest manner, and only when necessary.
2. Assemble, correlate and compute relationships, with a minimum of human effort and a maximum of machine processing within economic limits.
3. Store information in machine sensible formats to enable efficient and economical access for practical needs of educators.
4. Disseminate such collected and computerized information in meaningful, timely reports, as defined by the educator or information system user.

Certain benefits attach to the implementation of an information system which should not be minimized. An information system could:

1. Minimize the administrative workload in order to allow these professionals more time to devote to the subjective, and professional aspects of educational programs.
2. Minimize the administrative workload of Department of Education personnel in the preparation, compilation and computation of data for administrative decisions and control.
3. Provide a data base that may be used for educational research to determine currently unknown relationships between educational achievement and other factors, and to provide solid statistical validity to assumed cause and effect relationships.
4. Provide data upon which more accurate and detailed projections of educational trends can be made.
5. Provide data upon which the various planning and evaluation functions of the Department may be based.

6. Provide the necessary data used in the processing of local, federal and internal reporting requirements. The system should also be responsive to a broad category of administrative needs and be based upon the documented needs of these individual administrative and policy makers.

It is emphasized that this paper represents a preliminary attempt to conceptualize a system. It is firmly believed that an information system can assist in planning, evaluation reporting and the overall operation of the educational system of Guam.

PART I - Context, Scope and Issues of a Management Information System

I. PRELIMINARY CONCEPTS

A. Commitment

The commitment to an educational data/information system must come from all branches of the Government of Guam in order to assure adequate funding as well as documented input for the needs of the computerized system. This commitment must come from within the Department as well as external agencies including, but not limited to, the Territorial Board of Education, the Legislature, and the Governor's Office.

It is recommended the Director of Education first seek to secure the commitment of the Territorial Board of Education in the form of a resolution to support the preliminary conceptual design presented in this paper. Once this commitment is made then it becomes of paramount importance for the Board to communicate this commitment to the Legislature and the Governor's Office. Lack of commitment from either of these branches will have the overall effect of negating other commitments obtained since the level of funding required to plan and implement an educational data/information system is considerable.

Past attempts at developing a responsive educational data/information system have been hampered by several conditions:

1. Lack of DOE computer system necessitating total reliance on the Department of Administration's computing system. As a result of this total reliance, DOE has traditionally been assigned a low priority at the DOA Computer Center.
2. Lack of qualified staff to implement and maintain software support.

3. Tremendous expense associated with contracting outside service bureaus for development, key entry services and maintenance of programs.
4. Less than adequate commitment of funds within DOE to support and maintain such a system.
5. Less than adequate Federal support for Guam to plan and implement reporting systems mandated by enactment of Federal laws, regulations and rules. A part of the agreement states make when they accept federal funds is to provide periodic information to the funding source. Guam needs to assess the impact of these requirements on local efforts and budget accordingly. This should be a line item in the budget to cover costs of designing information systems associated with the grant award. This could be done in three manners: 1) as a line item under local budget contractual services, 2) as a budgeted item in the proposal for federal assistance, or 3) through the application of indirect costs.

This preliminary conceptual design will attempt to only specify the various subsystems and the obvious data elements of each subsystem based upon past and present information needs. The conceptual design will allow for implementation of each subsystem on an incremental basis, so that funding can be spread out over a three to five year period. It is anticipated as future information needs are determined by subsequent detailed systems analysis techniques the system itself will evolve into a fairly stable set of data elements within each subsystem.

3. Data Processing Advisory Council

It is recommended that Data Processing Advisory Council be appointed by the Director to include three building principals, the Associate Superintendents and a planner.

It is also recommended that at least one management type representative from the Department of Administration's computer center serve on this committee as a technical advisor as well as one representative from the Community College and one from the University of Guam. The Director should seek to legitimize this committee by having these appointments agreed to by the Board of Education, the Governor, the Chairperson of the Legislative Committee on Education and the boards of the University of Guam and the Guam Community College.*

C. Interagency Cooperation

In a day of rising costs it would behoove the three major institutions on Guam responsible for education to share resources and responsibilities with respect to data processing, planning, research and evaluation. It comes to mind that both the University and the Community College operate computing systems as autonomous agencies. The feasibility of pooling these resources along with the DOE's to create a centralized data processing network for education should be studied.

Aside from the needs of management for current, timely and accurate information for decision-making there will no doubt be needs identified for instructional programs in the field of information and computer sciences. While these needs are important and should be considered in the design of a computing system, suffice it to say that these needs should be planned for only in as much as the actual computer

*A Data Processing Committee was formed in November 1973. Sans DOE, UOG, and GCC representation.

hardware should be such that it would support a minimum of instructional activities in the schools. The minimum should include some "hands-on" operation of terminals, machine operation and services related to learning various programming languages (BASIC, FORTRAN IV, COBOL, etc.) at the introductory level. It is, after all, from these student populations that Guam can expect to be able to hire future computer center personnel including center managers, analysts, programmers, and data entry personnel. The computer age is no longer something we can assign responsibility for to future generations.* We are now living in the computer age and to ignore these instructional needs would be tantamount to being remiss in our mission of providing relevant educational programs for our student populations. A close look should also be given to interactive instructional packages in the disciplines as well as computer based guidance/counseling systems. The advent of microcomputers could, in the future, reduce the need for centralized instructional computers.

Any conceptual model of an information system should be designed to provide as efficiently, effectively and economically as possible what decision-makers need to know. In addition, this particular model seeks to also incorporate limited interactive instructional functions designed to

*A 1979 Study conducted by NWREL indicates that by 1982, 96% of all school districts in Alaska, Hawaii, Idaho, Montana, Oregon and Washington will be using a computer for either administration, instruction or both.

eventually provide individual students with information needed to; 1) make decisions about careers and 2) upgrade basic mathematics and communication skills.

D. Objectives of an Information System

An information system is the total complex in which data is generated, processed and refined to produce the information needed at all levels of the Department of Education for decision-making purposes; planning, evaluation, coordinating, directing and controlling.

Essential elements of such a system include:

1. Definition and establishment of over-all department objectives.
2. Determination of the necessary information needed to measure achievement in light of these objectives.
3. Availability and dedication of highly skilled, competent and experienced personnel or the provision for the training of these personnel.
4. Application, development, installation and maintenance of an effective operating hardware and software system.
5. Continuing review and appraisal of the adequacy of the system as the basis for decision-making.

The objectives of an educational management information system cannot be separated from the objectives of the Department of Education. At this point it should become crystal clear that the Department of Education, before planning for the information system functions should first of all complete a mission/function/goal analysis of its organizational structure. Fortunately, while in the process of reorganization, the Director of Education saw the

importance of this task and began this analysis. Once the DOE's missions, functions, and goals are outlined, it will become the task of each administrator to outline critical worker activities. It is under these activities that specific departmental objectives must be developed or identified. From these objectives, the various information needs will be identified to measure attainment of these objectives. Fortunately, previous documents aimed at producing systems manuals for the management of the Department already exist. The initial phase of identifying objectives becomes one of updating existing documents and creating objectives in a few new areas of responsibility as well as adjusting critical worker activities in view of the new organizational structure.

Overall the objectives of the Guam Educational Management/Information System (GEMIS) are to:

- a. complete the mission/function/goal analysis of the various DOE top, middle and lower management functions to include statements of objectives
- b. provide, in view of these objectives and functions, more nearly automated information handling and processing consistent with the changing needs of the DOE existing technology
- c. evolve an integrated information system based on present and continuing applications, some re-written applications and development of new applications within the five basic educational information categories of Facilities, Finance, Instructional Programs, Personnel and Pupil Accounting by:
 1. beginning development of a detailed system design based on the concepts illustrated in this plan as soon as funds and/or professional time will permit

2. utilizing any applicable integrated system techniques presently operational or under development in other states and state agencies
 3. maximizing the ability to cross reference and associate data elements on basic common denominators such as school, instructional personnel, instructional programs and costs
 4. minimize the number of times data elements are captured, stored and updated by centralizing the control of the development of the data determination, systems design, programming, forms design, data collection and information requests
- d. Improve the educational management/information system's responsiveness to the changing needs of the Department of Education staff, schools, the U.S. Office of Education, other Government of Guam agencies, the Legislature, Governor's Office and research projects by:
1. establishing a Research, Planning and Evaluation section under which GEMIS functions can be administered
 2. establishing a Data Processing Advisory Council
 3. continual evaluation, selection, procurement and adoption of currently available pre-programmed software packages to minimize development costs and time necessary to yield effective output.
 4. developing, publishing and disseminating to all users, information regarding the current data base, and advanced plans for modification and organization of that data base.
- e. Enhance the acceptance and support of the objectives of the continued development of the GEMIS by:
1. becoming responsive to a broad class of information users
 2. requiring top-level involvement in the establishment of policies, goals and expected results of the system

3. providing for continuous education for all users and practical expectations in terms of time and cost of desired applications
4. securing the necessary funding for such a system within the designated priority areas of the Director of Education

Since it is proposed that the information system be administered under an organizational structure which also addresses research, planning and evaluation functions of the Department of Education the next section of this paper will address these functions as they relate to an information system.

II. RESEARCH, PLANNING AND EVALUATION FUNCTIONS

In the classical definition of evaluation, Stufflebeam points out that evaluation is, in fact, the provision of timely and relevant information for decision-making. One can not separate planning from evaluation, hence one can not separate information from these two functions.

Research, on the other hand, is generally concerned with discovering new knowledge, testing hypotheses, or identifying relationships which will provide decision-makers with the new alternatives for accomplishing identified missions and goals of the Department.

A. Planning

The entire concept of an information system is predicated upon the identification of measurable objectives both at the administrative and program level. These objectives, in order to be responsive to the needs of users, must be based upon accepted needs assessment procedures. A number of planning models are available for use (Phi Delta Kappa, Northwest Regional Educational Laboratory, and a model being developed specifically for Guam DOE). All models, however, recognize the cyclical nature of the planning, implementation, evaluation and feed back functions. Evaluation then becomes a means whereby improvements are introduced based upon the collection of relevant and timely information. Planning then becomes an activity which is executed continuously on a number of problems concurrently. It is no longer viewed as a part time or single problem oriented function. If educational planning is to meet today's needs effectively, it

must assume new and added dimensions. It must become system wide rather than limited to isolated aspects of the educational program; long range rather than immediate and both comprehensive and coordinated rather than perceived and compartmentalized. The Department's planning function as now executed is based on a crisis orientation. In part, this orientation to management can be traced to the lack of accurate and timely information upon which decisions can be based. This orientation is viewed as both ineffective as well as wasteful: wasteful of both fiscal and human resources. Comprehensive planning is the process through which longterm goals or objectives are established, present activities are analyzed, alternative means are identified to maximize goal attainment and procedures are documented and subsequently scheduled to ensure progress toward the desired goals.

Planning per se is not data processing, a communication network; or an information system; it is not coordination, control, management research or reporting; nor is it the advocacy or publication of a plan. Planning involves all of these components.

The active, conscious selection of goals is as much an integral and primary step in educational planning as are statement and acceptance of these goals, their analysis into components and the determination of the most efficient and effective means of attaining them.

The type of planning being called for in this paper is not possible at a favorable cost/benefit level using current, crisis oriented management techniques. The Research, Planning

and Evaluation division will have to rely heavily on technological tools and techniques for intensive and extensive attacks on information problems that relate to planning. These technological tools and techniques make possible the application of a systematic approach to the collection, storing, processing, analysis, retrieval and dissemination of educational information. This information should:

1. facilitate the estimating of future enrollments and future needs of individual schools
2. improve the focus of educational research
3. facilitate the making of decisions about curriculum development and change
4. aid in the assembling of information for comparative purposes
5. improve the accuracy and timelines of summaries of educational information
6. include provisions for relating costs to program elements

Once identified and analyzed, the goals and objectives should form the basis for developing educational plans. In most school districts, and Guam is no exception, the goals probably already exist, however, the existing goals usually require validation. Once validated, performance indicators can be developed to assess a system's progress toward meeting its objectives and goals.

3. Evaluation

It is often pointed out that any well written objective contains the means for evaluating the outcome or attainment

of the objective. In the past, the general public was satisfied with evaluation that focused on the processes which served to direct an activity. However, since the advent of the seventies, the public has been demanding evaluation related to outcomes or results achieved through the activity. The seventies saw an increase in legislative activity related to accountability mandates, the prescription of minimum competencies, performance contracting, and other laws enacted in an attempt to improve the educational outcomes of our school systems. While there is currently widespread disagreement as to the merits of these mandated actions, few would disagree that educators need to evaluate and assess their progress toward meeting the educational goals of their respective communities. In the absence of clearly defined measurable objectives, it is doubtful meaningful evaluation can be accomplished. An objective of any planning activity should be to ensure that a means for evaluating programs are specified.

As a result of a commitment to pursue comprehensive planning and evaluation some very desirable outcomes will accrue. Planning provides a means where by those most affected by the plan can have input into the planning effort. A result of this is the formation of a group of individuals who have commitment to the plan. Chances of implementing a successful plan increases as support for the plan increases. The planning process may also serve as an in-service training device. By assembling task forces, the members of the task force become intimately familiar with one phase of the department's activities and its relationship to the department.

Today, there is an increased demand by the public as well as by funding agencies for both higher quality education and evidence of a relationship between educational investments and educational outcomes. The educational system of Guam is simply not equipped to respond in a credible manner to such requests at the present time.

Planning and Evaluation, when coupled with an adequate information system, should provide for better educational programs.

At this point, it may be pertinent to point out that good progress in the past was made with respect to planning, evaluation and information systems. One may be tempted ask "what happened?" No easy answer to this question is readily apparent. Perhaps the time was not right. Perhaps educators on Guam in their zeal to anticipate public demands for program accountability moved too swiftly without the benefit of commitments from a broad cross-section of the general public and elected officials.

The Department of Education could expect the following outcomes as a result of a commitment to research, planning and evaluation:

1. Management information system responsive to a wide range of users
2. Strategies to meet special problems or for implementing programs
3. Establishment of priorities for department operation
4. Establishment of priorities for the allocation of resources

This is by no means an exhaustive list. In the next section of this paper, general activities for which the Division of Research, Planning and Evaluation should be responsible will be discussed.

III. OFFICE OF RESEARCH, PLANNING AND EVALUATION

The Office of Research, Planning and Evaluation should be under the control of the Director of Education. The Research, Planning and Evaluation Office, should be responsible for the activities discussed in the following sections.

A. Departmental Planning

Departmental planning should be a working arm of the Director of Education. This office should be responsible for working with all areas within the department to promote sound planning. The planning function should supply valuable educational information to various agencies within the Government of Guam in order to support the total plan for the Territory as well. With a departmental planning function for developing state plans, divisional plans, and supporting these plans with information from the Statistical Services Unit within the Research, Planning and Evaluation office accountability will be greatly enhanced.

B. School Accreditation Monitoring

School accreditation monitoring is placed in the Research, Planning and Evaluation Division. In order to accomplish school accreditation, information is needed from both research and evaluation. This function would develop an accreditation information data plan so the department would be assured that schools are maintaining the requirements for school accreditation. School administrators realize the importance of school accreditation. With the adoption of the district plan for accreditation, the department needs to develop the capability

to monitor the implementation of the accreditation team's recommendations. If the department believes in accreditation, it should do the following:

1. Develop a follow-up system for periodic monitoring.
2. Develop an Information System that will compile information for schools prior to visitation.

It is felt that since schools will be monitored by Western Association on a yearly basis an objective assessment by Department of Education evaluators is needed prior to the visitation. This assessment would take the form of a process review where recommendations of the previous site visit of Western Association are reviewed for progress, problems encountered and alternative solutions. Objectives outlining person(s) responsible, timelines and methods of evaluation would be an important outcome of this process.

C. Program Evaluation

The program evaluation function should be involved in evaluating programs that have been approved by the Board of Education. The main objective would be to evaluate programs to ascertain if schools are meeting the goals and objectives developed by the various curriculum committees and as stated in the curriculum guides. This method would give the department an evaluation capability as well as a process for curriculum renewal and needs assessment that would "feed" the planning functions. Program evaluation should be responsible for developing evaluation designs of both an internal and external nature as well as giving technical assistance to various federally funded programs and projects. It is

recommended that the Department seek to "localize" evaluation of federally funded programs by pooling evaluation line item budgets in order to staff and train a core of local evaluation personnel. Indirect costs should be vigorously pursued.

D. Research Services

This function should have a staff that can accomplish research on a department-wide basis and develop research projects for individual schools on demand. Research services should be very helpful to other state agencies as well as legislators and others concerned with educational research. If a territory-wide competency based education program becomes a reality, the research personnel should be responsible for the design of the assessment system.

E. Statistical Services/Information Services

Information systems will be interwoven, throughout the entire department organization and the information this unit maintains will be important for effective administration of the department. It is imperative that the Statistical Services Unit be a part of the Office of Research, Planning and Evaluation. Information is the life blood of educational organizations and one of its tangible products. Without timely information, attempts to progress are made blindly and inadequately. With appropriate data, progress can be made according to the predetermined plan of attack (objectives). The information within an organization is created and then used in a wide variety of areas. In essence, there must be a constant stream of information. The purpose of an information system is to determine, collect and maintain as

efficiently, effectively and economically as possible the information necessary for educational decision-making.

The unit should monitor the total complex in which data is generated, processed and refined to produce the information needed at all levels of the Department for administrative purposes, planning, directing, evaluating, coordinating and controlling.

This unit should collect information in each of the five classical educational areas of Finance, Personnel, Pupils, Facilities and Instructional Programs.

It is important that the Department of Education recognize this unit as a very important area within their organizational structure along with the Research, Planning and Evaluation Office. The value of the Statistical Services Unit should be measured not in terms of what it is today but rather in terms of what it can do tomorrow.

1. Financial Information Services*

It is imperative that this activity of the Statistical Services Unit have open communication between all divisions of the department and with the Business Office. If this function is accepted by the department, all financial data, both internal and external, can be recorded, tabulated and massaged into meaningful reports. Most of these financially derived reports can be obtained from the existing FMS files for previous fiscal years. Much of the information in the FMS files can be used by the Department.

*Please note that a Government wide system for financial accounting is being implemented by the Department of Administration. DOE is advised to give total support to this effort.

It is recommended that the Department request the Department of Administration to save the files as of the close of business on June 30 (Sept. 30 in the new fiscal year) for each year.

This function should be responsible for communicating with people in the department to ensure correct input to the system and help develop reports needed to make sound decisions. The FMS, as designed, would provide this type of information to decision-makers. A strong commitment from the DOE should be given to the FMS section of DOA. The Department of Administration (FMS) should also be encouraged to provide individual school administrators financial reports from financial data they return to the department. Many administrators need to know their current status with respect to budget expenditures. If these individuals were provided with useful and timely information, it is anticipated they would help the rest of the Department accept the system more readily.

2. Personnel Information Services

Personnel information would involve collecting a significant amount of data on all Department employees. The information collected would provide information to the teacher certification office and assist in the placement of teachers throughout the school system as well as placement of other employees. Other divisions would also have access to teacher information.

3. Pupil Information Services

If the department decides to collect individual pupil data or summary data, this function is necessary. More and more, pupil statistics are being requested by the U.S. Office of Education (NCES Common Core of Data Survey and other funding requests). Then, too, there is a critical need to develop a reliable means for providing former students with transcripts. A pupil accounting system is a necessity in today's society.

As the system now stands, former students are often unable to secure verification that they even attended a Guam school.

This condition serves to further undermine DOE's credibility in the eye of the public. (While a transcript system would not necessarily be computer dependent, it is considered here as a part of information retrieval.)

4. Facilities

A facilities system would provide information about school physical plants for a variety of uses including program evaluation, projected needs, school district redistricting, accreditation and appraisal of the condition and status of school buildings for preventive maintenance scheduling.

5. Instructional Programs

The instructional programs would provide in-depth information about curriculum in general. The information retained in this file would enable Department personnel to make curriculum and/or program comparisons from school to school. Information from this system would also be used to respond to the National Center for Education Statistics. At present, NCES is collecting curriculum data from schools throughout the United States and its Territories. The instructional programs system would also provide information for student scheduling, grade reporting and transcript requests.

F. School Building Computer Services

The Department used to prepare student scheduling for some of the Secondary Schools. Administrators and counselors have recently voiced concern over the termination of this service. If the department plans on expanding this service, additional personnel will be needed. This service should be reinstated and if possible extended to more schools. Additional school services could include:

1. Grade reporting with honor and failure lists
2. CAI (Computer Assisted Instruction)
3. Computer science instructional modules via terminals

4. Registration-Preregistration

G. Data Control

Data control personnel must work closely with the systems analyst and programming personnel to develop the control that is necessary to make a data processing system successful. Some of the responsibilities would be:

1. Manual editing
2. Batching
3. User communications
4. Computer scheduling
5. Data return
6. Assurance of DP accuracy (controls)
7. Preparation of output for delivery

At least one person would be needed in the beginning to address this function.

H. Data Collection Forms Design

Unless this responsibility is centralized, it is extremely difficult to develop standardized information retrieval. There is probably more "re-inventing of the wheel" done in the forms design area than any other area in data processing. Obviously, "new information" for one individual is not necessarily new information for the entire department, therefore, all data collection forms should be approved by a central source to determine:

1. If the information is already available from the data bank.
2. If the collection form fits the data collection criteria stipulated by this section.

3. If the collection of this data is unnecessary or redundant.

There is tremendous initial need to review and standardize the forms that are presently being used. All DP related forms would automatically fall under the scrutiny of this section as well as forms used at the school for registration, cumulative records and the like.

I. Systems Analysis - Programming

In this function, the basic tasks are the following:

1. Defining what the information system should accomplish.
2. Describing the existing requirements.
3. Documenting existing systems.
4. Recommending methods for problem solution.
5. Writing and maintaining the computer programs necessary for the information requirements.

In this function, various alternatives are explored, and a functional description of the information data base required for information systems implementation is documented. It is essential that the educational administrator be involved in order to determine the requirements of the system on a functional basis. Unless this phase is done thoroughly and completely and meets with the approval of the ultimate users, the remaining steps will contain a large amount of waste, needless iterations and extended elapsed time. It is imperative that the department have at least one experienced systems analyst. The programming phase requires the completed production of the programming specifications. It consists

primarily of coding, testing and using the computer to create and maintain the files and reports according to the specifications.

The Research, Planning and Evaluation administrator's role in this area may be minimal, as the primary requirements must be met by the technical staff of the Statistical Services Unit. The main facet of interest to the administrator is the estimate of predicted expenses and personnel requirement. It is very beneficial, however, to have an administrator that understands the problems and intricacies of systems analysis and programming.

J. U.S.O.E. Reporting

For many years the federal government has required summary statistical data from states. The statistical information at the federal level has its obvious origin from the summation of the educational units throughout the nation. In our democratic society, aggregate information on the educational attainments of the population is essential. As the workings of a democracy are dependent on an enlightened citizenry, it is important that educational statistics be available. More recently in our federation of states, the increased mobility of society and the continuance of technological revolution require additional information. The federal government has felt that its function is to see that the individual states and territories which have disparate resources be provided with both carrots and sticks to minimize the differential in educational achievements among the various areas. One of the outgrowths of the educational

information provided the federal government has been the recognition that not all states, counties, districts or territories have the resources or the desire to provide their citizens with equal educational opportunities. It is unlikely, therefore, that without an education information system, the information required to "sell" Grants-In-Aid or federal assistance would have been available. The NCES Common Core of Data Surveys are instruments the USOE is promoting to collect data from individual states and territories. Statistical Services Unit should be responsible for supplying Guam data to USOE. Various Commissioners of USOE have made it clear to all that the completion of USOE reports are part of the program administration that a state and territory accepts when it requests to participate in various federal programs. If the Department of Education in Guam is going to participate in federal programs, the department must satisfy federal reporting requirements.

IV. INFORMATION SYSTEM CONCEPT

Throughout the preceeding sections of this paper, the author has taken the liberty of making some assumptions with respect to the readers. First, it was assumed that readers, before being totally immersed into what a management information system means, would prefer to receive an overall view of objectives and functions of research, planning and evaluation as they relate to information systems. It was also assumed that unless a rationale for planning and evaluating was presented, any information system would be viewed as an end in itself. Management information is not viewed as an end but as a means whereby the quality of decisions educational managers make are improved. In this case, the end is really improvement of education. The means are viewed as total system for decision-making based on valid, reliable and timely information that research, planning, evaluation and feedback provides.

The development of an information system as a resource for decision-making is not new. Man has always been preoccupied with gathering, ordering and operating on the basis of information. Only the techniques of analysis have changed. In this modern technological age it is only natural that modern methods be used where possible to help with the handling of information. Certain information lends itself more readily to manual systems while other information, because of volume or kind, is most efficiently handled through automated procedures. In other instances, cost consideration will dictate whether the system is manual or automated. It would not be cost effective, for example, to manually register 2500 students into mixed periods of classes. It would not be cost

effective to use a computer to score test papers of only 20 students.

Different persons use different kinds of information for their various jobs. A teacher needs information on students along with class information and perhaps information on particular students where there are special considerations. It is important to realize these differences when developing an information system. The information collected must be such that it can be put together and taken apart in numerous ways to satisfy all those who will make use of the information. An information system is viewed as a series of processes beginning with the determination of who needs what information and when. These requirements, as specified for the Department, will then be used to guide the development of the system. Information, if viewed as a series of processes which culminate in better decision-making to improve educational efforts is really made up of several components or phases. Phase I becomes the specification phase; Phase II becomes the collection phase; Phase III becomes the storage phase; Phase IV becomes the retrieval/reporting phase and Phase V becomes the evaluation of the responsiveness to user needs phase. Later in this paper, steps will be described which will assist DOE personnel in defining their information needs. A discussion of these phases will therefore begin with Phase II.

A. Phase II - Information Collection Concepts

Because of the quantity of information being collected across the several subsystems of the planned system, the Department of Education management information system should establish some guiding principles, procedures and priorities

concerning information collection. At a minimum the following items should be considered:

- 1) As it is financially inappropriate to collect and process all the information that all people in the department might desire, an agreement on the information to be collected must be reached.
- 2) Information collected from various sources and used by many people within the system must have common meaning. This involves the identification of elements of information and the consistent definition of data items which are placed into appropriate categories. It is imperative that efforts be directed towards standardization of data definitions.
- 3) Information, once recorded in machine sensible format, should not be re-recorded at other stages in the information stream if possible.
- 4) An item of information becomes useful only when the segment of data is related to another segment of data. Single pieces of data are seldom meaningful.
- 5) Information need not be recorded in a manner appropriate to or directed by a single use. Information should be defined in advance so that it is acceptable and meaningful to many users.

B. Phase III - Data Base Storage and Maintenance

The following principles are pertinent to any information system but are particularly critical in the use of the integrated data base proposed:

- 1) Editing of the information, once collected, should be done at two levels:
 - a. A gross manual edit for completeness, appropriateness and accuracy. This function should be handled by specialists who are familiar with the educational areas involved.

- b. Once data are encoded (keypunch, diskette, etc.) then the computer program itself can perform other validity checking to ensure that the information falls within certain parameters.
- 2) Data base updating does not differ substantially from other data processing applications. As some will probably be sequential, it is advisable to batch the input data and provide the manually derived controls for the batch when the update takes place. However, it could be that, given new developments in computer hardware (distributive processing) and software a truly interactive system will be developed and updating of files on certain data bases will be done daily from a CRT or terminal. (Certainly this could apply to student, inventory, financial and registration procedures. In these cases, this concept represents an ideal and the feasibility of using these methods will be determined by the system design phase).
- 3) An integrated data base is particularly dynamic in that many types of information are flowing in the various data files (subsystems). Cut-off dates must be established for all major information update functions. It is particularly important to adhere to strict cut-off dates such as monthly, quarterly, year-end, etc. to ensure that reports being derived from information from more than one source are truly comparable.

C. Phase IV - Information Reporting Principles

The system concept described herein differs significantly in the information reporting function. Because of the extensive interrelationships and linkages between files, it is not necessary to report information in the same form it was collected. It is thus entirely possible for a system to assist in answering questions that were not conceived at the time of design. For this reason, Phase I - Specification Phase - is seen only as a preliminary mechanism for design. A system designer seldom can rely solely on the user's specified

report requirements at the time of design. For this reason a flexible, general purpose set of retrieval systems should be planned. This generalized reporting concept should minimize system specification changes, reduce programming efforts, and enhance responsiveness to user requirements. Several packages for producing reports (SPSS, RPG, etc.) are now available on the Data Processing Division's computer.

D. Phase V - Evaluation

It is extremely important that once the various subsystems are implemented a plan for evaluating responsiveness to users be developed. Careful records of types of information requests, costs, peak times, etc. should be maintained in order to provide feedback to the systems analysts. Information of this kind is important from the standpoint it will enable the Department to exercise control over its own reporting requirements as well as new user needs for information, federal and local reporting requirements and maintenance, modification of the existing system.

V. INTEGRATION PRINCIPLES

The information system as proposed consists of five subsystems of Pupil, Finance, Personnel, Facilities/Property, Instructional Programs. These subsystems can be used as standalone applications or the subsystems can be integrated. This integration can be accomplished via the linkage concept. Linkages are common data elements residing in two or more files allowing cross referencing. The most common example of linkage items is the county-district-school data items most school districts maintain. On Guam, these linkage items could be structured in a similar manner using region-level-school designations. In addition, subject area codes in the instructional programs file and teaching assignment codes in the personnel files could be used to link personnel to program's files. Other linkages would have to be developed as the design of the system progressed.

Implementation

Before the task of implementing the various subsystems is undertaken it is necessary to gain a thorough understanding of the nature of implementation, its objectives, and its relationship to existing operations. Most importantly, the amount (money) and kinds (human) of resources available for implementation must be carefully considered. The Department of Administration, Data Processing Division at this time is unable to provide the necessary technical assistance in this area due to commitments to other system priorities. No doubt a portion of the design and programming will have to be contracted for off-island. Local personnel within the existing DOE organizational structure will have to be identified and/or hired in order to undergo training on the system. Local

personnel will have to be identified to maintain the system once installed. This may involve the reallocation of functions among organizational units and personnel within DOE divisions.

VI. THE CONCEPTUAL DESIGN

GEMIS is designed to integrate five data bases while preserving applications that are considered ancillary. The total system may be viewed as consisting of the following:

1. mechanisms for data collection
2. data entry
3. file building
4. information retrieval
5. information reporting

The conceptual design may be viewed in Figure 1. This approach will allow modular implementation based on the Departments priorities and the use of existing software whenever possible. The system as conceptualized should be quite amenable to modifications within the constraints of the concepts under which it has been designed. Primary emphasis has been placed on ensuring that the system can be implemented with DOE resources or minimum additions to these resources.

A. Data Collection

The tendency to overlook data collection when considering a management information system will cause difficulty at a later date. The types of data that Guam desires are those which exist at the school building and Department (Central Office) level.

This implies that, in most cases, principals and division heads will gather for submission to the Research, Planning and Evaluation Office of the Department. This aspect of the system presents the major obstacle in the path of accurate and timely data collection. The overriding principle that must

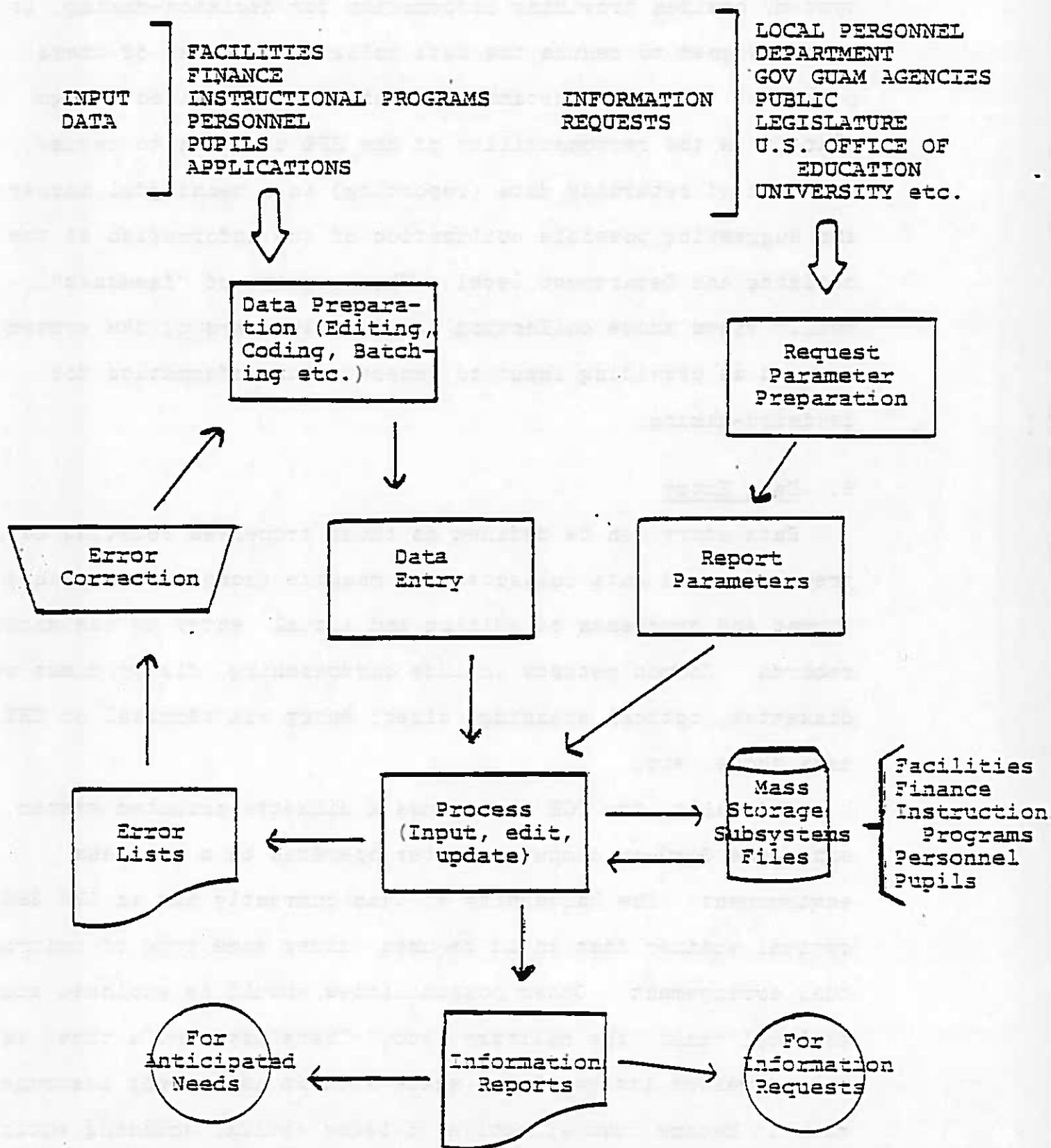


FIGURE 1
CONCEPTUAL DESIGN

be kept in mind at all times is that personnel at the building and department level are at integral part of the system. The system, besides providing information for decision-making, is also designed to reduce the data collection burden of these personnel. It is important and cannot be emphasized enough that it is the responsibility of the RPE division to devise a method of returning data (reporting) in a meaningful manner and suggesting possible utilization of the information at the building and Department level. This concept of "feedback" really views those collecting the data as users of the system as much as providing input to generate the information for decision-making.

B. Data Entry

Data entry can be defined as those processes relating to preparation of data collected for machine (computer) readable format and processes of editing and actual entry to the machine records. Common methods include cardpunching, floppy disks or diskettes, optical scanning, direct entry via terminal or CRT, data phone, etc.

Initially, the DOE should use a diskette oriented system since the GovGuam computer center operates in a cardless environment. The University of Guam currently has an IBM 3881 optical scanner that could be used under some type of contractual arrangement. Other possibilities should be explored such as local banks, the military, etc. There may come a time, as Guam develops its own large scale student assessment instrument, when it become cost/effective to lease optical scanning equipment. When this occurs primary emphasis should be placed on

using this method for data entry.

Guam currently engages in much data transcription for easy keypunching. In fact, close to 75% of the keypunch personnel's time is spent in the transcription process. As more and more data is collected, the work load will increase. Therefore, it is recommended that this practice be eliminated when possible. This can be promoted by careful design of the collection forms so that keystroke data entry can be accomplished directly from the input forms or scanned optically.

Terminals have been used quite successfully for data entry in large, high volume systems in recent years. This method would eliminate the work backlog that sometimes occurs with keystroke entry, however, careful study of the use of terminals should be undertaken in order to insure that this is a cost-effective manner.

C. File Building and Maintenance

File building and maintenance consists of initial file creation and maintenance functions of adding, deleting and modifying data items of each of the five subsystems or data bases. These processes will be carried out separately for each of the five subsystems.

It is in these processes that logical editing can be performed to begin to ensure accuracy of the files. A method of exception reporting can be instituted to inform department personnel and building principals of possible errors and/or discrepancies in the data that have been collected. Each subsystem file will be maintained as a separate entity.

D. Information Retrieval and Reporting

Information retrieval and reporting are the prime considerations for the system. The files will be designed so that reporting can be accomplished on an individual file basis or through cross-referral among the files on a multi-file basis. This type of linkage capability qualifies the proposed structure as an integrated system.

Cross referencing of files could be provided via the region-level-school data items in each file. In addition, some of the files have other linkage capabilities such as assignment codes in the personnel file and subject codes in the instructional programs file.

E. Organization of the Data Files

The exact organization of each of the five files and record sizes to be maintained should be decided at design time and would involve coordination with the forms design/control function of RPE as well as the information needs assessment. However, some general principals can be defined at this time.

Enough excess space should be incorporated in all records to permit the addition of new data items in the future. All records in each file should be the same size, if possible, and would allow the development of a header-trailer record concept. This would enable the utilization of standard IBM sort-merge software.

Careful consideration should also be given to the types of reports needed. The Department's Revised Report Processing System (Shafer, 1979) should be consulted and where possible

the local and federal forms required to complete these reports studied so that in the collection phase attention can be directed at designing output formats that will lend themselves to completing these reports. This would also enable all possible sort keys to be maintained in all subsystem subfiles.

F. Applications

The Guam Department of Education utilizes very little data processing support in its day to day operations. Programs that used to exist at the Department of Administration central computer were destroyed when the current IBM 370 system was installed. The DOE should explore leasing several packaged data base management tools (STSS, SAS, etc.). Other applications will have to be developed or purchased from IBM or other vendors. Applications in the area of school related services (grade reporting, registration, attendance) will have to be coordinated very closely with building personnel.

VII. TECHNICAL SUMMARY

The Guam Educational Management Information System (GEMIS) has been designed in an integrated system framework of five commonly accepted subsystems of pupil, personnel, financial, facilities and instructional programs. The relationship of the GEMIS to the functions of research, planning evaluation and statistical services has been outlined and where necessary functions expanded based on accepted principles of planning and evaluation.

The conceptual design presented was arrived at with a great deal of consideration given to a combination of factors. Of paramount importance was the initial needs of management for timely and accurate information for decision-making. Conceptual designs of other state departments, most notably Florida, Minnesota and Wyoming, were reviewed and formed a large portion of the present paper. A report processing system, first developed by the DOE in 1972-73 was also used to guide the design as well as anticipated needs of potential system users. (See Appendix A).

Guam is fortunate in that it currently enjoys a relatively small teacher and pupil population. This situation offers some significant advantages of a technical nature for a comprehensive management information system. Problems of data gathering, equipment needed, number of personnel and financial resources required are greatly reduced.

PART II NEEDS, ALTERNATIVES AND PLANS FOR A MANAGEMENT INFORMATION SYSTEM

Data Processing Needs of the Guam DOE

Currently Guam DOE makes little use of computer processing. Guam DOA provides financial accounting and payroll through its FMS system. In addition a few statistical reports are run using the S P S S program through DOA.

Since Guam DOE operates as both a local school district and a state educational agency it has data processing needs both associated with the operation of schools (scheduling, grade reporting, etc.) and associated with its state functions (teacher certification, statistical reports to USOE, etc.).

For both its local school operation and its state agency operations, Guam DOE needs both data processing for operations (e.g. certification of teachers, student scheduling and grade reporting) and information for reporting, planning and decision-making (e.g. teacher characteristics, student characteristics, enrollment projections, etc.), thus an overall information system needs to be developed that will provide for operational processing and, in most cases using the data captured for operations, provide information for reporting, planning and decision-making.

It is common to categorize educational information into five areas:

1. Students
2. Personnel
3. Finances
4. Instructional Programs
5. Facilities

In order to determine the precise DOE data processing needs, an in-depth analysis should be made. However, preliminary investigation has revealed the needs listed below. Along with each need, an indication of the data storage requirements and the priority for that need are given.

Students



Application: Student records

Priority: Medium

Description: Computer storage and processing of basic records on all Guam public school students. Information stored would include data normally found in permanent records of students including, but not limited to:

-Personal Identification

Name

Student Number

Sex

Racial/ethnic identification

Date of Birth

-Family and Residence

Parents' Names

Address

Phone

-Health

-Test Results

-Enrollment

Grade

School

Entry, Reentry, Withdrawal

Attendance

-Courses Taken

Grades

-Special Program Eligibility & Participation

Special Education

Title I

Bilingual/Bicultural

Federal Impact (P.L. 81-874)

Storage requirements: One record for each of the 28,000 students with each record containing about 400 characters of information for a total of about 11,000,000 characters on current students. In addition, historic records would need to be kept on students who have left the system. On-line disk storage would be most convenient but tape storage would suffice, if disk storage is not available. The records should be updated quite frequently, at least once a week, preferably every day.

Processing requirements: Files would be updated

whenever a new student enters the system, leaves the system, transfers within the system or data on that student changed. At least annually, current information stored on each student would be printed and distributed to the schools. Each semester, course and grade information would be entered. Lists and summaries to be run would include such things as names of students in special categories, statistical analysis of courses, grades, test scores, etc., transcripts on request, residence analysis for redistricting, racial/ethnic counts for federal reporting, etc.

► Application: Secondary school scheduling

Priority: High

Description: Computer storage of courses offered, teachers, rooms and student course requests. Then, scheduling of classes and assignment of students to classes, rescheduling as necessary, and production of student schedules and class lists.

Storage requirements: For each secondary student to be scheduled, name, grade and courses. Also, names of courses offered and teacher names and room identification for each student.

In all, a total of about 50 characters of data for each student plus about 4,000 for each school would be required. Thus, if all secondary schools, with a total of 10,000 students, were scheduled, the storage requirements would be about 500,000 characters. Tape storage would be satisfactory unless on-line registration is used that would require disk storage.

