

DOCUMENT RESUME

ED 034 137

AC 006 104

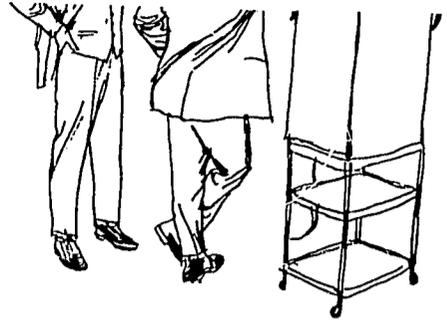
TITLE The Arizona Adult Basic Education Data Processing System: A Progress Report.
INSTITUTION Northern Arizona Univ., Flagstaff.
PUB DATE [69]
NOTE 78p.
EDRS PRICE MF-\$0.50 HC-\$4.00
DESCRIPTORS Academic Achievement, *Adult Basic Education, Adult Dropouts, Curriculum, *Data Processing, Participant Characteristics, *Statistical Data, Student Enrollment, *Student Records
IDENTIFIERS *Arizona

ABSTRACT

A record keeping system for adult basic education using automatic data processing was designed and operated for one year by the Arizona Research Coordinating Unit of Northern Arizona University. During the year, there were 3,163 students enrolled in 160 classes in 19 projects. Females outnumbered males by nearly two to one but male enrollment increased during the year by 52.8% while female enrollment declined 3.8%. Problems incurred: programing and processing delays in the data processing center; an inefficient communications system between the Division of Adult Basic Education and the Research Coordinating Unit; inability of adult basic education personnel to fully comprehend the data; difficulties in programing due to highly flexible input schedule; difficulties by teachers and project officers in using the input forms; and inability of the Research Coordinating Unit to know of some data not received. Improvement was recommended in the following areas: data collection, record keeping, job assignment, and cost accounting. (author/nl)

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY.

ED034137 *A Comprehensive Reporting System
For Adult Basic Education*



*Prepared for the Adult Education Division
Arizona State Department of Public Instruction*

*by
Research Coordinating Unit
Northern Arizona University*



AC006104

**The Arizona Adult Basic Education
Data Processing System**

A Progress Report

ED034137

For the State Department of Public Instruction

Sarah Folsom
Late Superintendent

Dr. Weldon P. Shofstall
Present Superintendent

Dr. E. Roby Leighton
Former Director, Adult Basic Education Division

Sterling Johnson
Acting Director, Adult Basic Education Division

For the Arizona Research Coordinating Unit

Dr. Arthur M. Lee
Director

Diane B. McCarthy
Project Officer

Josephine Gonzales
Project Secretary

Rita Nowak
Report Editor

Dorris Fitzgerald
Rewrite Editor

Jeri Alcocer
Report Secretary

TABLE OF CONTENTS

	Page
INTRODUCTION	1
SUMMARY.	2
DESIGN AND OPERATION	4
RESULTS.	10
Enrollment Data	10
Class Participation	17
Student Achievement	23
Financial Data.	31
Enrollment Characteristics.	33
Projects and Classes.	35
DISCUSSION AND RECOMMENDATIONS	55
Problems	55
Limitations	56
Achievement	56
Recommendations	57
APPENDIX	59

LIST OF TABLES

Table		Page
1	VARIABLES USED IN FREQUENCY DISTRIBUTION OF STUDENT CHARACTERISTICS	8
2	RACE OR ETHNIC GROUP AND POSITION IN FAMILY	11
3	LONGEST FULL-TIME EMPLOYMENT AND SOURCE OF INCOME	12
4	GRADE LEVEL OF THE STUDENT, SEX AND AGE	13
5	STUDENT INCOME AND WHY ENROLLED IN ADULT BASIC EDUCATION	14
6	HIGHEST GRADE COMPLETED IN U.S. - HOME LOCATION	15
7	HOW THE STUDENT WAS REFERRED TO THE CLASS	16
8	STUDENT ACHIEVEMENT TESTS	18
9	SUBJECTS TAUGHT AND NUMBER OF HOURS PER SUBJECT	19
10	NUMBER OF STUDENTS USING AUDIO-VISUALS IN CLASS	20
11	WHY THE STUDENTS DROPPED OUT OF CLASS	21
12	OTHER LANGUAGES USED IN CLASS AND AGGREGATE HOURS ATTENDED	22
13	STUDENT IMPROVEMENT BECAUSE OF ADULT BASIC EDUCATION	24
14	FOUND JOB, FOUND A BETTER JOB, DISCONTINUED PUBLIC WELFARE, APPLIED FOR CITIZENSHIP, REGISTERED TO VOTE	25
15	VOTED FOR THE FIRST TIME, SUBSCRIBED TO A PUBLICATION, PLANNED TO CONTINUE HIS EDUCATION, ENTERED A VOCATIONAL OR JOB TRAINING	26
16	RECRUITED OTHER STUDENTS FOR THE CLASS, JOINED A CIVIC ORGANIZATION, PASSED HIS HIGH SCHOOL EQUIVALENCY TEST	27
17	SPEAK ENOUGH ENGLISH FOR A SIMPLE CONVERSATION, READ ADVERTISEMENTS AND SIMPLE DIRECTIONS, WRITE SUFFICIENT ENGLISH TO FILL OUT A JOB APPLICATION, ASSUME LEADERSHIP, WORK WITH OTHERS COOPERATIVELY	28
18	HELP CHILDREN WITH SCHOOL WORK, WORK WITH SCHOOL PERSONNEL TO ASSURE CHILDREN'S ATTENDANCE AND PROGRESS, READ FOR THE FIRST TIME, WRITE FOR THE FIRST TIME	29
19	PROJECT FINANCIAL DATA	32