Processing requirements: Processing would include entry of course, teacher, classroom data and student course requests, processing to build master schedules and to schedule students into classes, then adjustments and reruns as necessary. Once scheduling is done, student schedules and class lists would be printed. At the beginning of the school year, and the beginning of the second semester, updating would be done to take care of students who have moved, new students, and changes. This process would be done twice a year with registration and scheduling in the spring and major changes at the beginning of the school year and at the beginning of second semester.

► Application: Grade reporting

Priority: Medium - High

Description: Course grades provided by teachers would be merged with student records and report cards printed.

Storage requirements: Data for each student would include name, grade, courses, grades and attendance. This is a total of about 1,400,000 characters. However, this is a duplication of the data described above in the student record system. If the student record system were implemented no additional storage would be needed for grade reporting data.

Processing requirements: Once each quarter, class lists for teachers would be printed. Teachers would work grades on those lists and the grades input into the computer, preferably through a document scanner. The computer would merge courses and grades by student, then would print report cards (for 28,000 students) and update the student records.

▶ Application: Special education student records

Priority: Medium

Description: Computer storage and processing of records of special education students.

Storage requirements: If a computer record were kept on each Guam student as described above, storage requirements would be reduced

because part of needed data would already be stored in the general student files. In addition, about 2,800 characters per student would be needed (for a system that includes instructional management such as the Pupil Based Information System PBIS). Thus for 3,000(?) special education students storage of 8,400,000 characters would be required. Tape storage could be used but disk storage would be preferred.

Processing requirements: First to build files on each of 3,000(?) special education students. Then to update as students enter and withdraw, progress through programs, and as new data is generated. Updating needs to be done at least weekly. Status reports on all students need to be produced every three weeks. In addition, various statistical reports (number of students served by handicap, teacher, grade, school, etc.) need to be run as required.

Application: Attendance accounting

Priority: Medium-High

Description: Daily recording of absence, printing of absence lists and recording attendance in student records.

Storage requirements: In addition to basic student records, 180 characters (1 for each school day/for each student), for a total of 5,000,000 characters.

Processing requirements: Daily recording of absences, listing of absent student.

► Application: Special records of students in other federal programs

Priority: Medium

Description: Computer storage and processing of records of students in other federally funded programs.

Storage requirements: In addition to the data kept on all students, a few additional characters for each student in each federal program.

Processing requirements: Building initial files. Periodic update. Producing various lists and statistical reports.

► Application: Title I student records

Priority: Medium

Description: Computer storage and processing of records on Title I students.

Storage requirements: In addition to the data kept on all students, about 100 characters on each of about 5,000(?) students would be kept for a total of 500,000 characters.

Processing requirements: Building initial files. Periodic

update. Producing various lists and statistical reports.

- Application: Test scoring
Priority: Low
Description: Scoring of standardized tests and listing of results. Also possible scoring of teacher-made tests and, perhaps, scoring of GUAM competency based or functional adult competency tests.

Storage requirements: If computer student records are kept, results would be stored in those files. Additional storage would involve keys and norms which would require minimal space.

Processing requirements: A scanner would be required for input. About 23,000 standardized tests would be scored a year, results translated to norms and results printed. Also, either gummed labels produced or results entered into computer student records.

- Application: Statistical reports
Priority: Medium
Description: Although the applications described above result directly in some statistical reports, once the student files are built they will be used to generate a number of additional reports of information.

and for reporting to the USOE. From the student files, for example, reports on enrollment, attendance, P.L. 874 eligibility, Title I participation etc. will be generated. Also the data will be used for enrollment projections, assistance in redistricting, etc.

Storage requirements: No additional required.

Processing requirements: Reports generated on an as needed basis, mostly through SPSS or RPG.

Personnel

- ▶ Application: Personnel records
- Priority: High
- Description: Storage and processing of data on employed personnel, including basic employee data (name, sex, date of birth, etc.), qualifications, certification, employment history assignment, salary, etc. Includes production of Guam teacher certificates.

Storage requirements: Current data on all 3,000(?) DOE employees, about 400 characters on each employee, for a total of 1,200,000 characters. Also historic records on past employees. Tape storage satisfactory.

Processing requirements: Building of initial files. Updating regularly, at least once a week, as employees enter, leave or change. Output includes printing of teacher certificates

lists of teachers with particular qualifications, and miscellaneous reports.

NOTE: DOA plans to do part of this through its personnel system.

Finances

Financial accounting and payroll is currently provided through the DOA FMS system. No additional needs are identified at this time. However, DOE should be certain that data is coded in such a way that the financial and payroll files can be related to the other four MIS files.

Instructional Programs

► Application: Record of subjects and courses

Priority: Medium - High

Description: A file of subjects and courses including names, identification codes and descriptions.

Storage requirements: About 10,000 characters total.

Processing requirements: Build original file and update annually as additions, deletions or changes are made. The primary use of this file is a table lookup for courses coded in student records, for scheduling and grade reporting, and printing lists of course offerings and descriptions.

Facilities (including buildings, equipment, supplies materials, texts, media)

► Application: Building inventory

Priority: Medium

Description: A file of information on each educational building.

Storage requirements: Data on each building to include such items as name, cost, location, date built, additions, and rooms for each room, the area, purpose, student capacity, coded identification, etc. Total of about 40,000 characters.

Processing requirements: Initial entry, then updating as changes occur, and various lists and analyses.

► Application: Building maintenance

Priority: Medium

Description: A record of the maintenance of each building including cleaning, painting, repair, improvements, modifications and costs.

Storage requirements: Records by building and rooms.
Total of about 100,000 characters.

Processing requirements: Initial building of files with updating at least once a month. Output to include projections of maintenance needs and analysis of maintenance costs.

► Application: Equipment inventory and maintenance

Priority: Medium

Description: File of data on equipment and equipment maintenance used to keep track of equipment and equipment maintenance, and to project both replacement and maintenance needs and costs.

Storage requirements: About 2,000,000 characters.

Processing requirements: Establish initial file. Update once a month. Periodic lists of equipment and analysis of costs, maintenance, projections of replacement needs, etc.

► Application: Media control

Priority: Medium

Description: Scheduling and keeping track of films and materials distributed from the media center. Also producing catalogs.

Storage requirements: About 180 characters for each of 12,000 films and materials for a total of about 2,000,000 characters. An on-line system with disk storage would be preferable. Tape storage and batch processing could be used but would not completely serve needs.

Processing requirements: Building initial files. Changes on a regular basis. Scheduling on a daily basis. Daily printing of delivery lists.

Annual printing of catalogs. Statistical analysis as needed

► Application: Supply ordering

Priority: High

Description: Printing supply lists, combining supply orders from schools, printing requisitions, scheduling delivery to schools.

Storage requirements: About 2,000(?) supply items, 100 characters per item, for a total of 200,000 characters.

Processing requirements: Building initial files. Annual updating. Annual list (catalog) of supplies. Entry of school orders. Combining of school orders. Preparation of order and delivery lists.

► Application: Power Monitoring

Priority: Medium

Description: Matching meter numbers, which appear on the bills, with schools and computing use per school. Also producing statistics on usage, increases and decreases in usage, etc.

Storage requirements: 36 schools, about 60 meters, current and past use data, for a total of about 5,000 characters.

Processing requirements: Matching meters with schools, calculating use per school, producing current usage and studies.

Guam DOE Data Processing - MIS Alternatives

Guam DOE needs to provide for both processing of school data and DOE data since it acts as both a local and state educational agency. It needs to provide processing for applications such as student scheduling and teacher certification while at the same time providing reports and analysis for management decision making. One approach to providing for these needs would be on an application by application basis. Using this approach, separate applications would be established for each application. There are some advantages to this approach. It avoids the need for overall planning and makes it possible to implement individual applications quickly. However, this approach would result in unnecessary duplication of data entry and storage and would not provide the linkages between data files needed to provide the most useful management reports.

Another approach would be to separate the school and DOE functions and to develop separate processing systems for the schools and the DOE. That is the approach used in most states, and is perhaps the best approach for most states since the schools (except in Hawaii) are in separate districts. The volume of data is very large in many states, and many people are sensitive about storing data on individual students in a state agency. However, Guam is relatively small so it is entirely feasible to store and process all data centrally. Also, the Guam DOE has the responsibility for both local school operations and state operations. In addition, most of the data needed by Guam DOE, acting as a state agency, is generated by the schools, thus the most appropriate approach for Guam is to build a combined system to provide for both local school and state operations.

The most effective and efficient data processing system for Guam would be a data base oriented system which combines both the local school and state functions. That is the system recommended.

There are three approaches that Guam DOE can take in securing computer hardware. First, DOE could secure its own computing equipment and operate independently. The primary advantage would be that the DOE could secure equipment specifically for its own needs and could completely control the processing. However, equipment would be expensive (estimated to be about \$200,000 to fulfill all DOE needs) and it may not be feasible to operate independently of DOA, both for legal reasons and since DOA already provides financial accounting and payroll for DOE through its FMS system and plans to provide personnel accounting in the near future.

A second approach would be to use the DOE computer for all data storage and processing. DOA has a newly installed IBM 370/138 with both excess data storage space and processing capability as well as useful general software such as SPSS and data base management. DOA, however, is not in a position to provide data entry and is very limited in the technical assistance that can be provided, thus DOE can use data storage and processing provided by DOA but would have to provide its own technical personnel, application software, and data input. Using the DOA computer would have the additional advantage of making it possible to correlate other data with the financial, payroll and personnel data already stored by DOA. A disadvantage would be that DOA serves a number of clients and DOE may not get the priority it needs for processing on DOA equipment.

A third approach would be through distributive processing. In this approach DOE would obtain a small computer which would provide for independent processing and also serve as input to and output from the DOE 370/138. This would require a computer such as the IBM system 3 or 34, costing about \$70,000, at DOE. That system would be used for independent processing when appropriate and would be used to provide input to and output from the 370/138 when processing on that computer is needed. This would have the advantage of providing processing controlled by DOE on its own computer while at the same time providing access to the more powerful DOA computer.

The first approach (completely independent operation) is eliminated because of cost and Guam Laws involved in establishing an independent operation when there is space and time available on the DOA computer.

It is difficult to choose between the second (complete dependence on DOA) and third (distributive processing) alternatives. In either cases, the system will require terminals at various locations in DOE, and perhaps in the schools. Because of the advantage of being able to process independently of DOA, the third alternative is recommended. Specifically, it is recommended that the IBM System 3 currently at Guam Community College and soon to become available be acquired on a lease basis and used on an interim basis. An IBM 34 should be ordered immediately and should replace the System 3 when delivered. It is estimated that delivery time for the 34 is 18 months. The 34 is about the same price as the System 3 but provides more capacity and flexibility, and can be configured to more precisely meet the needs of DOE.

It is recommended that IBM equipment be used for three reasons. First, IBM equipment is serviced in Guam. Second, DOA has IBM equipment. Third, both Guam Community College and the University of Guam train their students on IBM equipment and those institutions will be the main suppliers of technicians for DOE.

A decision needs to be made as to whether the DOE information system should be oriented toward batch or on-line processing. The essence of this decision is whether to use on-line (disk) or off-line (tape) storage of data. There are many advantages of on-line storage in terms of convenience for updating records and immediate access to data. The total DOE information system should require no more than 30,000,000 bytes of storage. That amount of disk storage is not very expensive. Thus, an on-line system with direct access to data stored on disks is recommended.

Software for various applications will need to be developed or acquired. DOA already has available compilers, data base management and SPSS. Those should be used. In addition, application programs will be needed. The cost of development of software is very high. There are a number of software packages available from computer vendors, software vendors, school districts, state education agencies and other agencies. It is recommended that whenever possible, software should be obtained from other sources rather than developed locally. It is much less expensive to obtain software from other sources, and there is a scarcity of technicians who could develop software in Guam. Also, the development of software takes considerable time. Applications can be implemented much more rapidly if developed software is obtained from outside sources. Some software is available for lease or purchase from vendors while some is available at little or no cost

from other educational agencies. Cost of the software, however, should not be the only consideration. The quality of the software including documentation should also be considered as well as the cost of implementing software obtained elsewhere on Guam DOE's equipment.

. Plan for Development and Implementation of Guam Department of Education MIS System

Following are recommended steps to be taken in the development and implementation of a MIS system for Guam DOE. Taken as a whole, the steps represent a plan for MIS development and implementation. This should be viewed as a preliminary plan, based on a general study of Guam MIS needs as well as a study of staff and facilities available. It should be noted that early steps in the plan involve an in-depth study of Guam MIS needs. As a result of that study, this plan should be modified appropriately. Even though this plan includes some details involved in development and implementation, the general principle and assumption on which this plan is based are, at this point, more important than the specific details. This plan is, in general, based on the following principles and assumptions:

1. The MIS system will be data based oriented with five primary files - students, personnel, instructional programs, finance and facilities.
2. The data files will be used for both local school and DOE applications and reporting needs.
3. Distributive processing will be used, with a small computer at DOE which will be used independently and also serve as input to and output from the large DOA computer.

4. Technical staffing (system analysts, programmers, etc.) will be the responsibility of DOE.

5. Developing or securing application software will be the responsibility of DOE.

6. Most application software will be obtained from outside sources rather than developed by DOE.

It is recommended that the following steps be taken in the development and implementation of a Guam DOE MIS system.

AREA	STEPS	TARGET DATES
General	1. <u>Assign responsibility for development of MIS system.</u> Jeff Shafer, Director of Research, Planning and Evaluation has been assigned this responsibility.	Completed
	2. <u>Appoint MIS steering committee.</u> This has been accomplished. The committee met for the first time-and the second time 12/11/79.	
	3. <u>Development of Guam MIS concepts, preliminary study of needs, and development of preliminary plan.</u> This has been accomplished and is documented in the documents Guam Education Management Information System (GEMIS) Concept Paper, Data Processing Needs of Guam DOE, Guam DOE Data Processing-MIS Alternatives and this document Plan for Development and Implementation of Guam DOE MIS System.	Completed

Area	Steps	Target Dates
	4. <u>Study revision and approval of MIS plans by the steering committee.</u>	12/17/80- 1/10/80
	5. <u>Study revision and approval of MIS plans by the Guam Director of Education.</u>	1/11/80- 1/31/80
	6. <u>Presentation of needs and plans to DOA.</u>	2/5/80
	7. <u>Detailed needs study, design of data bases, detailed planning.</u> An intense study of study of needs, specific design of data bases including elements, codes, definitions and field sizes, and specific plans for development and implementation.	2/1/80- 3/31/80
	8. <u>Approval of detailed needs study and design by MIS steering committee.</u>	4/1/80- 4/15/80
	9. <u>Approval of detailed needs study and design by Director of Guam DOE.</u>	4/16/80- 4/30/80
	10. <u>Continued operation of MIS steering committee.</u> The steering committee will continue to meet on a regular basis.	Continual
	11-14. <u>Annual evaluation and revision of plans.</u> Annually, the MIS system will be evaluated and plans will be revised as appropriate.	11/1/80-2/1/81 11/1/81-2/1/82 11/1/82-2/1/83 11/1/83-2/1/84
<u>Student Subsystem</u>		
<u>Data Base</u>	13. <u>Design of student data base.</u> This is part of step 7 above.	2/1/80- 3/31/80
<u>Scheduling</u>	16. <u>Secure software for school scheduling.</u>	

Area	Steps	Target Dates
	17. <u>Develop forms and procedures for school scheduling.</u>	3/1/80- 3/31/80
	18. <u>Pilot test of school scheduling: One high school and one junior high.</u>	4/1/80- 2/1/81
	19. <u>Evaluation and revision of school scheduling.</u>	5/1/80- 2/15/81
	20. <u>Complete implementation of school scheduling. Scheduling of all Guam secondary schools.</u>	4/1/81 2/1/82
	21. <u>Continued operation of school scheduling.</u>	4/1/81- on
<u>Grade Reporting</u>	22. <u>Develop forms and procedures for grade reporting.</u>	5/1/80- 8/1/80
	23. <u>Secure software for grade reporting.</u>	5/1/80- 8/1/80
	24. <u>Pilot test of grade reporting. Test in an elementary school, a junior high and a high school. Use the same junior high and high school that tested scheduling.</u>	9/1/80- 6/15/80
	25. <u>Evaluation and revision of grade reporting.</u>	10/1/80- 8/1/81
	26. <u>Complete implementation of grade reporting. Run grade reporting for all schools.</u>	9/1/81- 6/15/82
	27. <u>Continued operation of grade reporting.</u>	9/1/82- on
<u>Student Records</u>	28. <u>Develop forms and procedures for complete student record system.</u>	1/1/81- 8/1/81
	29. <u>Secure software for complete student record system.</u>	2/1/81- 8/1/81
	30. <u>Pilot test of student record system. Test in one elementary, one junior high and one high school. Use the same schools that tested grade reporting.</u>	9/1/81- 6/15/82

<u>Area</u>	<u>Steps</u>	<u>Target Dates</u>
	31. <u>Evaluation and revision of student record system.</u>	9/1/81- 8/1/82
	32. <u>Complete implementation of student record system.</u> All Guam students part of the student record system.	9/1/82- 6/15/83
	33. <u>Continued operation of the student record system.</u>	9/1/83 on
<u>Attendance</u>	34. <u>Design forms and procedures for student attendance system.</u>	2/1/82- 8/1/82
	35. <u>Secure software for student attendance system.</u>	3/1/82- 8/1/82
	36. <u>Pilot test of student attendance system.</u> Test in one elementary, one junior high and one high school.	9/1/82- 6/15/83
	37. <u>Evaluation and revision of student attendance system.</u>	10/1/82- 8/1/83
	38. <u>Complete implementation of student attendance system.</u> All Guam students included in the attendance system.	9/1/83- 6/15/84
<u>Special Education</u>	39. <u>Design forms and procedures for special education system.</u>	2/1/81- 8/1/81
	40. <u>Secure software for special education system.</u>	3/1/81- 8/1/81
	41. <u>Pilot test of special education system.</u> Test in one school.	9/1/81- 6/15/82
	42. <u>Evaluation and revision of special education system.</u>	10/1/81- 3/1/82
	43. <u>Complete implementation of special education system.</u>	9/1/82- 6/15/83
	44. <u>Complete implementation of special education system.</u> All Guam special education students included in the system.	9/1/83- 6/15/84

Area	Steps	Target Dates
<u>Title I</u>	45. <u>Design forms and procedures for special education system.</u>	2/1/81- 8/1/81
	46. <u>Secure software for special education system.</u>	3/1/81- 8/1/81
	47. <u>Pilot test of special education system. Test in one school.</u>	9/1/81- 6/15/82
	48. <u>Evaluation and revision of special education system.</u>	10/1/81- 8/1/82
	49. <u>Complete implementation of special education system.</u>	9/1/82- 6/15/83
	50. <u>Complete implementation of special education system. All Guam special education students included in the system.</u>	9/1/83- 6/15/84
<u>Other Federal Programs</u>	51. <u>Design forms and procedures for special education system.</u>	2/1/81- 8/1/81
	52. <u>Secure software for special education system.</u>	3/1/81- 8/1/81
	53. <u>Pilot test of special education system. Test in one school.</u>	9/1/81- 6/15/83
	54. <u>Evaluation and revision of special education system.</u>	10/1/81- 8/1/82
	55. <u>Complete implementation of special education system.</u>	9/1/82- 6/15/83
	56. <u>Complete implementation of special education system. All Guam special education students included in the system.</u>	9/1/83- 6/15/84
<u>Testing</u>	57. <u>Design forms and procedures for testing.</u>	2/1/82- 8/1/82
	58. <u>Secure software for testing.</u>	3/1/82- 8/1/82
	59. <u>Pilot test of testing system.</u>	9/1/82- 6/15/83
	60. <u>Evaluation and revision of testing system.</u>	10/1/82- 8/1/83

<u>Area</u>	<u>Steps</u>	<u>Target Dates</u>
	61. <u>Complete implementation of testing system.</u>	9/1/83- 6/15/84
<u>Personnel Subsystem</u>	62. <u>Personnel data base design.</u> This is part of step 7 above.	2/1/80- 3/31/80
	63. <u>DOA implementation of state personnel system.</u>	6/1/80- 6/1/81
	64. <u>Designs of forms and procedures for parts of personnel system not included in DOA system.</u>	1/1/81- 8/1/81
	65. <u>Secure software for personnel system.</u>	2/1/81- 8/1/81
	66. <u>Pilot test of personnel system.</u>	9/1/81- 7/1/82
	67. <u>Evaluation implementation of personnel system.</u>	10/1/81- 9/1/82
	68. <u>Complete operation of personnel system.</u>	9/1/82- 6/30/83
	69. <u>Continued operation of personnel system.</u>	7/1/83- on
<u>Instructional Programs Subsystem</u>	70. <u>Data base design.</u> Part of steps 7 above.	2/1/80- 3/31/80
	71. <u>Design of forms and procedures for instructional programs subsystem.</u>	4/1/80- 8/1/80
	72. <u>Secure software for instructional programs system.</u>	5/1/80- 8/1/80
	73. <u>Pilot test of instructional programs system.</u>	9/1/80-
	74. <u>Evaluation and revision of instructional programs system.</u>	10/1/80- 8/1/81
	75. <u>Complete implementation of instructional programs system.</u>	9/1/81- 6/15/82
	76. <u>Continued operation of instructional program system.</u>	9/1/82- 6/15/83
<u>Finance</u>	77. <u>Implementation of DOA FMS</u>	thru

<u>Area</u>	<u>Steps</u>	<u>Target Dates</u>
	78. <u>Identification of additional financial accounting needs.</u>	4/1/80-
	79. <u>Design of forms and procedures for additional financial accounting.</u>	1/1/81- 8/1/81
	80. <u>Secure software for additional financial accounting.</u>	2/1/81- 8/1/81
	81. <u>Pilot test of financial system.</u>	10/1/81- 9/30/82
	82. <u>Evaluation and revision of financial system.</u>	11/1/81- 9/30/82
	83. <u>Complete implementation of financial system.</u>	10/1/82- 9/30/83
	84. <u>Continued operation of DOE financial system.</u>	11/1/83- on
	85. <u>Continued operation of DOA financial system.</u>	10/1/80- on
<u>Facilities Subsystem</u>	86. <u>Design of data base for facilities subsystem.</u>	2/1/80- 3/31/80
<u>Supplies</u>	87. <u>Design of forms and procedures for supply ordering system.</u>	12/15/79- 2/15/80
	88. <u>Secure software for supply ordering system.</u>	1/1/80- 2/28/80
	89. <u>Pilot test of supplies system.</u>	4/1/80- 8/1/80
	90. <u>Evaluation and revision of supplies system.</u>	5/1/80- 8/31/80
	91. <u>Complete implementation of supplies system.</u>	9/1/80- 8/31/81
	92. <u>Continued operation of supplies ordering system.</u>	9/1/81- on
<u>Buildings</u>	93. <u>Design of forms and procedures for building record system.</u>	5/1/81- 8/1/81
	93a. <u>Secure software for building record system.</u>	6/1/81- 8/1/81

<u>Area</u>	<u>Steps</u>	<u>Target Dates</u>
<u>Building Maintenance</u>	94. <u>Pilot test of building record system.</u>	9/1/81- 8/31/82
	95. <u>Evaluation and revision of building record system.</u>	10/1/81- 8/31/82
	96. <u>Complete implementation of building record system.</u>	9/1/82- 8/31/83
	97. <u>Continued operation of building record system.</u>	9/1/83 on
	98. <u>Design of forms and procedures for building maintenance system.</u>	5/1/82- 8/31/82
	99. <u>Secure software for building maintenance system.</u>	6/1/82- 9/30/82
	100. <u>Pilot test of building maintenance system.</u>	10/1/82- 9/30/83
	101. <u>Evaluation and revision of building maintenance system.</u>	11/1/82- 9/30/83
	101a. <u>Complete implementation of building maintenance system.</u>	10/1/83- 9/30/84
	102. <u>Design forms and procedures for equipment inventory and maintenance.</u>	2/1/83- 8/31/83
<u>Equipment Inventory and Maintenance</u>	103. <u>Secure software for equipment inventory and maintenance system.</u>	3/1/83- 9/30/83
	104. <u>Pilot test of equipment inventory and maintenance system.</u>	10/1/83- 9/30/84
	105. <u>Design forms and prodedures for media system. To include inventory printing catalogs, and distribution control.</u>	3/1/81- 7/31/81
<u>Media</u>	106. <u>Secure software for media system.</u>	4/1/81- 8/31/81
	107. <u>Pilot test of media system.</u>	9/1/81- 6/15/82

<u>Area</u>	<u>Steps</u>	<u>Target Dates</u>
	108. <u>Evaluate and revise media system.</u>	10/1/81- 7/31/82
	109. <u>Complete implementation of media distribution system.</u>	9/1/82- 8/30/83
<u>Computer Equipment</u>	110. <u>Use DOA computer.</u>	Continuous
	111. <u>Install System 3</u>	by 3/1/80
	112. <u>Use System 3</u>	3/1/80- 10/1/81
	113. <u>Order IBM System 34</u>	1/30/80
	114. <u>Install IBM System 34</u>	10/1/81
	115. <u>Installation of additional computing equipment (terminals, scanner, etc.)</u>	as needed
<u>Staffing</u>	<u>Current: Director of Research, Planning and Evaluation</u>	
	<u>Add: Systems Analyst</u>	2/1/80
	<u>Programmer</u>	4/1/80
	<u>Operator</u>	3/1/80
	Programmer	9/1/80
	Computer Director	3/1/81
	User Consultant	9/1/81

Training Training will be provided for both clerical and professional staff, including administrators, at each steps involving pilot testing and implementation.

Cos

October 1, 1980 - September 30, 1981

DOE computing equipment	\$ 30,000
DOA computing time	-
Software purchase and lease	18,000
Personnel	70,000
Consultants	13,000
Forms, supplies, etc.	<u>10,000</u>
TOTAL	\$ 143,000

October 1, 1981 - September 30, 1982

DOE computing equipment	\$ 30,000
DOA computing time	-
Software purchase and lease	25,000
Personnel	102,000
Consultants	18,000
Forms, supplies, etc.	<u>12,000</u>
TOTAL	\$ 187,000

October 1, 1982 - September 30, 1983

DOE computing equipment	\$ 30,000
DOA computing time	-
Software purchase and lease	20,000
Personnel	102,000
Consultants	15,000
Forms, supplies, etc.	<u>15,000</u>
TOTAL	\$ 182,000

October 1, 1983 - September 30, 1984

DOE computing equipment	\$ 30,000
DOA computing time	-
Software purchase and lease	18,000
Personnel	102,000
Consultants	12,000
Forms, supplies, etc.	<u>15,000</u>
TOTAL	\$ 177,000

Appendix B

TERRITORY OF GUAM
AGANA, GUAM

Resolution No. 30-2

introduced by:

GUAM EDUCATIONAL MANAGEMENT
INFORMATION SYSTEM

WHEREAS, educational decision-makers have many more outside influence to cope with and a greatly increased tempo of operation that at any time in the past, and

WHEREAS, Federal regulations, guidelines and laws have greatly increased the necessity of developing, maintaining and generating reports from data bases, and

WHEREAS, the implementation of an Information System could:

1. Minimize the administrative workload in order to allow these professional aspects of educational programs,
2. Minimize the administrative workload of Department of Education personnel in the preparation, compilation and computation of data for administrative decisions and control,
3. Provide a data base that may be used for educational research to determine currently unknown relationships between educational achievement and other factors, and to provide solid statistical validity to assumed cause and effect relationships,
4. Provide data upon which more accurate and detailed projections of educational trends can be made,
5. Provide data upon which the various planning and evaluation functions of the Department may be based, and
6. Provide the necessary data used in the processing of local, federal and internal reporting requirements. The system should also be responsive to a broad category of administrative needs and be based upon the documented needs of these individual administrative and policy makers.

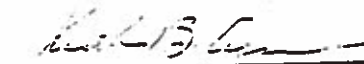
WHEREAS, an Information System can assist in planning, evaluating and reporting the overall operation of the educational system on Guam.

NOW, THEREFORE, BE IT RESOLVED that the Board of Education supports the concept of the Guam Educational Management Information System which provides for the research, planning and evaluation function as well as the automation of the Department's information collection, storage and retrieval needs. Be it further resolved that the Director of Education create the Office of Planning, Evaluation and Research and proceed to utilize funds already appropriated for Fiscal Year 1980 and thereafter request additional funding for the operation of the Office of Planning, Evaluation and Research which will provide for the computerization of a management information system for the management of the Department of Education.

DATED this 7th day of March, 1980.


GLORIA NELSON
Chairman, Board of Education

ATTEST:


KATHERINE B. AGUIRRE, Ph.D.
Director of Education, Acting

Appendix C

**ANALYSIS OF THE GUAM
DEPARTMENT OF EDUCATION
DATA PROCESSING NEEDS
AND
DESIGN OF MANAGEMENT INFORMATION
DATA FILES, CODES AND DEFINITIONS**

Prepared for
Guam Department of Education

By:
Ralph Van Dusseldorp, Ph.D.
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July 31, 1980

This document was prepared for the Guam Department of Education by Ralph Van Dusseldorp, WEO Systems, in fulfillment of Contract Number C-O-1900-022.

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INTRODUCTION

This document was prepared as the product of a study conducted for the Guam Department of Education (DOE) by Ralph Van Dusseldorp, WEO Systems. A preliminary needs assessment had been made for the Guam DOE by Ralph Van Dusseldorp in December, 1979. The current study was conducted from May through July, 1980.

The approach taken in this study was toward the development of an integrated data base. It was felt that the key to an effective and efficient management information system is a well defined data base. Thus, major effort went to selecting, defining and coding data base elements.

Financial accounting for the DOE is already pretty well taken care of by the Department of Administration (DOA) FMS System which runs on the DOA IBM 370/138 computer. Thus, little of this document is devoted to financial data. Complete documentation of the FMS System is available from DOA.

The Guam DOE has ordered an IBM System 34 computer which is scheduled for delivery in the fall of 1980. The DOE has also ordered the IBM student accounting software which will store student records and run scheduling, grade reporting and attendance. Complete documentation of that software, including input and output forms, is included in IBM manuals and is not duplicated in this document.

This document consists of the following sections:

Limitations. The limitations of this document are described.

Comments on Guam DOE Data Processing Needs. This section includes a brief description of the procedures for this study and describes the various data processing needs of DOE.

Overview of the Guam Management Information System. This section presents an overview of the planned management information system.

Data Base Items. This is the most important section of the entire document. Presented are items to be included in the data base and, when appropriate, definitions and codes for those items.

Codes. This section presents the coding systems to be used for the data base items.

Data Files. Included here are file formats for the data base.

Data Flows. System flow charts for computer applications are presented.

Input Documents. Input documents for the data base system are briefly described and illustrated.

Future Considerations. Considerations for continued development of the Guam DOE MIS System are discussed.

Appendix. Included in the appendix are interview notes taken by Jeff Shafer of the Guam DOE and Ralph Van Dusseldorp of WEO Systems as well as a revised copy of the document Part II, Needs, Alternatives and Plans for a Management Information System.

LIMITATIONS

This document is subject to the following limitations:

1. Little reference is made in this document to financial accounting data. Financial accounting is provided by the Guam Department of Administration through the FMS System. FMS appears to be an excellent system with the potential for fulfilling the financial information needs of the DOE. Complete documentation of that system, including data elements, definitions and file structures, is available from the Department of Administration.
2. DOE plans to use an IBM System 34 computer to operate its management information system. The file structures presented in this document are based on sound, data base principles but do not completely take into account unique features of the System 34.
3. DOE plans to use the IBM software for student accounting, including basic student records, scheduling, grade reporting and attendance accounting. Complete information on that software was not available to the author of this document at the time this study was made. Thus, some modifications of the data base presented in this document may have to be made in order to make it compatible with the IBM student accounting software. Complete documentation of that software is available from IBM.
4. DOE may use a document scanner for computer input for some applications. If so, revisions will need to be made in a number of input documents so they can be scanned.
5. The data base presented in this document includes the most essential data elements and files. Temporary work files are not included nor are data elements or files that will be used for specific unique applications but will not have general use.

6. This document is based on information gathered through interviews as well as examination of documents. Preliminary drafts of some sections were reviewed by selected DOE personnel and the data processing advisory committee. It is assumed that the interviewees and reviewers reflected the needs and wishes of DOE.
7. The definitions and coding systems presented in this document reflect those currently used by the various DOE departments and schools. In some cases definitions and coding systems varied among the departments and schools. When that was the case, an attempt was made to provide for uniformity. However, some of the definitions and coding systems still need to be studied and revised by DOE personnel. An example of needed revision is the list of courses in the instructional program accounting system. That list is a combination of the courses offered by individual schools. It appears that the same course is being offered in different schools under different names. That list needs revision to eliminate duplication and inconsistency.

COMMENTS ON GUAM DOE DATA PROCESSING NEEDS

A preliminary investigation of Guam DOE data processing needs was conducted during December, 1979. The results of that investigation were reported in the document Part II Needs, Alternatives and Plans For a Management Information System. During May, 1980 a more intensive study of Guam DOE data processing needs was conducted. That study involved interviews with personnel from the following areas:

- Director of Education
- Deputy Superintendent
- Research, Planning & Evaluation
- Elementary Education
- Secondary Education
- Special Education
- Personnel
- Federal Programs
- Financial Affairs
- Curriculum & Instruction
- Pupil Personnel
- Buildings and Grounds
- Learning Resources Center
- George Washington High School
- John F. Kennedy High School
- Dededo Junior High
- A. Johnston Junior High
- F.B. Leon Guerrero Elementary
- Yigo Elementary
- DOA FMS System

In addition a number of forms, reports and other documents were examined.

The needs study conducted in May revealed needs for specific applications and data base items. However, the general needs revealed through the intensive study in May varied little from the needs revealed through the preliminary study in December. There are two exceptions, however.

First, it appears that the attendance accounting application is of a higher priority than was indicated in the original study. In the original study, attendance accounting was given a low priority. As a result of the latest study, it appears that attendance accounting should be a medium priority. Second, a need for computer use to monitor power usage in schools was revealed through the second study. That application should have medium priority.

Notes from the May interviews are included as an appendix to this document. Included are notes taken by both Ralph Van Dusseldorp, Director of the Needs Study, and Jeff Shafer, Data Systems Consultant for the Guam DOE. General comments based on the interviews and study of various documents follow.

Financial Accounting

It appears that FMS is a good system and can work well. The system does not appear to be well understood nor well used. Users do not appear to know what it will do, what reports it will produce, and how best to use it.

Little orientation to the system was provided for users outside the Business Office.

For some reason administrators are not receiving monthly financial reports on a regular basis. Most principals reported receiving just 2 this year. Balancing between school records and FMS records is a problem. In some cases that may be because departments are not informed of price changes. It may also be because of delay in entering Purchase Orders and changes.

It is difficult to reconcile school records with Business Office (FMS) records since the schools deal with requisitions and requisition numbers while the Business Office (FMS) deals with Purchase Orders and Purchase Order numbers. Each department (elementary, secondary, maintenance, etc.) has an accountant in the Business Office. Effectiveness of the accounting operation for the departments seems to depend largely on the ability and cooperation of the assigned accountant.

The FMS System uses a somewhat different coding system to identify schools than does DOE. The FMS system also uses different account breakdowns than are used for the National Center for Education Statistics Common Core of Data reports. This makes it quite difficult to produce figures for those reports. The fact that FMS can work and can be effective, however, is evidenced by the fact that it works well for the Maintenance Division.

Needs

1. to provide inservice training on the FMS system for users
2. to produce reports (such as monthly financial statements) on a regular basis and distribute those reports.
3. to incorporate requisition numbers in financial reports so those reports are easier for principals to use.
4. to study ways the FMS system can best serve users. Find out what the system can do, what reports can be produced, etc.
5. to develop a manual for accounting procedures for the schools. This would include forms such as requisition logs, recording and processing procedures, procedures for balancing their records against FMS reports, procedures for checking on the status of requisitions and purchase orders, etc.
6. to devise a system to make it easier to produce the Common Core of Data reports from the information available from FMS.

There does not appear to be any need to include financial data in the DOE data base since that is already taken care of in the FMS system. Exceptions may be things like school cafeteria accounting but perhaps that could also be part of the FMS system.

Property Accounting

Inventory

This is not well done currently. When an item of property is received it is numbered and logged. Three digits of the property number designate the school or other building to which it is assigned. The Business Office keeps a card file of property records. That file is probably not very accurate. Annually, each school is required to submit a property inventory. This is done in various ways. In some schools, clerks and/or administrators go around the building every year and record all property. In others, the inventory is taken by department. In at least one school, a card file of property is kept and updated as changes are made. The annual inventory is then done by copying data from that card file. The inventory reports are filed in the Business Office. There is no evidence that anyone ever uses the school inventories or checks them against the Business Office records.

DOA is in the process of developing a computerized inventory system.

Buildings and Sites

There is no evidence that building and site records are kept, except for some records in the maintenance department.

Maintenance

Maintenance labor is charged to individual schools and goes into the FMS system. Thus, information on maintenance labor cost per building is available. However, materials used in maintenance are not charged by building so that cost is not available on a building basis, nor is contracted maintenance. There are plans to include materials used in maintenance on a school by school level to be included in the FMS system in the future. In general, the FMS system serves maintenance quite well. Some additional coding is needed but it appears that that can be done. For example, there is a need to designate type of craft (carpenter, plumber, etc.), and a need to code buildings other than schools (such as the LRC). For the benefit of the overall system, the FMS system should use the same school code numbers that DOE uses.

Power

Even though electric bills are not paid directly by DOE, maintenance monitors power usage. This is done manually and is a tedious clerical task.

Textbook Inventory and Control

The Guam school system spends a very large amount of money each year for textbooks. There is currently no system for inventory and control of textbooks. It appears that some money spent for texts is wasted since some schools have surplus texts while other schools are purchasing additional copies of the same texts.

Suggestions

1. Something should be done about inventory.

Alternatives:

- a. forget about it since there seems to be little concern about accuracy, control or use.
- b. assume it will be done by DOA
- c. use the DOE computer.

It is suggested that first it be determined if DOA is really going to do inventory and, if so, if that system will provide for DOE and school needs. If not, a system should be developed using the DOE computer. There is probably good software available for inventory. Even if it had to be developed, it would be fairly easy.

2. building and site records should be developed and made part of the DOE data base.
3. maintenance seems to be well taken care of through the DOA system. A useful DOE application would be preventive maintenance scheduling.

4. a DOE system for storing and processing power usage data should be developed. This would be fairly easy system to develop.
5. a computer system for textbook inventory and control should be developed. This would also be a fairly easy system to develop.

Staff Accounting

Payroll cards are kept in individual schools and departments. Payroll is processed by DOA.

The Personnel Office has a file of personnel records.

Each school also has personnel records.

Problems

1. All employee time must be accounted for and recorded daily. There is no exception reporting.
2. The records in the personnel office are not completely accurate. They do not always reflect changes in assignment.
3. The records in the personnel office are all manual. When studies are made, the data must be manually tabulated from the records.
4. Records on former employees do not seem to be kept in a consistent manner. Thus, verification of past employment is difficult.

Suggestions

1. Record employee time on an exception basis.
2. Develop a DOE computer system for staff accounting. The DOE system would not include payroll which is done by DOA. The DOE system would include certification and assignment. Certification data would be entered into the computer and the computer would print the certificate. Assignment data would also be entered into the computer. Thus a data base of staff information would be established.

The computer could be used to match assignments against certificates, flag expired certificates, and to run various analyses. Perhaps it would be sufficient to include just certificated personnel rather than all employees in the system. The same ID number should be used on personnel as is used in the payroll system so that data in the personnel system can be related to data in the payroll system when appropriate.

Student Accounting

This is the area of the greatest need and highest priority for computerization. Currently, all student accounting is done manually. Some forms and procedures are standardized while others vary from school to school. When forms are standardized, it does not appear that all schools always use those forms. Also, the forms have not been designed with data processing in mind so some may have to be revised when data processing is implemented. Discussion of specific applications follows.

Student Registration (Enrollment)

A variety of forms are used to collect basic student information each year. Also, different information is recorded by different schools. The data collected and the forms need to be standardized. These student records should be computerized. Initial data should be entered when a student enters a Guam school and updated as changes occur. Several methods could be used. One method would be to input data from the registration form into the computer system but continue to keep the original registration form as the basic record in the school. Then, as changes occur, those changes would be input to the computer. A second method would be to have the computer print the registration information periodically and send the printed forms to the schools. When a change occurred, the change would be marked on the form and input into the computer. The computer would

then produce an updated form. A third method would be to eliminate the paper files of student registration forms and to rely entirely on the computer files. This would require a terminal in each school. Whichever method is used, the computer should always have up-to-date information on all students and should be able to produce various statistical reports and analyses.

Scheduling

This, of course, applies to the secondary schools only. The secondary schools currently use different methods of scheduling. All have pre-registration and build master schedules. One high school then uses arena scheduling of students into classes. In other schools the students are scheduled into classes by school staff during the summer. Student schedules and class lists are then typed. It is suggested that secondary school scheduling be one of the earliest applications implemented on a computer system.

Grade Reporting

There are not standard procedures nor forms for grade reporting. Those need to be developed. Grade reporting is a more different problem at the secondary school level than at the elementary level. Because of departmentalization, students taking different courses, and the need to record secondary student grades in the cumulative and permanent records, it is more effective to do secondary grade reporting by computer than elementary. They will be discussed separately.

1. Secondary

It is assumed that before grade reporting is done by computer, the school is scheduled by computer. Thus, the computer will have a record of students, courses and teachers. A suggested method of doing secondary grade reporting would be to have the computer print class lists near the end of the grading period, either on a document scanner form (if a document scanner is available) or on a plain form. These would be distributed to the

teachers, one list per class, and the teacher would record the grades. The grades would either be read by a scanner or be key entered into the computer. The computer would then print report cards and class grade lists. At the end of the year the computer would compute GPA's, class ranks, etc. and would produce gummed labels for affixing to the cumulative records.

2. Elementary

At the elementary level the computer would print class lists for each classroom teacher and each special teacher (physical education, music, etc.) at the end of each reporting period. The teachers would record grades on these lists and the recorded grades would be read by a document scanner or key entered. The computer would then print report cards.

Attendance

At both the elementary and secondary level, attendance is on a full day basis. That is, a student is either recorded as present all day or absent all day. Part day attendance is counted as a full day. The general procedure is for teachers to take attendance first thing in the morning. At the elementary level, attendance recording is the responsibility of the classroom teacher. At the secondary level, attendance is taken by the homeroom or first period teacher. Reports of absences are sent to the office where alphabetized lists of absent students are typed. Those lists are then distributed to all teachers. After the lists are distributed, teachers record the names of students who are absent but who do not appear on the absence list.