LIST OF FIGURES

Figure		Page
1	SYSTEM FLOW CHART	7
2	STUDENT FOLLOWUP.	30
3	TOTAL ENROLLMENT OF ADULT BASIC EDUCATION	34
4	ACTUAL ENROLLMENT BY PROJECT LOCATION AND HEAD COUNT.	36
5	AVERAGE MONTHLY ENROLLMENT BY PROJECT	38
6	PERCENTAGE OF ENROLLMENT BY LOCATION.	39
7	TOTAL ENROLLMENT BY SEX	40
8	AGE OF ENROLLEES.	41
9	ENROLLMENT PERCENTAGES BY RACE AND ETHNIC GROUP	42
10	ENROLLEES EMPLOYMENT PATTERNS	43
11	FAMILY POSITION OF ENROLLEES	44
12	INCOME SOURCE OF ENROLLEES.	45
13	STUDENT AND FAMILY INCOME SOURCES	46
14	HIGHEST GRADE COMPLETED IN THE UNITED STATES BY ENROLLEES	47
15	HOME LOCATION OF ENROLLEES.	48
16	HOW ENROLLEE LEARNED OF ADULT BASIC EDUCATION PROGRAM	49
17	WHY THE STUDENT IS ENROLLED	50
18	DROPOUTS - REASONS WHY THE STUDENTS LEFT THE PROGRAM	51
19	SUBJECTS TAUGHT AND TIME SPENT IN EACH.	52
20	STUDENT ACHIEVEMENTS.	54

Introduction

Adult Basic Education requires greater flexibility in curriculum, in scheduling, in classifying students, in measuring achievement, and in financial arrangements than most educational programs. Needs of students and the levels at which they enter classes vary widely. Their achievement in class and the resulting benefits they receive also range from virtually nothing to the unbelievable. Classes begin and end at different times depending on the availability of faculty and students, on funds and facilities, and on the organizational efforts of the State Division of Adult Basic Education. The effect of so many variations in classes and programs puts a strain on record keeping that results either in frustration or simply ignoring adequate accountability for the human effort and public expenditures that go into each program. In most cases an extremely laborious and expensive hand system is used which can never be completely reliable.

The use of computer techniques in producing a more adequate and reliable system has only become possible with the development of modern data processing. The potential benefits in electronic data processing are obvious and go considerably beyond simplification and greater reliability. They include complex program analysis on a current basis as an operational asset in constant program improvement. Data processing makes it possible to have a complete analysis of entire programs -- not six months or a year after the results are in, but month after month while they are going on. This is the only time, after all, when changes and improvements can be made to give students who are currently enrolled the best education possible, an education from which each one of them individually can realize the greatest benefits. Computerized data systems make it possible to tailor programs to the needs of students while they are students, not merely to benefit from mistakes made in previous classes. Progress is thus accelerated rather than merely accumulated.

Summary

A record keeping system for Adult Basic Education using automatic data processing was designed and operated for one year by the Arizona Research Coordinating Unit of Northern Arizona University. Input forms were designed and field tested and procedures were developed for enrollment data and monthly reporting. A computer program was written giving eighteen pages of statistical tabulations of student information, class participation, individual achievement and per student costs. A second program was written correlating eighty pairs of variable student characteristics such as family income, previous education, age, ethnic group, and achievement. Finally a followup survey was conducted asking all students enrolled during the year to identify specific benefits received.

Altogether during the year there were 3,163 students enrolled in 160 classes in nineteen projects, seventeen of them supported by the Division of Adult Basic Education and two by other federal funds. At the end of the year there were 2,147 students for whom reports were being made. The others had completed the program or dropped out. Phoenix Union High School with fifty-four classes accounted for fifty percent of the the total state program, followed by Tucson District No. 1 and Sunnyside in the Tucson Area which contained sixty percent of the State's students. Females outnumbered males by nearly two to one, but male enrollment increased during the year by 52.8% while female enrollment declined 3.8%. From a 76.2% response on ethnic data, 58.9% were Mexican-Americans, 29.9% Indians, and thirteen percent Negroes. A 38.3% reponse on highest grade in school revealed three-fourths with more than a sixth grade education and two-thirds were eighth grade graduates. Five percent were high school graduates, about the same number as those with less than a third grade education. One-third dropped out during the year. About ten percent have become employed, received better jobs, or entered vocational training. A wide range in behavioral and attitudinal achievements is evident.