If a student is absent excessively, an attendance officer from the Pupil Personnel Office contacts the parents.

Attendance is also recorded on individual student attendance cards and summary figures are entered on report cards and cumulative records.

It is suggested that attendance accounting, at least at the secondary level, be done by computer. If the homeroom/first period absence reports were entered into a computer system, the computer could quickly produce alphabetized lists of absentees for distribution to teachers. The computer could also be used to generate notices of excess absences to parents, counselors and attendance officers. At the end of reporting periods the computer could generate summary attendance statistics.

Instructional Program Accounting

In general, there appears to be little need for computer storage and processing of instructional program information. For scheduling and grade reporting, a file of course names and codes should be maintained.

However, there is a need for computer utilization in the media center. The media center produces catalogs of available instructional materials (films, film strips, etc.) Those materials are distributed to schools in response to teacher requests. A computer would be used to print catalogs, to help control distribution, and to generate various use statistics. A computer could also be used to produce a catalog of curriculum library materials and to assist in distribution of those materials. Finally, a computer could be used to store information about all instructional materials in the schools.

OVERVIEW OF THE GUAM MANAGEMENT INFORMATION SYSTEM

The primary functions of the Guam DOE computer management information system (MIS) are to process data and to provide management reports. A data base approach was taken in the design of the MIS. This approach involves the establishment of major files, or data bases, and operating applications from those files. A data base approach avoids duplicate data storage, insures consistency of data among applications and departments, and provides for relating data among areas through linkages built into the files.

The data base will consist of five major files:

- Pupils
- Personnel
- Instructional Programs
- Finance
- Facilities

In addition, temporary work files will be used for some applications when the data to be stored is of a temporary nature or is important to only one application, not to the overall operation of the MIS. If one computer application developed, for example, is the scheduling of delivery of instructional materials to schools, that data would be stored in a separate file since it is of a temporary nature and is not an essential part of the overall MIS.

For convenience and efficiency codes will frequently be used for data elements. For example, in student files, code numbers will be used for residential areas. However, in order for reports to be most readable, the name rather than the number of the residential area will frequently be printed. In order to be able to print names rather than code numbers, tables relating codes to names will be established.

When applications are run, one or more of the data base files will be used as appropriate. For example, when student report cards are run, student name and grades will come from the student file while course names will

come from the instructional program file and teacher names will come from the personnel file.

For the purpose of analysis, it will often be useful to relate data among the various files. For example, if one wished to calculate the current square feet per student ratio for each school, one would need to use data from both the student and property files. Numbers of students would come from the student file. Square footage would come from the property file. Those files are linked since the student records indicate the building and rooms to which each student is assigned.

The computer application programs listed below are currently planned. Each application is further described in the document Part II Needs, Alternatives and Plans for a Management Information System. That document also includes a schedule for development, testing and implementation of each application.

- Student records
- Secondary school scheduling
- Grade reporting
- Special education student records
- Attendance accounting
- Title I student records
- Special records for students in other
federal programs
- Test scoring
- Statistical reports
- Personnel records
- Instructional program records
- Building inventory
- Building maintenance
- Equipment inventory and maintenance
- Power usage control
- Media control
- Supply ordering
- Textbook inventory and control

Note that two applications normally included in an educational management information system, financial accounting and payroll, are not included in the list of planned applications. Those applications are currently performed by Guam Department of Administration. Linkages have been designed, however, so that data from the other files can be related to data from the finance and payroll files.

DATA BASE ITEMS

Following are suggested data base items for four areas of educational accounting - Students, Personnel, Instructional Programs and Property. Each item is coded with a "C" or "L" in front of the item name. Items coded "C" will be part of the computer data base. Items coded "L" will not be part of the computer data base but may be kept locally. Definitions and lists of codes accompany the items, when appropriate. When a list of codes is particularly lengthy, only part of the list is included in this section. Complete lists are included in the codes section of this document.

STUDENT DATA

(C) Legal Name The full legal name of the student including last name, first name, middle name and any appendage such as Jr. or III.

33 characters

16 last and appendage

10 first

7 middle

(L) Any Other Name Any name, other than the legal name, by which the student is known.

(C) Student Number The number assigned by the school system for identification and recordkeeping purposes. A six digit number will be used. The first two digits will be the code for the first Guam public school entered by the student. The last four digits will be assigned in sequence. Thus, the first student assigned a number by Inarajan Elementary School will have the number 190001, the second 190002, etc. A student will always keep the assigned number and will not be assigned a new number when transferring from one Guam school to another.

6 characters

xxxxxx

(C) Sex 1 character

1 male

2 female,

(C) Racial/Ethnic Group The student's general racial or ethnic heritage.

2 characters

01 Chamorro

02 Filipino

03 Micronesian

04 Northern Marianas

05 Other Pacific Islander

06 Chinese

- 07 Japanese
- 08 Korean
- 09 Vietnamese
- 10 Other Asian
- 11 American Indian
- 12 Black
- 13 Hispanic
- 14 White Caucasian
- 15 Other

(C) Language Spoken by Parents at Home

2 characters

- 01 Cantonese
- 02 Chamorro
- 03 English
- 04 Ilocano
- 05 Japanese
- 06 Korean
- 07 Mandarin
- 08 Tagalog
- 09 Trust Territory
- 10 Vietnamese
- 11 Visayan
- 12 Other

(C) Language Spoken by Student at Home

2 characters

- 01 Cantonese
- 02 Chamorro
- 03 English
- 04 Ilocano
- 05 Japanese
- 06 Korean
- 07 Mandarin
- 08 Tagalog
- 09 Trust Territory
- 10 Vietnamese
- 11 Visayan
- 12 Other

(C) Date of Birth The month, day and year of the student's birth.

6 characters

MM DD YY

(L) Evidence Verifying Date of Birth The type of evidence by which the student's date of birth is verified.

1 character

- 1 Birth certificate
- 2 Hospital certificate
- 3 Physician certificate
- 4 Baptismal or church certificate
- 5 Parent's affidavit
- 6 Entry in family bible
- 7 Passport
- 8 Previously verified school record
- 9 Other

(C) Citizenship Status The U.S. citizenship status of the student.

1 character

- 1 U.S. Citizen
- 2 Resident Alien (6th preference or green card)
- 3 I-20 Student
- 4 Non-resident Alien

(C) Responsible Adult Name of adult to whom official school notices are to be sent.

33 characters

- 16 last
- 10 first
- 7 middle

(C) Relationship of Responsible Adult to Student

1 character

- 1 father
- 2 mother
- 3 guardian
- 4 other

(C) Mailing Address of Responsible Adult

35 characters

15 P.O. Box or Street Address

15 Village/City

5 Zip Code

(C) Home Telephone Number of Responsible Adult

7 characters

xxxxxxx

(C) Work Telephone Number of Responsible Adult

7 characters

xxxxxxx

(C) Address of Student

30 characters

15 Street Address

15 Village/City

(C) Residential/Village area in which student lives

3 characters

001 Adelup

002 Afame, Sinajana

-

-

-

143 Y-Pao Pao

(L) Person(s) to be Notified in Case of Emergency The name, relationship, address and telephone number(s) of individual(s) designated as person(s) to be notified in case of emergency.

(C) First Entry Date The date of the student's first entry into the Guam public school system.

6 characters

MM DD YY

(C) Current Entry Date The date on which a student enters a school during the current year.

6 characters

MM DD YY

(C) Type of Entry

1 character

Entry

1 Original Entry - A student who for the first time during the current school year enters any public or private school anywhere.

At the beginning of the school year, all students are original entries. After the beginning of school, the only original entries are those students who have not enrolled in another school during the current year. All incoming students who have had enrolled in another school are re-entries.

Re-Entry

2 Re-entry from another public school in Guam -

A student received from another Guam public school which he or she entered earlier in the current school year.

For example, if a student begins the school year in Agat Elementary then transfers to Yigo Elementary the student is a (2) when entering Yigo. However, if that student enrolled in a Guam private school between the time of withdrawing from Agat and entering Yigo, the student would be a (3) upon entry into Yigo. As another example, if a student withdrew from Agat Elementary during the school year, attended a school in California for a while, then entered Yigo

Elementary, that student would be a (4).
Only students who transfer directly from
another Guam public school are (2)'s.

3 Re-entry from a non-public school in Guam -

A student received from a non-public school
in Guam which he or she entered earlier in
the school year. Thus, a student who first
enrolls in St. Johns Elementary then transfers
to Price Elementary, is a (3) re-entry for
Price Elementary.

4 Re-entry from a school outside Guam - A student

received from a school outside Guam which he
or she entered earlier in the school year.

Thus, a student who begins the school year
in a school in Hawaii, then transfers to
Andersen Elementary, would be a (4) re-entry
for Andersen.

5 Re-entry to a Guam Public School after Withdrawal
or Expulsion - A student who returns to the Guam

Public School system after withdrawal or
expulsion from a Guam Public School. Thus,
a student who begins the year in Johnston
Junior High, transfers to a school outside Guam
or a private Guam school, then enters Dededo
Junior High, is a (5) re-entry for Dededo.

(C) School From Which Received The school last attended before the
current one.

If a public or private school in Guam, the code for that school
will be entered:

2 characters

00 if first school	51 Academy
10 Adelup	52 Bishop Baumgartner
-	-
09 Voc. Tech. Sr.	99 Off-island

(C) School Entered The code for the school in which the student is currently enrolled.

2 characters

10 Adelup

11 Agana Heights

-

-

-

08 S. Sanchez Jr.

09 Voc. Tech. Sr.

(C) Standardized test(s) taken Code number for test.

2 characters

xx

(C) Test date(s) Date test was taken.

6 characters

MM DD YY

(C) Test part Identification of subtest.

10 characters

xxxxxxxxxx

(C) Test score(s) Student's score on test(s).

3 characters

xxx

(C) Type of score(s) The type of score recorded (e.g., percentile rank, grade equivalent, etc.)

1 character

1 grade equivalent

2 percentile rank

3 stanine

4 NCE

5 raw score

6 standard score

9 other

(C) Transportation Status Indication of whether the student is transported to school by bus.

1 character

0 no

1 yes

(C) Federal Status of Parents

Part I

2 characters

01 Navy military

02 Navy civilian employee

03 Air Force military

04 Air Force civilian employee

05 Army military

06 Army civilian employee

07 Coast Guard military

08 Coast Guard civilian employee

09 Marine military

10 Marine civilian employee

11 Other federal

19 Not federally connected

Part II Parent:

1 character

1 Lives on federal property

2 Works on federal property

3 Lives and works on federal property

4 None of the above

(C) Head Start Status

1 character

0 Student not in Head Start

1 Student in Head Start

(C) Special Education Status

1 character

0 Student not in Special Education

1 Student in Special Education

(C) Title I Status

1 character

0 Student not in Title I

1 Student in Title I

(C) Bilingual/Bicultural Status

1 character

0 Student not in Bilingual/Bicultural Program

1 Student in Bilingual/Bicultural Program

(C) Grade The current grade level of the student.

2 characters

14 Prekindergarten

15 Kindergarten

01 First grade

-

-

-

12 Twelfth grade

20 Unassigned grade level

(C) Courses The code number for each class or course to which the student is assigned. See Instructional Program for list of codes.

3 characters

xxx

(C) Teachers The code number for the teacher responsible for each course or class to which the student is assigned. Same code number as for staff accounting.

9 characters

xxxxxxxxx

(C) Room Numbers The code number for each room the student is assigned for each course or class. Same code number as for property accounting.

3 characters

xxx

(C) Period The period number of each course or class to which the student is assigned.

2 characters

xx

(C) Grades Received The grade received for each course or class taken.

1 character

x

(C) Counselor The code number of the counselor to whom the student is assigned. Same code number as for staff accounting.

9 characters

xxxxxxxxxx

(C) Homeroom Teacher The code number of the homeroom or first period teacher to whom the student is assigned. Same code number as for staff accounting.

9 characters

xxxxxxxxxx

(C) Days Absent Days on which the student was absent from school.

180 characters (1 character per day)

0 absent

1 present

(C) Date of Withdrawal The date on which the student is withdrawn (transfer, dropout, graduated, expelled)

6 characters

MM DD YY

(C) Type of Withdrawal

2 characters

Transfers - A student who leaves one school and enters another school is a "transfer". Each student who transfers from one school to another during the school year is identified with designation below.

- 11 Transferred to another public school in Guam
- 12 Transferred to a non-public school in Guam
- 13 Transferred to Guam Vocational High School
- 14 Committed to a correctional institution
- 15 Moved from Guam, military dependent
- 16 Moved from Guam, civilian dependent

Completion of School Work

- 21 Graduated from high school - The student has completed the necessary work to meet graduation requirements and is no longer in attendance

Expulsion

- 31 Expelled - the student has been expelled from school

Deceased

- 41 Deceased - the student is deceased

Dropout - The student is no longer enrolled in any school

- 51 Voluntary withdrawal due to inability to adjust to school
- 52 Marriage
- 53 Probable employment
- 54 Verified employment
- 55 Needed at home
- 56 Pregnancy (without doctor's certification)
- 57 Pregnancy (with doctor's certification)
- 58 Other physical/medical reason (with doctor's certification)
- 59 Other physical/medical reason (without doctor's certification)

Unknown

- 70 Unknown - the whereabouts of the student is unknown

PERSONNEL DATA

(C) Name The full legal name of the staff member including last name, first name, middle name, and any appendage such as Jr. or III.

33 characters

16 last and appendage

10 first

7 middle

(C) Social security number

9 characters

xxxxxxxxx

(C) Sex

1 character

1 male

2 female

(C) Racial/Ethnic background The staff member's general racial or ethnic heritage.

2 characters

01 Chamorro

02 Filipino

03 Micronesian

04 Northern Marianas

05 Other Pacific Islander

06 Chinese

07 Japanese

08 Korean

09 Vietnamese

10 Other Asian

11 American Indian

12 Black

13 Hispanic

14 White Caucasian

15 Other

(C) Date of Birth

6 characters

MM DD YY

(C) Citizenship status

1 character

1 U.S. Citizen

2 Resident Alien (6th preference or green card)

4 Non-Resident Alien

(C) Home Address

35 characters

15 P.O. Box or Street Address

15 Village/City

5 Zip Code

(C) Home Telephone Number

7 characters

xxxxxxx

(L) Person to be notified in case of emergency

57 characters

20 name

30 address

7 phone number

(C) Highest degree or certificate earned

1 character

0 none

1 GED

2 high school diploma

3 technical certificate

4 associate degree

5 bachelor's degree

6 professional degree

7 intermediate degree (Ed.S.)

8 doctorate

(C) Name and place of educational institution at which highest degree was earned

35 characters

15 name of institution

15 city

2 state (use U.S. state codes)

3 country code (from USOE handbook)

(C) Date highest degree awarded

4 characters

MM YY

(C) Credit earned beyond highest degree The semester hours of credit earned beyond the highest degree. Quarter hours should be converted to semester hours by multiplying by 2/3.

3 characters

xxx

(L) Other educational institutions attended Name and place, degree earned and date degree earned of each educational institution attended.

(C) Certificate held

2 characters

00 none

01 elementary

02 secondary

03 vocational

04 special education

05 school librarian

06 school health counselor

07 guidance and counseling

08 school psychologist

09 administration and supervision

10 school program consultant

11 school psychometrist

99 other

(C) Type of certificate

1 character

1 emergency

2 provisional

3 standard

4 professional I

5 professional II

6 professional III

(C) Year of expiration Last two digits of the year certificate expires.

2 characters

xx

(C) History requirement fulfilled Indication of whether the requirement for study of the history or culture of Guam is fulfilled.

1 character

0 no

1 yes

(C) Authorized teaching fields Subject areas the staff member is approved to teach.

2 characters

10 Art

15 Agriculture

20 Business

21 Typing

22 Business Math

23 Shorthand

25 Driver Education

30 Foreign Language

31 French

32 Japanese

33 Spanish

35 Health & Physical Education

40 Homemaking

45 Industrial Arts

50 Language Arts

51 English

52 Speech

53 Journalism

54 Literature

55 Drama

56 Reading

57 TESOL

60 Mathematics

65 Music

70 Science

71 General Science

80 Social Studies

81 World History

82 Modern or Contemporary problems

83 Psychology

84 Geography

85 Civics

86 American Government

(L) Prior experience Work experience prior to employment by the Guam DOE.

(L) Experience with Guam DOE prior to current assignment Work experience for the Guam DOE prior to current assignment.

(C) Job Classification The Guam position code for the current work assignment.

4 characters

2107 Accountant I

-

-

-

9606 Welder Supervisor

(C) School/department assignment The school or department to which the staff member is currently assigned.

2 characters

10 Adelup

11 Agana Heights

etc.

(C) Subject matter areas The subject matter areas the staff member is currently assigned to teach. Same codes as authorized teaching fields above.

2 characters

10 Art

15 Agriculture

20 Business

21 Typing

22 Business Math

23 Shorthand

25 Driver Education

30 Foreign Language

31 French

32 Japanese

33 Spanish

35 Health & Physical Education

40 Homemaking

45 Industrial Arts

50 Language Arts

51 English

52 Speech

53 Journalism

54 Literature

55 Drama

56 Reading

57 TESOL

60 Mathematics

65 Music

70 Science

71 General Science

80 Social Studies

81 World History

82 Modern or Contemporary problems

83 Psychology

84 Geography

85 Civics

86 American Government

INSTRUCTIONAL PROGRAM DATA

The instructional program file will include the names and code numbers for all courses taught in Guam elementary, junior and senior high schools. A four digit number is used to designate each course.

Elementary

- 0100 Art
- 0200 Health
- 0300 Language Arts
 - 0310 Language
 - 0320 Penmanship
 - 0340 Reading
 - 0350 Spelling
- 0400 Math
- 0500 Music
- 0600 Physical
- 0700 Science
- 0800 Social Studies

Secondary

Agriculture

- 1000 Agriculture I

Art

- 1100 Art 7
- 1105 Art 8
- 1110 Art I
- 1115 Art II
- 1120 Art III
- 1125 Acrylic Painting
- 1130 Basic Design
- 1135 Ceramics
- 1140 Drawing
- 1145 Printmaking/woodcut
- 1150 Silkscreen Printing

Business

- 1200 Accounting I
- 1204 Accounting II
- 1208 Business English
- 1212 Business Law
- 1216 Business Math
- 1220 Business Methods
- 1224 Business Machines
- 1228 Calculating Machines
- 1232 Clerical Office Practice
- 1236 Consumer Affairs
- 1240 Duplicating Machines
- 1244 Filing
- 1248 General Business
- 1252 Human Relations in Business
- 1256 Introduction to Business
- 1260 Money Management
- 1264 Office Aide
- 1268 Recordkeeping
- 1272 Shorthand I
- 1276 Shorthand II
- 1280 Typing I
- 1284 Typing II
- 1288 Typing, Clerical
- 1292 Typing, Production
- 1296 Typing, Refresher
- Typing, Reports/Manuscripts

Chamorro Language

- 1300 Chamorro

Distributive Education

- 1400 Distributive Education

English Language Arts

- 1500 Language Arts 7
- 1503 Language Arts 8
- 1506 Language Arts 9
- Bilingual Language Arts

- 1512 GTP Language Arts
- 1515 English 10A
- 1518 English 10B
- 1521 English 11
- 1524 English 12
- 1527 Basic Writing
- 1530 Developmental Reading
- 1533 Drama
- 1536 Ethnic/Africa Literature
- 1539 Grammar
- 1542 Individualized Reading
- 1545 Journalism
- 1548 Library Service I
- 1551 Library Service II
- 1554 Literature of the Sea
- 1557 Newspaper
- 1560 Newspaper Use/Mass Media
- 1563 Oral Interpretation
- 1566 Philosophy in Literature
- 1569 Reading Lab
- 1572 Reading Seminar
- 1575 Shakespeare
- 1578 Speech
- 1581 TESOL
- 1584 Words/Words
- 1587 Yearbook

Foreign Languages

- 1600 French I
- 1601 French II
- 1625 Japanese I
- 1626 Japanese II
- 1627 Japanese III
- 1630 Japanese Calligraphy
- 1650 Spanish I
- 1651 Spanish II

Home Economics

- 1700 Home Economics 7
- 1704 Home Economics 8
- 1708 Home Economics I
- 1712 Chamorro Cooking
- 1716 Child Development
- 1720 Clothing
- 1724 Cooking Tools
- 1728 Custom Clothing
- 1732 Family Relations
- 1736 First Aid
- 1740 Foods
- 1744 Foods From Animals
- 1748 Foods From Plants
- 1752 Health & Hygiene
- 1756 Home and Interior
- 1760 Home Crafts
- 1764 Home Nursing
- 1768 Home Skills
- 1772 Human Sexuality
- 1776 Nursing Assistant I
- 1780 Nursing Assistant II
- 1784 Nutrition
- 1788 Personal Adjustment
- 1792 Sewing I
- 1796 Sewing II

Industrial Arts

- 1800 Industrial Arts 7
- 1805 Industrial Arts 8
- 1810 Industrial Arts I
- 1815 Architectural Drawing
- 1820 Drafting I
- 1825 Drafting II
- 1830 Mechanical Drawing
- 1835 Metals I
- 1840 Metals II
- 1845 Woodworking I
- 1850 Woodworking II

Mathematics

- 1900 Math 7
- 1905 Math 8
- 1910 General Math
- 1915 Algebra A/B
- 1920 Algebra I
- 1925 Algebra II
- 1930 Analytic Geometry
- 1935 Banking/Investing
- 1940 Budget/Insurance
- 1945 Career Math
- 1950 Computer Science
- 1955 Elementary Functions
- 1960 Geometry I
- 1965 Geometry II
- 1970 Taxes
- 1975 Trigonometry

Music

- 2000 Band, Beginning
- 2005 Band, Intermediate
- 2010 Band, Advanced
- 2015 Band, Concert
- 2020 Band, Stage
- 2025 Chorus, Beginning
- 2030 Chorus, Intermediate
- 2035 Chorus, Advanced
- 2040 General Music
- 2045 Music Symbols

Physical Education

- 2100 Physical Education 7
- 2103 Physical Education 8
- 2106 Physical Education 9
- 2109 GTP Physical Education
- 2112 Adaptive Physical Education
- 2115 Aerobics (Beginning)
- 2118 Aerobics (Intermediate)
- 2121 Aerobics Dance

- 2124 Aikido (Beginning)
- 2127 Aikido (Intermediate)
- 2130 Archery (Beginning)
- 2133 Archery (Intermediate)
- 2136 Badminton/Table Tennis
- 2139 Basketball (Beginning)
- 2142 Basketball (Intermediate)
- 2145 Bicycling
- 2148 Bowling
- 2151 Bowling (Intermediate)
- 2154 Boxing
- 2157 Creative Dance (Beginning)
- 2160 Creative Dance (Intermediate)
- 2163 Fencing
- 2166 Field Hockey
- 2169 Fitness and Conditioning
- 2172 Flag Football
- 2175 Flag Football/Speedball
- 2178 Football Officiating
- 2181 Folk and Square Dancing (Beginning)
- 2184 Folk and Square Dancing (Intermediate)
- 2187 Football
- 2190 Golf
- 2193 Gymnastics
- 2196 Gymnastics (Intermediate)
- 2199 Gymnastics (Advanced)
- 2202 Handball/Shuffleboard
- 2205 Handball/Racketball
- 2208 Health
- 2211 Hiking and Survival Fitness
- 2214 Horseback Riding
- 2217 Intramural Planning
- 2220 Island Dance
- 2223 Island Dance (Intermediate)
- 2226 Judo
- 2229 Physical Conditioning
- 2232 Physical Education for Elementary
- 2235 Racketball/Recreation Games (Beginning)
- 2238 Racketball/Recreation Games (Intermediate)

- 2241 Recreational Games
- 2244 Rhythms
- 2247 Soccer (Beginning)
- 2250 Soccer (Intermediate)
- 2253 Soccer (Advance)
- 2256 Soccer Officiating
- 2259 Social Dance (Beginning)
- 2262 Social Dance (Intermediate)
- 2265 Softball (Beginning)
- 2268 Softball (Intermediate)
- 2271 Speedball
- 2274 Sports Facilities
- 2277 Swimming (Non)
- 2280 Swimming (Beginning)
- 2283 Swimming (Intermediate)
- 2286 Swimming (Advance)
- 2289 Synchronized Swimming
- 2292 Tennis (Beginning)
- 2295 Tennis (Intermediate)
- 2298 Tennis (Advanced)
- 2301 Track and Field (Beginning)
- 2304 Track and Field (Intermediate)
- 2307 Theory of Physical Education
- 2310 Tumbling (Beginning)
- 2313 Tumbling (Intermediate)
- 2316 Volleyball (Beginning)
- 2319 Volleyball (Intermediate)
- 2322 Volleyball (Power)
- 2325 Weight Control
- 2328 Weight Training (Beginning)
- 2331 Weight Training (Intermediate)
- 2334 Weight Training (Advance)
- 2337 Wrestling
- 2340 Yoga (Beginning)
- 2343 Yoga (Intermediate)
- 2346 Physical Education Aide
- 2349 Physical Education Seminar

Science

- 2503 Science 7
- 2506 Science 8
- 2509 Science 9
- 2512 GTP Science
- 2515 Air & Space
- 2528 Biology I
- 2521 Biology II
- 2524 Biology, Environmental
- 2527 Biology, Human
- 2530 Biology, Marine
- 2533 Chemistry A
- 2536 Chemistry B
- 2539 Chemistry, General
- 2542 Chemistry, Advanced
- 2545 Earth
- 2548 Electronics I
- 2551 Electronics II
- 2554 Energy Resources
- 2557 Evaluation
- 2560 Experience in Science
- 2563 Human Anatomy & Physiology
- 2566 Natural Science
- 2569 Physical Science, Chemistry
- 2572 Physical Science, Physics
- 2575 Physics
- 2578 Physics, Mechanics
- 2581 Physics, Light & Sound
- 2584 Physics, Magnetism & Power
- 2587 Science, Past & Present
- 2590 Science Seminar

Social Studies

General

- 2610 Social Studies 7
- 2612 Social Studies 8
- 2614 Social Studies 9
- 2616 Honors Social Studies
- 2618 Bilingual Social Studies

Anthropology

- 2630 Africas
- 2632 Americas
- 2634 Eurasia
- 2636 S.E. Asia, Oceania, Australia

Government

- 2640 Constitutional Government
- 2642 Government & The Consumer
- 2644 Government of Guam
- 2646 International Government

History**U.S.**

- 2650 Exploration to 1898
- 2652 1898 to Present
- 2654 Guam History

World

- 2660 Beginning Western Civilization
- 2662 Far East History
- 2664 Philippines & S.E. Asia
- 2666 World in Turmoil

Psychology

- 2670 Psychology

Sociology

- 2680 Sociology

ROTC

- 3000 ROTC I
- 3010 ROTC II
- 3020 ROTC III

Driver Education

- 4000 Driver Education

PROPERTY DATA

Sites

- (C) Site Number A number used to identify a site. For sites with school buildings, the school number will be used as the last two digits of the site number

3 characters

102 Untalan Junior

103 Inarajan Junior High

etc.

- (C) Site Addition Number A numeric designation identifying a site as either an original or an addition.

1 character

0 original

1 first addition

2 second addition

etc.

- (C) Site Name The common name used for the site. If a school is on site, the school name will be used.

15 characters

- (C) Site Location The address of the site or a description of its location.

30 characters

- (C) Area The area of the site to the nearest tenth acre.

4 characters

xxx.x

- (L) Deed Restriction Brief summary of any revision clause condition or restrictions on use.

- (L) Easements Brief summary of easements that affect the site.

(C) Structure (excluding buildings) or special area on site Any structure other than a building or any area requiring special design, arrangements or construction for the purpose of for which it is used.

2 characters per structure or area

01 football field

02 baseball field

03 basketball court

04 tennis court

05 track and field area

etc.

(C) Method of site acquisition The means by which the site was obtained for use.

1 character

1 purchase

2 lease (rent)

3 loan

4 gift

5 exchange

9 other

(C) Date of site acquisition The date on which the site was acquired.

6 characters

MM DD YY

(C) Cost of site acquisition The purchase price of the site.

8 characters

xxxxxxxx

(C) Market value of site The appraised or estimated dollar value for which the site currently could be sold.

8 characters

xxxxxxxx

(L) Nature of site improvement Description of the type of improvement made to a site.

(L) Date of site improvement The date on which site improvement was completed.

- (L) Cost of site improvement The cost of an improvement made to a site.

Buildings

- (C) Building Number The numerical designation for the building.
A four digit number will be used. The first three will be the same as the number of the site on which it is located. The fourth digit will be used to designate the building on the site. Thus a single building on a site might be number 1021 while two buildings on a site might be 1231 and 1232.

4 characters

xxxx

- (C) Building Addition code A numeric designation identifying a building as either an original building or an addition to a building.

1 character

0 original building

1 first addition

2 second addition

etc.

- (C) School or unit name The name of the school or other unit using the building. Other unit might be maintenance or media department.

15 characters

- (C) Building name The common name for the building

15 characters

(C) Type of building A code for the primary purpose of the building.

2 characters

01 General Education

02 Instruction

03 Administration

04 Learning Resources

05 Athletics

06 Auditorium

10 Food Service

11 Mechanical Service

12 Vehicle Garage

13 Maintenance

14 Warehouse

15 Multiple purpose support

(C) Student capacity of building The number of students that can normally be accommodated in the building.

4 characters

xxxx

(C) Date building completed The date construction of the building was completed.

6 characters

MM DD YY

(C) Cost of building acquisition The cost of acquiring the building, whether by construction, purchase or other means. The cost should include construction, architectural and engineering services, legal services, and consultative services.

8 characters

xxxxxxxx

(C) Date of building acquisition The date the building was acquired. This will usually be the same as the date completed (above).

6 characters

MM DD YY

(C) Expected useful life of building The number of years a building is expected to fulfill its intended function.

2 characters

xx

(C) Book value of building The original cost less depreciation.

8 characters

xxxxxxxx

(C) Replacement cost of building The cost, at current prices, to replace a building.

8 characters

xxxxxxxx

(C) Exterior walls Construction materials that comprise most or all of the exterior walls.

1 character

1 wood

2 masonry

3 metal

4 panel

5 concrete block

6 poured concrete

7 none

9 other

(C) Floor framing Construction materials that form the framing of all or most floors.

1 character

1 wood framing

2 concrete on grade

3 wood on steel

4 concrete slab on steel framing

5 concrete slab on concrete framing

9 other

(C) Fixed interior walls Primary construction materials used for the fixed interior walls.

1 character

1 wood frame

2 masonry

3 metal

9 other

(C) Roof framing Construction materials that are used in the framing of the roof.

1 character

1 wood

2 steel

3 concrete

9 other

(C) Roof membrane Materials used to cover the roof.

1 character

1 tar or pitch

2 tile

3 slate

4 metal

5 plastic

6 wood shingles

7 asphalt shingles

8 asbestos

9 other

(C) Material in structural system The primary type of material comprising the structural system of the building.

1 character

1 steel

2 concrete

3 wood

9 other

(C) Gross floor area of building The sum of the areas at each floor level included within the principle outside faces of exterior walls, expressed in square feet.

5 characters

- (C) Total assignable floor area of building The total area, in square feet, of all space available for use.
5 characters
xxxxx
- (C) Total floor area of instructional space The total area, in square feet, of all regular instructional space.
5 characters
xxxxx
- (C) Total floor area of learning resources space The total floor area, in square feet, of all learning resources space
5 characters
xxxxx
- (C) Total floor area of multiple-purpose space, support space, and other assignable space The total area, in square feet, of all multi-purpose space, support space, and other assignable space.
5 characters
xxxxx
- (C) Total floor area of disaster shelter The area, in square feet, that can be used for disaster protection.
5 characters
xxxxx
- (C) Availability of building entrances for the handicapped
Availability of primary entrances that are ground level or have ramps with hand rails.
1 character
0 no
1 yes
- (C) Accessibility of instructional locations to the handicapped
Accessibility to the handicapped to all instruction locations
1 character
0 no
1 yes

- (C) Availability of toilet facilities for the handicapped Availability of toilet stalls, accompanied by grab bars, that can accommodate wheel chairs.

1 character

0 no

1 yes

- (C) Availability of 32-inch doors Availability of doors that are wide enough to allow wheelchair passage.

1 character

0 no

1 yes

- (C) Date building repair or maintenance work completed

6 characters

MM DD YY

- (C) Cost of building repair or maintenance work

5 characters

xxxxx

- (L) Explanation of building repair or maintenance work performed
Description of the type of work performed and the portion of the building on which the work was performed.

- (C) Date of building modification

6 characters

MM DD YY

- (C) Cost of building modification

6 characters

xxxxxxx

- (L) Explanation of building modification Brief description of the type of alteration, renovation, or remodeling work done, including identification of the part of the building affected

(C) Space (room) number A numeric designation of a space or room in a building.

3 characters

xxx

(C) Floor area of space or room The area, in square feet, measured between principal wall faces.

4 characters

xxxx

(C) Type of space or room Primary intended use of a space or room.

4 characters

1000 assignable space

1100 regular instructional space

1200 special instructional space

1201 athletic/physical education

1202 business education

1203 home economics

1204 industrial arts

1205 kindergarten

1206 mathematics laboratory

1207 media-based instructional laboratory

1208 music

1209 planetarium

1210 science

1211 special space for exceptional children

1212 computer/data processing (instructional)

1213 darkroom (instructional)

1214 motion picture studio (instructional)

1215 radio studio (instructional)

1216 sound studio (instructional)

1217 television studio (instructional)

1299 other special instructional spaces

1300 learning resources space

1400 multiple purpose space

1410 auditorium

1420 cafeteria

1430 cafetorium

1440 gymnasium
 1450 other multiple-purpose
 1500 support space
 1501 computer/data processing
 1502 conference room
 1503 dark room
 1504 equipment room
 1505 health care
 1506 maintenance and repair
 1507 motion picture studio
 1508 office
 1509 projection room
 1510 radio studio
 1511 residential
 1512 sound studio
 1513 storage
 1514 television studio
 1515 vehicle storage
 1580 general support
 1590 other support
 2000 nonassignable space
 2100 circulation
 2200 custodial
 2300 mechanical
 2400 structural

(C) Student capacity of space The number of students that can be accommodated at one time when the space is being used for the purpose intended.

4 characters

xxxx

Equipment

- (C) Equipment tag number A unique reference number assigned to an item of equipment

12 characters

xxxxxxxxxxxxx

- (C) Equipment inventory number A reference number assigned to an item of equipment with a particular style, use, supply source or other common characteristic. Identical items share a common equipment inventory number. Also referred to as a stock number.

8 characters

xxxxxxxx

- (C) Equipment type A series of categories that separate equipment into groups according to similar function on operational characteristics.

4 characters

1000 instructional equipment

1100 instructional device

1110 audio device

1120 computer device

1130 graphics device

1140 electronic display device

1150 photographic device

1160 projected display device

1170 physical display device

1180 subject matter related device

1181 art equipment

1182 business education equipment

1183 driver education equipment

1184 homemaking equipment

1185 industrial arts equipment

1186 music equipment

1187 physical education equipment

1188 scientific laboratory equipment

1189 other subject matter related equipment

- 1190 other instructional device
- 1200 recorded instructional materials
 - 1210 audiorecording materials
 - 1220 computer materials
 - 1230 electronic display materials
 - 1240 projected materials
 - 1250 printed/pictorial materials
 - 1260 three-dimensional materials
 - 1270 multi-media kits
 - 1290 other recorded instructional materials
- 1300 library equipment
- 1900 other instructional equipment
- 2000 custodial equipment
- 4000 health equipment
- 5000 cafeteria equipment
- 7000 administrative equipment
- 9000 other equipment
 - 9100 furniture
 - 9200 machinery and apparatus
 - 9210 hand tools
 - 9220 bench, desk or floor machinery (office)
 - 9230 bench, desk or floor machinery (non-office)
 - 9240 heavy construction equipment
 - 9300 vehicle
 - 9900 other

(C) Description of equipment A brief description of an item of equipment, using the key name or description first. For example, "desk, wood, 5' x 5'."

30 characters

(C) Equipment mobility

1 character

0 nonmovable

1 movable

- (C) Serial Number A unique identifying number permanently inscribed or attached to an equipment item by the manufacturer.

12 characters

- (C) Vendor name or number

15 characters

- (C) Manufacturer name or number

15 characters

- (C) Make or brand

15 characters

- (C) Model number

10 characters

- (C) Physical location of equipment The place where an item of equipment is located. The numeric building code will be used for this.

4 characters

xxxx

- (C) Date of acquisition

6 characters

MM DD YY

- (C) Cost of acquisition

6 characters

xxxxxx

- (C) Expected useful life The number of years an item of equipment is expected to fulfill its intended function.

2 characters

xx

(C) Equipment maintenance schedule The intervals at which an equipment item is to be serviced.

- 1 character
- 0 none
- 1 annually
- 2 quarterly
- 3 monthly
- 4 weekly
- 5 after each use
- 9 other

(C) Date equipment repair or maintenance work complete

- 6 characters
- MM DD YY

(C) Cost of equipment repair or maintenance work

- 5 characters
- xxxxx

(L) Explanation of equipment repair or maintenance work completed

Books

(C) Book inventory number A reference number assigned to books with the same title, author, edition, publisher and copyright date. Identical items share a common book inventory number.

- 8 characters
- xxxxxxxx

(C) Book type A series of categories that separate books into groups according to similar functions.

- 1 character
- 1 basic text
- 2 supplemental text
- 3 library
- 4 professional
- 5 other

- (C) Subject area A series of categories that separate text books into groups according to subject areas. The same codes are used as for subjects/courses in instructional program accounting.

4 characters

xxxx

Elementary

0100 Art

0200 Health

-

-

-

0800 Social Studies

Secondary

1000 Agriculture

-

-

-

4000 Driver Education

- (C) Title The title of the book.

25 characters

- (C) Author The name of author of the book.

30 characters

Last, first, middle

- (C) Edition The number of the edition of the book.

1 character

1 first edition

2 second edition

etc.

- (C) Copyright date. The date of the latest copyright of the book.

The last two digits of the year will be used.

2 characters

- (C) Vendor name or number The name or code number of the vendor from whom the book was purchased.
15 characters
- (C) Publisher name or number The name or code number of the publisher of the book.
15 characters
- (C) Date of Acquisition The date the book was received.
6 characters
MM DD YY
- (C) Cost The cost per unit for acquiring the books
5 characters
xxx.xx
- (C) Physical location The code number for the school or department in which the books are located. The same code numbers will be used as are used for personnel assignments.
2 characters
xx
- (C) Number The number of books of the above title, author, edition, publisher, inventory number, etc. assigned to the physical location recorded above.
4 characters
xxxx

CODES

Following are presented the codes to be used in the Guam DOE management information system. They will be stored in the computer system a table for each set of codes. The code numbers and name will be stored for each element. The coding systems were based primarily on current practice in the Guam DOE. When there was no DOE coding structure available, the codes were based on the USOE educational accounting handbooks. In some cases, the codes have been adjusted to conform to the IBM software.

Guam Public Schools

02	Untalan Junior High
03	Inarajan Junior High
04	G.W. Senior High
05	JFK Senior High
06	A.I. Johnston Junior High
07	Dededo Junior High
08	S. Sanchez Junior High
09	Voc-Tech. Senior High
10	Adelup Elementary
11	Agana Heights Elementary
12	Agat Elementary
13	Andersen Elementary
15	B.P. Carbullido Elementary
16	Ordot/Chalan Pago Elementary
17	M.A. Ulloa Elementary
18	F.Q. Sanchez Elementary
19	Inarajan Elementary
20	Merizo Elementary
21	P.C. Lujan Elementary
22	New Piti Elementary
23	Price Elementary
24	J.P. Torres Elementary
25	C.L. Taitano Elementary

- 26 Talofoto Elementary
- 27 Tamuning Elementary
- 28 Wettengel Elementary
- 29 H.S. Truman Elementary
- 30 Yigo Elementary
- 31 L.B. Johnson Elementary
- 32 Brodie Memorial
- 33 Harmon Loop
- 34 J.Q. San Miguel Elementary
- 36 Finegayan Elementary
- 37 M.U. Lujan Elementary
- 38 F.B. Leon Guerrero Elementary
- 40 Deaf & Blind

Guam Non-Public Schools

- 51 Academy of Our Lady
- 52 Bishop Baumgartner
- 53 Cathedral Grade
- 54 Father Duenas
- 55 Guam Adventist Academy
- 56 Infant of Prague
- 57 Little Red School
- 58 Maria Artero
- 59 Mercy Heights
- 60 Mt. Carmel, Agat
- 62 Notre Dame
- 63 Ordot Day Care
- 64 San Vicente
- 65 Santa Barbara
- 66 Saint Anthony
- 67 Saint Francis
- 68 Saint John's Episcopal
- 69 Temple Christian
- 70 Juvenile Justice
- 71 Harvest Baptist
- 72 Guam Christian Institute

Schools/DepartmentsSecondary Schools

- 02 L.P. Untalan Junior High
- 03 Inarajan Junior High
- 04 George Washington Senior High
- 05 John F. Kennedy Senior High
- 06 A.I. Johnston Junior High
- 07 Dededo Junior High
- 08 Simon Sanchez Junior High
- 09 Vocational-Technical High

Elementary Schools

- 10 Adelup Elementary
- 11 Agana Heights Elementary
- 12 Agat Elementary
- 13 Andersen Elementary
- 15 B.P. Carbullido Elementary
- 16 Ordot/Chalan Pago Elementary
- 17 M.A. Ulloa Elementary
- 18 F.Q. Sanchez Elementary
- 19 Inarajan Elementary
- 20 Merizo Elementary
- 21 P.C. Lujan Elementary
- 22 New Piti Elementary
- 23 Price Elementary
- 24 J.P. Torres Elementary
- 25 C. L. Taitano Elementary
- 26 Talofoto Elementary
- 27 Tamuning Elementary
- 28 Wettengel Elementary
- 29 H.S. Truman Elementary
- 30 Yigo Elementary
- 31 L.B. Johnson Elementary
- 32 Brodie Memorial
- 33 Harmon Loop Elementary
- 34 J.Q. San Miguel Elementary
- 36 Finegayan Elementary

- 37 M.U. Lujan Elementary
- 38 F.B. Leon Guerrero Elementary
- 40 Deaf & Blind

Departments

- 45 Director's Office
- 47 Personnel Office
- 49 Business Office
- 50 Cafeteria Administration
- 52 Buildings and Grounds
- 54 Elementary Administration
- 56 Secondary Administration
- 58 Interscholastics

Special Education

- 60 Special Education Administration
- 61 Juvenile Justice
- 62 Gifted and Talented
- 63 Gifted Model Pioneer
- 64 Model Resource
- 65 Child Find

Federal Programs

- 70 Federal Programs
- 71 ESEA Title I
- 72 ESEA Title IV

Curriculum & Instruction

- 76 Curriculum & Instruction
- 77 Learning Resources Center
- 78 Teachers' Center
- 79 Teacher Corps
- 80 Head Start
- 81 Staff Inservice

- 87 Pupil Personnel

Chamorro Studies & Special Projects

- 90 Chamorro Studies & Special Projects Administration
- 91 ESAA - Chamorro Language & Culture Program
- 92 Elementary Bilingual-Bicultural Education Program
- 93 ESEA Title VII
- 94 Chamorro Mandate

Residential/Village Areas

- 001 Adelup
- 002 Afame, Sinajana
- 003 Agafa Gumas
- 004 Agana and East Agana
- 005 Agana Heights
- 006 Agana Heights Low-Cost Housing
- 007 Agana Springs
- 008 Agat (Old & New)
- 009 Alupang Cove
- 010 Andersen Air Force Base
- 011 Andersen (South)
- 012 Anigua
- 013 Apra Heights
- 104 Asan
- 015 Ascudo
- 016 As-Ardas
- 017 Aspengao, Barrigada
- 018 Astumbo, Dededo
- 019 Barrigada, East of Route 10
- 020 Barrigada, West of Route 10
- 021 Barrigada Heights
- 022 Baza Gardens
- 023 Banyan Circle
- 024 Belen, Inarajan
- 025 Bordallo & San Vicent
- 026 Bridge Area, South of Maimai Road
- 027 Cabrera Store, Harmon
- 028 Canada, Barrigada
- 029 Carlos Heights
- 030 Chagamin-Lago
- 031 Chalan Pago (South of Rudy Sablan's House)
- 032 Chalan Pago (North of Rudy Sablan's House)
- 033 Chaot
- 034 C & H Farm
- 035 Cliff Hotel-Tutujan
- 036 Cliff Line, Harmon

- 037 Cool Spot (Agana Heights)
- 038 Dededo Village
- 039 Dairy Road
- 040 Didigue, Sinajana
- 041 East Kaiser Housing, Dededo
- 042 West Kaiser Housing, Dededo
- 043 FAA
- 044 Fahajan, Inarajan
- 045 Father Duenas Areas (West/South/Southwest of Crossroad Junction)
- 046 Fonte, Agana Heights
- 047 GHURA 501
- 048 GHURA 502
- 049 GHURA 503
- 050 GHURA 505
- 051 GHURA 506
- 052 Gibson Highway to Bishop's House
- 053 Guam Horizon
- 054 Harmon (North of Airport Road to San Miguel Brewery)
- 055 Haul Road (Route 10/15 to Hawaiian Rock)
- 056 Hawaiian Rock to Marbo
- 057 Hyundai Housing, Santa Rita
- 058 Inarajan (South of cemetery)
- 059 Inedo, Inarajan
- 060 Ipan (From Asanite Bay)
- 061 Laguina
- 062 Lalo, Barrigada
- 063 Lalo, Mangilao
- 064 Latte Heights Estates
- 065 Layang, Barrigada
- 066 Ligan Terrace (Units 1-8, 12, 13A & B)
- 067 Ligan Terrace (Units 9-11 & 14)
- 068 Lockwood Terrace (Naval Station)
- 069 Maga, Mangilao (Mariposa)
- 070 Maina
- 071 Maite
- 072 Malojloj, Inarajan
- 073 Machananao (Munoz Area)
- 074 Macheche (Hilltop)

- 075 Macheche (lower)
- 076 Mangilao
- 077 Marbo Perm/Andersen South
- 078 Marbo to AAFB
- 079 Marianas Terrace
- 080 Mataguac
- 081 Merizo
- 082 Mogfog, Dededo (upper)
- 083 Mogfog, Dededo
- 084 Mongmong
- 085 Mt. Santa Rosa
- 086 Naval Air Station
- 087 Naval Hospital
- 088 Naval Magazine
- 089 Naval Station (North & South Tipalao, Sumay)
- 090 North of Chaot Bridge
- 091 NAS, Barrigada
- 092 NCS, Barrigada
- 093 NCS, Astumbo
- 094 NCS, DOD Housing (Old)
- 095 NCS, DOD Housing (New)
- 096 Nimitz Beach (to Santa Ana Chapel)
- 097 Nimitz Hill & Nimitz Hill Estates
- 098 Northwest of Route 10 to Father Duenas Sabanan Magas
- 099 NCS Base Proper
- 100 Northwest Field
- 101 Oceanview (FAA)
- 102 Ordot
- 103 Paasan, Agana Heights
- 104 Palm Acres
- 105 Pagat, Mangilao
- 106 Pago Bay
- 107 Palai, Piti
- 108 Palm Dale, Agana Heights
- 109 Perez Gardens
- 110 Peca, Inarajan
- 111 Perez Acres, Yigo
- 112 Piti

- 113 Poinciana
- 114 Radio, Barrigada
- 115 South BPM (Voc-Tech to East of UOG)
- 116 Salaglula
- 117 San Antonio, Barrigada
- 118 Santa Rita
- 119 Salas #2 Subdivision
- 120 Sumay
- 121 Sinajana
- 122 Tai (South of Route 10)
- 123 Talofoto
- 124 Tamuning (North & South of Marine Drive to Airport Road)
- 125 Tongan
- 126 Toto
- 127 Toto, Barrigada (North)
- 128 Toto Low Cost Housing
- 129 Trust Territory Housing (Maite)
- 130 Tumon Heights and Tumon proper
- 131 Tumon Village Apartments
- 132 Tutujan
- 133 Talisay
- 134 Takano
- 135 Umatac
- 136 UOG to Dean's Circle
- 137 War Dog Cemetery Area
- 138 West to Tutujan Road
- 139 Wilson Homes
- 140 Windward Hills
- 141 Yigo
- 142 Yona
- 143 Y-Pao Pao

Grade/Level

- 14 Prekindergarten
- 15 Kindergarten
- 01 First Grade
- 02 Second Grade
- 03 Third Grade
- 04 Fourth Grade
- 05 Fifth Grade
- 06 Sixth Grade
- 07 Seventh Grade
- 08 Eighth Grade
- 09 Ninth Grade
- 10 Tenth Grade
- 11 Eleventh Grade
- 12 Twelfth Grade
- 20 Unassigned Grade Level

Racial/Ethnic Group

- 01 Chamorro
- 02 Filipino
- 03 Micronesian
- 04 Northern Marianas
- 05 Other Pacific Islander
- 06 Chinese
- 07 Japanese
- 08 Korean
- 09 Vietnamese
- 10 Other Asian
- 11 American Indian
- 12 Black
- 13 Hispanic
- 14 White Caucasian
- 15 Other

Languages

- 01 Cantonese
- 02 Chamorro
- 03 English
- 04 Ilocano
- 05 Japanese
- 06 Korean
- 07 Mandarin
- 08 Tagalog
- 09 Trust Territory
- 10 Vietnamese
- 11 Visayan
- 12 Other

Sex

- 1 Male
- 2 Female

Any Date

A six digit code:

- First 2 digits - Month
- Middle 2 digits - Day
- Last 2 digits - Year

Evidence Verifying Date of Birth

- 1 Birth certificate
- 2 Hospital certificate
- 3 Physician certificate
- 4 Baptismal or church certificate
- 5 Parent's affidavit
- 6 Entry in family bible
- 7 Passport
- 8 Previously verified school record
- 9 Other

Citizenship Status

- 1 U.S. Citizen
- 2 Resident Alien (6th preference or green card)
- 3 I-20 Student
- 4 Non-resident Alien

Federal Status of Parents**Part I:**

- 01 Navy military
- 02 Navy civilian employee
- 03 Air Force military
- 04 Air Force civilian employee
- 05 Army military
- 06 Army civilian employee
- 07 Coast Guard military
- 08 Coast Guard civilian military
- 09 Marine military
- 10 Marine civilian employee
- 11 Other federal
- 12 Nonfederal

Part II:

- 01 Lives on federal property
- 02 Works on federal property
- 03 Lives and works on federal property
- 04 None of the above

Entry/Re-entry

- 1 Original Entry
- 2 Re-entry from another public school in Guam
- 3 Re-entry from a non-public school in Guam
- 4 Re-entry from a school outside Guam
- 5 Re-entry to a Guam Public School after withdrawal or expulsion

Withdrawal**Transfers:**

- 11 Transferred to another public school in Guam
- 12 Transferred to a non-public school in Guam
- 13 Transferred to Guam Vocational High School
- 14 Committed to a correctional institution
- 15 Moved from Guam, military dependent
- 16 Moved from Guam, civilian dependent

Completion:

- 21 Graduated from high school

Expulsion:

- 31 Expelled

Deceased:

- 41 Deceased

Dropout:

- 51 Voluntary withdrawal due to inability to adjust to school
- 52 Marriage
- 53 Probable employment
- 54 Verified employment
- 55 Needed at home
- 56 Pregnancy (without doctor's certification)
- 57 Pregnancy (with doctor's certification)
- 58 Other physical/medical reason (with doctor's certification)
- 59 Other physical/medical reason (without doctor's certification)

Unknown:

- 70 Unknown

Subjects/CoursesElementary

- 0100 Art
- 0200 Health
- 0300 Language Arts
 - 0310 Language
 - 0320 Penmanship
 - 0340 Reading
 - 0350 Spelling
- 0400 Math
- 0500 Music
- 0600 Physical
- 0700 Science
- 0800 Social Studies

Secondary

- Agriculture
 - 1000 Agriculture I

Art

- 1100 Art 7
- 1105 Art 8
- 1110 Art I
- 1115 Art II
- 1120 Art III
- 1125 Acrylic Painting
- 1130 Basic Design
- 1135 Ceramics
- 1140 Drawing
- 1145 Printmaking/woodcut
- 1150 Silkscreen painting

Business

- 1200 Accounting I
- 1204 Accounting II
- 1208 Business English
- 1212 Business Law
- 1216 Business Math
- 1220 Business Methods
- 1224 Business Machines
- 1228 Calculating Machines
- 1232 Clerical Office Practice
- 1236 Consumer Affairs
- 1240 Duplicating Machines
- 1244 Filing
- 1248 General Business
- 1252 Human Relations in Business
- 1256 Introduction to Business
- 1260 Money Management
- 1264 Office Aide
- 1268 Recordkeeping
- 1272 Shorthand I
- 1276 Shorthand II
- 1280 Typing I
- 1284 Typing II
- 1288 Typing, Clerical
- 1292 Typing, Production

- 1296 Typing, Refresher
- 1298 Typing, Reports/Manuscripts

Chamorro Language

- 1300 Chamorro

Distributive Education

- 1400 Distributive Education

English Language Arts

- 1500 Language Arts 7
- 1503 Language Arts 8
- 1506 Language Arts 9
- 1507 Bilingual Language Arts
- 1512 GTP Language Arts
- 1515 English 10A
- 1518 English 10B
- 1521 English 11
- 1524 English 12
- 1527 Basic Writing
- 1530 Developmental Reading
- 1533 Drama
- 1536 Ethnic/Africa Literature
- 1539 Grammar
- 1542 Individualized Reading
- 1545 Journalism
- 1548 Library Service I
- 1551 Library Service II
- 1554 Literature of the Sea
- 1557 Newspaper
- 1560 Newspaper Use/Mass Media
- 1563 Oral Interpretation
- 1566 Philosophy in Literature
- 1569 Reading Lab
- 1572 Reading Seminar
- 1575 Shakespeare
- 1578 Speech

- 1581 TESOL
- 1584 Words/Words
- 1587 Yearbook

Foreign Languages

- 1600 French I
- 1601 French II
- 1625 Japanese I
- 1626 Japanese II
- 1627 Japanese III
- 1630 Japanese Calligraphy
- 1650 Spanish I
- 1651 Spanish II

Home Economics

- 1700 Home Economics 7
- 1704 Home Economics 8
- 1708 Home Economics I
- 1712 Chamorro Cooking
- 1716 Child Development
- 1720 Clothing
- 1724 Cooking Tools
- 1728 Custom Clothing
- 1732 Family Relations
- 1736 First Aid
- 1740 Foods
- 1744 Foods From Animals
- 1748 Foods From Plants
- 1752 Health & Hygiene
- 1756 Home and Interior
- 1760 Home Crafts
- 1764 Home Nursing
- 1768 Home Skills
- 1772 Human Sexuality
- 1776 Nursing Assistant I
- 1780 Nursing Assistant II
- 1784 Nutrition
- 1788 Personal Adjustment

1792 Sewing I

1796 Sewing II

Industrial Arts

1800 Industrial Arts 7

1805 Industrial Arts 8

1810 Industrial Arts I

1815 Architectural Drawing

1820 Drafting I

1825 Drafting II

1830 Mechanical Drawing

1835 Metals I

1840 Metals II

1845 Woodworking I

1850 Woodworking II

Mathematics

1900 Math 7

1905 Math 8

1910 General Math

1915 Algebra A/B

1920 Algebra I

1925 Algebra II

1930 Analytic Geometry

1935 Banking/Investing

1940 Budget/Insurance

1945 Career Math

1950 Computer Science

1955 Elementary Functions

1960 Geometry I

1965 Geometry II

1970 Taxes

1975 Trigonometry

Music

2000 Band, Beginning

2005 Band, Intermediate

2010 Band, Advanced

- 2015 Band, Concert
- 2020 Band, Stage
- 2025 Chorus, Beginning
- 2030 Chorus, Intermediate
- 2035 Chorus, Advanced
- 2040 General Music
- 2045 Music Symbols

Physical Education

- 2100 Physical Education 7
- 2103 Physical Education 8
- 2106 Physical Education 9
- 2109 GTP Physical Education
- 2112 Adaptive Physical Education
- 2115 Aerobics (Beginning)
- 2118 Aerobics (Intermediate)
- 2121 Aerobics Dance
- 2124 Aikido (Beginning)
- 2127 Aikido (Intermediate)
- 2130 Archery (Beginning)
- 2133 Archery (Intermediate)
- 2136 Badminton/Table Tennis
- 2139 Basketball (Beginning)
- 2142 Basketball (Intermediate)
- 2145 Bicycling
- 2148 Bowling
- 2151 Bowling (Intermediate)
- 2154 Boxing
- 2157 Creative Dance (Beginning)
- 2160 Creative Dance (Intermediate)
- 2163 Fencing
- 2166 Field Hockey
- 2169 Fitness and Conditioning
- 2172 Flag Football
- 2175 Flag Football/Speedball
- 2178 Football Officiating
- 2181 Folk and Square Dancing (Beginning)

- 2184 Folk and Square Dancing (Intermediate)
- 2187 Football
- 2190 Golf
- 2193 Gymnastics
- 2196 Gymnastics (Intermediate)
- 2199 Gymnastics (Advanced)
- 2202 Handball/Shuffleboard
- 2205 Handball/Racketball
- 2208 Health
- 2211 Hiking and Survival Fitness
- 2214 Horseback Riding
- 2217 Intramural Planning
- 2220 Island Dance
- 2223 Island Dance (Intermediate)
- 2226 Judo
- 2229 Physical Conditioning
- 2232 Physical Education for Elementary
- 2235 Racketball/Recreation Games (Beginning)
- 2238 Racketball/Recreation Games (Intermediate)
- 2241 Recreational Games
- 2244 Rhythms
- 2247 Soccer (Beginning)
- 2250 Soccer (Intermediate)
- 2253 Soccer (Advanced)
- 2256 Soccer Officiating
- 2259 Social Dance (Beginning)
- 2262 Social Dance (Intermediate)
- 2265 Softball (Beginning)
- 2268 Softball (Intermediate)
- 2271 Speedball
- 2274 Sports Facilities
- 2277 Swimming (Non)
- 2280 Swimming (Beginning)
- 2283 Swimming (Intermediate)
- 2286 Swimming (Advanced)
- 2289 Synchronized Swimming
- 2292 Tennis (Beginning)
- 2295 Tennis (Intermediate)

- 2298 Tennis (Advanced)
- 2301 Track and Field (Beginning)
- 2304 Track and Field (Intermediate)
- 2307 Theory of Physical Education
- 2310 Tumbling (Beginning)
- 2313 Tumbling (Intermediate)
- 2316 Volleyball (Beginning)
- 2319 Volleyball (Intermediate)
- 2322 Volleyball (Power)
- 2325 Weight Control
- 2328 Weight Training (Beginning)
- 2331 Weight Training (Intermediate)
- 2334 Weight Training (Advanced)
- 2337 Wrestling
- 2340 Yoga (Beginning)
- 2343 Yoga (Intermediate)
- 2346 Physical Education Aide
- 2349 Physical Education Seminar

Science

- 2503 Science 7
- 2506 Science 8
- 2609 Science 9
- 2512 GTP Science
- 2515 Air & Space
- 2518 Biology I
- 2521 Biology II
- 2524 Biology, Environmental
- 2527 Biology, Human
- 2530 Biology, Marine
- 2533 Chemistry A
- 2536 Chemistry B
- 2539 Chemistry, General
- 2542 Chemistry, Advanced
- 2545 Earth
- 2548 Electronics I
- 2551 Electronics II

- 2554 Energy Resources
- 2557 Evaluation
- 2560 Experience in Science
- 2563 Human Anatomy & Physiology
- 2566 Natural Science
- 2569 Physical Science, Chemistry
- 2572 Physical Science, Physics
- 2575 Physics
- 2578 Physics, Mechanics
- 2581 Physics, Light & Sound
- 2584 Physics, Magnetism & Power
- 2587 Science, Past & Present
- 2590 Science Seminar

Social Studies

General

- 2610 Social Studies 7
- 2612 Social Studies 8
- 2614 Social Studies 9
- 2616 Honors Social Studies
- 2618 Bilingual Social Studies

Anthropology

- 2630 Africas
- 2632 Americas
- 2634 Eurasia
- 2636 S.E. Asia, Oceania, Australia

Government

- 2640 Constitutional Government
- 2642 Government & The Consumer
- 2644 Government of Guam
- 2646 International Government

History

U.S.

- 2650 Exploration to 1898
- 2652 1898 to Present
- 2654 Guam History

World

- 2660 Beginning Western Civilization
- 2662 Far East History
- 2664 Philippines & S.E. Asia
- 2666 World in Turmoil

Psychology

- 2670 Psychology

Sociology

- 2680 Sociology

ROTC

- 3000 ROTC I
- 3010 ROTC II
- 3020 ROTC III

Driver Education

- 4000 Driver Education

Position

2107	Accountant I
2108	Accountant II
2109	Accountant III
2110	Accountant IV
0502	Accounting Clerk
2103	Accounting Technician I
2104	Accounting Technician II
2105	Accounting Technician III
2106	Accounting Technician Supervisor
2004	Administrative Assistant
0319	Administrative Secretary
3247	Administrator, Learning Resources Center
3225	Administrator, Planning-Evaluation Federal Programs
3229	Administrator, Pupil Personnel Services
2174	Administrator, Supply Management
2173	Assistant Administrator, Supply Management
2194	Assistant Director for Financial Affairs
3274	Assistant Director of Multi-Media
3227	Assistant Director, Public Information Office
0520	Assistant Payroll Supervisor
3223	Assistant School Principal (Elementary, Secondary, Special or Career Education)
2422	Assistant Superintendent for Buildings and Grounds
2161	Assistant Superintendent for Food Services
2424	Associate Superintendent, Buildings and Grounds
3236	Associate Superintendent, Curriculum & Instruction
3237	Associate Superintendent, Elementary
3254	Associate Superintendent for Personnel Services
3238	Associate Superintendent Secondary Education
3244	Associate Superintendent Special Education
3285	Attendance Officer I
3286	Attendance Officer II
3287	Attendance Officer Supervisor
7177	Audiometrist

2128	Auditor I
2129	Auditor II
2130	Auditor III
2168	Buyer I
2169	Buyer II
2170	Buyer III
2171	Buyer Supervisor
1008	Card Punch Operator I
1009	Card Punch Operator II
1011	Card Punch Operator III
1012	Card Punch Operator IV
1013	Card Punch Operations Supervisor
0003	Clerk I
0004	Clerk II
0005	Clerk III
0006	Clerk IV
0007	Clerk V (Supervisor)
0201	Clerk Typist I
0202	Clerk Typist II
0204	Clerk Typist III
0206	Clerk Typist IV
3004	Community Development Program Aide I
3006	Community Development Program Aide II
2185	Computer System Analyst I
2186	Computer System Analyst II
2187	Computer System Analyst III
2188	Computer System Analyst IV
2189	Computer System Analyst V
3409	Coordinator of Library Service and Curriculum Materials Center
7131	Coordinator, School Health Counseling
1034	Data Control Clerk I
1035	Data Control Clerk II
1036	Data Control Clerk III
1037	Data Control Clerk IV
1038	Data Control Clerk V
1040	Data Control Supervisor
3219	Deputy Superintendent of Education

2193	Employee-Management Relations Office
2109	General Accounting Supervisor
3259	Graphic Artist Technician I
3260	Graphic Artist Technician II
3261	Graphic Artist Technician III
3262	Graphic Artist Technician IV
3277	Head Start Assistant Director
7180	Head Start Health Coordinator
3280	Head Start Parent Volunteer Program Coordinator
3278	Head Start Program Director
3276	Head Start Teacher Trainee
3300	JROTC Instructor I
3301	JROTC Instructor II
3302	JROTC Instructor III
3303	JROTC Instructor IV
3304	JROTC Director of Instructions
3403	Librarian I
3404	Librarian II
3405	Librarian III
3406	Librarian IV
3407	Librarian V
3400	Library Technician I
3401	Library Technician II
3402	Library Technician III
3269	Multi-Media Coordinator
3273	Multi-Media Maintenance Coordinator
7145	Nutrition Program Specialist
7122	Occupational Therapist I
7123	Occupational Therapist II
7124	Occupational Therapist III
7125	Occupational Therapist IV
7119	Occupational Therapy Aide I
7120	Occupational Therapy Aide II
7121	Occupational Therapy Aide III
0521	Payroll Supervisor
2140	Personnel Specialist I
2141	Personnel Specialist II

2142	Personnel Specialist III
2143	Personnel Specialist IV
2144	Personnel Specialist V
7140	Physical Therapist I
7141	Physical Therapist II
7142	Physical Therapist III
7143	Physical Therapist IV
7155	Physical Therapy Attendant I
7156	Physical Therapy Attendant II
7157	Physical Therapy Technician I
7158	Physical Therapy Technician II
7159	Physical Therapy Technician III
2026	Program Coordinator I
2027	Program Coordinator II
2028	Program Coordinator III
3216	School Aide I
3217	School Aide II
3218	School Aide III
3231	School Consultant in Special Area
7127	School Health Counselor I
7128	School Health Counselor II
7129	School Health Counselor III
7130	School Health Counselor IV
3222	School Principal (Elementary, Secondary, Special, or Career Education)
3232	School Program Consultant
3018	Social Worker I
3019	Social Worker II
3020	Social Worker III
3021	Social Worker IV
3245	Special Education Programs Supervisor (Deaf & Blind)
7170	Speech and Language Clinician I
7171	Speech and Language Clinician II
0603	Statistical Clerk
0401	Store Keeper I
0402	Store Keeper II
0404	Store Keeper III
2423	Superintendent, Maintenance

3201	Teacher I
3202	Teacher II
3203	Teacher III
3205	Teacher IV
3206	Teacher V
3207	Teacher VI
0407	Tool Clerk
3211	Vocational Instructor
0414	Warehouse Supervisor I
0415	Warehouse Supervisor II
0416	Warehouse Supervisor III
0417	Warehouse Supervisor IV
9307	Automotive Mechanic I
9308	Automotive Mechanic II
9309	Automotive Mechanic Leader
9310	Automotive Mechanic Supervisor
8101	Building Custodian I
8102	Building Custodian II
8103	Building Custodian Supervisor
9208	Carpenter I
9209	Carpenter II
9210	Carpenter Leader
9211	Carpenter Supervisor
8211	Cook's Assistant
8212	Cook I
8214	Cook II
9218	Electrician I
9219	Electrician II
9220	Electrician Leader
9221	Electrician Supervisor
9601	Equipment Operator I
9602	Equipment Operator II
9603	Equipment Operator III
9605	Equipment Operator Leader
8203	Kitchen Helper
9365	Locksmith I
9366	Locksmith II
9367	Locksmith Leader

9110	Maintenance Leader
9111	Maintenance Supervisor
9108	Maintenance Worker
9287	Multi-Media Technician I
9288	Multi-Media Technician II
9289	Multi-Media Technician Leader
9356	Office Equipment Repairer I
9357	Office Equipment Repairer II
9358	Office Equipment Repairer Leader
9203	Painter I
9204	Painter II
9205	Painter Leader
9206	Painter Supervisor
9333	Plumber I
9334	Plumber II
9335	Plumber Leader
9336	Plumber Supervisor
9344	Refrigeration Mechanic I
9345	Refrigeration Mechanic II
9347	Refrigeration Mechanic Leader
9346	Refrigeration Mechanic Supervisor
8220	School Cafeteria Manager
9201	Trades Helper
9319	Welder I
9320	Welder II
9321	Welder Leader
9322	Welder Supervisor

Site

A three digit number. For sites with school buildings, the school number will be used as the last two digits of the site number:

- 102 Untalan Jr.
- 103 Inarajan Jr.
- etc.

Structure or Special Area on Site

- 01 football field
- 02 baseball field
- 03 basketball court
- 04 tennis court
- 05 track and field area
- etc.

Method of Site Acquisition

- 1 purchase
- 2 lease (rent)
- 3 loan
- 4 gift
- 5 exchange
- 9 other

Type of Building

A code for the primary purpose of the building:

Exterior Walls

- 1 wood
- 2 other masonry
- 3 metal
- 4 panel
- 5 concrete block
- 6 poured concrete
- 7 none
- 9 other

Floor Framing

- 1 wood framing
- 2 concrete on grade
- 3 wood on steel
- 4 concrete slab on steel framing
- 5 concrete slab on concrete framing
- 6 steel on steel
- 9 other

Fixed Interior Walls

- 1 wood frame
- 2 masonry
- 3 metal
- 9 other

Roof framing

- 1 wood
- 2 steel
- 3 concrete
- 9 other

Roof Membrane

- 1 tar or pitch
- 2 tile
- 3 slate
- 4 metal
- 5 plastic
- 6 wood shingles
- 7 asphalt shingles
- 8 asbestos
- 9 other

Material in Structural System

- 1 steel
- 2 concrete
- 3 wood
- 9 other

Type of Space or Room

- 1000 assignable space
- 1100 regular instructional space
- 1200 special instructional space
 - 1201 athletic/physical education
 - 1202 business education
 - 1203 home economics
 - 1204 industrial arts
 - 1205 kindergarten
 - 1206 mathematics laboratory
 - 1207 media-based instructional laboratory
 - 1208 music
 - 1209 planetarium
 - 1210 science
 - 1211 special space for exceptional children
 - 1212 computer/data processing (instructional)
 - 1213 darkroom (instructional)
 - 1214 motion picture studio (instructional)
 - 1215 radio studio (instructional)

- 1216 sound studio (instructional)
- 1217 television studio (instructional)
- 1299 other special instructional spaces
- 1300 learning resources space
- 1400 multiple purpose space
 - 1410 auditorium
 - 1420 cafeteria
 - 1430 cafetorium
 - 1440 gymnasium
 - 1450 other multiple-purpose
- 1500 support space
 - 1501 computer/data processing
 - 1502 conference room
 - 1503 dark room
 - 1504 equipment room
 - 1505 health care
 - 1506 maintenance and repair
 - 1507 motion picture studio
 - 1508 office
 - 1509 projection room
 - 1510 radio studio
 - 1511 residential
 - 1512 sound studio
 - 1513 storage
 - 1514 television studio
 - 1515 vehicle storage
 - 1580 general support
 - 1590 other support
- 2000 nonassignable space
 - 2100 circulation
 - 2200 custodial
 - 2300 mechanical
 - 2400 structural

Equipment Type

- 1000 instructional equipment
- 1100 instructional device
 - 1110 audio device
 - 1120 computer device
 - 1130 graphics device
 - 1140 electronic display device
 - 1150 photographic device
 - 1160 projected display device
 - 1170 physical display device
 - 1180 subject matter related device
 - 1181 art equipment
 - 1182 business education equipment
 - 1183 driver education equipment
 - 1184 homemaking equipment
 - 1185 industrial arts equipment
 - 1186 music equipment
 - 1187 physical education equipment
 - 1188 scientific laboratory equipment
 - 1189 other subject matter related equipment
 - 1190 other instructional device
- 1200 recorded instructional materials
 - 1210 audiorecording materials
 - 1220 computer materials
 - 1230 electronic display materials
 - 1240 projected materials
 - 1250 printed/pictorial materials
 - 1260 three-dimensional materials
 - 1270 multi-media kits
 - 1290 other recorded instructional materials
- 1900 other instructional equipment
- 2000 other equipment
- 2100 furniture
- 2200 machinery and apparatus
 - 2210 hand tools
 - 2220 bench, desk or floor machinery (office)
 - 2230 bench, desk or floor machinery (nonoffice)

- 2240 heavy construction machinery
- 2300 vehicle
- 2900 other

Equipment Maintenance Schedule

- 0 none
- 1 annually
- 2 quarterly
- 3 monthly
- 4 weekly
- 5 after each use
- 9 other

DATA FILES

The management information system will consist of five major files. One of those files, finance, has already been developed and is maintained by the Department of Administration (DOA). The Department of Education (DOE) will develop and maintain the other four files - students, staff, instructional programs and property. Each major file will consist of primary and secondary subfiles. Primary files are those that apply to all elements of a category. For example, some student information will be stored on every Guam student - name, date of birth, sex, etc. Some items of data, however, only apply to a particular group of students. For example, some data will be stored for students who are in special education but not for the non-special education students. The data specifically for special education students will be stored in a secondary file. Student number will be used to link the primary and secondary student files.

Following are file formats for the primary and some of the secondary files. For each item, the name of the item is provided as well as the amount of reserved storage space and an indication of whether the data is numeric (N) or alphabetic (A).

Students

Primary student file. The primary student file includes basic current data on all students.

Student Number 6N	Current School 2N	Grade Level 2N	Name			Sex 1N	Racial/Ethnic Group 2N
			Last 16A	First 10A	Middle 7A		

Language		Date of Birth 6N
Spoken by Parents at Home 2N	Spoken by Student at Home 2N	

Citizenship Status 1N	Parent Name			Mailing Address		
	Last 16A	First 10A	Middle 7A	P.O. Box or St. 15A	Village/City 15A	Zip 5N

Residential/Village Area 3N	Entry		School From Which Received 2N or 45A	Standardized test		
	Date 6N	Type 2N		Test ID 2N	Date 6N	Subtest 10A

(repeated 5 times)				Federal Status	
Score 3N	Type of Score 1N	(Subtest repeated 5 times)		Part I 2N	Part II 2N

Special Program Status				
Transported 1N	Head Start 1N	Special Education 1N	Title I 1N	Bilingual/Bicultural 1N

Withdrawal	
Date 6N	Type 2N

Secondary Student file - Courses, grades and attendance. This file stores past data on courses taken, grades received and annual attendance. There will be one of these records for each year a student is in school.

Student Number	School Year (Last 2 digits)	Grade Level	Courses/Grades (Repeated 8 times)	
			Course	Grade
6N	2N	2N	4N	1A

Attendance	
Days present	Days absent
3n	3n

Secondary Student file - current courses, grades and attendance. This file stores courses taken, grades received and a daily attendance record for the current school year.

Student Number	Current School	Grade Level	Homeroom Teacher	Counselor	Course	Teacher
6N	2N	2N	9N	9N	3N	9N

Grades					(Course/teacher/grades repeated 6 times)
1st Q	2nd Q	3rd Q	4th Q	Final	
1A	1A	1A	1A	1A	

Attendance					
Day 1	Day 2	Day 3			Day 180
1N	1N	1N			1N

Secondary Student file - special education. Records for all special education students will be kept in this file.

Student Number	Spec. Ed. File No.	Re-evaluation Date		IIP Complete	Transportation Needed
		Scheduled	Completed		
6N	6N	6N	6N	1N	1N

Comments	Resource Room Services Provided						
	Reading	Math	Lang. Arts	Science	Soc. Stu.	Motor	Visual
40A	1N	1N	1N	1N	1N	1N	1N

Resource Rm. Svcs. (Cont.)				Program Status	
Behavioral	Music	Art	Voc. Ed.	Consultant Svcs.	Consultant Tchr. Svcs.
1N	1N	1N	1N	1N	1N

Program Status (continued)			
Adaptive P.E.	Speech & Lang.	Physical Therapy	Occup. Therapy
1N	1N	1N	1N

Program Status (continued)			
Itinerant Hearing	Interp. Svcs.	Itin. Vision	Homebound Hdc.
1N	1N	1N	1N

Program Status (continued)			
Homebound Hosp.	Nutrit.	Reg. Classrm.	Couns. Svcs.
1N	1N	1N	1N

Program Status (continued)			
Date of last Psych. Test	Status	Status Date	Date of 3-year Re-eval.
6N	1N	6N	4N (mo. & yr.)

Services Needed But Not Provided				
Res. Rm.	Cons. Svcs.	Cons. Tchr. Svcs.	Adaptive P.E.	Speech & Lang.
1N	1N	1N	1N	1N

Services Needed But Not Provided (continued)				
Phys. Therapy	Occup. Therapy	Itin. Hearing	Interp. Svcs.	Itin. Vision
1N	1N	1N	1N	1N

Services Needed But Not Provided (continued)				
Homebound Hdc.	Homebound Hosp.	Nutrit.	Reg. Classrm.	Couns. Svcs.
1N	1N	1N	1N	1N

Secondary Student files - Other Special Programs. Secondary student files, similar to the special education file, will be established for students in other special programs such as Head Start, Title I and Bilingual/Bicultural. In each case, the student number will be included, followed by data pertinent to the particular special program.

Student Number	Grade	Section	Teacher	Room	Building
101	10	101	Mr. Smith	101	101

Student Number	Grade	Section	Teacher	Room	Building
102	10	102	Mr. Smith	102	102

Student Number	Grade	Section	Teacher	Room	Building
103	10	103	Mr. Smith	103	103

Student Number	Grade	Section	Teacher	Room	Building
104	10	104	Mr. Smith	104	104

Student Number	Grade	Section	Teacher	Room	Building
105	10	105	Mr. Smith	105	105

Personnel

Primary Personnel file. The primary personnel file includes current data on all staff. Payroll data is not included since that data is already stored as part of the GOA system. It is assumed, however, that the DOE primary personnel file as well as other DOE files can be related to the data in the payroll file.

Social Security Number 9N	Name			Sex 1N	Racial/Ethnic Background 2N	Date of Birth 6N	Citizenship Status 1N
	Last 16A	First 10A	Middle 7A				

Home Address			Phone Number 7N	Highest Degree or certificate 1N
P.O. Box or St. 15A	Village/City 15A	Zip 5N		

Educational Institution				Date of Degree 4N	Credit Beyond Degree 4N	Certificate Held 2N	Certificate Type 1N
Name 15A	City 15A	State 2A	Country 3A				

Year of Expiration 2N	History Requirement 1N	Authorized Teaching Field								Job Classification 3N
		1 2N	2 2N	3 2N	4 2N	5 2N	6 2N	7 2N	8 2N	

School/Dept. Assignment 2N	Subject Areas Taught				
	1 2N	2 2N	3 2N	4 2N	5 2N

Instructional Programs

Primary subject/course file. This file is used to store data on subjects/courses taught in the Guam schools. There is one record for each subject/course. The "credits" field only applies to secondary school courses.

Number	Name	Course Credit
4N	16A	5N

Property

Primary Site file. This file is used to store site data. There will be one record for each original site and one for each addition.

Number	Addition Number	Name	Location	Area	Structure (Repeated 5 times)	Method of Acquisition
3N	1N	15A	30A	4N	2N	1N

Date of Acquisition	Cost of Acquisition	Market Value
6N	8N	8N

Primary Building file. This file is used to store building data. There will be one record for each original building and one for each addition.

Number	Site Number	Addition Code	School or Unit Name	Building Name	Type	Student Capacity	Date Completed
4N	3N	1N	15A	15A	2N	4N	6N

Cost of Acquisition	Date of Acquisition	Expected Life	Book Value	Replacement Cost	Exterior Walls	Floor Framing
8N	6N	2N	8N	8N	1N	1N

Interior Walls	Roof Framing	Roof Membrane	Structure System	Gross	Floor Area	
1N	1N	1N	1N	5N	Assignable	Instruction
					5N	5N

Floor Area (continued)				Accessibility to Handicapped			
Learning Resources	Other	Shelter	Entrance	Instruction	Toilets	Doors	
5N	5N	5N	1N	1N	1N	1N	

Primary Building Maintenance file. This file will store records of building repair and maintenance.

Building Number	Order Number	Date Completed	Cost	Description
4N	8N	6N	5N	40A

Primary Building Modification file. This file will be used to store data on building modifications (alterations, renovations, remodeling).

Building Number	Order Number	Date Completed	Cost	Description
4N	8N	6N	6N	40A

Primary Space (Room) file. This file will be used to store data on building spaces (rooms).

Building Number	Space (Room) Number	Area	Type	Student Capacity
4N	3N	4N	4N	4N

Primary Equipment file. This file will be used to store data on equipment.

Tag Number	Inventory Number	Type	Description	Mobility	Serial Number	Vendor
12N	8N	4N	30A	1N	12N	15A

Manufacturer	Brand	Model Number	Location (Building)	Date of Acquisition	Cost	Expected Life
15A	15A	10A	4N	6N	6N	2N

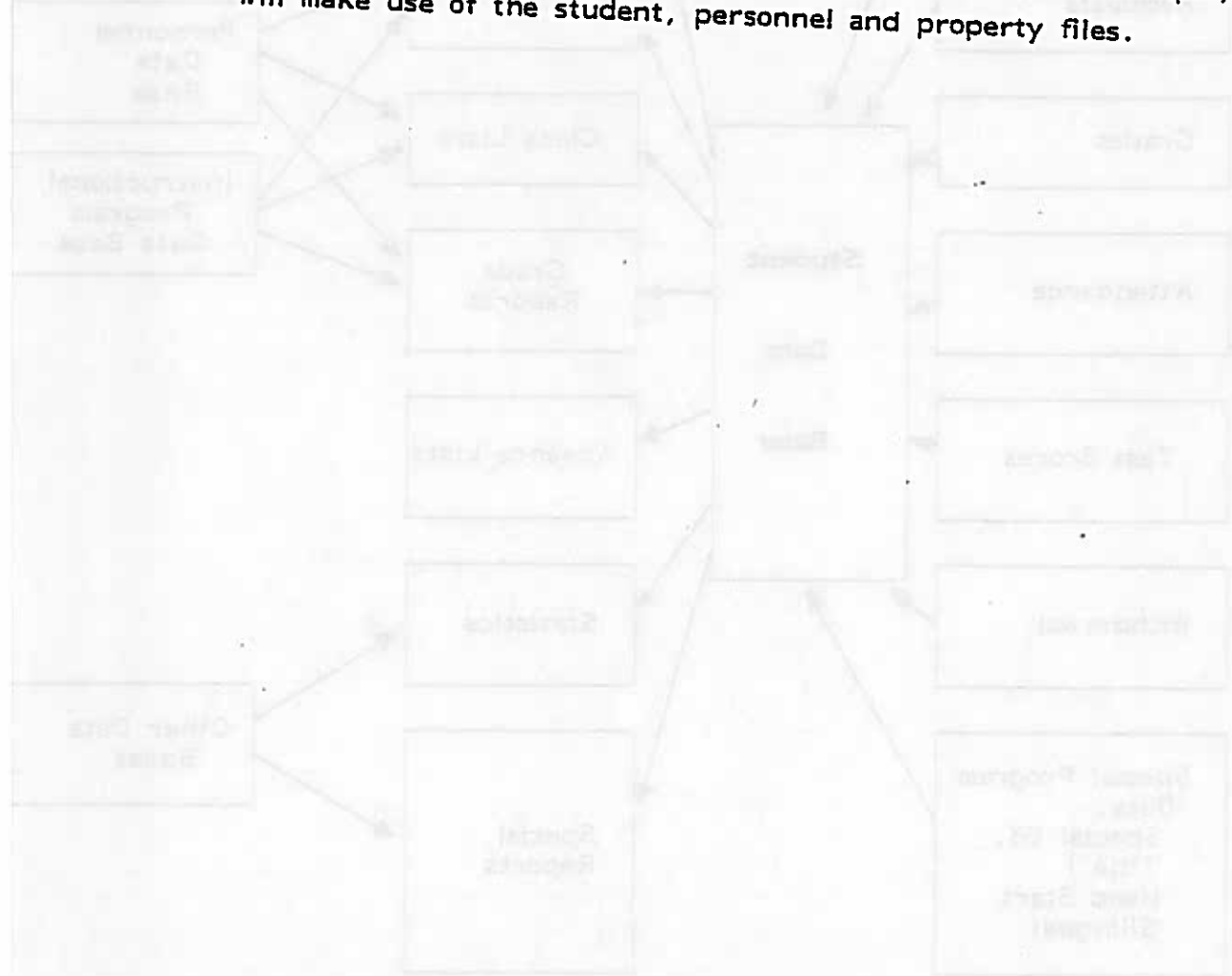
Maintenance	Disposition		
Schedule	Reason	Date	Method
1N	1N	6N	1N

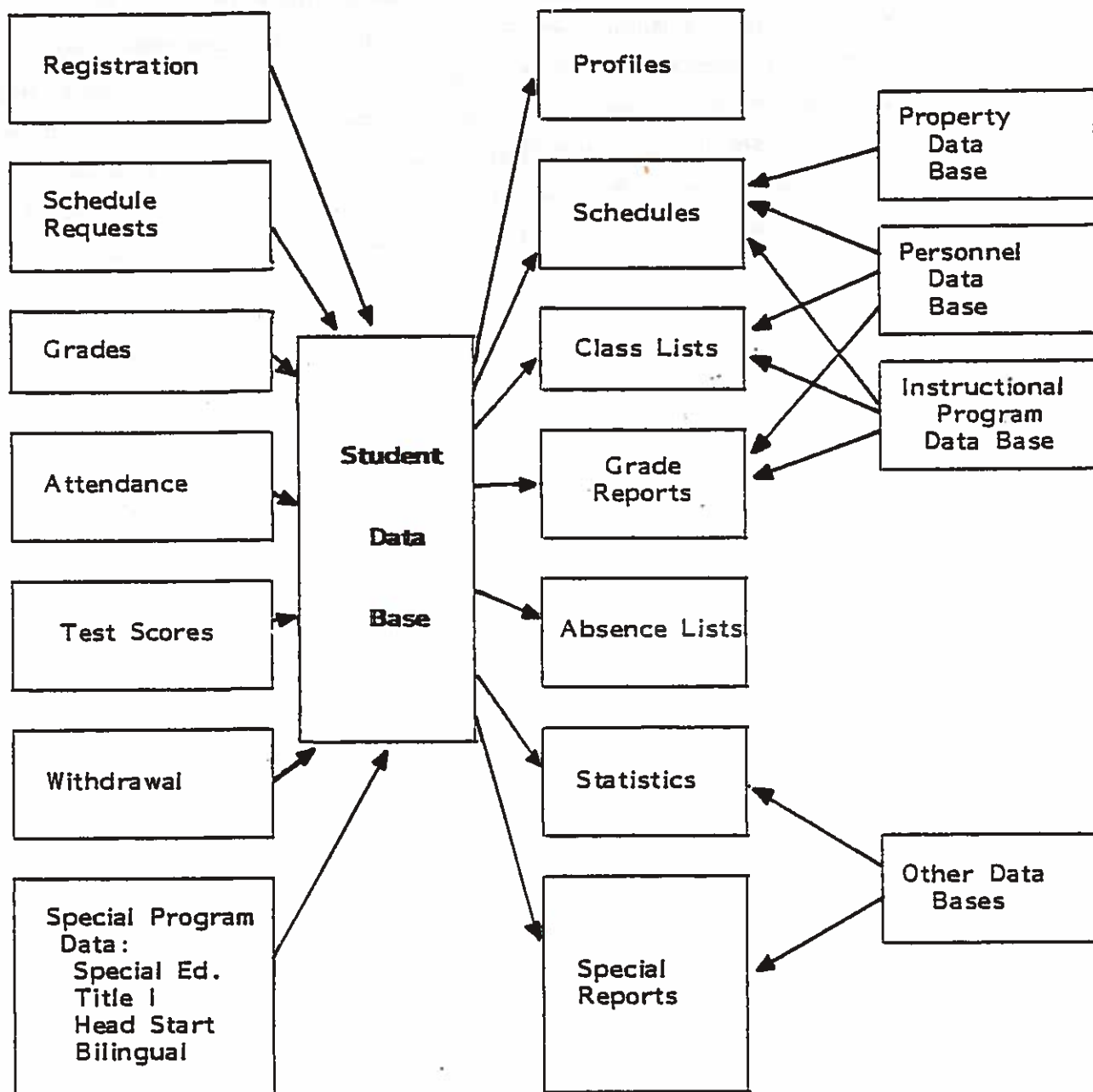
Primary Equipment Maintenance file. This file will be used to store data on equipment repair and maintenance.