Problems incurred in developing and operating the systems were: programming and processing delays in the data processing center, an inefficient communications system between the Division of Adult Basic Education and the Research Coordinating Unit; inability of Adult Basic personnel to fully comprehend the data delivered; difficulties in programming due to a highly flexible input schedule; difficulties by teachers and project officers in using the input forms; and inability of the Research Coordinating Unit to know of some data not received. Most of these problems were overcome to a considerable extent, some of them completely. Two limitations in results should be pointed out: the Adult Basic Division may not have become adequately familiar with the system to achieve maximum benefits under its own operation in one year; and

ERRATA

The third sentence of paragraph two, page 2, should read:

Phoenix Union High School with fifty-four classes accounted for 39% Tucson District No. 1 and Sunnyside in the Tucson area which contained 21% of the State's students.

completely satisfactory collection of data from teachers and project officers was not achieved. Both of these limitations may be overcome with concerted effort in the next year.

Recommendations by the Research Coordinating Unit for continuation and further development are: (1) carry out the curriculum studies originally planned for phase two the second year; (2) tighten up record keeping procedure at the class and project levels; (3) improve the kinds and quality of data gathered on student achievement; (4) assign a single member of the Adult Basic staff to full responsibility for the system's operation; and (5) revise and expand the cost data for better cost accounting and perhaps eventually cost effectiveness information.

Design and Operation

In late summer of 1968 the Arizona Division of Adult Basic Education requested the Research Coordinating Unit to design and operate a record keeping system which would include the identification and coding of all information relative to student enrollment, current status, course completion, dropouts, student progress, curriculum data and teacher evaluations. Monthly printouts were specified containing enrollment and progress information, and quarterly and annual reports would be developed from data in the computer suitable for U.S. Office of Education reporting purposes and program operation analysis. It was also requested that a followup be made of all students enrolled in the entire Adult Basic Education program named "Vanguard" upon dropout or completion. It was intended at that time that the program should be operated by the Research Coordinating Unit for two years and during the second year an in-depth study of the curriculum would be made, but the second year phase has been turned back to the Division of Adult Basic Education. The Research Coordinating Unit's responsibilities for phase one have been completed in the following manner.

The original intent was to use forms already in use by the Adult Basic Education Division for collecting enrollment and other data, but so many modifications were found to be necessary for adapting these forms to data processing that it was thought best to re-design them completely. Ordinary 5½ x 8½ card stock was used for student enrollment data printed on both sides with twenty-one items of information in addition to project and class identification. Teachers were asked to fill out a card for each student after two weeks in class, the purpose for the delay being to eliminate processing those who attended once or twice but did not pursue the course further. Another consideration was the reluctance of some students to enroll on their first appearance in class. For the same reason students were not required to supply information other than their name and address if they did not wish to do so when the enrollment cards were initially filled out. In those cases teachers were asked to supply the missing information later when the student's confidence increased, and these data could be added to the files in the computer. Individual student files were identified by master file numbers made up of project number, school number, class number, and student entry number.

Data collected on the student cards included the following:

1. Name and age
2. Address and telephone number
3. Social Security number, and sex
4. Home location

5. The agency or means through which the student had been referred to the class
6. Ethnic group
7. Marital status
8. Language or languages spoken in the home
9. Language or languages spoken by children in the home
10. Highest grade level completed both in the United States and outside of the United States
11. Number of years the student had studied English outside the United States
12. Particular program under which the student was enrolled (WIN, Voc-Ed, MDTA, etc.)
13. Programs in which the student had been previously enrolled
14. The student's own reason for enrolling
15. The student's longest period of fulltime employment
16. Position in the family (head of family, dependent, etc.)
17. Source of income
18. Estimated annual income of the student
19. Estimated annual income of the family
20. Dependents
21. Occupation (present, primary, or recent)

Class and project record books using pre-printed forms and tear out carbons were designed in consultation with a commercial firm, printed and bound for distribution to the teachers and project directors. The teacher's record contained a foldout sheet for student names and monthly tear out carbons for attendance, progress, achievement tests administered, test scores, audio-visuals used in class, method of sentence pattern practice, languages other than English used in class, subjects taught and hours spent in each, grade levels achieved in each subject, texts used in class and the hours in each, general results of the texts used, reasons for dropping out for those who did, and final results achieved. The project officer's record contained sources of funds, amounts allocated, amounts used monthly, and balances. Both records contained monthly evaluations of classrooms, teachers, volunteers, students, and lessons. Project officers were responsible for collecting the monthly tear out carbons and forwarding these to the Research Coordinating Unit. Here they were checked for completeness

and possible errors, then keypunched for input into the computer.