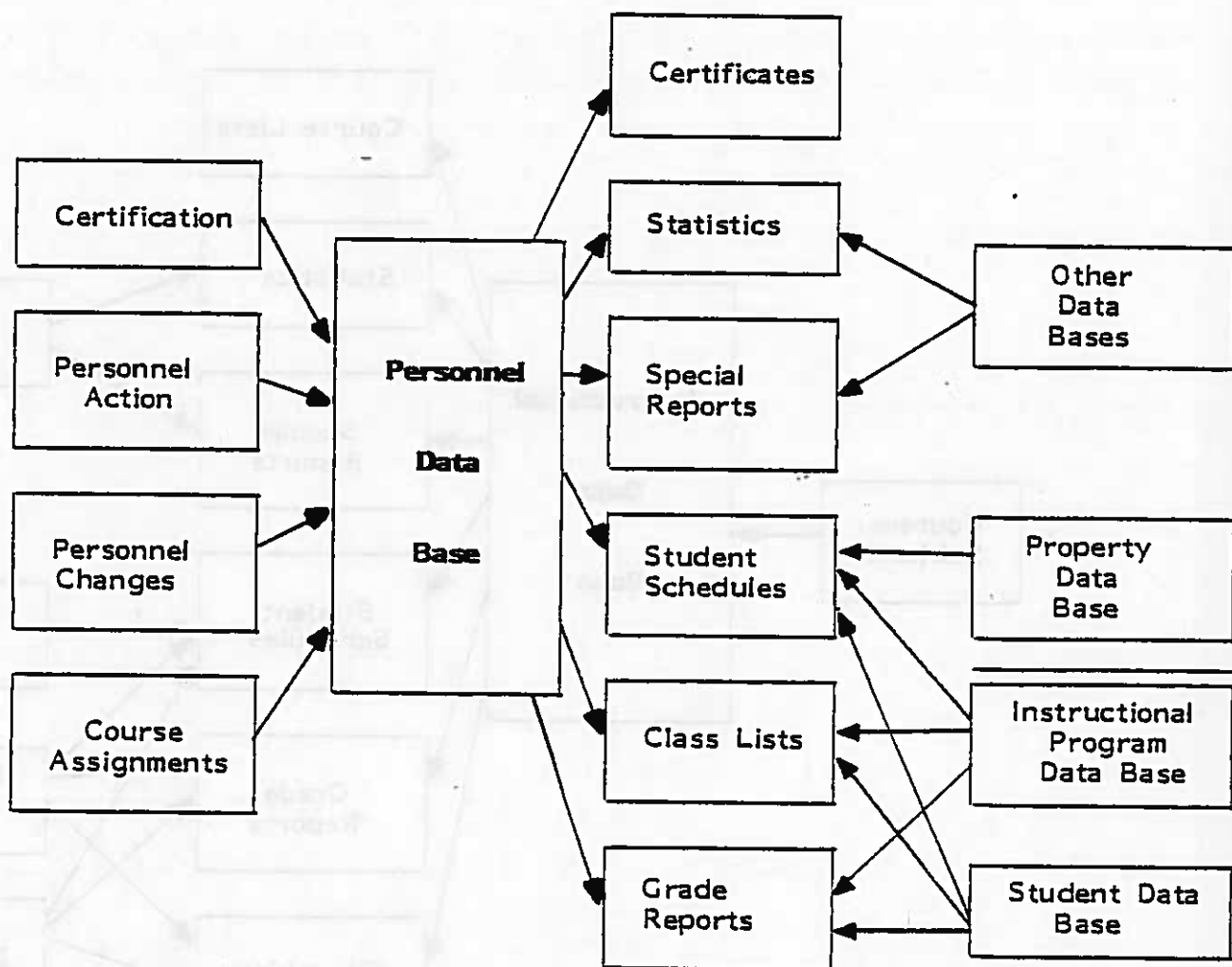
Tag Number	Order Number	Date Completed	Cost	Description
12N	8N	6N	4N	40A

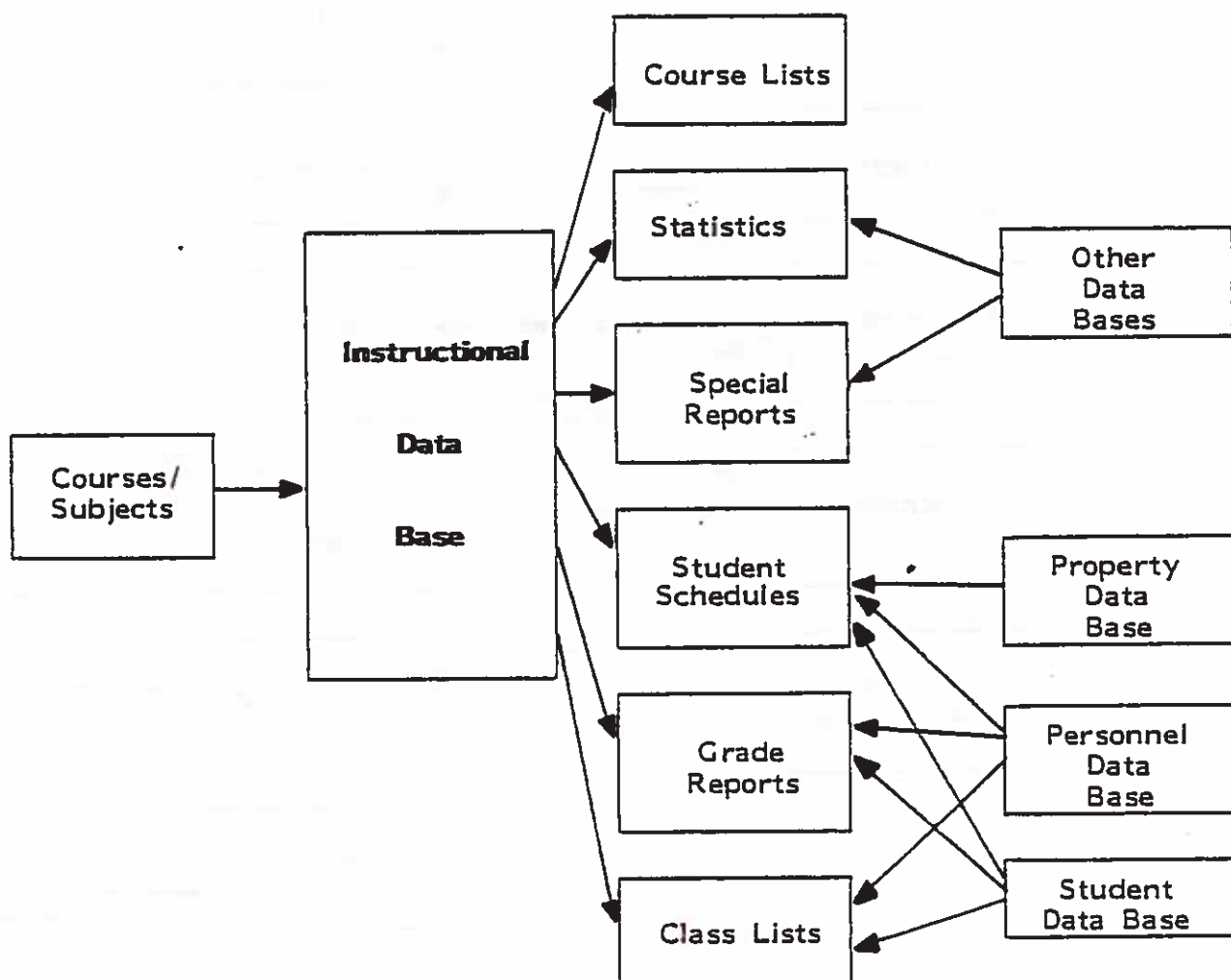
DATA FLOWS

Following are summary flow charts which illustrate input to and output from the major data files. It is not intended that these flow charts be complete. Rather, they serve to illustrate the relationship between the data base files, input to the files and output from the files. It should be noted that a number of reports will draw from two or more files. Production of student schedules, for example, will make use of the student, personnel and property files.

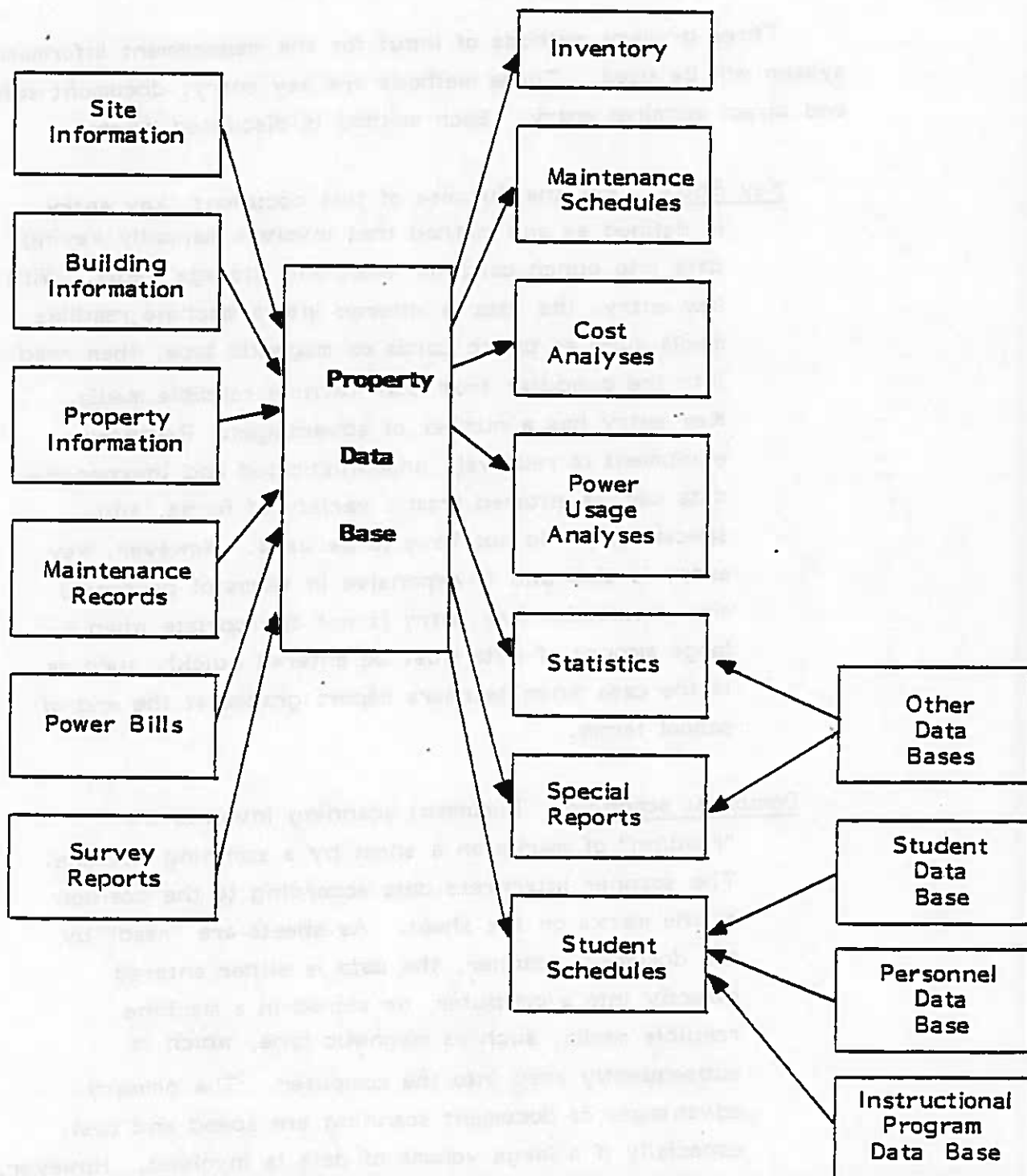


STUDENT INFORMATION

PERSONNEL INFORMATION

INSTRUCTIONAL PROGRAM INFORMATION

PROPERTY INFORMATION



INPUT DOCUMENTS

Three primary methods of input for the management information system will be used. Those methods are key entry, document scanning and direct terminal entry. Each method is discussed below.

Key Entry. For the purpose of this document, key entry is defined as any method that involves manually keying data into punch cards or electronic storage media. With key entry, the data is entered into a machine readable media such as punch cards or magnetic tape, then read into the computer from that machine readable media. Key entry has a number of advantages. Required equipment is relatively unsophisticated and inexpensive, data can be entered from a variety of forms, and special forms do not have to be used. However, key entry is slow and is expensive in terms of personnel time involved. Key entry is not appropriate when a large amount of data must be entered quickly such as is the case when teachers report grades at the end of school terms.

Document scanning. Document scanning involves the "reading" of marks on a sheet by a scanning machine. The scanner interprets data according to the position of the marks on the sheet. As sheets are "read" by the document scanner, the data is either entered directly into a computer, or stored in a machine readable media, such as magnetic tape, which is subsequently read into the computer. The primary advantages of document scanning are speed and cost, especially if a large volume of data is involved. However, special document scanning forms must be designed and printed, and entering information on document scanning forms is sometimes difficult. The best type of data for document scanning is categorical data where the user chooses one item from a list. Names and long numbers

are quite difficult to record on a document scanner form. Good applications of document scanning are recording of grades and responses to test items.

Direct terminal entry. Direct terminal entry involves the entry of data into a computer directly through a computer terminal. This method has a number of advantages. Files can be updated immediately as soon as the data is entered at the terminal. Also, with direct terminal entry it is possible to have built in error and verification checks and thereby improve accuracy. For example, if the operator enters a student number, the computer can immediately look up and display the student name. The operator can then verify that the number entered is correct. If it is not correct, it can be corrected immediately. The computer can also refuse to accept obviously incorrect data and force the operator to make immediate corrections. For example, if the code for student sex must be either 1 or 2, the computer can refuse to accept any entry other than 1 or 2. It is also easy to update data with direct terminal entry because a current record can be displayed on the terminal screen, the operator can change just the data that needs to be changed, and can immediately see the updated record. Direct terminal entry does have some disadvantages, however. Obviously, terminals convenient to users are required, and the computer must be able to interact with the terminals. Also, direct terminal entry can be slow, especially if a large volume of data (such as student grades) is to be entered. And, a reliable method of communication, usually a telephone line, between the terminal and the computer is needed. Finally, the use of direct terminal entry of data is not a highly efficient use of a computer. Part of the capacity of the computer must be devoted to interacting with the terminals.

From the above discussion, it is evident that each method of data input has advantages and disadvantages. For a system as complex as the Guam DOE management information system, it is recommended that all three methods of input be used, with the choice of the method for input depending on the data to be entered. Document scanning should be used when the data is primarily categorical and when the volume of data is high such as in the case of student grades and student testing. Direct terminal entry should be used when updating records and when currency of records is important. Key entry should be used when a terminal is not available and when the data consists largely of names and long numbers.

Whichever method is used, and especially when key entry is used, turnaround documents should be used whenever appropriate. A turnaround document is one on which the computer prints known current data on a form. The user then records only additions or changes. An example of the use of a turnaround document would be a student information form. Once the original data on a student is initially entered (name, number, grade, ethnic background, address, etc.) into the computer files, the computer can print out the information it currently has stored, and those printouts can be distributed to schools. School personnel can then record only changes on those forms. Another example of a turnaround document would be grade reporting where the computer would print teacher name, course name and student names on forms which would be distributed to teachers. The teachers could then just enter grades on those forms. Turnaround documents can be key entry forms, document scanner forms, or can be used in conjunction with direct terminal entry. In general, turnaround documents save time in that the data the computer already has stored does not have to be re-entered.

On the following pages are examples of input forms for the management information system. Included is a suggested student registration and withdrawal form, a turnaround student profile form, and a form designed specifically for key entry of original student data.

STUDENT REGISTRATION AND WITHDRAWAL FORM

SECTION A

LAST		2 FIRST		3 MIDDLE		4 SEX M F		5 GRADE		6 BIRTHDATE (mo/day/yr)	
7 Student's Dominant Ethnic Background (Check one) ☐ 01 Chamorro ☐ 06 Chinese ☐ 11 American Indian ☐ 02 Filipino ☐ 07 Korean ☐ 12 Black ☐ 03 Micronesian ☐ 08 Japanese ☐ 13 Hispanic ☐ 04 Northern Marianas ☐ 09 Vietnamese ☐ 14 White Caucasian ☐ 05 Other Pacific Islander ☐ 10 Other Asian ☐ 15 Other						3 Last School Name and Address _____ _____ _____		Guam School Code _____			
						School Use Only 9 Birthdate Verification _____		10 Entry Date _____		11 Entry/Re-entry Code _____	
								Student Number _____			
Indicate Language used most of the time by checking the appropriate box for the items below. Check only one language for each item										14. Is this child a participant in the Head Start Program this year? ☐ Yes ☐ No	
12 Language Spoken by Parent at Home 13 Language Spoken by Student at Home						01 Cantonese 02 Chamorro 03 English 04 Ilokano 05 Japanese 06 Korean 07 Mandarin 08 Tagalog 09 Truk/Tarz 10 Vietnamese 11 Visayan 12 Other					
15 Citizenship Status (Check only one) ☐ 1 U.S. Citizen ☐ 2 Resident Alien (6th preference or Green Card No. _____) ☐ 3 1-20 Student ☐ 4 Non-resident alien						16 Household Income (check only one) ☐ 1 Less than \$3,000 ☐ 2 \$3,000 to \$4,000 ☐ 3 Above \$4,000					
17 Federal Status (Check only one: should be determined by parent/guardian's employer or where parent lives if Federal Property) ☐ 01 Navy Military ☐ 07 Coast Guard Military ☐ 02 Navy Civilian Employee ☐ 08 Coast Guard Civilian Employee ☐ 03 Air Force Military ☐ 09 Marine Military ☐ 04 Air Force Civilian Employee ☐ 10 Marine Civilian Employee ☐ 05 Army Military ☐ 11 Other Federal (specify) _____ ☐ 06 Army Civilian Employee ☐ 12 Not federally connected						18 Parents (check only one) ☐ 1 Live on federal property ☐ 2 Work on federal property ☐ 3 Both live and work on federal property ☐ 4 None of the above					
19 Residential/Village Area (use codes from the reverse side) Village/Area name _____ Code: _____						20 Student's Home Address: House number and street _____ Village/City _____					
Mail Official School Notices To: Last _____ First _____ Middle _____						Telephone No. _____		Home _____ Office _____			
Relationship: ☐ 1 father ☐ 2 mother ☐ 3 guardian ☐ 4 Other _____						Mailing Address: _____		P.O. Box or Street _____ Village/City _____			
						Other Contact: _____					

WITHDRAWAL

SECTION B

This section must be completed for any student who leaves the school for any reason. A copy of this form should be submitted to the Research, Planning and Evaluation Division if a student leaves, transfers, is dropped from school or is no longer in attendance. SCHOOL OFFICE ONLY MUST COMPLETE THIS SECTION!!

22 Reason For Withdrawal:		23 Withdrawal Code		New Guam School Code (If applicable)	
24 This student: ☐ Has completed all requirements/payment of fees and fines and is eligible to be enrolled in another public school. DO NOT SIGN THIS FORM IF ALL REQUIREMENTS HAVE NOT BEEN COMPLETED! Your signature on this form will enable the student to transfer to another Guam School.					
_____ Principal's Signature			_____ Date		
If student has NOT completed all requirements to be eligible for transfer please list reasons here:					

STUDENT NO. AND NAME _____

SCHOOL CODE AND NAME _____

DATE: _____

STUDENT PROFILE

SCHOOL YEAR _____

STUDENT NO.

SCHOOL CODE AND NAME

NEW STUDENT	CHANGE	WITHDRAWAL	RE-ENTER
☐	☐	☐	☐



1. INDICATE TYPE OF TRANSACTION
BY CHECKING APPROPRIATE BOX
AT LEFT.

2. RECORD ADDITIONS OR CHANGES
IN SPACE PROVIDED AT BOTTOM
OF EACH DATA AREA

STUDENT NAME	BIRTH DATE	SEX	GRADE	YR. OF GRAD
--------------	------------	-----	-------	-------------

STREET ADDRESS	CITY AND STATE	ZIP CODE	HOME TELEPHONE
----------------	----------------	----------	----------------

☐

2

IN CASE OF EMERGENCY

PARENT/GUARDIAN NAME

EMERGENCY CONTACT	TELEPHONE
-------------------	-----------

HOMEROOM INSTRUCTOR

NO.	NAME	HOMEROOM
-----	------	----------

COUNSELOR

NO.	NAME
-----	------

MISCELLANEOUS INFORMATION

MISC. 1	MISC. 2
---------	---------

ENROLLMENT

CODE	ENTRY DATE	CODE	RE ENTRY DATE	CODE	WITHDRAWAL DATE	CODE	SPEC ED START DATE	RESIDENCE	TRANSP
------	------------	------	---------------	------	-----------------	------	--------------------	-----------	--------

NEXT YEAR

GRADE	SCHOOL
-------	--------

1 You may want to remove this information if you are not using these forms as a turnaround document.

2 This is where the ethnic code may be entered manually; the ethnic code will never be printed. If you are using this form for a turnaround document, you may want to record the student's ethnic code here.

Preprinted Student Profile form—IBM order number Z170-1455

STUDENT MASTER

RQ CMD 1

(STUNO)		Student number
(SHNAM)		Short name
(UCODE)		User activity code
(CSCNO)		Current school number
(STUNM)		Student name
(BIRTH)		Birth date
(SEXID)		Sex
(CURGL)		Current grade level
(GRADY)		Year of graduation
(STAD1)		Street address
(ZIPCD)		Zip code
(HOMAC)		Home phone area code
(HOMPH)		Home phone
(ETHCD)		Ethnic code
(ACSDT)		Attendance category start date

RR CMD 2

(STUNO)		Student number
(SHNAM)		Short name
(PARNM)		Parent or guardian
(EMRNM)		Emergency name
(EMRAC)		Emergency phone area code
(EMRPH)		Emergency phone

RT CMD 3

(STUNO)		Student number
(SHNAM)		Short name
(HRINO)		Homeroom instructor
(CNSNO)		Counselor number
(USER1)		User field 1
(USER2)		User field 2
(ENTCD)		Entry code
(ENDTE)		Entry date
(SEDCD)		Special education code
(SEDTE)		Special education date
(DORCD)		District of residence
(TRANSP)		Transportation code
(NGDLV)		Next grade level
(NSCNO)		Next school number
(PRILV)		Priority level
(ACSDT)		Attendance category start date

Printed Output

The Mark Reporting Turnaround Document is printed by marking period upon request. The document is distributed to instructors, who in turn enter the student marks and return the document for entry. Every student on the document must have a mark or marks entered, even if the student no longer is in the course/section.

DATE- ENTRY	10/17/77	35 CAMPBELL HIGH SCHOOL				1977-78 MARK REPORTING TURNAROUND DOCUMENT				PAGE- 1
CURRENT MARKING PERIOD		1	FROM	8/29/77	TO	10/11/77	TERM 1			
COURSE NAME	COURSE CODE	SECT NO	INSTRUCTOR NAME	INSTRUCTOR NUMBER						
MATH 1	MATH 1	01	STEWART, DONALD	501						
STUDENT NAME	STUDENT NUMBER	PROGRESS MARK	CIT	FINAL MARK	CIT	COMMENTS 1 2	EXAM	ABSENCE	TARDY	CREDITS
BURKE, ARTHUR E	500010	---	-	---	-	---	---	---	---	1.000
CASPER CHARLES	500130	---	-	---	-	---	---	---	---	1.000
CONROY MARCIA J.	500040	---	-	---	-	---	---	---	---	1.000
CRAWFORD NIRE D	500050	---	-	---	-	---	---	---	---	1.000
ELDRICH CAROL J	500080	---	-	---	-	---	---	---	---	1.000
FLOWERS DONALD L.	500090	---	-	---	-	---	---	---	---	1.000
JOHNSON LISA R.	500120	---	-	---	-	---	---	---	---	1.000
MCCORMICK SHERRY J.	500160	---	-	---	-	---	---	---	---	1.000
NITCHELL CRAIG P.	500170	---	-	---	-	---	---	---	---	1.000
SMITH PEGGY A.	500200	---	-	---	-	---	---	---	---	1.000
TOTAL STUDENTS THIS COURSE AND SECTION			10							

FUTURE CONSIDERATIONS

The plans for and design of a data base presented in this document is another step in the development of a Guam DOE Management Information System. But, it should be remembered, it is only a beginning. The implementation of the management information system will require a great deal of time, effort and financial support. Implementation of the management information system will affect all departments and schools and will require effort and cooperation on the part of many persons. Forms and procedures, for example, will need to be standardized among departments and schools. Personnel will need to develop and implement the standard forms and procedures.

Essential to the development and implementation of the management information system will be the employment of an adequate data processing staff. Without adequate staff the management information system cannot be developed and implemented, and the money spent for hardware and software will have been wasted.

Another essential prerequisite to the successful implementation of a management information system is user training. An information system cannot be successful unless users are properly trained to use the system. Training for users of applications should go hand in hand with the implementation of those applications. Training should involve both administrators who will use the systems as well as clerks who will provide input to and interact with the systems. Thus, DOE will need to plan and schedule training activities, and budget for those activities.

With a data base approach to a management system, the data elements, definitions and codes are the heart of the system. It is essential that all departments, schools and personnel use the same definitions and codes. That should be carefully monitored. Any changes to the basic data base structure should be very carefully considered. It is suggested that a master data dictionary (including data elements, definitions and codes) be kept, changes made only upon approval at a high level, and users be notified of any changes.

**STUDENT ACCOUNTING
HANDBOOK**

Prepared for
Guam Department of Education

By:

Ralph Van Dusseldorp, Ph.D.
WEO Systems, Inc.
4816 S.W. Shattuk Road
Portland, OR 97221

July 31, 1980

Student Accounting Handbook

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This handbook includes data elements, definitions, coding systems, file layouts and a general flow chart for the management information system student data base. Additional information concerning the management information system will be found in the document Analysis of the Guam Department of Education Data Processing Needs and Design of Management Information Data Files, Codes and Definitions, Ralph Van Dusseldorp, 1980.

STUDENT DATA BASE ITEMS

(C) Legal Name The full legal name of the student including last name, first name, middle name and any appendage such as Jr. or III.

33 characters

16 last and appendage

10 first

7 middle

(L) Any Other Name Any name, other than the legal name, by which the student is known.

(C) Student Number The number assigned by the school system for identification and recordkeeping purposes. A six digit number will be used. The first two digits will be the code for the first Guam public school entered by the student. The last four digits will be assigned in sequence. Thus, the first student assigned a number by Inarajan Elementary School will have the number 190001, the second 190002, etc. A student will always keep the assigned number and will not be assigned a new number when transferring from one Guam school to another.

6 characters

xxxxxx

(C) Sex 1 character

1 male

2 female

(C) Racial/Ethnic Group The student's general racial or ethnic heritage.

2 characters

01 Chamorro

02 Filipino

03 Micronesian

04 Northern Marianas

05 Other Pacific Islander

06 Chinese

- 07 Japanese
- 08 Korean
- 09 Vietnamese
- 10 Other Asian
- 11 American Indian
- 12 Black
- 13 Hispanic
- 14 White Caucasian
- 15 Other

(C) Language Spoken by Parents at Home

2 characters

- 01 Cantonese
- 02 Chamorro
- 03 English
- 04 Ilocano
- 05 Japanese
- 06 Korean
- 07 Mandarin
- 08 Tagalog
- 09 Trust Territory
- 10 Vietnamese
- 11 Visayan
- 12 Other

(C) Language Spoken by Student at Home

2 characters

- 01 Cantonese
- 02 Chamorro
- 03 English
- 04 Ilocano
- 05 Japanese
- 06 Korean
- 07 Mandarin
- 08 Tagalog
- 09 Trust Territory
- 10 Vietnamese
- 11 Visayan
- 12 Other

(C) Date of Birth The month, day and year of the student's birth.
6 characters
MM DD YY

(L) Evidence Verifying Date of Birth The type of evidence by which the student's date of birth is verified.

1 character

- 1 Birth certificate
- 2 Hospital certificate
- 3 Physician certificate
- 4 Baptismal or church certificate
- 5 Parent's affidavit
- 6 Entry in family bible
- 7 Passport
- 8 Previously verified school record
- 9 Other

(C) Citizenship Status The U.S. citizenship status of the student.

1 character

- 1 U.S. Citizen
- 2 Resident Alien (6th preference or green card)
- 3 1-20 Student
- 4 Non-resident Alien

(C) Responsible Adult Name of adult to whom official school notices are to be sent.

33 characters

16 last

10 first

7 middle

(C) Relationship of Responsible Adult to Student

1 character

- 1 father
- 2 mother
- 3 guardian
- 4 other

(C) Mailing Address of Responsible Adult

35 characters

15 P.O. Box or Street Address

15 Village/City

5 Zip Code

(C) Home Telephone Number of Responsible Adult

7 characters

xxxxxxx

(C) Work Telephone Number of Responsible Adult

7 characters

xxxxxxx

(C) Address of Student

30 characters

15 Street Address

15 Village/City

(C) Residential/Village area in which student lives

3 characters

001 Adelup

002 Afame, Sinajana

-

-

-

143 Y-Pao Pao

(L) Person(s) to be Notified in Case of Emergency The name, relationship, address and telephone number(s) of individual(s) designated as person(s) to be notified in case of emergency.

(C) First Entry Date The date of the student's first entry into the Guam public school system.

6 characters

MM DD YY

(C) Current Entry Date The date on which a student enters a school during the current year.

6 characters

MM DD YY

(C) Type of Entry

1 character

Entry

- 1 Original Entry - A student who for the first time during the current school year enters any public or private school anywhere.

At the beginning of the school year, all students are original entries. After the beginning of school, the only original entries are those students who have not enrolled in another school during the current year. All incoming students who have had enrolled in another school are re-entries.

Re-Entry

- 2 Re-entry from another public school in Guam -
A student received from another Guam public school which he or she entered earlier in the current school year.

For example, if a student begins the school year in Agat Elementary then transfers to Yigo Elementary the student is a (2) when entering Yigo. However, if that student enrolled in a Guam private school between the time of withdrawing from Agat and entering Yigo, the student would be a (3) upon entry into Yigo. As another example, if a student withdrew from Agat Elementary during the school year, attended a school in California for a while, then entered Yigo

Elementary, that student would be a (4).
Only students who transfer directly from
another Guam public school are (2)'s.

3 Re-entry from a non-public school in Guam -

A student received from a non-public school
in Guam which he or she entered earlier in
the school year. Thus, a student who first
enrolls in St. Johns Elementary then transfers
to Price Elementary, is a (3) re-entry for
Price Elementary.

4 Re-entry from a school outside Guam - A student

received from a school outside Guam which he
or she entered earlier in the school year.
Thus, a student who begins the school year
in a school in Hawaii, then transfers to
Andersen Elementary, would be a (4) re-entry
for Andersen.

5 Re-entry to a Guam Public School after Withdrawal
or Expulsion - A student who returns to the Guam

Public School system after withdrawal or
expulsion from a Guam Public School. Thus,
a student who begins the year in Johnston
Junior High, transfers to a school outside Guam
or a private Guam school, then enters Dededo
Junior High, is a (5) re-entry for Dededo.

(C) School From Which Received The school last attended before the
current one.

If a public or private school in Guam, the code for that school
will be entered:

2 characters

00 if first school

51 Academy

10 Adelup

52 Bishop Baumgartner

09 Voc. Tech. Sr.

99 Off-island

(C) School Entered The code for the school in which the student is currently enrolled.

2 characters

10 Adelup

11 Agana Heights

-

-

-

08 S. Sanchez Jr.

09 Voc. Tech. Sr.

(C) Standardized test(s) taken Code number for test.

2 characters

xx

(C) Test date(s) Date test was taken.

6 characters

MM DD YY

(C) Test part Identification of subtest.

10 characters

xxxxxxxxxx

(C) Test score(s) Student's score on test(s).

3 characters

xxx

(C) Type of score(s) The type of score recorded (e.g., percentile rank, grade equivalent, etc.)

1 character

1 grade equivalent

2 percentile rank

3 stanine

4 NCE

5 raw score

6 standard score

9 other

(C) Transportation Status Indication of whether the student is transported to school by bus.

1 character

0 no

1 yes

(C) Federal Status of Parents

Part I

2 characters

01 Navy military

02 Navy civilian employee

03 Air Force military

04 Air Force civilian employee

05 Army military

06 Army civilian employee

07 Coast Guard military

08 Coast Guard civilian employee

09 Marine military

10 Marine civilian employee

11 Other federal

19 Not federally connected

Part II Parent:

1 character

1 Lives on federal property

2 Works on federal property

3 Lives and works on federal property

4 None of the above

(C) Head Start Status

1 character

0 Student not in Head Start

1 Student in Head Start

(C) Special Education Status

1 character

0 Student not in Special Education

1 Student in Special Education

(C) Title I Status

1 character

0 Student not in Title I

1 Student in Title I

(C) Bilingual/Bicultural Status

1 character

0 Student not in Bilingual/Bicultural Program

1 Student in Bilingual/Bicultural Program

(C) Grade The current grade level of the student.

2 characters

14 Prekindergarten

15 Kindergarten

01 First grade

-

-

-

12 Twelfth grade

20 Unassigned grade level

(C) Courses The code number for each class or course to which the student is assigned. See Instructional Program for list of codes.

3 characters

xxx

(C) Teachers The code number for the teacher responsible for each course or class to which the student is assigned. Same code number as for staff accounting.

9 characters

xxxxxxxxx

(C) Room Numbers The code number for each room the student is assigned for each course or class. Same code number as for property accounting.

3 characters

xxx

- (C) Period The period number of each course or class to which the student is assigned.
2 characters
xx
- (C) Grades Received The grade received for each course or class taken.
1 character
x
- (C) Counselor The code number of the counselor to whom the student is assigned. Same code number as for staff accounting.
9 characters
xxxxxxxxxx
- (C) Homeroom Teacher The code number of the homeroom or first period teacher to whom the student is assigned. Same code number as for staff accounting.
9 characters
xxxxxxxxxx
- (C) Days Absent Days on which the student was absent from school.
180 characters (1 character per day)
0 absent
1 present
- (C) Date of Withdrawal The date on which the student is withdrawn (transfer, dropout, graduated, expelled)
6 characters
MM DD YY
- (C) Type of Withdrawal
2 characters
Transfers - A student who leaves one school and enters another school is a "transfer". Each student who transfers from one school to another during the school year is identified with designation below.

- 11 Transferred to another public school in Guam.
- 12 Transferred to a non-public school in Guam
- 13 Transferred to Guam Vocational High School
- 14 Committed to a correctional institution
- 15 Moved from Guam, military dependent
- 16 Moved from Guam, civilian dependent

Completion of School Work

- 21 Graduated from high school - The student has completed the necessary work to meet graduation requirements and is no longer in attendance

Expulsion

- 31 Expelled - the student has been expelled from school

Deceased

- 41 Deceased - the student is deceased

Dropout - The student is no longer enrolled in any school

- 51 Voluntary withdrawal due to inability to adjust to school
- 52 Marriage
- 53 Probable employment
- 54 Verified employment
- 55 Needed at home
- 56 Pregnancy (without doctor's certification)
- 57 Pregnancy (with doctor's certification)
- 58 Other physical/medical reason (with doctor's certification)
- 59 Other physical/medical reason (without doctor's certification)

Unknown

- 70 Unknown - the whereabouts of the student is unknown

STUDENT DATA FILES

Primary student file. The primary student file includes basic current data on all students.

Student Number 6N	Current School 2N	Grade Level 2N	Name			Sex 1N	Racial/Ethnic Group 2N
			Last 16A	First 10A	Middle 7A		

Language		Date of Birth 6N
Spoken by Parents at Home 2N	Spoken by Student at Home 2N	

Citizenship Status 1N	Parent Name			Mailing Address		
	Last 16A	First 10A	Middle 7A	P.O. Box or St. 15A	Village/City 15A	Zip 5N

Residential/Village Area 3N	Entry		School From Which Received 2N or 45A	Standardized test		
	Date 6N	Type 2N		Test ID 2N	Date 6N	Subtest 10A

(repeated 5 times)			Federal Status	
Score 3N	Type of Score 1N	(Subtest repeated 5 times)	Part I 2N	Part II 2N

Special Program Status				
Transported 1N	Head Start 1N	Special Education 1N	Title I 1N	Bilingual/Bicultural 1N

Withdrawal	
Date 6N	Type 2N

Secondary Student file - Courses, grades and attendance. This file stores past data on courses taken, grades received and annual attendance. There will be one of these records for each year a student is in school.

Student Number 6N	School Year (Last 2 digits) 2N	Grade Level 2N	Courses/Grades (Repeated 8 times)	
			Course 4N	Grade 1A

Attendance	
Days present 3n	Days absent 3n

Secondary Student file - current courses, grades and attendance. This file stores courses taken, grades received and a daily attendance record for the current school year.

Student Number 6N	Current School 2N	Grade Level 2N	Homeroom Teacher 9N	Counselor 9N	Course 3N	Teacher 9N
----------------------	----------------------	-------------------	------------------------	-----------------	--------------	---------------

Grades					(Course/teacher/grades repeated 6 times)
1st Q 1A	2nd Q 1A	3rd Q 1A	4th Q 1A	Final 1A	

Attendance						
Day 1 1N	Day 2 1N	Day 3 1N				Day 180 1N

Secondary Student file - special education. Records for all special education students will be kept in this file.

Student Number	Spec. Ed. File No.	Re-evaluation Date		IIP Complete	Transportation Needed
		Scheduled	Completed		
6N	6N	6N	6N	1N	1N

Comments	Resource Room Services Provided						
	Reading	Math	Lang.Arts	Science	Soc. Stu.	Motor	Visual
40A	1N	1N	1N	1N	1N	1N	1N

Resource Rm. Svcs. (Cont.)				Program Status		
Behavioral	Music	Art	Voc.Ed.	Consultant Svcs.	Consultant Tchr. Svcs.	
1N	1N	1N	1N	1N	1N	

Program Status (continued)			
Adaptive P.E.	Speech & Lang.		Physical Therapy
1N	1N		1N

Program Status (continued)			
Itinerant Hearing	Interp. Svcs.	Itin. Vision	Homebound Hdc.
1N	1N	1N	1N

Program Status (continued)			
Homebound Hosp.	Nutrit.	Reg. Classrm.	Couns. Svcs.
1N	1N	1N	1N

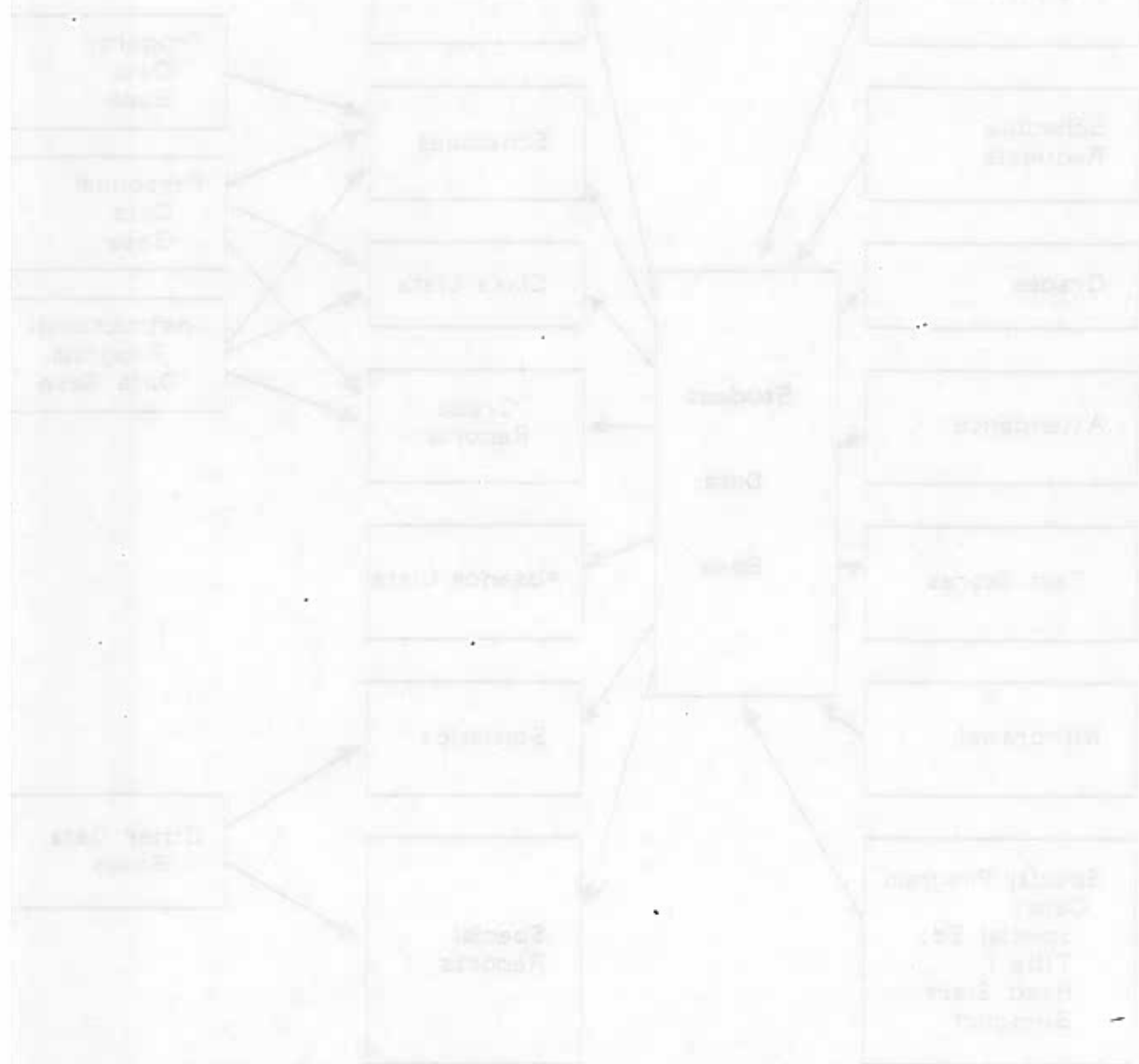
Program Status (continued)			
Date of last Psych. Test	Status	Status Date	Date of 3-year Re-eval.
6N	1N	6N	4N (mo. & yr.)

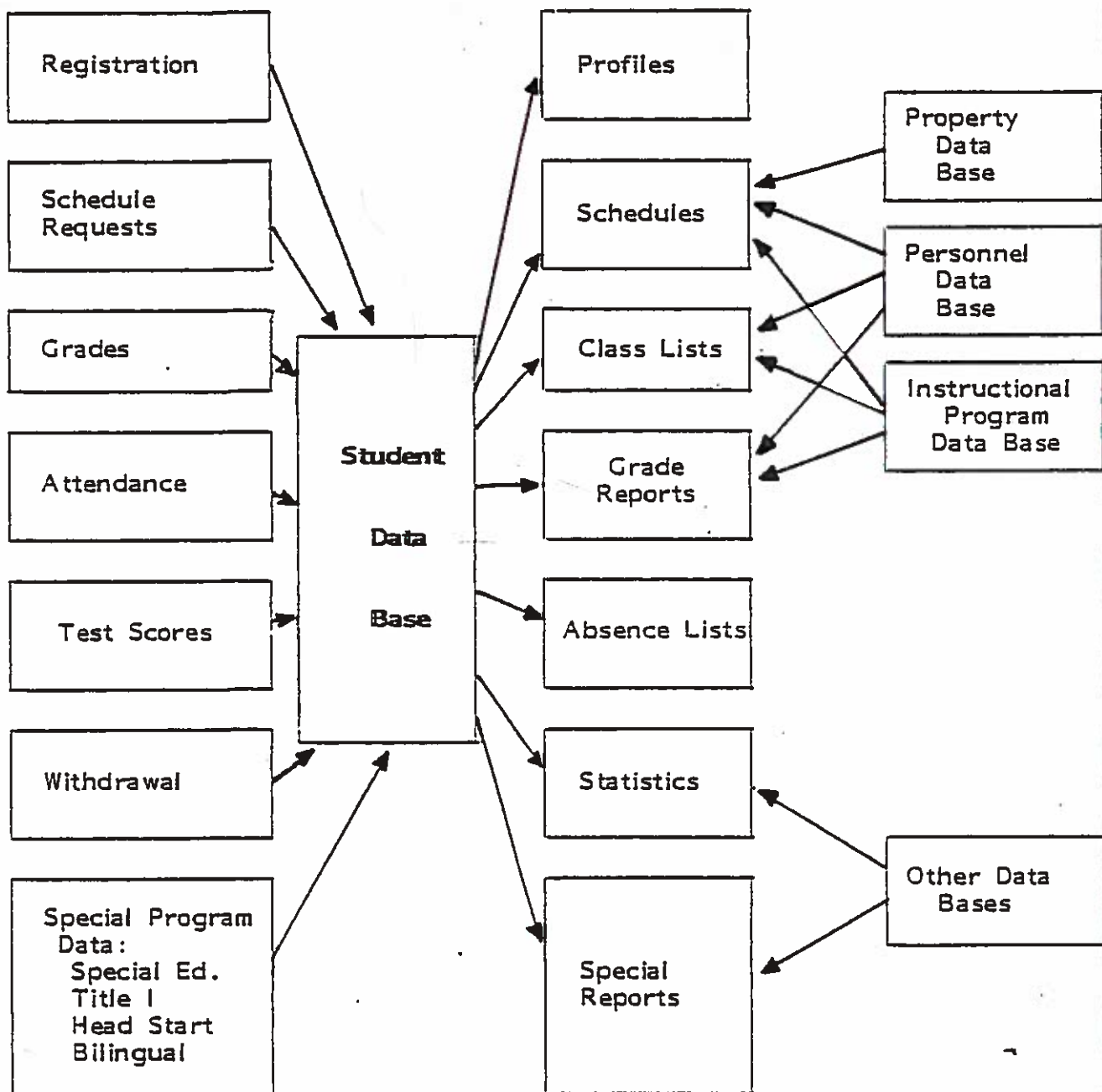
Services Needed But Not Provided				
Res. Rm.	Cons. Svcs.	Cons. Tchr. Svcs.	Adaptive P.E.	Speech & Lang.
1N	1N	1N	1N	1N

Services Needed But Not Provided (continued)				
Phys. Therapy	Occup. Therapy	Itin. Hearing	Interp. Svcs.	Itin. Vision
1N	1N	1N	1N	1N

Services Needed But Not Provided (continued)				
Homebound Hdc.	Homebound Hosp.	Nutrit.	Reg. Classrm.	Couns. Svcs.
1N	1N	1N	1N	1N

Secondary Student files - Other Special Programs. Secondary student files, similar to the special education file, will be established for students in other special programs such as Head Start, Title I and Bilingual/Bicultural. In each case, the student number will be included, followed by data pertinent to the particular special program.



STUDENT DATA FLOW

**PERSONNEL ACCOUNTING
HANDBOOK**

Prepared for
Guam Department of Education

By:
Ralph Van Dusseldorp, Ph.D.
WEO Systems, Inc.
4816 S.W. Shattuk Road
Portland, OR 97221

July 31, 1980

Personnel Accounting Handbook

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This handbook includes data elements, definitions, coding systems, file layouts and a general flow chart for the management information system personnel data base. Additional information concerning the management information system will be found in the document Analysis of the Guam Department of Education Data Processing Needs and Design of Management Information Data Files, Codes and Definitions, Ralph Van Dusseldorp, 1980.

PERSONNEL DATA BASE ITEMS

- (C) Name The full legal name of the staff member including last name, first name, middle name, and any appendage such as Jr. or III.

33 characters

16 last and appendage

10 first

7 middle

- (C) Social security number

9 characters

xxxxxxxxx

- (C) Sex

1 character

1 male

2 female

- (C) Racial/Ethnic background The staff member's general racial or ethnic heritage.

2 characters

01 Chamorro

02 Filipino

03 Micronesian

04 Northern Marianas

05 Other Pacific Islander

06 Chinese

07 Japanese

08 Korean

09 Vietnamese

10 Other Asian

11 American Indian

12 Black

13 Hispanic

14 White Caucasian

15 Other

(C) Date of Birth

6 characters

MM DD YY

(C) Citizenship status

1 character

1 U.S. Citizen

2 Resident Alien (6th preference or green card)

4 Non-Resident Alien

(C) Home Address

35 characters

15 P.O. Box or Street Address

15 Village/City

5 Zip Code

(C) Home Telephone Number

7 characters

xxxxxxx

(L) Person to be notified in case of emergency

57 characters

20 name

30 address

7 phone number

(C) Highest degree or certificate earned

1 character

0 none

1 GED

2 high school diploma

3 technical certificate

4 associate degree

5 bachelor's degree

6 professional degree

7 intermediate degree (Ed.S.)

8 doctorate

(C) Name and place of educational institution at which highest degree was earned

35 characters

15 name of institution

15 city

2 state (use U.S. state codes)

3 country code (from USOE handbook)

(C) Date highest degree awarded

4 characters

MM YY

(C) Credit earned beyond highest degree The semester hours of credit earned beyond the highest degree. Quarter hours should be converted to semester hours by multiplying by 2/3.

3 characters

xxx

(L) Other educational institutions attended Name and place, degree earned and date degree earned of each educational institution attended.

(C) Certificate held

2 characters

00 none

01 elementary

02 secondary

03 vocational

04 special education

05 school librarian

06 school health counselor

07 guidance and counseling

08 school psychologist

09 administration and supervision

10 school program consultant

11 school psychometrist

99 other

(C) Type of certificate

1 character

1 emergency

2 provisional

3 standard

4 professional I

5 professional II

6 professional III

(C) Year of expiration Last two digits of the year certificate expires.

2 characters

xx

(C) History requirement fulfilled Indication of whether the requirement for study of the history or culture of Guam is fulfilled.

1 character

0 no

1 yes

(C) Authorized teaching fields Subject areas the staff member is approved to teach.

2 characters

10 Art

15 Agriculture

20 Business

21 Typing

22 Business Math

23 Shorthand

25 Driver Education

30 Foreign Language

31 French

32 Japanese

33 Spanish

35 Health & Physical Education

40 Homemaking

45 Industrial Arts

50 Language Arts

51 English

52 Speech

53 Journalism

54 Literature

55 Drama

56 Reading

57 TESOL

60 Mathematics

65 Music

70 Science

71 General Science

80 Social Studies

81 World History

82 Modern or Contemporary problems

83 Psychology

84 Geography

85 Civics

86 American Government

(L) Prior experience Work experience prior to employment by the Guam DOE.

(L) Experience with Guam DOE prior to current assignment Work experience for the Guam DOE prior to current assignment.

(C) Job Classification The Guam position code for the current work assignment.

4 characters

2107 Accountant I

-

-

-

9606 Welder Supervisor

(C) School/department assignment The school or department to which the staff member is currently assigned.

2 characters

10 Adelup

11 Agana Heights

etc.

(C) Subject matter areas The subject matter areas the staff member is currently assigned to teach. Same codes as authorized teaching fields above.

2 characters

10 Art

15 Agriculture

20 Business

21 Typing

22 Business Math

23 Shorthand

25 Driver Education

30 Foreign Language

31 French

32 Japanese

33 Spanish

35 Health & Physical Education

40 Homemaking

45 Industrial Arts

50 Language Arts

51 English

52 Speech

53 Journalism

54 Literature

55 Drama

56 Reading

57 TESOL

60 Mathematics

65 Music

70 Science

71 General Science

80 Social Studies

81 World History

82 Modern or Contemporary problems

83 Psychology

84 Geography

85 Civics

86 American Government

PERSONNEL DATA FILES

Primary Personnel file. The primary personnel file includes current data on all staff. Payroll data is not included since that data is already stored as part of the GOA system. It is assumed, however, that the DOE primary personnel file as well as other DOE files can be related to the data in the payroll file.

Social Security Number 9N	Name			Sex 1N	Racial/Ethnic Background 2N	Date of Birth 6N	Citizenship Status 1N
	Last 16A	First 10A	Middle 7A				

Home Address			Phone Number 7N	Highest Degree or certificate 1N
P.O. Box or St. 15A	Village/City 15A	Zip 5N		

Educational Institution				Date of Degree 4N	Credit Beyond Degree 4N	Certificate Held 2N	Certificate Type 1N
Name 15A	City 15A	State 2A	Country 3A				

Year of Expiration 2N	History Requirement 1N	Authorized Teaching Field								Job Classification 3N
		1 2N	2 2N	3 2N	4 2N	5 2N	6 2N	7 2N	8 2N	

School/Dept. Assignment 2N	Subject Areas Taught				
	1 2N	2 2N	3 2N	4 2N	5 2N

**INSTRUCTIONAL PROGRAM ACCOUNTING
HANDBOOK**

Prepared for
Guam Department of Education

By:
Ralph Van Dusseldorp, Ph.D.
WEO Systems, Inc.
4816 S.W. Shattuk Road
Portland, OR 97221

July 31, 1980

This handbook includes data elements, definitions, coding systems, file layouts and a general flow chart for the management information system instructional program data base. Additional information concerning the management information system will be found in the document Analysis of the Guam Department of Education Data Processing Needs and Design of Management Information Data Files, Codes and Definitions, Ralph Van Dusseldorp, 1980.

Instructional Program Accounting Handbook

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INSTRUCTIONAL PROGRAM DATA BASE ITEMS

The instructional program file will include the names and code numbers for all courses taught in Guam elementary, junior and senior high schools. A four digit number is used to designate each course.

Elementary

- 0100 Art
- 0200 Health
- 0300 Language Arts
 - 0310 Language
 - 0320 Penmanship
 - 0340 Reading
 - 0350 Spelling
- 0400 Math
- 0500 Music
- 0600 Physical
- 0700 Science
- 0800 Social Studies

Secondary

Agriculture

- 1000 Agriculture I

Art

- 1100 Art 7
- 1105 Art 8
- 1110 Art I
- 1115 Art II
- 1120 Art III
- 1125 Acrylic Painting
- 1130 Basic Design
- 1135 Ceramics
- 1140 Drawing
- 1145 Printmaking/woodcut
- 1150 Silkscreen Printing

Business

- 1200 Accounting I
- 1204 Accounting II
- 1208 Business English
- 1212 Business Law
- 1216 Business Math
- 1220 Business Methods
- 1224 Business Machines
- 1228 Calculating Machines
- 1232 Clerical Office Practice
- 1236 Consumer Affairs
- 1240 Duplicating Machines
- 1244 Filing
- 1248 General Business
- 1252 Human Relations in Business
- 1256 Introduction to Business
- 1260 Money Management
- 1264 Office Aide
- 1268 Recordkeeping
- 1272 Shorthand I
- 1276 Shorthand II
- 1280 Typing I
- 1284 Typing II
- 1288 Typing, Clerical
- 1292 Typing, Production
- 1296 Typing, Refresher
- Typing, Reports/Manuscripts

Chamorro Language

- 1300 Chamorro

Distributive Education

- 1400 Distributive Education

English Language Arts

- 1500 Language Arts 7
- 1503 Language Arts 8
- 1506 Language Arts 9
- Bilingual Language Arts

- 1512 GTP Language Arts
- 1515 English 10A
- 1518 English 10B
- 1521 English 11
- 1524 English 12
- 1527 Basic Writing
- 1530 Developmental Reading
- 1533 Drama
- 1536 Ethnic/Africa Literature
- 1539 Grammar
- 1542 Individualized Reading
- 1545 Journalism
- 1548 Library Service I
- 1551 Library Service II
- 1554 Literature of the Sea
- 1557 Newspaper
- 1560 Newspaper Use/Mass Media
- 1563 Oral Interpretation
- 1566 Philosophy in Literature
- 1569 Reading Lab
- 1572 Reading Seminar
- 1575 Shakespeare
- 1578 Speech
- 1581 TESOL
- 1584 Words/Words
- 1587 Yearbook

Foreign Languages

- 1600 French I
- 1601 French II
- 1625 Japanese I
- 1626 Japanese II
- 1627 Japanese III
- 1630 Japanese Calligraphy
- 1650 Spanish I
- 1651 Spanish II

Home Economics

- 1700 Home Economics 7
- 1704 Home Economics 8
- 1708 Home Economics I
- 1712 Chamorro Cooking
- 1716 Child Development
- 1720 Clothing
- 1724 Cooking Tools
- 1728 Custom Clothing
- 1732 Family Relations
- 1736 First Aid
- 1740 Foods
- 1744 Foods From Animals
- 1748 Foods From Plants
- 1752 Health & Hygiene
- 1756 Home and Interior
- 1760 Home Crafts
- 1764 Home Nursing
- 1768 Home Skills
- 1772 Human Sexuality
- 1776 Nursing Assistant I
- 1780 Nursing Assistant II
- 1784 Nutrition
- 1788 Personal Adjustment
- 1792 Sewing I
- 1796 Sewing II

Industrial Arts

- 1800 Industrial Arts 7
- 1805 Industrial Arts 8
- 1810 Industrial Arts I
- 1815 Architectural Drawing
- 1820 Drafting I
- 1825 Drafting II
- 1830 Mechanical Drawing
- 1835 Metals I
- 1840 Metals II
- 1845 Woodworking I
- 1850 Woodworking II

Mathematics

- 1900 Math 7
- 1905 Math 8
- 1910 General Math
- 1915 Algebra A/B
- 1920 Algebra I
- 1925 Algebra II
- 1930 Analytic Geometry
- 1935 Banking/Investing
- 1940 Budget/Insurance
- 1945 Career Math
- 1950 Computer Science
- 1955 Elementary Functions
- 1960 Geometry I
- 1965 Geometry II
- 1970 Taxes
- 1975 Trigonometry

Music

- 2000 Band, Beginning
- 2005 Band, Intermediate
- 2010 Band, Advanced
- 2015 Band, Concert
- 2020 Band, Stage
- 2025 Chorus, Beginning
- 2030 Chorus, Intermediate
- 2035 Chorus, Advanced
- 2040 General Music
- 2045 Music Symbols

Physical Education

- 2100 Physical Education 7
- 2103 Physical Education 8
- 2106 Physical Education 9
- 2109 GTP Physical Education
- 2112 Adaptive Physical Education
- 2115 Aerobics (Beginning)
- 2118 Aerobics (Intermediate)
- 2121 Aerobics Dance

- 2124 Aikido (Beginning)
- 2127 Aikido (Intermediate)
- 2130 Archery (Beginning)
- 2133 Archery (Intermediate)
- 2136 Badminton/Table Tennis
- 2139 Basketball (Beginning)
- 2142 Basketball (Intermediate)
- 2145 Bicycling
- 2148 Bowling
- 2151 Bowling (Intermediate)
- 2154 Boxing
- 2157 Creative Dance (Beginning)
- 2160 Creative Dance (Intermediate)
- 2163 Fencing
- 2166 Field Hockey
- 2169 Fitness and Conditioning
- 2172 Flag Football
- 2175 Flag Football/Speedball
- 2178 Football Officiating
- 2181 Folk and Square Dancing (Beginning)
- 2184 Folk and Square Dancing (Intermediate)
- 2187 Football
- 2190 Golf
- 2193 Gymnastics
- 2196 Gymnastics (Intermediate)
- 2199 Gymnastics (Advanced)
- 2202 Handball/Shuffleboard
- 2205 Handball/Racketball
- 2208 Health
- 2211 Hiking and Survival Fitness
- 2214 Horseback Riding
- 2217 Intramural Planning
- 2220 Island Dance
- 2223 Island Dance (Intermediate)
- 2226 Judo
- 2229 Physical Conditioning
- 2232 Physical Education for Elementary
- 2235 Racketball/Recreation Games (Beginning)
- 2238 Racketball/Recreation Games (Intermediate)

- 2241 Recreational Games
- 2244 Rhythms
- 2247 Soccer (Beginning)
- 2250 Soccer (Intermediate)
- 2253 Soccer (Advance)
- 2256 Soccer Officiating
- 2259 Social Dance (Beginning)
- 2262 Social Dance (Intermediate)
- 2265 Softball (Beginning)
- 2268 Softball (Intermediate)
- 2271 Speedball
- 2274 Sports Facilities
- 2277 Swimming (Non)
- 2280 Swimming (Beginning)
- 2283 Swimming (Intermediate)
- 2286 Swimming (Advance)
- 2289 Synchronized Swimming
- 2292 Tennis (Beginning)
- 2295 Tennis (Intermediate)
- 2298 Tennis (Advanced)
- 2301 Track and Field (Beginning)
- 2304 Track and Field (Intermediate)
- 2307 Theory of Physical Education
- 2310 Tumbling (Beginning)
- 2313 Tumbling (Intermediate)
- 2316 Volleyball (Beginning)
- 2319 Volleyball (Intermediate)
- 2322 Volleyball (Power)
- 2325 Weight Control
- 2328 Weight Training (Beginning)
- 2331 Weight Training (Intermediate)
- 2334 Weight Training (Advance)
- 2337 Wrestling
- 2340 Yoga (Beginning)
- 2343 Yoga (Intermediate)
- 2346 Physical Education Aide
- 2349 Physical Education Seminar

Science

- 2503 Science 7
- 2506 Science 8
- 2509 Science 9
- 2512 GTP Science
- 2515 Air & Space
- 2528 Biology I
- 2521 Biology II
- 2524 Biology, Environmental
- 2527 Biology, Human
- 2530 Biology, Marine
- 2533 Chemistry A
- 2536 Chemistry B
- 2539 Chemistry, General
- 2542 Chemistry, Advanced
- 2545 Earth
- 2548 Electronics I
- 2551 Electronics II
- 2554 Energy Resources
- 2557 Evaluation
- 2560 Experience in Science
- 2563 Human Anatomy & Physiology
- 2566 Natural Science
- 2569 Physical Science, Chemistry
- 2572 Physical Science, Physics
- 2575 Physics
- 2578 Physics, Mechanics
- 2581 Physics, Light & Sound
- 2584 Physics, Magnetism & Power
- 2587 Science, Past & Present
- 2590 Science Seminar

Social Studies

General

- 2610 Social Studies 7
- 2612 Social Studies 8
- 2614 Social Studies 9
- 2616 Honors Social Studies
- 2618 Bilingual Social Studies

Anthropology

- 2630 Africas
- 2632 Americas
- 2634 Eurasia
- 2636 S.E. Asia, Oceania, Australia

Government

- 2640 Constitutional Government
- 2642 Government & The Consumer
- 2644 Government of Guam
- 2646 International Government

History**U.S.**

- 2650 Exploration to 1898
- 2652 1898 to Present
- 2654 Guam History

World

- 2660 Beginning Western Civilization
- 2662 Far East History
- 2664 Philippines & S.E. Asia
- 2666 World in Turmoil

Psychology

- 2670 Psychology

Sociology

- 2680 Sociology

ROTC

- 3000 ROTC I
- 3010 ROTC II
- 3020 ROTC III

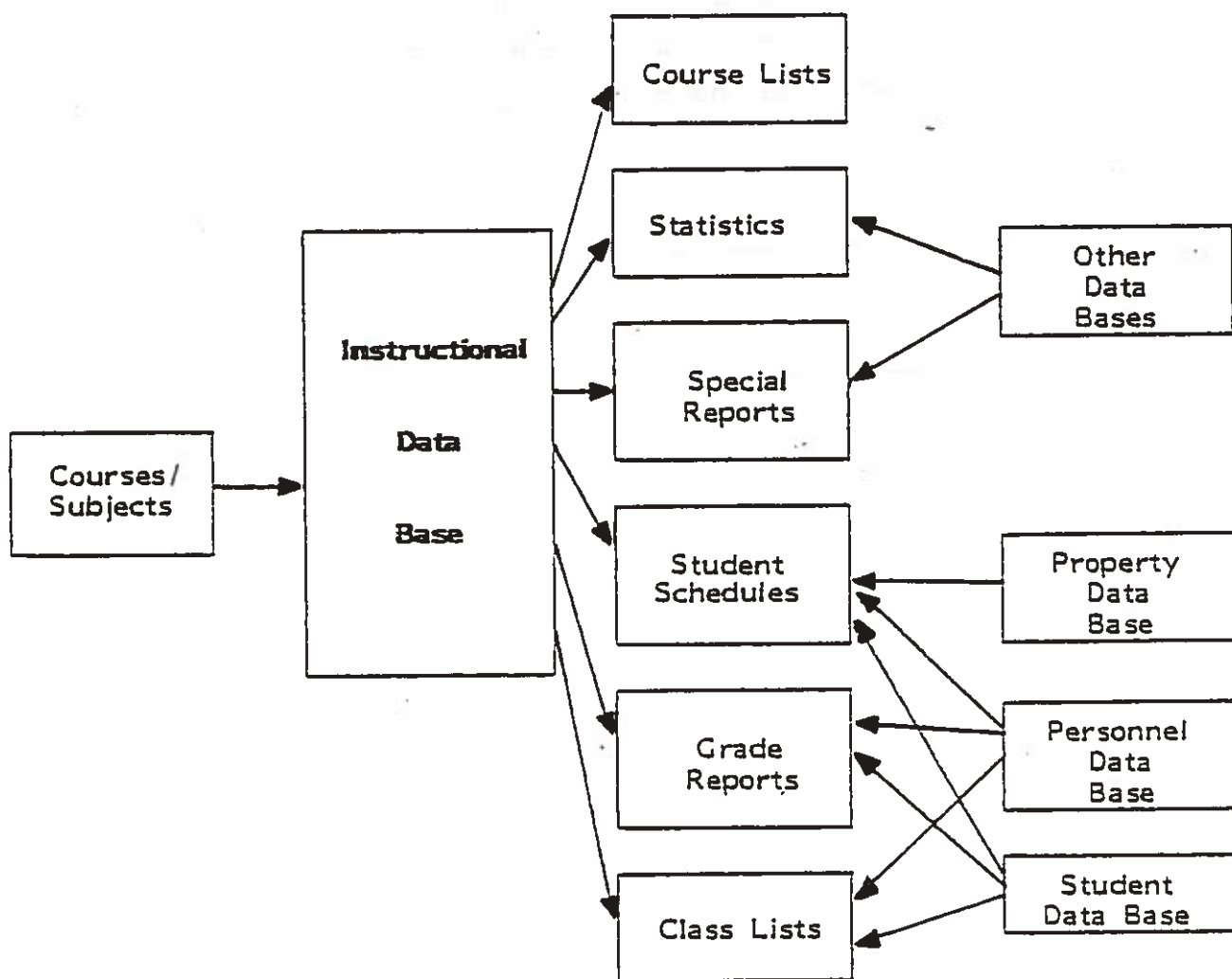
Driver Education

- 4000 Driver Education

INSTRUCTIONAL PROGRAM DATA FILES

Primary subject/course file. This file is used to store data on subjects/courses taught in the Guam schools. There is one record for each subject/course. The "credits" field only applies to secondary school courses.

Number	Name	Course Credit
4N	16A	5N

INSTRUCTIONAL PROGRAM DATA FLOW

**PROPERTY ACCOUNTING
HANDBOOK**

Prepared for
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By:
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Property Accounting Handbook

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PROPERTY DATA BASE ITEMS**Sites**

- (C) **Site Number** A number used to identify a site. For sites with school buildings, the school number will be used as the last two digits of the site number

3 characters

102 Untalan Junior

103 Inarajan Junior High

etc.

- (C) **Site Addition Number** A numeric designation identifying a site as either an original or an addition.

1 character

0 original

1 first addition

2 second addition

etc.

- (C) **Site Name** The common name used for the site. If a school is on site, the school name will be used.

15 characters

- (C) **Site Location** The address of the site or a description of its location.

30 characters

- (C) **Area** The area of the site to the nearest tenth acre.

4 characters

xxx.x

- (L) **Deed Restriction** Brief summary of any revision clause condition or restrictions on use.

- (L) **Easements** Brief summary of easements that affect the site.

(C) Structure (excluding buildings) or special area on site Any structure other than a building or any area requiring special design, arrangements or construction for the purpose of for which it is used.

2 characters per structure or area

01 football field

02 baseball field

03 basketball court

04 tennis court

05 track and field area

etc.

(C) Method of site acquisition The means by which the site was obtained for use.

1 character

1 purchase

2 lease (rent)

3 loan

4 gift

5 exchange

9 other

(C) Date of site acquisition The date on which the site was acquired.

6 characters

MM DD YY

(C) Cost of site acquisition The purchase price of the site.

8 characters

xxxxxxxx

(C) Market value of site The appraised or estimated dollar value for which the site currently could be sold.

8 characters

xxxxxxxx

(L) Nature of site improvement Description of the type of improvement made to a site.

(L) Date of site improvement The date on which site improvement was completed.

- (L) Cost of site improvement The cost of an improvement made to a site.

Buildings

- (C) Building Number The numerical designation for the building.
A four digit number will be used. The first three will be the same as the number of the site on which it is located. The fourth digit will be used to designate the building on the site. Thus a single building on a site might be number 1021 while two buildings on a site might be 1231 and 1232.

4 characters

xxxx

- (C) Building Addition code A numeric designation identifying a building as either an original building or an addition to a building.

1 character

0 original building

1 first addition

2 second addition

etc.

- (C) School or unit name The name of the school or other unit using the building. Other unit might be maintenance or media department.

15 characters

- (C) Building name The common name for the building

15 characters

(C) Type of building A code for the primary purpose of the building.

2 characters

01 General Education

02 Instruction

03 Administration

04 Learning Resources

05 Athletics

06 Auditorium

10 Food Service

11 Mechanical Service

12 Vehicle Garage

13 Maintenance

14 Warehouse

15 Multiple purpose support

(C) Student capacity of building The number of students that can normally be accommodated in the building.

4 characters

xxxx

(C) Date building completed The date construction of the building was completed.

6 characters

MM DD YY

(C) Cost of building acquisition The cost of acquiring the building, whether by construction, purchase or other means. The cost should include construction, architectural and engineering services, legal services, and consultative services.

8 characters

xxxxxxxx

(C) Date of building acquisition The date the building was acquired. This will usually be the same as the date completed (above).

6 characters

MM DD YY

(C) Expected useful life of building The number of years a building is expected to fulfill its intended function.

2 characters

xx

(C) Book value of building The original cost less depreciation.

8 characters

xxxxxxxx

(C) Replacement cost of building The cost, at current prices, to replace a building.

8 characters

xxxxxxxx

(C) Exterior walls Construction materials that comprise most or all of the exterior walls.

1 character

1 wood

2 masonry

3 metal

4 panel

5 concrete block

6 poured concrete

7 none

9 other

(C) Floor framing Construction materials that form the framing of all or most floors.

1 character

1 wood framing

2 concrete on grade

3 wood on steel

4 concrete slab on steel framing

5 concrete slab on concrete framing

9 other

(C) Fixed interior walls Primary construction materials used for the fixed interior walls.

1 character

1 wood frame

2 masonry

3 metal

9 other

(C) Roof framing Construction materials that are used in the framing of the roof.

1 character

1 wood

2 steel

3 concrete

9 other

(C) Roof membrane Materials used to cover the roof.

1 character

1 tar or pitch

2 tile

3 slate

4 metal

5 plastic

6 wood shingles

7 asphalt shingles

8 asbestos

9 other

(C) Material in structural system The primary type of material comprising the structural system of the building.

1 character

1 steel

2 concrete

3 wood

9 other

(C) Gross floor area of building The sum of the areas at each floor level included within the principle outside faces of exterior walls, expressed in square feet.

5 characters

xxxxx

- (C) Total assignable floor area of building The total area, in square feet, of all space available for use.
5 characters
xxxxx
- (C) Total floor area of instructional space The total area, in square feet, of all regular instructional space.
5 characters
xxxxx
- (C) Total floor area of learning resources space The total floor area, in square feet, of all learning resources space
5 characters
xxxxx
- (C) Total floor area of multiple-purpose space, support space, and other assignable space The total area, in square feet, of all multiple-purpose space, support space, and other assignable space.
5 characters
xxxxx
- (C) Total floor area of disaster shelter The area, in square feet, that can be used for disaster protection.
5 characters
xxxxx
- (C) Availability of building entrances for the handicapped
Availability of primary entrances that are ground level or have ramps with hand rails.
1 character
0 no
1 yes
- (C) Accessibility of instructional locations to the handicapped
Accessibility to the handicapped to all instruction locations
1 character
0 no
1 yes

- (C) Availability of toilet facilities for the handicapped Availability
of toilet stalls, accompanied by grab bars, that can
accommodate wheel chairs.

1 character

0 no

1 yes

- (C) Availability of 32-inch doors Availability of doors that are
wide enough to allow wheelchair passage.

1 character

0 no

1 yes

- (C) Date building repair or maintenance work completed

6 characters

MM DD YY

- (C) Cost of building repair or maintenance work

5 characters

xxxxx

- (L) Explanation of building repair or maintenance work performed

Description of the type of work performed and the portion
of the building on which the work was performed.

- (C) Date of building modification

6 characters

MM DD YY

- (C) Cost of building modification

6 characters

xxxxxx

- (L) Explanation of building modification Brief description of
the type of alteration, renovation, or remodeling work
done, including identification of the part of the building
affected

- (C) Space (room) number A numeric designation of a space or room in a building.

3 characters

xxx

- (C) Floor area of space or room The area, in square feet, measured between principal wall faces.

4 characters

xxxx

- (C) Type of space or room Primary intended use of a space or room.

4 characters

1000 assignable space

1100 regular instructional space

1200 special instructional space

1201 athletic/physical education

1202 business education

1203 home economics

1204 industrial arts

1205 kindergarten

1206 mathematics laboratory

1207 media-based instructional laboratory

1208 music

1209 planetarium

1210 science

1211 special space for exceptional children

1212 computer/data processing (instructional)

1213 darkroom (instructional)

1214 motion picture studio (instructional)

1215 radio studio (instructional)

1216 sound studio (instructional)

1217 television studio (instructional)

1299 other special instructional spaces

1300 learning resources space

1400 multiple purpose space

1410 auditorium

1420 cafeteria

1430 cafetorium

1440 gymnatorium
 1450 other multiple-purpose
 1500 support space
 1501 computer/data processing
 1502 conference room
 1503 dark room
 1504 equipment room
 1505 health care
 1506 maintenance and repair
 1507 motion picture studio
 1508 office
 1509 projection room
 1510 radio studio
 1511 residential
 1512 sound studio
 1513 storage
 1514 television studio
 1515 vehicle storage
 1580 general support
 1590 other support
 2000 nonassignable space
 2100 circulation
 2200 custodial
 2300 mechanical
 2400 structural

(C) Student capacity of space The number of students that can be accommodated at one time when the space is being used for the purpose intended.

4 characters

xxxx

Equipment

- (C) Equipment tag number A unique reference number assigned to an item of equipment

12 characters

xxxxxxxxxxxxx

- (C) Equipment inventory number A reference number assigned to an item of equipment with a particular style, use, supply source or other common characteristic. Identical items share a common equipment inventory number. Also referred to as a stock number.

8 characters

xxxxxxx

- (C) Equipment type A series of categories that separate equipment into groups according to similar function on operational characteristics.

4 characters

1000 instructional equipment

1100 instructional device

1110 audio device

1120 computer device

1130 graphics device

1140 electronic display device

1150 photographic device

1160 projected display device

1170 physical display device

1180 subject matter related device

1181 art equipment

1182 business education equipment

1183 driver education equipment

1184 homemaking equipment

1185 industrial arts equipment

1186 music equipment

1187 physical education equipment

1188 scientific laboratory equipment

1189 other subject matter related equipment

- 1190 other instructional device
- 1200 recorded instructional materials
 - 1210 audiorecording materials
 - 1220 computer materials
 - 1230 electronic display materials
 - 1240 projected materials
 - 1250 printed/pictorial materials
 - 1260 three-dimensional materials
 - 1270 multi-media kits
 - 1290 other recorded instructional materials
- 1300 library equipment
- 1900 other instructional equipment
- 2000 custodial equipment
- 4000 health equipment
- 5000 cafeteria equipment
- 7000 administrative equipment
- 9000 other equipment
 - 9100 furniture
 - 9200 machinery and apparatus
 - 9210 hand tools
 - 9220 bench, desk or floor machinery (office)
 - 9230 bench, desk or floor machinery (non-office)
 - 9240 heavy construction equipment
 - 9300 vehicle
 - 9900 other

(C) Description of equipment A brief description of an item of equipment, using the key name or description first. For example, "desk, wood, 5' x 5'."

30 characters

(C) Equipment mobility

1 character

0 nonmovable

1 movable

- (C) Serial Number A unique identifying number permanently inscribed or attached to an equipment item by the manufacturer.

12 characters

- (C) Vendor name or number

15 characters

- (C) Manufacturer name or number

15 characters

- (C) Make or brand

15 characters

- (C) Model number

10 characters

- (C) Physical location of equipment The place where an item of equipment is located. The numeric building code will be used for this.

4 characters

xxxx

- (C) Date of acquisition

6 characters

MM DD YY

- (C) Cost of acquisition

6 characters

xxxxxx

- (C) Expected useful life The number of years an item of equipment is expected to fulfill its intended function.

2 characters

xx

- (C) Equipment maintenance schedule The intervals at which an equipment item is to be serviced.

1 character
 0 none
 1 annually
 2 quarterly
 3 monthly
 4 weekly
 5 after each use
 9 other

- (C) Date equipment repair or maintenance work complete

6 characters
 MM DD YY

- (C) Cost of equipment repair or maintenance work

5 characters
 xxxxx

- (L) Explanation of equipment repair or maintenance work completed

Books

- (C) Book inventory number A reference number assigned to books with the same title, author, edition, publisher and copyright date. Identical items share a common book inventory number.

8 characters
 xxxxxxxx

- (C) Book type A series of categories that separate books into groups according to similar functions.

1 character
 1 basic text
 2 supplemental text
 3 library
 4 professional
 5 other

- (C) Subject area A series of categories that separate text books into groups according to subject areas. The same codes are used as for subjects/courses in instructional program accounting.

4 characters

xxxx

Elementary

0100 Art

0200 Health

-

-

-

0800 Social Studies

Secondary

1000 Agriculture

-

-

-

4000 Driver Education

- (C) Title The title of the book.

25 characters

- (C) Author The name of author of the book.

30 characters

Last, first, middle

- (C) Edition The number of the edition of the book.

1 character

1 first edition

2 second edition

etc.

- (C) Copyright date. The date of the latest copyright of the book.

The last two digits of the year will be used.

2 characters

- (C) Vendor name or number The name or code number of the vendor from whom the book was purchased.
15 characters
- (C) Publisher name or number The name or code number of the publisher of the book.
15 characters
- (C) Date of Acquisition The date the book was received.
6 characters
MM DD YY
- (C) Cost The cost per unit for acquiring the books
5 characters
xxx.xx
- (C) Physical location The code number for the school or department in which the books are located. The same code numbers will be used as are used for personnel assignments.
2 characters
xx
- (C) Number The number of books of the above title, author, edition, publisher, inventory number, etc. assigned to the physical location recorded above.
4 characters
xxxx

PROPERTY DATA FILES

Primary Site file. This file is used to store site data. There will be one record for each original site and one for each addition.

Number	Addition Number	Name	Location	Area	Structure (Repeated 5 times)	Method of Acquisition
3N	1N	15A	30A	4N	2N	1N

Date of Acquisition	Cost of Acquisition	Market Value
6N	8N	8N

Primary Building file. This file is used to store building data. There will be one record for each original building and one for each addition.

Number	Site Number	Addition Code	School or Unit Name	Building Name	Type	Student Capacity	Date Completed
4N	3N	1N	15A	15A	2N	4N	6N

Cost of Acquisition	Date of Acquisition	Expected Life	Book Value	Replacement Cost	Exterior Walls	Floor Framing
8N	6N	2N	8N	8N	1N	1N

Interior Walls	Roof Framing	Roof Membrane	Structure System	Gross	Floor Area	
1N	1N	1N	1N	5N	Assignable	Instruction
					5N	5N

Floor Area (continued)				Accessibility to Handicapped			
Learning Resources	Other	Shelter	Entrance	Instruction	Toilets	Doors	
5N	5N	5N	1N	1N	1N	1N	

Primary Building Maintenance file. This file will store records of building repair and maintenance.

Building Number	Order Number	Date Completed	Cost	Description
4N	8N	6N	5N	40A

Primary Building Modification file. This file will be used to store data on building modifications (alterations, renovations, remodeling).

Building Number	Order Number	Date Completed	Cost	Description
4N	8N	6N	6N	40A

Primary Space (Room) file. This file will be used to store data on building spaces (rooms).

Building Number	Space (Room) Number	Area	Type	Student Capacity
4N	3N	4N	4N	4N

Primary Equipment file. This file will be used to store data on equipment.