After the system was in operation it became evident that insufficient control of data collection was being exercised by the Research Coordinating Unit resulting in numerous failures on the part of teachers and project officers to carry out their reporting responsibilities. Revisions were instituted but this problem was never completely solved. It also became evident that quality control procedures were needed in processing the data to overcome human errors and failures in the system. The final system as developed through experience is shown in the flow chart in Figure 1. Back-up files were duplicated and retained by the Research Coordinating Unit and transferred to magnetic tape for processing in the State Department of Public Instruction's Univac 1005 computer.

Printout tables were designed to give tabulations of each item of information collected on the enrollment cards and collected monthly from teachers' and project directors' tear out sheets. A computer program for the Univac 1005 was written to produce the tabulations in eighteen pages each month. Tabulations were both current and cumulative depending upon the nature of the data. Copies of the monthly printout were xeroxed after adding explanatory notes on the column headings and delivered to the Division of Adult Basic Education.

Near the end of the year when data were sufficiently complete for evaluation a program was written for Northern Arizona University's IBM 1130 computer to develop a frequency distribution of student characteristics. The data on punched cards were put into the IBM 1130 and the program run producing 143 pages of printout data. These were sent to the University of Arizona to a special team funded by Adult Basic Education for further analysis and a copy given to the State Division of Adult Basic Education. A tabulation of the data used and the distribution of variables are contained in Table 1.

Followup procedures were developed using an eighty-column punch-card printed questionnaire for automatic scanning of the returns. The cards were addressed on the Univac 9300 computer using the names and addresses of students from the enrollment files. These were bulk-mailed with provisions for forwarding to new addresses in the same post office jurisdiction or returning to the Research Coordinating Unit if undeliverable. Forwarding addresses of those who had moved out of their former post office jurisdiction were supplied by the postal service. A response of only fourteen percent returns was achieved because a single mail-out was conducted. However, a random sample of the non-respondents was developed and telephone or personal contact made with each person in the sample who could be located. A correlation of the responses from the second followup validated the responses of the first followup. This validation is depicted on the printouts on pages 70, 71, and 72 of the Appendix. An explanation of the sampling technique is on page 30.