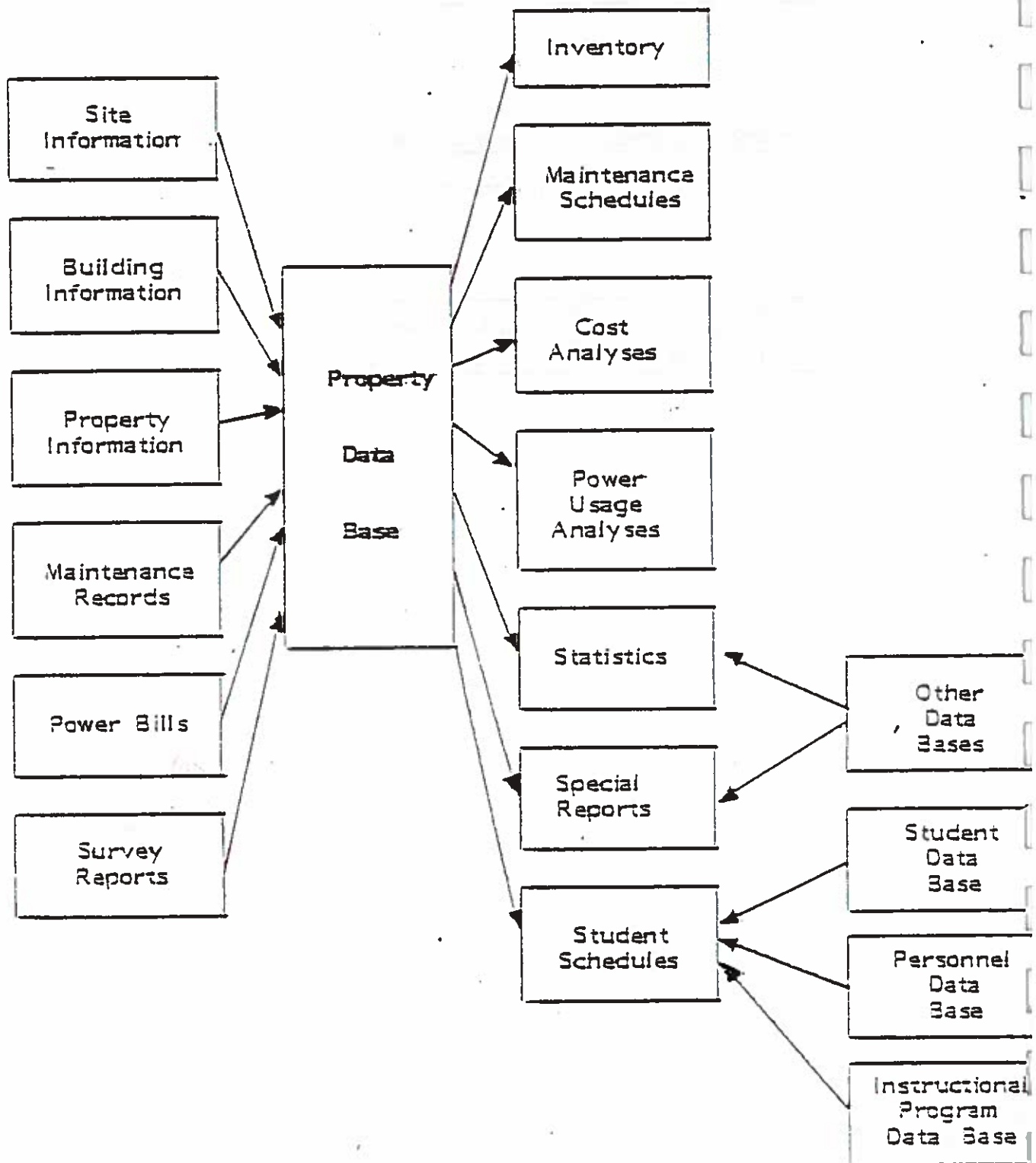
Tag Number	Inventory Number	Type	Description	Mobility	Serial Number	Vendor
12N	8N	4N	30A	1N	12N	15A

Manufacturer	Brand	Model Number	Location (Building)	Date of Acquisition	Cost	Expected Life
15A	15A	10A	4N	6N	6N	2N

Maintenance Schedule 1N	Disposition		
	Reason 1N	Date 6N	Method 1N

Primary Equipment Maintenance file. This file will be used to store data on equipment repair and maintenance.

Tag Number 12N	Order Number 8N	Date Completed 6N	Cost 4N	Description 40A
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PROPERTY DATA FLOW

Appendix D

Report Processing Summary Charts

March 1979

Dr. Jeffrey E. Shafer
Research, Planning & Evaluation

Mary Elaine Cadigan
Director of Education

Reports

The following Report Processing Summary Charts are divided into 3 major types of reports: Operational, Support and Advanced Planning.

Definitions

- I. Operational Reports (reports that are designed to document information and/or data relating to the day-to-day management of physical plant, equipment, materials, staff and instructional programs and for obtaining information and/or data for education/program decision-making)
- II. Support Reports (reports that are for the most part statistical in nature and document information and/or data of a status nature).
 - a. Accounting
 - b. Data Processing
 - c. Supply/Equipment/Facilities
- III. Advance Planning Reports (reports specifically designed to document and summarize requests or information relative to future program design and implementation).

Breakdown of Types

For ease of classification these report types are further broken down into the following categories:

Operational Reports

- A. Accident
- B. Burglary and Vandalism
- C. Parent/Teacher Conferences
- D. Free Lunch Applications
- E. Cafeteria Reports (FSN)
- F. Classroom Scheduling (Secondary)
- G. End-of-Year Reports
- H. Quarterly Reports
- I. Staffing Pattern - Room Utilization
- J. Personnel Evaluation
 1. School year employees
 2. Twelve month employees
 - a. cabinet members
 - b. principals
 - c. other division employees (non-school level personnel)

Support Reports

- A. Accounting
 1. Payroll
 2. Budget Expenditures for previous fiscal year

B. Data Processing (Research, Planning and Evaluation)

1. Beginning Enrollment
 - a. by sex by age
 - b. by grade
 - c. by ethnic background by grade
 - d. language groups
 - e. handicapped
 - f. military dependent
2. Attendance Summary
3. Professional Personnel Data
4. Entry, Re-entry and withdrawals
5. DOE Statistical Tables
6. Low Income Survey
7. Report Cards (Secondary)
8. Special Education Enrollment
9. Parent Pupil Survey P.L. 81-874
10. NCES Performance Contract Reports (11 reports total)
11. Dropout/Suspension
12. Headstart Enrollment Breakdowns
13. Deaf and Blind School Enrollment Breakdown
14. Monthly Statistical Enrollment Report

C. Supply/Equipment/Facilities

1. Repairs and Maintenance
2. Requests for use of school facilities (non-school activities)
3. Textbook and Equipment Inventory
4. Equipment Inventory
5. Requisition for equipment and supplies
6. Transfers of textbooks and equipment
7. off-island orders

Advance Planning Reports

- A. Food Services State Plan
- B. Staffing Needs
- C. Employment Availability
- D. Curriculum Proposals and New Programs
- E. Budget Proposals
- F. Field Trip Plans
- G. Pre-registration results
- H. Special Education State Plans
- I. Federal Programs Title IV State Plan
- J. Five Year Plans
- K. Needs Assessment (Discipline Oriented)

In addition to the general flow of report processing outlined in the accompanying tables a system for managing each report has been developed or is under developed. This management system takes the form of specifying critical worker activities for each reporting system in which the:

1. Person responsible is outlined
2. activity specified
3. completion date specified
4. evaluations means/method are specified.

Name of Report	Major Responsibility	Time Line/ Schedule	Dissemination To:	File Location	General Information
*Accident Report	School Nurse/ School Principal	Ongoing Activity (quarterly)	Copy to Office of Business Adminis- tration, RPE , Respective Assoc. Supt.	School nurse's office copy in Business office and RPE	File copy also . maintained in Office of Business Administration
*Burglary and Vandalism	School Principal	Ongoing Activity (quarterly)	Copy to Deputy Director , Research, Planning and Evaluation, Respective Assoc. Supt.	School principal RPE	Close communication with Office of Buildings and Grounds
*Parent/Teacher Conferences	School Principal	Ongoing Activity (quarterly)	Copy to Associate Superintendents	School Principal	Teachers have res- ponsibility to complete records
*Free Lunch Ap- plications	Administrator Food Services Services, School Principals	August-October (Initial List) Ongoing Activity	Monthly reports to Federal Govern- ment	Administrator Food Services services	Required Federal reports
*Cafeteria Reports (FSN)	Administrator Food Services School Principals	Ongoing Activity	Monthly reports to Federal Govern- ment	Administrator Food Services Services	Required Federal Reports

CLAM DEPARTMENT OF EDUCATION
REPORT PROCESSING PRIMARY CHART TYPE OF REPORT: OPERATIONAL

Name of Report	Major Responsibility	Time Line/ Schedule	Dissemination To:	File Location	General Information
*Classroom Scheduling	School principals Department heads	August	Associate Super- intendent Sec- ondary Education	Associate Super- intendent Sec- ondary Education, School Principal	
*End-of-Year Reports	Deputy Director Instructional and Support Services	May-July	Director	Deputy Director	
*Quarterly Reports	Cabinet members School principals	Quarterly; March June September December	Director of DOE via Division Associates	Deputy Director Director of DOE Division Associates	
*Staffing Pattern Room Utilization	School Staff and school principals	March-August	School Staff, Associate Super- intendent Sec- ondary Education	School principal Associate Super- intendent Sec- ondary Education	
*Personnel Evaluation (School year Employees)	Principal	April - May	Personnel Office	Principal's Office Personnel office	Copies also provided staff member being evi- luated

Name of Report	Major Responsibility	Time Line/ Schedule	Dissemination To:	File Location	General Information
*Payroll	DOE Payroll Accounting Section	Ongoing	Office of Controller	DOE Payroll Accounting	
Budget Expenditures for previous Fiscal Year	Business Office (FMS)	End of Fiscal Year by September of next Fiscal Year	Research, Planning Evaluation and Other DOE divisions upon request	FMS and Business Office	Reports required for certain Federal requirements P.L. 01-074, NCES etc.

CUAM DEPARTMENT OF EDUCATION
REPORT PROCESSING SUMMARY CHART TYPE OF REPORT: OPERATIONAL

Name of Report	Major Responsibility	Time Line/ Schedule	Dissemination To:	File Location	General Information
*Personnel Evaluation (Twelve Months Employees)	School Principal	Monthly as Required	Personnel Office	School Principal's Office, Personnel Office	Required on annual increment dates of twelve month employees
Cabinet Level Evaluations	Director of Education	Quarterly	Personnel Office	Director of Educa- tion, Personnel Office	Copy of evaluation is also given to cabinet members
Principal Eva- luation	Associate Super- intendent - Elementary, Secondary, Special Education	Quarterly	Personnel office, Director of Education	Personnel office, Assoc. Supt's office	Copy of evaluation is also given to cabinet members
Other divisions employee evaluation	Asst. Dir. Fin- ancial Affairs, Assoc. Supt. C&I Pupil Personnel RPE, LRC etc.	Quarterly	Personnel office,	Personnel office, Division Heads and Associates	Copy of evaluation is also given to cabinet members

Name of Report	Major Responsibility	Time Line/ Schedule	Dissemination To:	File Location	General Information
*Beginning Enrollment	Schools collect, Office of Statistical Services Compiles	August-November	Assoc. Sup't. Elementary, Secondary; Administrator Pupil Personnel, School Principals	Office of Statistical Services	Incorporated into Annual Statistical Tables Report
*Attendance Summary (Absences)	Schools collect, Office of Statistical Services compiles	Ongoing (monthly)	Assoc. Sup't. Elementary, Secondary	Office of Statistical Services	ADA and ADM calculated from this data
*Professional Personal Data	Personnel office collects, Office of Statistical Services compiles	August-November	No official dissemination other than the Annual Statistical Tables Report, or upon request	Office of Statistical Services	Incorporated into Annual Statistical Tables Report
*Entry and Re-Entry Withdrawals	Schools collect, Office of Statistical Services compiles	Daily, weekly and monthly activities; Monthly summary report during school year	Assoc. Sup't. Elementary, Secondary; Administrator Pupil Personnel School Principals	Office of Statistical Services	
*DOE Statistical Tables	Office of Statistical Services compiles and publishes	Published by October (include Sept. beginning enrollment)	General dissemination to DOE Central Office and Schools	Office of Statistical Services	Officially known as "Statistical Tables"

GUAM DEPARTMENT OF EDUCATION
REPORT PROCESSING SUMMARY CHART TYPE OF REPORT: Data Processing

Name of Report	Major Responsibility	Time Line/ Schedule	Dissemination To:	File Location	General Information
*Pupil Age, Grade Distribution	Office of Statistical Services Compiles, school collects	January	Upon request to DOE Staff, Division Heads and Associates	Office of Statistical Services	Incorporated into Annual Statistical Tables Report
*Low Income Survey	Office of Statistical Services	December - March	Summarized data to ESEA Title I Director, Federal Government	Office of Statistical Services	Required in certain Federal Government reports
*Report Cards (not active now)	School staff, principals, Office of Statistical Services	Quarterly	School Principals School Staff Students Parents	Office of Statistical Services School Principals	Secondary school students only
*Special Education Enrollment	Assoc. Sup't.- Special Edu. Statistical Services compiles	End of each month	DOE Administration (Quarterly Report) Federal Government/Budget and Management Office (Budget Preparation)	Office of Special Education	
*Parent Pupil Survey P.L. 81-074	Principals, Office of Statistical Services	September- January 31	Summarized Data to SAFA Federal Government	Office of Statistical Services	Required for reimbursement of impact aid funds.

Name of Report	Major Responsibility	Time Line/ Schedule	Dissemination To:	File Location	General Information
NCES 2350-8 Universe of Local Education Agencies	Statistical Services	August 15 due in Washington, D C	NCES- Room 3009 400 Maryland Ave. S.W. Washington, D.C. 20202	Statistical Services	Performance contractual obligation with NCES
NCES Form 2350-8-1 Supplementary Report for newly organized LEAS's	Statistical Services	August 15	NCES-Room 3009 400 Maryland Ave S.W. Washington, D.C. 20202	Statistical Services	Performance contractual obligation with NCES
NCES FORM 2350-13- State Education Agency Personnel Directory	Statistical Services	August 15	NCES-Room 3009 400 Maryland Ave S.W. Washington, D.C. 20202	Statistical Services	Performance contractual obligation with NCES
NCES Form 2350-9 Estimates for School Year	Statistical Services	August 15	NCES - Room 3009 400 Maryland Ave S.W. Washington, D.C. 20202	Statistical Services	Performance contractual obligation with NCES

COAM DEPARTMENT OF EDUCATION
REPORT PROCESSING SUMMARY CHART TYPE OF REPORT;

Name of Report	Major Responsibility	Time Line/ Schedule	Dissemination To:	File Location	General Information
NCES Form 2350-5 Fall Report	Statistical Services	December 15	NCES-Room 3009 FOB #6 400 Maryland Ave S.W. Washington, D.C. 20202	Statistical Services	Performance contract with NCES
NCES Form 2350-7 Schoolhousing Report	Statistical Services	December 15	NCES-Room 3009 FOB # 9 400 Maryland Ave. S.W. Washington, D.C. 20202	Statistical Services	Performance contract with NCES
NCES Form 2373-2 IEA Non-fiscal Report	Statistical Services	January 15	NCES-Room 3009 FOB # 9 400 Maryland Ave. S.W. Washington, D.C. 20202	Statistical Services	Performance contract with NCES
NCES 2393-2A Universe Public Schools	Statistical Services	January 15	NCES-Room 3009 FOB #9 400 Maryland Ave. S.W. Washington, D.C. 20202	Statistical Services	Performance contract with NCES

REPORT PROCESSING SUMMARY CHART TYPE OF REPORT:

Name of Report	Major Responsibility	Time Line/ Schedule	Dissemination To:	File Location	General Information
NCES Form 2393-4 State Education Agency Report	Statistical Services	January 15	NCES Room 3009 FOB #6 400 Maryland Ave. S.W. Washington, D.C. 20202	Statistical Services	Performance contract with NCES
NCES Form 2350-6 Revenue and Expenditures	Business Office, Public Works, Statistical Services	March 15	NCES-Room 3009 FOB #6 400 Maryland Ave. S.W. Washington, D.C. 20202	Statistical Services	Performance contract with NCES
NCES Form 2350-11 Misc State Aggregates/FY 70	Business office, Public Works, Statistical Services	May 15	NCES-Room 3009 FOB #6 400 Maryland Ave. S.W. Washington, D.C. 20202	Statistical Services	Performance contract with NCES
Dropout/Suspension Report	Statistical Services, Pupil Personnel, Principals	June 1	Principals, Director of Educa- tion and Division Heads and Associates	Statistical Services	For June Board of Education Meeting

GUAM DEPARTMENT OF EDUCATION
REPORT PROCESSING SUMMARY CHART TYPE OF REPORT:

Name of Report	Major Responsibility	Time Line/ Schedule	Dissemination To:	File Location	General Information
Deaf and Blind school Pupil Information	Statistical Services compiles, Special Education collects	Monthly ongoing	Special Education and other division upon request	Statistical Services	
HeadStart Enrollment	HeadStart collects, Statistical Services compiles	Monthly Ongoing	DOE Staff on request	Statistical Services	
Military depen- dent Breakdown	Schools collect, Statistical Services compiles	Monthly Ongoing	Base Liaison offi- cers, DOE staff on request	Statistical Services	
Statistical Information Monthly Enrollment Report	Schools collect, Statistical Services compiles	Monthly Ongoing	Assoc. Supt. Elementary Secondary Special Education	Statistical Services	

REPORT PROCESSING SUMMARY CHART TYPE OF REPORT;

Name of Report	Major Responsibility	Time line/ Schedule	Dissemination To:	File Location	General Information
School Attendance Area Report	Principals collect, Statistical Services compiles	Monthly	Associate Superintendent Elementary Secondary	Research, Planning and Evaluation	Needed for redistricting
Enrollment Pro- jections by grade by total dis- trict	Statistical Services	September- December	Assoc. Supt. Elementary Secondary Special Education other DOE divi- sions upon re- quest	Statistical Services	Needed for Budget

GUAM DEPARTMENT OF EDUCATION
REPORT PROCESSING SUMMARY CHART TYPE OF REPORT:

Name of Report	Major Responsibility	Time Line/ Schedule	Dissemination To:	File Location	General Information
*Repairs and Maintenance	School Principal	Ongoing activity	Office of Buildings and Grounds	Principal's Office Office of Buildings and Grounds	
*Use of School Buildings and Facilities	School Principal	Ongoing Activity	Deputy Director	Principal's Office	
*Textbook and Equipment Inventory	Assoc. Supt. Elementary, Secondary	December - March	School Principal's	Assoc. Supt. Elementary Secondary	
*Equipment Inventory	Office of Supply Management	February-June	Office of Budget Management Office of Fiscal Affairs Dept. of Administration	Office of Supply Management	
*Requisition for Equipment and Supplies	Office of Supply Management (Procurement Section)	Ongoing activity	Principal's Office	Principal's Office Office of Supply Management	

Name of Report	Major Responsibility	Time Line/ Schedule	Dissemination To:	File Location	General Information
*Transfer of Texts and Equipment	School Principal	Ongoing activity	Administrator Supply Management	School principal Office of Supply Management	
*Off-island orders	Administrator Supply Management	February, June and October	Educational Media Center for review of A-V Equipment Division Assoc.	Administrator Supply Management	

GUAM DEPARTMENT OF EDUCATION
REPORT PROCESSING SUMMARY CHART TYPE OF REPORT:

Name of Report	Major Responsibility	Time Line/ Schedule	Dissemination To:	File Location	General Information
*Food Services State Plan	Assoc. Supt., Food Services	October-December	Director of Educa- tion Federal govern- ment	Assoc. Supt., Food Services Office	Information re- quired by Federal government
*Staff Needs	School principals	June-July	Budget Management Office Division Assoc	School principals Office of Budget Management Division Assoc.	
*Employment Availability	Personnel Office	Ongoing but by March 15 of current year	Any DOE Staff upon request	Personnel Office	
*Curriculum Pro- posals and New Programs	School principals Assoc. Supt., Curri- culum and Instruc- tion	Ongoing	Curriculum Commit- tees and DOE cen- tral staff as re- quired	School principals Assoc. Supt., Curriculum and Instruction	
*Field Trip Plans	School Principals	Ongoing	Deputy Director Assoc. Supt. Elem. secondary	School principal's office	

CONFIDENTIAL
 REPORT PROCESSING SUMMARY CHART TYPE OF REPORT:

Name of Report	Major Responsibility	Time Line/ Schedule	Dissemination To:	File Location	General Information
*Budget Proposal	Assoc. Supt., Elementary and Secondary Educa- tion and all division heads	May-September	Office of Budget and Management Deputy Director Board of Education	Assoc. Supt., Elementary and Secondary Education	
*Pre-Registration Results	Assoc. Supt., Elementary and Secondary Educa- tion	February-May	School principals Director, DOE	Associate Supt., Elementary and Secondary Educa- tion	
Special Education State Plan	Assoc. Supt., special Education	October-February (Board meeting)	Director, Board of Education Feder Government	Assoc. Supt., Sp. Education	
Title IV State Plan	Title IV Coordinator		Director, Advisory Council	Federal Programs office	
Five Year Plan	School principals Division Heads collect, Research Planning and Evaluation com- piles	March	Gov. Office, Bureau Budget & Mgt. Director of Education	Research, Planning and Evaluation	

COAM DEPT. OF EDUCATION
REPORT PROCESSING SUMMARY CHART TYPE OF REPORT:

Name of Report	Major Responsibility	Time Line/ Schedule	Dissemination To:	File Location	General Information
Island-Wide Needs Assessment	Assoc. Supt. Curr & Inst. Research, Planning and Evaluation	Ongoing by June 30 each School Year	Board of Education Director of Edu- cation, DOE Staff upon request	Research, Planning and Evaluation	

Appendix E



472-2900
472-2909

AFTERMATH ACTION EQUAL OPPORTUNITY TITLE III AGENCY

DEPARTMENT OF EDUCATION
GOVERNMENT OF GUAM
P.O. BOX DE
AGANA, GUAM
96910

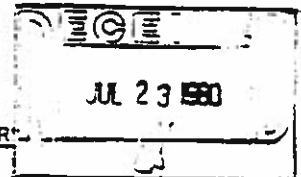
July 27, 1980

ANNOUNCEMENT

The Department of Education announces open and promotional examination for the following class to ESTABLISH A LIST:

CONTINUOUS

RESEARCH, PLANNING AND EVALUATION ADMINISTRATOR
(DEPARTMENT OF EDUCATION)



DUTY: Twelve Months

SALARY: PR 42, \$21,420 - \$28,440 per annum

NATURE OF WORK IN THIS CLASS:

This is complex professional and administrative work involved in administering the research, planning and evaluation of educational programs and services of the Department of Education.

Employees in this class performs the full range of complex professional duties including independent work in specialized areas of the profession.

ILLUSTRATIVE EXAMPLES OF WORK: (Does not list all the duties which may be performed)

Administers the programs and services of the Research, Planning and Evaluation Division of the Department of Education.

Administers the programs, projects and activities of a comprehensive management information system; designs, researches and evaluates data collection instruments; directs the computer processing and information retrieval services for the various public schools for the registration, scheduling of classes and students, grade reporting, attendance, test scoring services and other related services.

Develops, recommends and implements systems for identifying educational needs and concerns; establishes the reliability and validity of research and evaluation methods and findings.

Develops, plans and implements measurements methods and techniques to evaluate educational programs to determine the cost effectiveness and to measure the attainment of goals and objectives in accordance with applicable federal and local guidelines and requirements.

Provides technical assistance in the design of computer systems, the development and implementation of educational programs, evaluation systems and research and statistical methods.

Provides information, projections and statistical analysis; develops data analysis procedures to measure the attainment of program goals and objectives.

Develops systems for long range planning.

Maintains liaison with U.S. Office of Education, National Center for Education Statistics and other Federal and local agencies.

Performs related work as required.

RESEARCH, PLANNING AND EVALUATION ADMINISTRATOR
Page 2

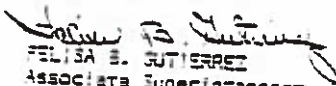
MINIMUM KNOWLEDGE, ABILITIES AND SKILLS:

- Knowledge of the principles and practices of public administration.
- Knowledge of statistical research techniques.
- Ability to administer the programs and services of the Research, Planning and Evaluation Division of the Department of Education.
- Ability to establish and maintain a management information system to handle the data analysis and reporting needs of the Department of Education.
- Ability to plan and implement research and analytical work in the field of education and to make analysis of findings, noting factors, developments, trends and projections.
- Ability to understand the application of computer programs such as the Statistical Package for Social Sciences and other computer-based methods of data analysis.
- Ability to learn, interpret and apply pertinent federal and local laws, rules and related guidelines.
- Ability to make decisions in accordance with appropriate guidelines.
- Ability to evaluate operational effectiveness and implement changes for improvements.
- Ability to work effectively with the public and employees.
- Ability to communicate effectively orally and in writing.

MINIMUM EXPERIENCE AND TRAINING:

- A) Graduation from a recognized college or university with a Ph.D. or Ed.D; or
- B) Any equivalent combination of experience and training beyond a master's degree which provides the minimum knowledge, abilities and skills.

Interested persons may apply directly to the Office of the Associate Superintendent, Personnel Services at the Department of Education, Pacific Arcade Building in Agaña. For further information call 472-3900/3909.


FELISA B. GUTIERREZ
Associate Superintendent, Personnel



472-2800
472-2808

29
AFFIRMATIVE ACTION EQUAL OPPORTUNITY TITLE IX AGENCY

DEPARTMENT OF EDUCATION
GOVERNMENT OF GUAM
P.O. BOX 35
AGANA, GUAM
96910

May 9, 1979

ANNOUNCEMENT

The Department of Education announces the following position to ESTABLISH
A LIST:

CONTINUOUS

SENIOR SYSTEMS/MANAGEMENT ANALYST

DUTY: Twelve Months

SALARY: PR 31 - \$14,660.00 - \$19,360.00 P/A

NATURE OF WORK:

This is advanced technical work involving the analysis and development of improved managerial procedures and practices as well as the analysis of operation and administrative systems and the development of methods for adapting these work systems to electronic data processing.

Employees in this class are responsible for the analysis of organizational units, work processes, functions and programs which are complex and technical in nature, as well as the development and documentation of the methodology for adapting various work systems to electronic data processing. Work involves evaluating and recommending improvements in managerial policies and practices, organization, methods and procedures.

Work may involve leading the work of subordinate technical employees on assigned tasks. Employees in this class receive general instructions as to scope of assignments and broad objectives to be achieved. Work is performed with considerable independence and is reviewed through conferences and submission of reports for compliance with policies, soundness of conclusions or recommendations, accuracy of logic, feasibility and proper utilization of established principles, practices and procedures.

ILLUSTRATIVE EXAMPLES OF WORK:

Conducts studies, research, analyses and evaluation of organizational structure, functions, work methods and other operational activities; recommends changes; develops procedures and necessary forms to implement changes, and prepares related procedural instructions.

Participates in the design and development of management information systems; performs statistical analyses and presentations of results and conclusions.

Promotes the use of programs and procedures designed to simplify work processes and improvement of administrative procedures; writes and/or revises manuals of procedures.

Recommends adjustments, improvements, and renovations in organization and operations based on studies and surveys.

Initiates action in organizing information into accessible work files, documenting procedures and operating methods; designs systems improvements and identification of data in the processing of applications; and develops cost statistics on which economic evaluations can be based.

Determines the requirements of changes necessary to adapt existing work systems and processes to electronic data processing techniques.

- Prepares written procedure narratives, flow charts, systems specifications, programming guidelines, and other necessary documentation.
- Designs reports and internally generated outputs to satisfy management information needs and supplies day-to-day data needed for the continuous operation of the individual elements of work systems.
- Facilitates implementation of electronic data processing procedures through preparation of necessary manuals, charts, diagrams and forms design.
- Evaluates and recommends the type, size, and value of office and operation equipment to be utilized.
- Reviews and updates internal procedures.
- Instructs personnel in the use of new systems and forms.
- Maintains control over the design of reports, records, and forms.
- Performs long-range studies for management involving such items as organization, feasibility studies concerning new equipment, procedures, and other related matters.
- Performs related work as required.

MINIMUM KNOWLEDGES, ABILITIES AND SKILLS:

- Thorough knowledge of governmental management principles, theories and techniques and of generally accepted techniques used in organization and methods examining.
- Thorough knowledge of the modern principles, practices, systems, and procedures and mechanization in data processing and computer operations and programming.
- Considerable knowledge of modern office practices and procedures.
- Ability to participate in the development of long-range plans for the computer systems analysis programs.
- Ability to make oral and written reports and presentations and prepare charts and graphs clearly and concisely.
- Ability to conduct extensive management studies and organizational surveys.
- Ability to devise procedures, to develop methods for generating and processing data and to integrate these into data processing systems and plans.
- Ability to gather, assemble, correlate and analyze facts and devise solutions to difficult management problems.
- Ability to establish and maintain effective working relationships with others.
- Ability to make work decisions in accordance with laws, rules, and regulations, and to apply departmental policies and procedures to work problems.

MINIMUM EXPERIENCE AND TRAINING:

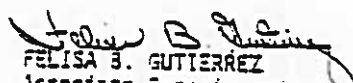
- (a) Graduation with a Master's degree from a recognized college or university in business or public administration, industrial management, computer science, or closely related field, plus one year of progressively responsible specialized experience involving computer systems analysis and digital computer programming; and one year of management analysis work involving the analysis, evaluation, development and improvement of managerial policies, practices, methods, systems and procedures; or
- (b) Graduation with a Bachelor's degree in business or public administration, industrial management, computer science, or closely related field, plus one year and six months of progressively responsible specialized experience including computer systems analysis and digital computer programming; and one year and six months of progressively responsible specialized management analysis work involving the analysis, evaluation, development and improvement of managerial policies, practices, methods, systems and procedures; or

Page 3
Senior Systems/Management Analyst

- (c) Any equivalent combination of experience and training which provides the minimum knowledges, abilities and skills.

Interested persons may apply directly to the Office of the Associate Superintendent, Personnel Services at the Department of Education, Pacific Arcade Building in Agana.

For further information call 4728-900 or 4728-909.


FELISA B. GUTIERREZ
Associate Superintendent - Personnel



472-2900
472-2902

ALTERNATIVE ACTION EQUAL OPPORTUNITY TITLE IX AGENCY

DEPARTMENT OF EDUCATION
GOVERNMENT OF GUAM
P. O. BOX DE
AGANA, GUAM
96910

December 5, 1979

ANNOUNCEMENT

THE DEPARTMENT OF EDUCATION ANNOUNCES OPEN AND PROMOTIONAL EXAMINATION FOR THE FOLLOWING CLASS TO ESTABLISH A LIST:

C O N T I N U O U S COMPUTER SYSTEMS ANALYST IV

DUTY: Twelve Months

SALARY: PR29 - \$13,620 - \$13,560 P/A

NATURE OF WORK IN THIS CLASS:

This is difficult and responsible technical data processing and computer systems analyses work with considerable latitude in the exercise of independent judgment and actions subject, however, to the administrative direction of the division and/or branch head in performing a variety of assignments in the gathering, analyzing, and making formal presentations of the various systems within the Government of Guam in accordance with established laws, rules, regulations, policies, procedures, and program objectives.

Work is reviewed through conferences, work accomplishments, and submission of reports. Work may occasionally involve the supervision of technical or clerical employees in the respective branch or in the performance of other specific programs having overall supervision.

ILLUSTRATIVE EXAMPLES OF WORK:

Formulates and recommends work procedures relating to gathering, analyzing, and making formal presentations of the various systems within the Government of Guam for the ultimate use in data processing and computer machines.

Initiates plans, programs, and procedures for the performance of responsible technical data processing and computer systems analyses work and recommends adjustments, improvements, and renovation therefrom.

Initiates action in organizing information into accessible work files; documenting procedures and operating methods; designing systems improvements and identifications of data in the processing of applications; and developing costs statistics in which economic evaluations can be based, etc.

Performs related computer systems analyses work as required.

DESIRABLE KNOWLEDGES, ABILITIES, AND SKILLS:

Thorough knowledge of the modern principles, practices, systems, and procedures and mechanization in data processing and computer operations.

Thorough knowledge of governmental functions and organizations.

Considerable knowledge of modern office practices and procedures.

COMPUTER SYSTEMS ANALYST IV
Page 2

- Ability to assist in the development of long range plans for the computer systems analyses program of the Government of Guam.
- Ability to establish and maintain effective working relationships with departmental officials, subordinates, employees and their representatives, professional groups, and the general public.
- Ability to make work decisions in accordance with laws, rules and regulations, and to apply departmental policies and procedures to work problems.
- Ability to prepare reports and to do statistical research work.
- Ability to express oneself clearly and concisely, orally and in writing.
- Skill in the use and care of variety of data and computer machines.

DESIRABLE EXPERIENCE AND TRAINING:

- (A) Graduation with a Bachelor's degree from a recognized college or university in business administration, or closely related field, plus three (3) years of progressively responsible experience in data processing installation and computer systems; or
- (B) Graduation from high school or possession of a certificate of high school equivalency (GED), plus six years of progressively responsible experience of which 3 years must have been in data processing installation and computer systems; or
- (C) Any equivalent combination of experience and training.

Interested persons may apply directly to the Office of the Associate Superintendent - Personnel Services at the Department of Education, Pacific Arcade Building in Agana. For further information call 4723-900 or 4723-909.


FELISA B. GUTIERREZ
Associate Superintendent - Personnel



RESUME

Name: Jeffrey E. Shafer

Social Security Number: 52T-5Z-7743

Present Address: P.O. Box 1787
Agana, Guam 96910

Telephone: 472-8532 (work); 789-1648 (home)

Marital Status: Married

Date of Birth: February 13, 1943

Place of Birth: Cincinnati, Ohio, USA

EDUCATION:

196T-1966	University of Nebraska Lincoln, Nebraska Obtained B.S. in Microbiology
1966-1968	Colorado State College Greeley, Colorado Obtained M.A. in Science Education/Biology
1976-1978	University of Northern Colorado Greeley, Colorado Obtained Ed.D. in Science Education/Research, Statistical Methods and Evaluation

OTHER PROFESSIONAL TRAINING:

1975	NWREL Audit and Evaluation Training Program Evaluation Evaluation Improvement Training - California's State Department of Education. Western Region Interstate Planning Project
1977	Center for the Study of Evaluation, Workshop in Program Planning, Implementation and Evaluation UCLA
1979	Title I Technical Assistance Workshop - NWREL

WORK EXPERIENCE:

1978-Present

° Data Systems Consultant for the Guam Department of Education, Agana, Guam.
Responsibilities include evaluation of the Guam Teachers' Center project, direction of the Guam Educational Management Information Systems ESEA Title IV project, lending technical assistance to the needs assessment project, Title II Basic Skills and Title I Evaluation, utilizing systems analysis techniques to develop systematic procedures to meet the statistical information requirements of the Department using SPSS and other related programs, direction of the NCES Common Core of Data Survey Project and general administrative responsibility over a small staff of professional and non-professionals engaged in data collection, storage, retrieval, planning evaluation and research.

° Part time professor, University of Guam.
Taught basic statistical courses to graduate education majors up through analysis of variance and graduate level course in program evaluation.

1976-1978

° Private Consultant for the Center for Education and Management of Greeley, Colorado.
Responsibilities include third party evaluation studies, process monitoring, report writing and development of evaluation oriented handbooks for implementing and evaluating career education programs. Secured program evaluation contracts for ESEA Title VII on Guam; developed company brochures in report writing, monitoring, technical reviews and discrepancy analysis evaluation models. Co-authored two handbooks: one on implementation for Experienced Based Career Education; one (in press) on Evaluation Designs for Experienced Based Career Education in Wyoming. Authored a resource guide for career education in the State of Wyoming.

° Research Assistant in Evaluation, Center for Special and Advanced Projects, University of Northern Colorado, Greeley, Colorado.
As a research assistant working out of the University's Office of Program Evaluation was responsible for evaluation research designs, site reviews, formative evaluation studies of several on-going University programs and data analysis/report writing.

Authored student follow-up reports for external degree programs in Art and Sciences, conducted onsite audits of the UNC Reading and Writing Program, Bilingual Traineeship Program as well as developed a model evaluation design for external degree programs. Also developed management plans for the Content Reading and Writing Program and conducted the evaluations (instrument design and summaries) for the UNC Science-Math Council Summer workshops.

- Supervisor, Student Field Experiences, University of Northern Colorado, Greeley, Colorado.
As content consultant in science was responsible for the supervision of junior and senior high student teachers in science during the fall quarter 1976.

1974-1976

- Educational Evaluator, Office of Planning, Evaluation and Federal Programs, Department of Education, Agana, Guam.
As an educational evaluator was responsible for the implementation of a district-wide accountability system that involved locally constructed criterion referenced tests in language arts, mathematics, science and social studies. Was also responsible for the evaluation of several federally funded programs (Title I, Title III, ESEA Title VII, ESSA). Also was responsible for proposal writing and development, program planning, monitoring and evaluation designs.
- Authored a number of proposals for federal funding, oral and written reports to the Territorial Board of Education and Guam Legislature, Title IV State Evaluation Plan, technical reviews, technical assistance to various projects and the Title III State Advisory Council.

1973-1974

- Coordinator of Year Round School Studies, Guam Department of Education, Agana, Guam.
As the coordinator was responsible for year round education feasibility studies and community surveys. Completed feasibility study and community survey of opinion and attitudes towards the concept of year round education. Project was discontinued due to lack of seed money.
Also during this time co-coordinated a summer school aide training project.

1969-1973

- Science Teacher, Guam Public Schools, Agana, Guam.
During this period of time was assigned to teach junior and senior high school science. Developed an innovative independent study program for the senior high school, coached football one year and was chosen by the senior class to present the keynote address at graduation.

1968-1969

- Science Teacher, Grand Junction Junior High, Grand Junction, Colorado. Chaired the Science Department Self-Study accreditation committee.

1967-1968

- Research Assistant in Education, University of Hawaii, Honolulu, Hawaii. As a graduate research assistant in education was responsible for editing manuscripts for publication, substitute university level instruction. Edited science discovery lessons and provided assistance to science education faculty.

1966-1967

Ford Foundation Fellow. Experimental Teacher Education Project, Colorado State College, Greeley, Colorado. As a Fellow was responsible for constructing test items in the earth, physical and biological sciences and assisting science education faculty in project work. Items written became a part of a published series of elementary discovery activities in the Physical, Life and Earth sciences.

In addition to the above experience Dr. Shafer has had first hand experience with SPSS, SAS computer packages, FORTRAN IV and systems analysis as well as formal University level course work in computer programming and multiple regression analysis techniques.

OTHER ACTIVITIES:

1971-1973

Vice President, Guam Science Teacher Association

1970-1971

Advisor, AYA (All Island Youth Association) Guam

1977-present

Member, American Educational Research Association (AERA)

1977-1978

Member, American Association University Professors (AAUP)

1977-1979

Member, National Science Teachers Association (NSTA)

HONORS AND AWARDS:

1960

National Honor Society

1961

Elk's Leadership Award

Football Scholarship - University of Nebraska

1965-present

Lambda Sigma Tau, National Science Honorary

1974-present

Membership in Phi Delta Kappa - international professional education fraternity
Charter member Guam Chapter

PUBLICATIONS AND PAPERS:

Shafer, Jeffrey E. Nelson, Steven. Language Arts Needs Assessment - The Opinion Survey. Guam Department of Education, August 1979.

Shafer, Jeffrey E. Guam Educational Management Information Concept Paper. Guam Department of Education, December 1979.

Shafer, Jeffrey E. Guam Public Schools: A Study of Reading Readiness in Kindergarten Students. Guam Department of Education. May-July 1979

Appendix F

BUDGET

Travel

Off-island

Round trip airfare from U.S. to
Guam and return. Transportation
for educational data processing
consultant and per diem. \$ 3,000

Local

600 miles @ 21¢ /mile
travel for consultant and staff 126

Contracted Services

° Educational Data Processing	28,000
Consultant (1.0 F.T.E.)	
° Printing of training packets	1,200
° Printing of system documents	1,500
° Misc. printing of forms	2,500

Supplies

Xerox paper (20 cases)	500
Notebooks/Spiral (40 notebooks)	200
FMS Handbooks (50@ \$10 each)	500

Total = \$ 37,526

PART V

ASSURANCES

The Applicant hereby assures and certifies that he will comply with the regulations, policies, guidelines and requirements, including CMB Circulars No. A-55, A-102 and FMC 74-4, as they relate to the application, acceptance and use of Federal funds for this federally-assisted project. Also the Applicant assures and certifies to the grant that:

1. It possesses legal authority to apply for the grant; that a resolution, motion or similar action has been duly adopted or passed as an official act of the applicant's governing body, authorizing the filing of the application, including all understandings and assurances contained therein, and directing and authorizing the person identified as the official representative of the applicant to act in connection with the application and to provide such additional information as may be required.
2. It will comply with Title VI of the Civil Rights Act of 1964 (P.L. 88-352) and in accordance with Title VI of that Act, no person in the United States shall, on the ground of race, color or national origin, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity for which the applicant receives Federal financial assistance and will immediately take any measures necessary to effectuate this agreement.
3. It will comply with Title VI of the Civil Rights Act of 1964 (42 USC 2000d) prohibiting employment discrimination where (1) the primary purpose of a grant is to provide employment or (2) discriminatory employment practices will result in unequal treatment of persons who are or should be benefiting from the grant-aided activity.
4. It will comply with requirements of the provisions of the Uniform Relocation Assistance and Real Property Acquisitions Act of 1970 (P.L. 91-646) which provides for fair and equitable treatment of persons displaced as a result of Federal and federally-assisted programs.
5. It will comply with the provisions of the Hatch Act which limit the political activity of employees.
6. It will comply with the minimum wage and maximum hours provisions of the Federal Fair Labor Standards Act, as they apply to hospital and educational institution employees of State and local governments.
7. It will establish safeguards to prohibit employees from using their positions for a purpose that is or gives the appearance of being motivated by a desire for private gain for themselves or others, particularly those with whom they have family, business, or other ties.
8. It will give the sponsoring agency or the Comptroller General through any authorized representative the access to and the right to examine all records, books, papers, or documents related to the grant.
9. It will comply with all requirements imposed by the Federal sponsoring agency concerning special requirements of law, program requirements, and other administrative requirements.
10. It will insure that the facilities under its ownership, lease or supervision which shall be utilized in the accomplishment of the project are not listed on the Environmental Protection Agency's (EPA) list of Violating Facilities and that it will notify the Federal grantor agency of the receipt of any communication from the Director of the EPA Office of Federal Activities indicating that a facility to be used in the project is under consideration for listing by the EPA.
11. It will comply with the flood insurance purchase requirements of Section 102(a) of the Flood Disaster Protection Act of 1973, Public Law 93-234, 87 Stat. 975, approved December 31, 1976. Section 102(a) requires, on and after March 2, 1978, the purchase of flood insurance in communities where such insurance is available as a condition for the receipt of any Federal financial assistance for construction or acquisition purposes for use in any area that has been identified by the Secretary of the Department of Housing and Urban Development as an area having special flood hazards. The phrase "Federal financial assistance" includes any form of loan, grant, guaranty, insurance payment, rebate, subsidy, disaster assistance loan or grant, or any other form of direct or indirect Federal assistance.
12. It will assist the Federal grantor agency in its compliance with Section 106 of the National Historic Preservation Act of 1966 as amended (16 USC 470), Executive Order 11593, and the Archaeological and Historic Preservation Act of 1966 (16 USC 469a-1 et seq.) by (a) consulting with the State Historic Preservation Officer on the conduct of investigations, as necessary, to identify properties listed in or eligible for inclusion in the National Register of Historic Places that are subject to adverse effects (see 16 CFR Part 300.5) by the activity, and notifying the Federal grantor agency of the existence of any such properties, and by (b) complying with all requirements established by the Federal grantor agency to avoid or mitigate adverse effects upon such properties.