FIGURE 1

FLOWCHART OF ADULT BASIC EDUCATION DATA

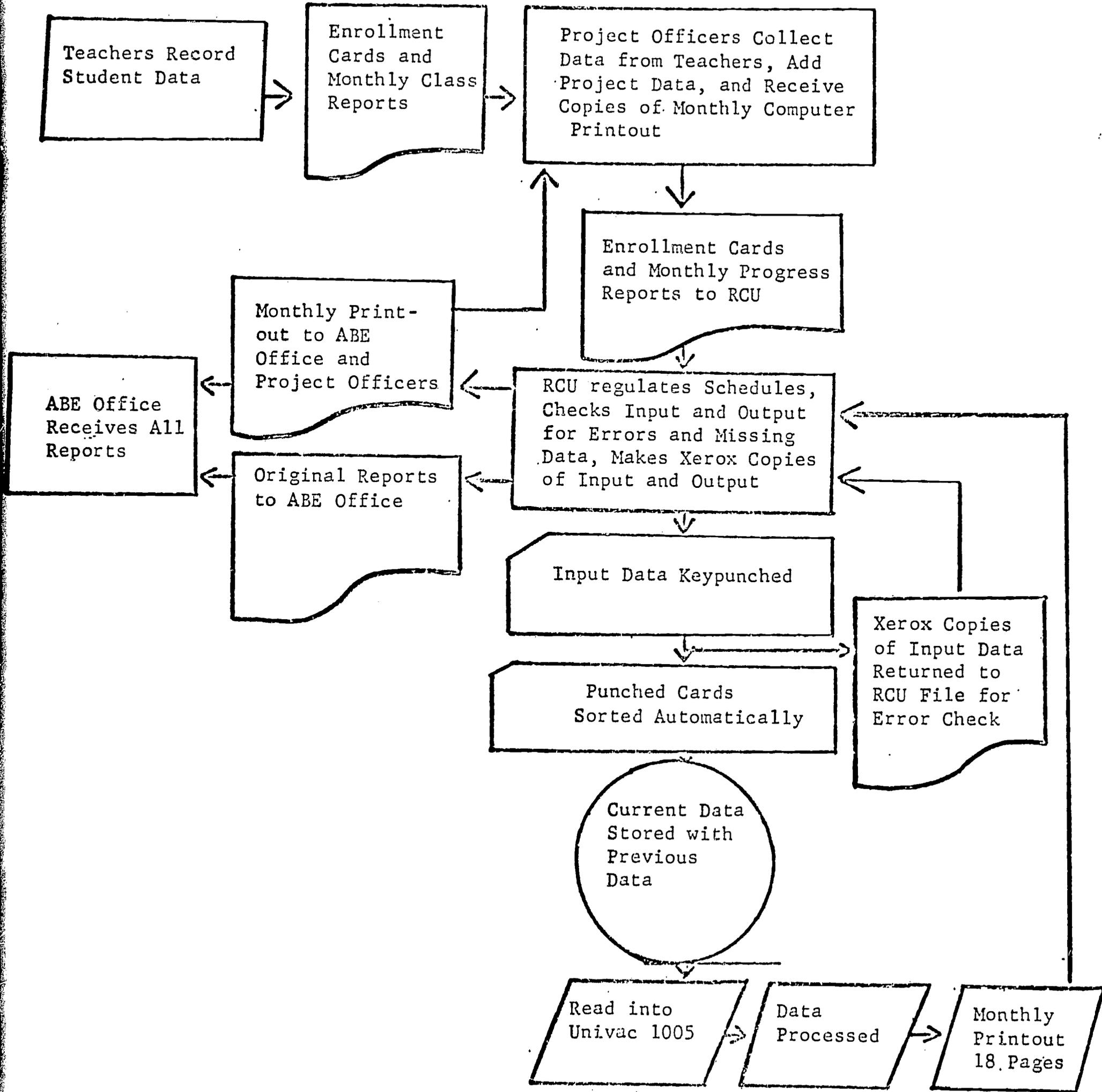


TABLE 1

VARIABLES USED IN FREQUENCY DISTRIBUTION
OF STUDENT CHARACTERISTICS

After sufficient data had been gathered to produce quantifiable statistics, a frequency distribution of student data supplied by both teachers and students was carried out. The printout was made for a special evaluation team at the University of Arizona and was also used by the Research Coordinating Unit in some of the analyses appearing in this report. The Table below contains a list of the variables used in the frequency distribution.

Age	v. Sex v. Ethnic Group v. Reasons for Enrollment
Sex	v. Enrolled Currently v. Reasons for Enrollment v. Position in Family v. Income source v. Estimated income of student v. Estimated income of family
Home Location	v. Adult home languages v. Referred by v. Highest grade completed in U.S. v. Enrolled currently v. Longest period employed v. Income source v. Estimated income of student v. Estimated income of family v. Dependent
Ethnic Group	v. Sex v. Home Location v. Adult home languages v. Children speak v. Number of years studied English v. Enrolled currently v. Enrolled previously v. Reason for enrollment v. Longest period employed v. Position in family v. Income source v. Estimated income of student v. Estimated income of family
Adult Home Languages	v. Children speak
Highest grade in U.S.	v. Enrolled currently v. Reason for enrollment v. Longest period of employment v. Income source

TABLE 1--Continued

Highest grade in U.S. (cont'd)	v. Estimated income of student v. Estimated income of family
Occupation	v. Sex v. Home Location
Age Sex Home Location Ethnic Group Marital Status	v. Highest grade completed in U.S.
Age Sex Home Location Ethnic Group Marital Status	v. Highest grade completed outside U.S.
Age Home Location Ethnic Group	v. Improvement because of Adult Basic Education
Sex Home Location Ethnic Group	v. Growth because of Adult Basic Education
Sex Home Location Ethnic Group	v. Students who voted for the first time
Age Sex Home Location Ethnic Group	v. Students who subscribed to a publi- cation
Age Ethnic Group	v. Students who planned to continue education
Age Home Location Ethnic Group	v. Students who entered vocational or job training

Results

The results of this project are the system itself, experience in using it, and some knowledge of what it can do. There are a number of ways it can be improved and one of the results at this stage is knowing how to redesign parts of the project to bring about improvements. On the following pages a complete printout is shown just as it comes from the computer each month giving both current and cumulative data. Regular projects are listed and totalled by counties. Other federally funded projects using the Adult basic reporting system are listed separately, and State totals appear at the bottom of each page.

Enrollment Data

The first six pages contain data from the student enrollment cards and these are incomplete only because students did not supply all of the information requested. Teachers were not required to collect missing data although the system was initially designed to pick these up in later meetings of the classes. Since the enrollment forms were cards, and these were turned in by the teachers with no record of which data had been supplied and which omitted, it was virtually impossible for the missing information to be supplied later. Enrollment cards in the future should be multiple carbons. In many cases teachers retained the enrollment cards of individual students and even whole classes until more complete data could be supplied. This created a problem for awhile in the computer, which was programmed at first to reject class participation data for any student not having enrollment data on file.

The Adult Basic Education Division can see from Tables 2 through 7 that at the end of the year there were only 2,147 students enrolled. Actually the Division believes there were more. The printout is an indication that either some teachers have neglected to send in enrollment cards or the Division's estimates are based on faulty information. Since the data are printed out each month a pattern has already been established and Division personnel have been in a position to know which if either of these possibilities is true.

In the same way patterns in ethnic representation, employment experience, income, grade level, age, sex and purpose can be observed at any given time. Changes in these patterns may also be observed by comparing one month's printout with those for previous months. The most noticeable pattern here is the absence of data for large numbers of students which the Division wanted but was not getting. Other patterns may be evident to program administrators making possible management decisions for program improvement as it goes along.