NOTICE

1. No application for Department of Health, Education, and Welfare assistance is approved unless the applicant has on file with the Department an accepted assurance of compliance with Title VI of the Civil Rights Act of 1964 (Public Law 88-352), on Form HEW 441. If a copy of Form HEW 441 is NOT already on file with the Department, it must be submitted with this application.

2. No application for Department of Health, Education, and Welfare financial assistance under any education program or activity is approved unless the applicant has on file with the Department an accepted assurance of compliance with Title IX of the Education Amendments of 1972 (Public Law 92-318), on Form HEW 639A (formerly Form HEW 639). If a copy of Form HEW 639 or Form HEW 639A is NOT already on file with the Department, it must be submitted with this application.

3. Department of Health, Education, and Welfare policy requires that if any phase of THIS project will involve subjecting individuals to the risk of physical, psychological, sociological, or other harm, certain safeguards must be instituted and an assurance must be filed on Form HEW 596. If there is any question about application of requirements for protection of human subjects to this project, further information should be requested from the Office of Protection from Research Risks, National Institutes of Health, DHEW, 9000 Rockville Pike, Bethesda, Maryland 20014.

4. No application for Department of Health, Education, and Welfare assistance is approved unless the applicant has on file with the Department an accepted assurance of compliance with Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), on Form HEW 641. If a copy of Form HEW 641 is NOT already on file with the Department, it must be submitted with this application.

5. If this is an application for continued support, include if you have not already done so (a) the report of inventions conceived or reduced to practice required by the terms and conditions of the grant, or (b) a list of inventions already reported, or (c) a negative certification.

NOTE: A copy of each of the four forms enumerated above (Forms HEW 441, 639A, 596, and 641) is attached hereto for your convenience in the event that you may be required to file one or more of them in accordance with the ABOVE instructions. If, however, 1, 2, and/or 4 of the above assurances have been submitted to either the Office of Education (OE) or the Department, another original or copy need not be submitted nor will any OE program insist upon such a duplicate submission as a consideration of any application.

Explanation Of

HEW FORM NO. 441, ASSURANCE OF COMPLIANCE WITH THE DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE REG- ULATION UNDER TITLE VI OF THE CIVIL RIGHTS ACT OF 1964

Section 80.4 of the Department of Health, Education, and Welfare's Regulation effectuating Title VI of the Civil Rights Act of 1964 requires that every application to the Department for Federal financial assistance shall contain or be accompanied by an Assurance that the program or facility to be assisted will be conducted or operated in compliance with Title VI of the Civil Rights Act and with all requirements imposed by or pursuant to the Department's Regulation.

Section 80.4 further provides that "the form of the foregoing Assurance and the extent to which like Assurances will be required of subgrantees, contractors, transferees, successors in interest and other participants," shall be specified by the responsible Department official. Under this authority, HEW Form No. 441 has been specified as the form of Assurance which shall apply to all applications for Federal financial assistance (except for continuing state programs which must meet the requirements of Section 80.4(b) and school districts availing themselves of Section 80.4(c) of the Regulation) submitted to the Department after January 3, 1965; also the circumstances have been specified under which an Applicant shall obtain comparable written Assurances of compliance from its subgrantees, contractors, and transferees. (See answers to Questions 11 and 12 below in this regard.)

HEW Form No. 441 constitutes a legally enforceable agreement to comply with Title VI of the Civil Rights Act of 1964, and with all requirements imposed by or pursuant to the Regulation of the Department of Health, Education, and Welfare issued thereunder. Applicants are urged to read the Department's Regulation before executing the Assurance.

The following explanation of the requirements of the Department's Regulation and the examples of the kinds of discriminatory practices prohibited by them are for the guidance of the Applicants.

1. *By executing the Assurance (HEW Form No. 441), what does an Applicant agree to do?*

A. The Applicant agrees to make no distinction on the ground of race, color, or national origin in providing to individuals any service, financial aid, or other benefit under any program receiving Federal financial assistance extended to the Applicant by the Department.

2. *What is meant by "distinction on the ground of race, color, or national origin"?*

A. "Distinction on the ground of race, color, or national origin" includes (1) any type of segregation, separate or different treatment, or other discrimination on that ground; (2) the imposition of any admission, enrollment quota, eligibility, or other requirement or condition which individuals must meet in order to be provided any service, financial aid, or other benefit under a program or to be afforded an opportunity to participate in a program, if the race, color, or national origin of individuals is considered in determining whether they meet any such requirement or condition; (3) the use of membership in a group as a basis for the selection of individuals for any purpose, if in selecting members of the group there is discrimination on the ground of race, color, or national origin; and (4) the assignment of personnel to provide services, or the assignment of times or places for the provision of services, on the basis of the race, color, or national origin of the individuals to be served. It does not, however, include distinctions on the ground of race, color, or national origin determined by the responsible Department official to be necessary to the conduct of research or experimental programs having as their primary objective the discovery of new knowledge concerning special characteristics of particular racial or other ethnic groups.

3. *What is meant by "service, financial aid, or other benefit"?*

A. "Service, financial aid, or other benefit" under a program receiving Federal financial assistance includes any education or training, any evaluation, guidance, counseling, or placement service, any health, welfare, rehabilitation, housing, or recreational service, any referral of individuals for any of the foregoing services, any scholarship, fellowship or traineeship stipend or allowance, and any loan or other financial assistance or benefit (whether in cash or in kind), which is made available to individuals (1) with the aid of Federal financial assistance, or (2) with the aid of the Applicant's or of other non-Federal funds required to be made available for the program as a condition to the receipt of Federal financial assistance, or (3) in or through a facility provided with the aid of Federal financial assistance or the non-Federal matching funds referred to in (2).

4. *What requirements are placed on the use of facilities?*

A. The Applicant agrees to make no distinction on the ground of race, color, or national origin in making available to individuals the use of any land, building, equipment, or other facility leased, acquired, constructed, improved, or equipped with the aid of Federal financial assistance extended to the Applicant by the Department, including—

- (a) the use of any room, dormitory, ward, or other space in the facility;
- (b) the use of any equipment in the facility;
- (c) the use of any office, waiting room, restroom, eating, recreational, concession, or other accommodation or convenience provided in the facility;
- (d) the use of any facility not provided with the aid of Federal financial assistance if the availability of such facility is required as a condition to the receipt of Federal financial assistance for the Federally-assisted facility.

5. *What requirements are placed on the opportunities to participate in a program receiving Federal assistance?*

A. The Applicant agrees to make no distinction on the ground of race, color, or national origin in affording opportunities to individuals to participate (other than as employees) in any program receiving Federal financial assistance extended by the Department to the Applicant, including opportunities to participate—

- (a) as providers of any service, financial aid, or other benefit to individuals under the program (e.g., as physicians, surgeons, dentists, or other professional practitioners seeking the privilege of practicing in a Federally-aided hospital or other facility),
- (b) as conferees, observers, consultants, or advisers, or as members of advisory or planning groups, or
- (c) as volunteers (e.g., as voluntary workers, or as patients or other subjects of study or experimentation in research, survey, demonstration, or like programs).

6. *Does that mean that an Applicant who signs the Department's Assurance may nevertheless make distinctions among his employees on the basis of race, color, or national origin?*

A. Title VI of the Civil Rights Act does not concern itself with employment practices except where a primary objective of the Federal financial assistance is to provide employment. Thus, where a basic objective of the program is to provide employment, the Applicant's employment practices are subject to the Department's Regulation. However, even where this is not the case an Applicant may be precluded from engaging in any discriminatory employment practices under the provisions of Title VII of the Civil Rights Act, Executive Orders 10925 and 11114, and the Merit System Regulations.

7. *When an Applicant's employment practices are covered by the Department's Regulation, what requirements must be met?*

A. The Applicant agrees to make no distinction on the ground of race, color, or national origin in its employment practices (including recruitment or recruitment advertising, hiring, layoff or termination, upgrading, demotion, or transfer, rates of pay or other forms of compensation, and use of facilities) with respect to individuals seeking employment or employed under any program receiving Federal financial assistance extended to the Applicant by the Department, in those programs where a primary objective of the Federal financial assistance is to provide employment to such individuals. This includes programs under which the employment is provided—

- (a) as a means of extending financial assistance to students or to needy persons,
- (b) to students, fellows, interns, residents, or others in training for related employment (including research associates or assistants in training for research work), or
- (c) to reduce unemployment or to provide remunerative activity to individuals who because of severe handicaps cannot be readily absorbed in the competitive labor market.

8. *What effect will the Regulation have on a college or university's admission practices or other practices related to the treatment of students?*

A. An institution of higher education which applies for any Federal financial assistance of any kind must agree that it will make no distinction on the ground of race, color, or national origin in the admission practices or any other practices of the institution relating to the treatment of students.

(a) "Student" includes any undergraduate, graduate, professional, or postgraduate student, fellow, intern, student, or other trainee receiving education or training from the institution.

(b) "Admission practices" include recruiting and promotional activities, application requirements, eligibility conditions, qualifications, preferences, or quotas used in selecting individuals for admission to the institution, or any program of the institution, as students.

(c) "Other practices relating to the treatment of students" include the affording to students of opportunities to participate in any educational, research, cultural, athletic, recreational, social, or other program or activity; the performance evaluation, discipline, counseling of students; making available to students any housing, eating, health, or recreational service; affording work opportunities, or scholarship, loan or other financial assistance to students; and making available for the use of students any building, room, space, materials, equipment, or other facility or property.

9. *Does the Assurance of nondiscrimination apply to the entire operation of an institution?*

A. Insofar as the Assurance given by the Applicant relates to the admission or other treatment of individuals as students, patients, or clients of an institution of higher education, a school, hospital, nursing home, center, or other institution owned or operated by the Applicant, or to the opportunity to participate in the provision of services, financial aid, or other benefits to such individuals, the Assurance applies to the entire institution. In the case of a public school system the Assurance would be applicable to all of the elementary or secondary schools operated by the Applicant.

10. *What about a university which operates several campuses?*

A. Section 80.4(d)(2) of the Regulation provides for a more limited Assurance only where an institution can demonstrate that the practices in part of its operation in no way affect its practice in the program for which it seeks Federal funds. This would be a rare case.

11. *If an Applicant intends to make use of other individuals to help carry out the Federally-assisted program, does the requirement not to discriminate apply to such a subgrantee or contractor?*

A. It does. The Applicant must require any individual, organization, or other entity which it utilizes, to which it subgrants, or with which it contracts or otherwise arranges to provide services, financial aid, or other benefits under, or to assist it in the conduct of, any program receiving Federal financial assistance extended to the Applicant by the Department, or with which it contracts or otherwise arranges for the use of any facility provided with the aid of Federal financial assistance for a purpose for which the Federal financial assistance was extended, to comply fully with Title VI of the Civil Rights Act of 1964 and the Regulation of the Department of Health, Education, and Welfare issued thereunder.

12. *Must this Assurance of nondiscrimination by the subgrantee, etc., be in writing?*

A. In the case (1) of any contractual or other arrangement with another such individual or entity which will continue for an indefinite period or for a period of more than three months, (2) of any subgrant, or (3) of any conveyance, lease, or other transfer of any real property or structures thereon provided with the aid of Federal financial assistance extended to the Applicant by the Department, the Applicant shall obtain from such other person, subgrantee, or transferee, an agreement, in writing, enforceable by the Applicant and by the United States, that such other individual or entity, subgrantee, or transferee will carry out its functions under such subgrant, or contractual or other arrangement, or will use the transferred property, as the case may be, in accordance with Title VI of the Act and the Regulation will otherwise comply herewith.

13. *What obligations does the Applicant have to inform beneficiaries, participants, and others of the provisions of the Regulation?*

A. The Applicant must make available to beneficiaries, participants, and other interested persons information regarding the provisions of the Regulation and protections against discrimination provided under Title VI of the Civil Rights Act. The Department will issue shortly more detailed instructions on carrying out this phase of the Regulation.

14. *What obligations does the Applicant have to keep records and to make them available to the Department?*

A. From time to time, Applicants may be required to submit reports to the Department, and the Regulation provides that the facilities of the Applicant and all records, books, accounts, and other sources of information pertinent to the Applicant's compliance with the Regulation be made available for inspection during normal business hours on request of an officer or employee of the Department specifically authorized to make such inspections. More detailed instructions in this regard will also be forthcoming from the Department in the near future.

15. *Must separate Assurance forms be filed with each application?*

A. As a general rule once a valid Assurance is given it will apply to any further application as long as there is no indication of a failure to comply.

**ASSURANCE OF COMPLIANCE WITH THE DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE REGULATION UNDER
TITLE VI OF THE CIVIL RIGHTS ACT OF 1964**

GUAM DEPARTMENT OF EDUCATION

(Name of Applicant)

(hereinafter called the "Applicant")

HEREBY AGREES THAT it will comply with title VI of the Civil Rights Act of 1964 (P.L. 88-352) and all requirements imposed by or pursuant to the Regulation of the Department of Health, Education, and Welfare (45 CFR Part 80) issued pursuant to that title, to the end that, in accordance with title VI of that Act and the Regulation, no person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity for which the Applicant receives Federal financial assistance from the Department; and HEREBY GIVES ASSURANCE THAT it will immediately take any measures necessary to effectuate this agreement.

If any real property or structure thereon is provided or improved with the aid of Federal financial assistance extended to the Applicant by the Department, this assurance shall obligate the Applicant, or in the case of any transfer of such property, any transferee, for the period during which the real property or structure is used for a purpose for which the Federal financial assistance is extended or for another purpose involving the provision of similar services or benefits. If any personal property is so provided, this assurance shall obligate the Applicant for the period during which it retains ownership or possession of the property. In all other cases, this assurance shall obligate the Applicant for the period during which the Federal financial assistance is extended to it by the Department.

THIS ASSURANCE is given in consideration of and for the purpose of obtaining any and all Federal grants, loans, contracts, property, discounts or other Federal financial assistance extended after the date hereof to the Applicant by the Department, including installment payments after such date on account of applications for Federal financial assistance which were approved before such date. The Applicant recognizes and agrees that such Federal financial assistance will be extended in reliance on the representations and agreements made in this assurance, and that the United States shall have the right to seek judicial enforcement of this assurance. This assurance is binding on the Applicant, its successors, transferees, and assignees, and the person or persons whose signatures appear below are authorized to sign this assurance on behalf of the Applicant.

Dated AUG 12 1980

Guam Department of Education
(Applicant)

By Katherine B. Aguon
(President, Chairman of Board, or comparable
authorized official)

P.O. Box DE

Katherine B. Aguon, Director of Education

Agana, Guam 96910

(Applicant's mailing address)

Explanation Of

HEW FORM 639 A (3/77), ENTITLED "ASSURANCE OF COMPLIANCE WITH TITLE IX OF THE EDUCATION AMENDMENTS OF 1972 AND THE REGULATION OF THE DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE IN IMPLEMENTATION THEREOF"

Section 901 of Title IX of the Education Amendments of 1972 provides that no person shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving Federal financial assistance. Section 902 of Title IX authorizes and directs the Department of Health, Education, and Welfare (hereinafter the "Department") to effectuate the nondiscrimination requirements of section 901 by issuing rules, regulations, and orders of general applicability. Pursuant to section 902, the Department has issued 45 C.F.R. Part 86 (hereinafter "Part 86") which became effective on July 21, 1975.

Section 86.4 of Part 86 requires that every application for Federal financial assistance for any education program or activity shall, as a condition of its approval, contain or be accompanied by an assurance from the applicant satisfactory to the Director of the Office for Civil Rights (hereinafter the "Director") that each education program or activity operated by the applicant and to which Title IX of the Education Amendments of 1972 and Part 86 apply will be operated in compliance with Part 86.

Section 86.4 also provides that the Director will specify the form of the assurance required and the extent to which such assurance will be required of the applicant's subgrantees, contractors, subcontractors, transferees, or successors in interest. Under this authority, HEW Form 639 A, (3/77) has been specified as the form of assurance which shall apply to all recipients of and applicants for Federal financial assistance subject to the provisions of Title IX and awarded by the Department.

HEW Form 639 A, (3/77) constitutes a legally enforceable agreement to comply with Title IX and all of the requirements of Part 86. Applicants are urged to read Part 86 and the accompanying preamble. The obligation imposed by Title IX and Part 86 are independent of, and do not alter, the obligation not to discriminate on the basis of sex imposed by Title VII of the Civil Rights Act of 1964 (20 U.S.C. 2000e et seq.); Executive Order 11246, as amended; sections 799A and 855 of the Public Health Service Act (42 U.S.C. 295h-9 and 298b-2); and the Equal Pay Act (29 U.S.C. 206 and 206 (d)).

PERIOD OF ASSURANCE

HEW Form 639 A, (3/77) is binding on a recipient for a period during which Federal financial assistance is extended to it by the Department. With respect to Federal financial assistance used to aid in the purchase or improvement of real or personal property, such period shall include the time during which the real or personal property is used for the purpose of providing an education program or activity. A recipient may transfer or otherwise convey title to real and personal property purchased or improved with Federal financial assistance so long as such transfer or conveyance is consistent with the laws and regulations under which the recipient obtained the property and it has obtained a properly executed HEW Form 639 A, (3/77) from the party to whom it wishes to transfer or convey the title unless the property in question is no longer to be used for an education program or activity or the Federal share of the fair market value of such property has been refunded or otherwise properly accounted for to the Federal government.

An applicant or recipient which has submitted an HEW Form 639 A, (3/77) to the Director need not submit a separate form with each grant application but may, if the information contained therein remains accurate, simply incorporate by reference, HEW Form 639 A, (3/77), giving the date it was submitted. On the other hand, a revised HEW Form 639 A, (3/77) must be submitted within 30 days after information contained in the submitted form becomes inaccurate, even if no additional financial assistance is being sought.

OBLIGATION OF RECIPIENT TO OBTAIN ASSURANCES FROM OTHERS

As indicated in Article III, paragraph 2, of the Assurance, if a recipient subgrants to, or contracts, subcontracts, or otherwise arranges with an individual, organization, or group to assist in the conduct of an education program or activity receiving Federal financial assistance from the Department or to provide services in connection with such a program or activity, the recipient continues to have an obligation to ensure that the education program or activity is being administered in a nondiscriminatory manner. (See 45 C.F.R. 86.31.) Accordingly, the recipient must take reasonable steps to ensure that the individual, organization, or group in question is complying with Title IX and Part 86. These steps may include, but do not necessarily require, obtaining assurances of compliance from such subgrantees, contractors, and subcontractors in the form of, or modeled on, the HEW Form 639A, (3/77). These steps to require, however, such activities as may be reasonably necessary to monitor the compliance of these subgrantees, contractors, or subcontractors, regardless of whether they have submitted assurances to the recipient. If a recipient is unable to assure itself that any contractor, subcontractor, subgrantee, or other individual or group with whom it arranges to provide services or benefits to its students and employees does not discriminate on the basis of sex as described in Part 86, the recipient may not initiate or continue contracts, subcontracts, or other arrangements with that individual or group or make subgrants to it.

ADMINISTRATIVELY SEPARATE UNITS

If an educational institution is composed of more than one administratively separate unit, a separate HEW Form 639 A, (3/77) may be submitted for each unit or one may be submitted for the entire institution. If separate forms are submitted, the administratively separate unit for which the form is submitted should be clearly identified in the first line of HEW Form 639 A, (3/77). An "administratively separate unit" is defined as a school, department or college of an educational institution (other than a local educational agency) admission to which is independent of admission to any other component of such institution. See 45 C.F.R. 86.2(o).

STATE EDUCATION AGENCIES

State education agencies are generally not responsible for running pre-school, kindergarten, elementary or secondary programs. Such responsibility is generally left to local education agencies although some supervisory authority may be vested with the state education agency. Consequently, most state agencies should not check the boxes for "Pre-school," "Kindergarten," or "Elementary or Secondary" in Article I of HEW Form 639 A, (3/77). If the state agency runs special programs for the handicapped, including those on the pre-school, kindergarten, elementary, or secondary level, the box marked "Other" should be checked and the appropriate description inserted in the space provided.

Under Article III, paragraph 5, of HEW Form 639A, (3/77) a state education agency may be called upon from time to time to submit reports necessary to determine Title IX compliance by local education agencies within its jurisdiction. The form and content of such reports will be specified by the Director at the time the request is made.

RELIGIOUS EXEMPTION

Applicants or recipients which are educational institutions controlled by a religious organization are not covered by Part 86 to the extent that application of Part 86 would be inconsistent with the religious tenets of the controlling religious organization.

Section 86.12 of Part 86 requires an institution seeking an exemption to submit a written statement to the Director identifying the provisions of Part 86 which conflict with a specific tenet of the controlling religious organization. Such a statement must be signed by the highest ranking official of the educational institution claiming the exemption. An applicant or recipient claiming an exemption is not relieved of its obligations to comply with that portion of Part 86 not specified in its statement to the Director as being inconsistent with the tenets of the controlling religious organization.

Although 86.12 imposes no time restrictions when a recipient or applicant may claim an exemption, applicants or recipients are urged to make such claims when they initially submit HEW Form 639 A, (3/77) by checking the appropriate box in Article I of HEW Form 639 A, (3/77) and attaching thereto the statement required by 86.12(b). Such an approach will avoid misunderstandings on the part of both the Department and the applicant or recipient as to what, if any, action is required under Part 86.

An applicant or recipient will normally be considered to be controlled by a religious organization if one or more of the following conditions prevail:

- (1) It is a school or department of divinity; or
- (2) It requires its faculty, students or employees to be members of, or otherwise espouse a personal belief in, the religion of the organization by which it claims to be controlled; or
- (3) Its charter and catalog, or other official publication, contains explicit statement that it is controlled by a religious organization or an organ thereof or is committed to the doctrines of a particular religion, and the members of its governing body are appointed by the controlling religious organization or an organ thereof, and it receives a significant amount of financial support from the controlling religious organization or an organ thereof.

The term "school or department of divinity" means an institution or a department or branch of an institution whose program is specifically for the education of students to prepare them to become ministers of religion or to enter upon some other religious vocation, or to prepare them to teach theological subjects. (This definition is adopted from section 1201(i) of the Higher Education Act of 1965, P.L. 89-329.)

ASSURANCE OF COMPLIANCE WITH TITLE IX OF THE
EDUCATION AMENDMENTS OF 1972 AND THE
REGULATION ISSUED BY THE DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE IN
IMPLEMENTATION THEREOF

(PLEASE READ EXPLANATION OF HEW FORM 639 A (3/77)* BEFORE COMPLETING
THIS DOCUMENT)

Pursuant to 45 C.F.R. 86.4:

<u>Guam Department of Education</u> (Name of Applicant or recipient)
<u>P.O. Box DE</u> (address)
<u>Agana, Guam 96910</u> (city, state, zip code)
<u></u> (identifying code-FICE, OE, or IRS)

(hereinafter the "Applicant") gives this assurance in consideration of and for purpose of obtaining Federal education grants, loans, contracts (except contracts of insurance or guaranty), property, discounts, or other Federal financial assistance to education programs or activities from the Department of Health, Education, and Welfare (hereinafter the "Department"), including payments or other assistance hereafter received pursuant to applications approved prior to the date of this assurance.

ARTICLE I - TYPE OF INSTITUTION SUBMITTING ASSURANCE.

A. The Applicant is (check the following boxes where applicable):

1. ☒ A state education agency.
2. ☒ A local education agency.
3. ☐ A publicly controlled educational institution or organization.
4. ☐ A privately controlled educational institution or organization.
5. ☐ A person, organization, group or other entity not primarily engaged in education. If this box is checked, insert primary purpose or activity of Applicant in the space provided below:

*HEW Form 639 A (3/77) This form supersedes HEW Form 639 (7/76). HEW Form 639 (7/76) submitted prior to this revision are valid and recipients need not submit a new assurance.

B. () Claiming a religious exemption under 45 C.F.R. 86.12(b).
(If religious exemption is claimed, attach statement by highest ranking official of Applicant identifying the specific provisions of 45 C.F.R. Part 86 which conflict with a specific religious tenet of the controlling religious organization)

C. The Applicant offers one or more of the following programs or activities (check where applicable):

- | | | | |
|--------|---|--------|-------------------------------|
| 1. () | Pre-school | 6. () | Undergraduate (including |
| 2. (X) | Kindergarten | | junior and community college) |
| 3. (X) | Elementary or Secondary | 7. () | Vocational or Technical |
| 4. () | Graduate | 8. () | Professional |
| 5. () | Other (such as special programs for the handicapped even if provided on the pre-school, elementary or secondary level). If this box is checked, give brief description below: | | |

ARTICLE II-PERIOD OF ASSURANCE. This assurance shall obligate the Applicant for the period during which Federal financial assistance is extended to it by the Department.

ARTICLE III-TERMS AND CONDITIONS. The Applicant hereby agrees that it will:

1. Comply, to the extent applicable to it, with Title IX of the Education Amendments of 1972 (P.L. 92-318), as amended, 20 U.S.C. 1681, 1682, 1683, and 1685 (hereinafter, "Title IX"), and all applicable requirements imposed by or pursuant to the Department's regulation issued pursuant to Title IX, 45 C.F.R. Part 86 (hereinafter, "Part 86"), to the end that, in accordance with Title IX and Part 86, no person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any education program or activity for which the Applicant receives or benefits from Federal financial assistance from the Department. (This assurance does not apply to sections 904 (proscribing denial of admission to course of study on the basis of blindness) and 906 (amending other laws) of Title IX, 20, U.S.C. 1684 and 1686.)

2. Assure itself that all contractors, subcontractors, subgrantees or others with whom it arranges to provide services or benefits to its students or employees in connection with its education program or activity are not discriminating on the basis of sex against these students or employees.

3. Make no transfer or other conveyance of title to any real or personal property which was purchased or improved with the aid of Federal financial assistance covered by this assurance, and which is to continue to be used for an education program or activity and where the Federal share of the fair market value of such property has not been refunded or otherwise properly accounted for to the Federal government, without securing from the transferee an assurance of compliance with Title IX and Part 86 satisfactory to the Director and submitting such assurance to the Department.

4. Submit a revised assurance within 30 days after any information contained in this assurance becomes inaccurate.

5. If the Applicant is a state education agency, submit reports in a manner prescribed by the Director under 45 C.F.R. 80.6(b) as to the compliance with Title IX and Part 86 of local education agencies or other education programs or activities within its jurisdiction.

ARTICLE IV-DESIGNATION OF RESPONSIBLE EMPLOYEE AND ADOPTION OF GRIEVANCE PROCEDURES. (Check the appropriate box.)

A. 1. () Pursuant to 45 C.F.R. 86.8, the Applicant has adopted grievance procedures and designated the following employee to coordinate its efforts to comply with Part 86 and has notified all of its students and employees of these grievance procedures and the following name, address and telephone number of the designated employee:

2. Joseph Rhatigan, Employee/Management Relations Officer
(name of employee)

3. P.O. Box DE, Agana, Guam 96910
(office address)

4. 472-8901
(telephone number)

B. 1. () The Applicant is not presently receiving Federal financial assistance subject to Part 86 and, consequently, has not designated a responsible employee or adopted grievance procedures pursuant to 45 C.F.R. 86.8 but will do so immediately upon award of such assistance and will immediately notify the Director, its students and employees of the name, office address, and telephone number of the employee so designated.

ARTICLE V - SELF-EVALUATION. (Check the appropriate box.)

- A. () The Applicant has completed a self-evaluation as required by 45 C.F.R. 86.3(c) and has not found it necessary to modify any of its policies and practices or to take any remedial steps to come into compliance with Part 86.
- B. () The Applicant has completed a self-evaluation as required by 45 C.F.R. 86.3(c) and has ceased to carry out any policies and practices which do not or may not meet the requirements of Part 86 and is taking any necessary remedial steps to eliminate the effects of any discrimination which resulted or may have resulted from adherence to such policies and practices.
- C. (x) The Applicant has not completed the self-evaluation required by 45 C.F.R. 86.3(c) but expects to have it completed by December 30, 1980
insert date
- D. () The Applicant is not required to conduct a self-evaluation under 45 C.F.R. 86.3 since it did not receive any Federal financial assistance to which Part 86 applies prior to July 21, 1976.

Date: AUG 18 1980

Guam Department of Education
(Insert name of Applicant)

By

Katherine B. Aguon, Ph.D.

(This document must be signed by
an official legally authorized
to contractually bind the Applicant.)

Director of Education

(Insert title of authorized official.)

PROTECTION OF PERSONAL INFORMATION
ASSURANCE/CERTIFICATION/DECLARATION
☐ ORIGINAL ☐ COPY

☐ ORIGINAL

100-100000

1944

☒ GRANT ☐ CONTRACT ☐ FELLOW ☐ OTHER

☒ NEW ☐ RENEWAL ☐ CONTINUATION
APPLICATION IDENTIFICATION NUMBER (if known)

[illegible]

1. TITLE OF PROPOSED ACTIVITY:

Capacity Building for Statistical Activities

2. PRINCIPAL INVESTIGATOR/ACTIVITY DIRECTOR/ELLOW

Dr. Jeffrey E. Shafer

3. DECLARATION THAT HUMAN SUBJECTS EITHER WOULD OR WOULD NOT BE INVOLVED

Dr. Jeffrey E. Shafer

☒ A. NO INDIVIDUALS WHO MIGHT BE CONSIDERED AS HUMAN SUBJECTS WOULD BE INVOLVED IN THIS STUDY.

- ☒ A. NO INDIVIDUALS WHO MIGHT BE CONSIDERED HUMAN SUBJECTS, INCLUDING THOSE FROM WHOM ORGANS, TISSUES, FLUIDS, OR OTHER MATERIALS WOULD BE DERIVED, OR WHO COULD BE IDENTIFIED BY PERSONAL DATA, WOULD BE INVOLVED IN THE PROPOSED ACTIVITY. IF NO HUMAN SUBJECTS WOULD BE INVOLVED, CHECK THIS BOX AND PROCEED TO ITEM 7. PROPOSALS DETERMINED BY THE AGENCY TO INVOLVE HUMAN SUBJECTS WILL BE RETURNED.
- ☐ B. HUMAN SUBJECTS WOULD BE INVOLVED IN THE PROPOSED ACTIVITY AS EITHER: ☐ NONE OF THE FOLLOWING, OR INCLUDING: ☐ MINOR, ☐ FETTERED, ☐ ADULTHOOD, ☐ PRESENT WORKING, ☐ INTERESTED, ☐ MENTALLY RETARDED, ☐ MENTALLY DISABLED, UNDER STRICTLY A COOPERATING INSTITUTION, OR BY USE OF THIS FORM, GIVE NAME OF INSTITUTION AND NAME AND ADDRESS OF OFFICIALS AUTHORIZING AGENTS TO ANY SUBJECTS IN FACILITIES NOT UNDER DIRECT CONTROL OF THE AGENCY OR COOPERATING INSTITUTION.
- DECLARATION OF ASSURANCE STATUS/CERTIFICATION OF

4. DECLARATION OF ASSURANCE STATUS/CERTIFICATION OF REVIEW

1. THIS INSTITUTION HAS NOT PREVIOUSLY FILED AN ASSURANCE AND ASSURANCE IMPLEMENTING PROCEDURES FOR THE PROTECTION OF HUMAN SUBJECTS WITH THE OHR THAT APPLIES TO THIS APPLICATION OR ACTIVITY. ASSURANCE IS HEREBY GIVEN THAT THIS INSTITUTION WILL COMPLY WITH REQUIREMENTS OF OHR REGULATION 45 CFR 46, THAT IT HAS ESTABLISHED AN INSTITUTIONAL REVIEW BOARD FOR THE PROTECTION OF HUMAN SUBJECTS AND, WHEN REQUESTED, WILL SUBMIT TO OHR FOR CONSULTATION AND CERTIFICATION OF SUCH REVIEW AND PROCEDURES AS MAY BE REQUIRED FOR IMPLEMENTATION OF THIS ASSURANCE FOR THE PROPOSED PROJECT OR ACTIVITY.
2. THIS INSTITUTION HAS AN APPROVED GENERAL ASSURANCE (OHR ASSURANCE NUMBER _____) OR AN ACTIVE SPECIAL ASSURANCE FOR THIS ONGOING ACTIVITY, ON FILE WITH OHR. THE SIGNED CERTIFIES THAT ALL ACTIVITIES IN THIS APPLICATION RELATING TO INVOLVE HUMAN SUBJECTS HAVE BEEN REVIEWED AND APPROVED BY THIS INSTITUTION'S INSTITUTIONAL REVIEW BOARD IN A CONVENED MEETING ON THE DATE OF _____ IN ACCORDANCE WITH THE REQUIREMENTS OF THE Code of Federal Regulations on Protection of Human Subjects (45 CFR 46). THIS CERTIFICATION INCLUDES, WHEN APPLICABLE, REQUIREMENTS FOR CERTIFYING FDA STATUS FOR EACH INVESTIGATIONAL NEW DRUG TO BE USED (SEE REVERSE SIDE OF THIS FORM).
3. INSTITUTIONAL REVIEW BOARD HAS DETERMINED, AND THE _____ AT:

THE INSTITUTIONAL REVIEW BOARD HAS DETERMINED, AND THE INSTITUTIONAL OFFICIAL SIGNING BELOW CONCURS
EITHER ☐ HUMAN SUBJECTS WILL NOT BE AT RISK; OR ☐ HUMAN SUBJECTS WILL BE AT RISK.

END 6. SEE REVERSE SIDE

NAME AND ADDRESS OF INSTITUTION

Guam Department of Education
P.O. Box DE, Agana, Guam 96910

TITLE OF INSTITUTIONAL OFFICIAL
Director of Education.

~~Office of Inspector General~~
 Catherine B. Aguon, Ph.D.

TELEPHONE NUMBER.
472-8903

DATE _____

AUG 19 1980

8 (Rev. 4-75)

ENCLOSE THIS FORM WITH THE PROPOSAL OR RETURN IT TO REQUESTING AGENCY.

5. INVESTIGATIONAL NEW DRUGS - ADDITIONAL CERTIFICATION REQUIREMENT

SECTION 46.17 OF TITLE 45 OF THE Code of Federal Regulations states, "Where an organization is required to prepare or to submit a certification . . . and the proposal involves an investigational new drug within the meaning of The Food, Drug, and Cosmetic Act, the drug shall be identified in the certification together with a statement that the 30-day delay required by 21 CFR 310.3(a)(2) has elapsed and the Food and Drug Administration has not, prior to expiration of such 30-day interval, requested that the sponsor continue to withhold or to restrict use of the drug in human subjects; or that the Food and Drug Administration has waived the 30-day delay requirement; provided, however, that in those cases in which the 30-day delay interval has neither expired nor been waived, a statement shall be forwarded to DHEW upon such expiration or upon receipt of a waiver. No certification shall be considered acceptable until such statement has been received."

INVESTIGATIONAL NEW DRUG CERTIFICATION

TO CERTIFY COMPLIANCE WITH FDA REQUIREMENTS FOR PROPOSED USE OF INVESTIGATIONAL NEW DRUGS IN ADDITION TO CERTIFICATION OF INSTITUTIONAL REVIEW BOARD APPROVAL, THE FOLLOWING REPORT FORMAT SHOULD BE USED FOR EACH IND: (ATTACH ADDITIONAL IND CERTIFICATIONS AS NECESSARY).

- IND FORMS FILED: ☐ FDA 1571, ☐ FDA 1572, ☐ FDA 1573

- NAME OF IND AND SPONSOR _____

- DATE OF 30-DAY EXPIRATION OR FDA WAIVER _____

(FUTURE DATE REQUIRES FOLLOWUP REPORT TO AGENCY) _____

- FDA RESTRICTION _____

- SIGNATURE OF INVESTIGATOR _____

DATE _____

6. COOPERATING INSTITUTIONS - ADDITIONAL REPORTING REQUIREMENT

SECTION 46.16 OF TITLE 45 OF THE Code of Federal Regulations IMPOSES SPECIAL REQUIREMENTS ON THE CONDUCT OF STUDIES OR ACTIVITIES IN WHICH THE GRANTEE OR PRIME CONTRACTOR OBTAINS ACCESS TO ALL OR SOME OF THE SUBJECTS THROUGH COOPERATING INSTITUTIONS NOT UNDER ITS CONTROL. IN ORDER THAT THE DHEW BE FULLY INFORMED, THE FOLLOWING REPORT IS REQUESTED WHEN APPLICABLE.

USE FOLLOWING REPORT FORMAT FOR EACH INSTITUTION OTHER THAN GRANTEE OR CONTRACTING INSTITUTION WITH RESPONSIBILITY FOR HUMAN SUBJECTS PARTICIPATING IN THIS ACTIVITY: (ATTACH ADDITIONAL REPORT SHEETS AS NECESSARY).

INSTITUTIONAL AUTHORIZATION FOR ACCESS TO SUBJECTS

- SUBJECTS: STATUS (WARDS, RESIDENTS, EMPLOYEES, PATIENTS, ETC.) _____

NUMBER _____

AGE RANGE _____

NAME OF OFFICIAL (PLEASE PRINT) _____

TITLE _____

TELEPHONE _____

NAME AND ADDRESS OF
COOPERATING INSTITUTION _____

- OFFICIAL SIGNATURE _____

NOTES: (e.g., report of modification in proposal as submitted to agency affecting human subjects involvement)

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
ASSURANCE OF COMPLIANCE WITH SECTION 504 OF THE
REHABILITATION ACT OF 1973, AS AMENDED

The undersigned (hereinafter called the "recipient") HEREBY AGREES THAT it will comply with section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), all requirements imposed by the applicable HEW regulation (45 C.F.R. Part 84), and all guidelines and interpretations issued pursuant thereto.

Pursuant to § 84.5(a) of the regulation [45 C.F.R. 84.5(a)], the recipient gives this Assurance in consideration of and for the purpose of obtaining any and all federal grants, loans, contracts (except procurement contracts and contracts of insurance or guaranty), property, discounts, or other federal financial assistance extended by the Department of Health, Education, and Welfare after the date of this Assurance, including payments or other assistance made after such date on applications for federal financial assistance that were approved before such date. The recipient recognizes and agrees that such federal financial assistance will be extended in reliance on the representations and agreements made in this Assurance and that the United States will have the right to enforce this Assurance through lawful means. This Assurance is binding on the recipient, its successors, transferees, and assignees, and the person or persons whose signatures appear below are authorized to sign this Assurance on behalf of the recipient.

This Assurance obligates the recipient for the period during which federal financial assistance is extended to it by the Department of Health, Education, and Welfare or, where the assistance is in the form of real or personal property, for the period provided for in § 84.5(b) of the regulation [45 C.F.R. 84.5(b)].

The recipient: (Check (a) or (b))

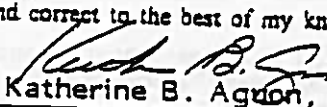
1. ☐ employs fewer than fifteen persons;
A73

b. ☐ employs fifteen or more persons and, pursuant to § 84.7(a) of the regulation [45 C.F.R. 84.7(a)], has designated the following person(s) to coordinate its efforts to comply with the HEW regulation:

Guam Department of Education			
Name of Designee(s) - Type or Print			
Department of Education	P.O. Box DE.	C42	
Name of Recipient - Type or Print	Street Address or P. O. Box		
A12	A41	A42	A71
(IRS) Employer Identification Number	City	Agana,	
A1	A11	B12	
B1	B11	Guam	B41
C1	C11	96910	
	State	Zip	
	B42	B71	

I certify that the above information is complete and correct to the best of my knowledge.

AUG 19 1980
Date
B72 B77


Katherine B. Agnon, Director of Education
Signature and Title of Authorized Official
B78

If there has been a change in name or ownership within the last year, please PRINT the former name below:

NOTE: The 'A', 'B', and 'C' followed by numbers are for computer use. Please disregard.
PLEASE RETURN ORIGINAL TO: Office for Civil Rights, HEW, P. O. Box 3222, Washington, D.C. 20024.

**IMPORTANT NOTICE
TO PROSPECTIVE PARTICIPANTS
IN USOE CONTRACT AND GRANT PROGRAMS**

GRANTS

Applicants for grants from the U.S. Office of Education (USOE) have to compete for limited funds.

Deadlines assure all applicants that they will be treated fairly and equally, without last minute haste.

For these two reasons, USOE must set strict deadlines for grant applications. Prospective applicants can avoid disappointment if they understand that --

Failure to meet a deadline will mean that an application will be rejected without any consideration whatever.

The rules, including the deadline, for applying for each grant are published, individually, in the Federal Register. A one-year subscription to the Register may be obtained by sending \$50.00 to: Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. (Send check or money order only, no cash or stamps.)

The instructions in the Federal Register must be followed exactly. Do not accept any other advice you may receive. No USOE employee is authorized to extend any deadline published in the Register.

Questions regarding submission of applications may be addressed to:

U.S. Office of Education
Application Control Center
Washington, D.C. 20202

CONTRACTS

Competitive procurement actions undertaken by the USOE are governed by the Federal Procurement Regulations and implementing HEW Procurement Regulations.

Generally, prospective competitive procurement actions are synopsized in the Commerce Business Daily (CBD). Prospective offerors are therein advised of the nature of the procurement and where to apply for copies of the Request for Proposals.

Offerors are advised to be guided solely by the contents of the CBD synopsis and the instructions contained in the Request for Proposals (RFP). Questions regarding the submission of offers should be addressed to the Contracting Officer identified on the face page of the RFP.

Offers are judged in competition with others, and failure to conform with any substantive requirements of the RFP will result in rejection of the offer without any consideration whatever.

Do not accept any advice you receive that is contrary to instructions contained in either the CBD synopsis or the RFP. No USOE employee is authorized to consider a proposal which is non-responsive to the RFP.

A subscription to the CBD is available for \$80.00 per year via second class mail or \$105.00 per year via first class mail. Information included in the Federal Procurement Regulations (FPR) and the Health, Education and Welfare Procurement Regulations (HEWPR) are contained respectively in Title 41, Code of Federal Regulations, Chapters 1 to 2 (\$5.70) and Title 41, Code of Federal Regulations, Chapters 3 to 6 (\$5.90). The foregoing publications may be obtained by sending your check or money order only, no cash or stamps, to:

Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20402

In an effort to be certain this important information is widely disseminated, this notice is being included in all USOE mail to the public. You may, therefore, receive more than one notice. If you do, we apologize for any annoyance it may cause you.