11
TABLE 2

ARIZONA DEPARTMENT OF PUBLIC INSTRUCTION
ADULT BASIC EDUCATION DIVISION
STUDENT ENROLLMENT AND ACHIEVEMENT

PROJECT	TOTAL	RACE OR ETHNIC GROUP						POSITION IN FAMILY						
		WHITE	NGRO	MX-AM	CUB	ONTL	P.R.	IND	OTHR	HPWF	PWE HEAD	DEP	OTHR	
CHINLE	17							17		6		1	10	
CO TOTAL	17							17		6		1	10	
COCHISE	22	2		18		1			1	4	1	1	15	1
CO TOTAL	22	2		18		1			1	4	1	1	15	1
COLONINO	22	2	7	8				5		7		2	8	
CO TOTAL	22	2	7	8				5		7		2	8	
SAFFORD	24	4	2	9			1	3	3	9		6	3	
CO TOTAL	24	4	2	9			1	3	3	9		6	3	
P U H S	774	115	126	251	5	6	1	22	4	236	44	31	175	32
GLENDAL	43	3		36	1			1		16	4	5	17	1
DYSART	13	8		5						7			6	
TOLLESUN	21			21						7	2	1	11	
MESA	48	14	4	24	1	1		1	1	16	4	1	16	7
ST HUSP	79	13	3					4		1		1	13	1
CO TOTAL	978	153	133	337	7	7	1	28	5	283	54	39	238	41
HOLBROOK	6		2	1				3		4			2	
CO TOTAL	6		2	1				3		4			2	
TUCSON	212	13	17	168		4		2		75	8	16	102	1
SUNNYSIDE	233	27	2	177	2		1	3	6	79	6	5	104	13
IND OASIS	11							11		5		1		3
CO TOTAL	456	40	19	345	2	4	1	16	6	159	14	22	206	17
C AZ COLL	199	59	29	92				15		67	15	15	63	30
CO TOTAL	199	59	29	92				15		67	15	15	63	30
NOGALES	86	1		69	2					25	4	1	34	7
CO TOTAL	86	1		69	2					25	4	1	34	7
PRESCOTT	8			6				2		3		1	3	
CO TOTAL	8			6				2		3		1	3	
A WSTRN C	76	1	2	66	1	2				22	2	6	45	1
CO TOTAL	76	1	2	66	1	2				22	2	6	45	1
TITLE III	1894	262	194	951	12	14	3	89	15	589	90	94	627	97
MOP MTC	180	13	29	112	6		1	1	9	75	34	12	43	5
SUN-SER	73	5		57				3		31	3	2	21	2
AGENCIES	253	18	29	169	6		1	4	9	106	37	14	64	7
ABE TOTAL	2147	280	225	1120	18	14	4	93	24	695	127	108	691	104

This page indicates the total number of students by race and ethnic group.

12
TABLE 3
ARIZONA DEPARTMENT OF PUBLIC INSTRUCTION
ADULT BASIC EDUCATION DIVISION
STUDENT ENROLLMENT AND ACHIEVEMENT

PROJECT	TOTAL	LONGEST FULL-TIME EMPLOYMENT YEARS							JOB	INCOME SOURCE				
		NONE	.5-1	1-2	2-3	3-5	5-10	OVER		ADC	T-V	SS	RET	OTHR
CHINLE	17	11	5			1		3	6	1			7	
CU TOTAL	17	11	5			1		3	6	1			7	
COCHISE	22	12			2	1	2	5	10			1	11	
CU TOTAL	22	12			2	1	2	5	10			1	11	
COCONINO	22	3		1	2	1	3	3	13			1	1	
CU TOTAL	22	3		1	2	1	3	3	13			1	1	
SAFFORD	24	5	1			3	3	7	6			2	3	7
CU TOTAL	24	5	1			3	3	7	6			2	3	7
P U H S	774	67	66	46	60	68	86	70	326	34	1	13	5	69
GLENDALE	43	15	2	2	5	5	5	7	23	1		1		14
DYSART	13	2	2	2		2	1	3	10				1	1
TOLLESON	21	6		2	3	3	2	4	16				1	1
MESA	48	8	2	4	2	7	4	14	20	1		1		21
ST HOSP	79	6	6		1	1			1	1		2		14
CU TOTAL	978	104	78	56	71	66	98	98	396	37	1	17	7	120
HOLBROOK	6	2	1			2		1	3			1		1
CU TOTAL	6	2	1			2		1	3			1		1
TULSON	212	57	31	8	7	8	2	14	79	20		1		73
SUNNYSIDE	233	75	10	3	6	11	22	36	98			1	2	90
IND OASIS	11	4				1			2					2
CU TOTAL	456	116	41	11	13	20	24	50	179	20		2	2	165
CAZ COLL	199	53	26	20	10	13	22	32	131	5		3		31
CU TOTAL	199	53	26	20	10	13	22	32	131	5		3		31
NOGALES	86	13	10	10	7	7	8	9	51	1				18
CU TOTAL	86	13	10	10	7	7	8	9	51	1				18
PRESCOTT	8	2			1	1	1	1	4			3		
CU TOTAL	8	2			1	1	1	1	4			3		
AWSTRN C	76	24	9	4	2	8	9	10	39			1		13
CU TOTAL	76	24	9	4	2	8	9	10	39			1		13
TITLE III	1894	325	171	102	108	143	170	216	835	69	3	29	14	373
MOP MTC	180	19	53	20	22	20	17	6	124	6				22
SUN-SER	73	6	30	8	2	8	3		24	3	1	1		28
AGENCIES	253	25	83	28	24	28	20	6	148	9	1	1		50
ABE TOTAL	2147	350	254	130	132	171	190	222	983	78	4	30	14	423

This page indicates the longest full-time employment by students - breakdown by years

Income source of the student:

JOB - has a job

ADC - aid to dependent children

T-V - Title V Welfare

SS - Social Security

RET - Retired

OTHR - Other source of income

13
TABLE 4

ARIZONA DEPARTMENT OF PUBLIC INSTRUCTION
ADULT BASIC EDUCATION DIVISION
STUDENT ENROLLMENT AND ACHIEVEMENT

PROJECT	TOTAL	GRADE LEVEL				SEX		AGE						
		1-3	4-6	7-8	MISC	M	F	18-24	25-34	35-44	45-54	55-64	OVER	
CHINLE	17	3	7	1		4	13		2	7		3	2	1
CU TOTAL	17	3	7	1		4	13		2	7		3	2	1
COCHISE	22					4	17	8	3	3		1		
CU TOTAL	22					4	17	8	3	3		1		
COLONINO	22					12	9	6	7	3		2	1	1
CU TOTAL	22					12	9	6	7	3		2	1	1
SAFFORD	24					14	8	5	1	6		1	1	4
CU TOTAL	24					14	8	5	1	6		1	1	4
P U H S	774	52	15	8		238	301	138	120	106		63	31	9
GLENDALE	43		2	3		18	25	6	3	11		9	5	
DYSART	13		2	8		6	7	6	2	3		1		
TOLLESUN	21	1	1	17		6	15	3	4	4		5	4	1
MESA	48		7			17	29	8	7	10		9	5	2
ST HOSP	79		5	7		37	23	30	17	9		1		1
CU TOTAL	978	53	30	43		322	400	191	153	143		88	45	13
HOLBROOK	6	1	4	1			6		3	1		2		
CU TOTAL	6	1	4	1			6		3	1		2		
TULSON	212	34	20	5	2	85	123	74	30	34		11	3	2
SUNNYSIDE	233	52	20	3	1	79	146	37	55	56		15	7	3
IND UASIS	11					6	5	1		4		2		
CU TOTAL	456	86	40	8	3	170	274	112	85	94		28	10	5
CAZ COLL	199					54	134	49	40	45		21	11	3
CU TOTAL	199					54	134	49	40	45		21	11	3
NOGALES	86					23	61	15	16	20		5	2	
CU TOTAL	86					23	61	15	16	20		5	2	
PRESCOTT	8					2	5		1	2		2	1	2
CU TOTAL	8					2	5		1	2		2	1	2
A WSTRN C	76					26	50	26	16	17		5	2	1
CU TOTAL	76					26	50	26	16	17		5	2	1
TITLE III	1894	143	81	53	3	651	977	412	327	341		158	75	30
MOP MTC	180	1	3	4		30	92	70	40	26		17	2	
SUN-SER	73					26	37	27	13	7		6	1	
AGENCIES	253	1	3	4		106	129	97	53	33		23	3	
ABE TOTAL	2147	144	84	57	3	737	1106	509	380	374		181	78	30

This page indicates the grade level of the student, sex and age.

TABLE 5.

 ARIZONA DEPARTMENT OF PUBLIC INSTRUCTION
 ADULT BASIC EDUCATION DIVISION
 STUDENT ENROLLMENT AND ACHIEVEMENT

PROJECT	TOTAL	STUDENT INCOME-THOUSANDS					FAMILY INCOME-THOUSANDS					WHY ENROLLED		
		U-2	2-3	3-4	4-6	OVER	0-2	2-3	3-4	4-6	OVER	JOB	ADV	OTHR
CHIMLE	17	4	1		2		3	1		2	1	3	1	13
CU TOTAL	17	4	1		2		3	1		2	1	3	1	13
COCHISE	22	12	2		5	2	11	1		7	2	5	2	15
CU TOTAL	22	12	2		5	2	11	1		7	2	5	2	15
COCONINO	22	1	3	3	5	1		2	2	7	4	2	8	10
CU TOTAL	22	1	3	3	5	1		2	2	7	4	2	8	10
SAFFORD	24	3	3	3	3	2	1	4	4	3	2	1	5	14
CU TOTAL	24	3	3	3	3	2	1	4	4	3	2	1	5	14
P U H S	774	104	50	81	61	34	57	53	90	108	88	68	231	205
GLENDALE	43	14	11	4	6	4	7	12	4	7	6	3	14	24
DYSART	13	3	1	1	2	2	1	1	1	2	4		7	6
TOLLESUN	21	5	3	4	1			7	8	2	4	1	7	13
MESA	48	13	5	6	4	2	6	2	13	3	10	1	11	32
ST HOSP	79	16				1	3	3	2	5	3	2	4	50
CU TOTAL	978	155	75	96	74	43	74	78	118	127	115	75	274	330
HOLBROOK	6	5					5		1				4	2
CU TOTAL	6	5					5		1				4	2
TUCSON	212	50	22	18	13	8	16	22	37	8	8	52	53	97
SUNNYSIDE	233	82	22	12	23	12	26	55	27	44	39	33	48	133
IND OASIS	11	7					5						4	
CU TOTAL	456	149	44	30	36	20	47	77	64	52	47	85	105	230
CAZ CULL	199	66	22	47	20	6	28	23	36	38	39	15	74	100
CU TOTAL	199	66	22	47	20	6	28	23	36	38	39	15	74	100
NOGALES	86	30	17	10	5	1	10	14	14	21	6	2	38	43
CU TOTAL	86	30	17	10	5	1	10	14	14	21	6	2	38	43
PRESCOTT	8		2				1	1		3				6
CU TOTAL	8		2				1	1		3				6
WESTRN C	76	8	14	7	6	1	2	10	12	7	10	7	21	47
CU TOTAL	76	8	14	7	6	1	2	10	12	7	10	7	21	47
TITLE III	1894	433	183	196	156	76	182	211	251	267	226	195	532	810
MOP MTC	180	75	35	24	3	1	45	46	35	20	7	21	106	47
SUN-SER	73	37	9	3	3		33	8	7	3	1	13	29	17
AGENCIES	253	112	44	27	6	1	78	54	42	23	8	34	135	64
ABLE TOTAL	2147	545	227	223	162	77	260	265	293	290	234	229	667	874

This page indicates the Student income - thousand of dollars
Family income - thousand of dollars

Why the student is enrolled:

JOB - to get a job

ADV - to get a better job

OTHR - other reason

TABLE 6

 ARIZONA DEPARTMENT OF PUBLIC INSTRUCTION
 ADULT BASIC EDUCATION DIVISION
 STUDENT ENROLLMENT AND ACHIEVEMENT

PROJECT	TOTAL	HIGHEST GRADE COMPLETED						HOME LOCATION						
		ONE	TWO	THREE	FOUR	FIVE	SIX	OVER	CORE	URBN	RNF	FARM	MIGR	OTHR
CHINLE	17		1	1				1		14	3			
CO TOTAL	17		1	1				1		14	3			
COCHISE	22				1			1		16	6			
CO TOTAL	22				1			1		16	6			
COCONINO	22			2		2	3	7	16	4	1			
CO TOTAL	22			2		2	3	7	16	4	1			
SAFFORD	24				1		1	5	7		9	2		
CO TOTAL	24				1		1	5	7		9	2		
P U H S	774	10	12	33	20	10	18	333	418	82	6	1	3	7
GLENDAL	43	2	1	4	3	4	2	6	5	35		1		
DYSART	13				1	2		7		6	5	2		
TOLLESUN	21				1		1		13	5	2		1	
MESA	48			1	1	3	7	12	5	32	3	1		3
ST HOSP	79		1				1	53	25	6	2			11
CO TOTAL	978	12	14	38	26	19	29	411	466	166	18	5	4	21
HOLBROOK	6					3		1	6					
CO TOTAL	6					3		1	6					
TUCSON	212	1	1	1	5	5	5	93	209					
SUNNYSIDE	233	5	1	3			3	62	98	100	3	1	2	7
IND OASIS	11	1				2	1	7			2			9
CO TOTAL	456	7	2	4	5	7	9	162	307	100	5	1	2	16
C AZ COLL	199	1	5	9	13	11	14	107	19	76	24	44	4	22
CO TOTAL	199	1	5	9	13	11	14	107	19	76	24	44	4	22
NOGALES	86	1	1	7			2	4	20	48	2			
CO TOTAL	86	1	1	7			2	4	20	48	2			
PRESCOTT	8				1				4			1	2	
CO TOTAL	8				1				4			1	2	
A WSTRN C	76	2	2	1		1			2	1	8	18	2	3
CO TOTAL	76	2	2	1		1			2	1	8	18	2	3
TITLE III	1894	23	25	62	47	43	58	699	847	425	76	71	14	62
MOP MTC	180	2	5	8	5	4	10	90	1	32	41	28	58	11
SUN-SER	73	1	1	3	1	2	3	38	9	8	16	5	20	
AGENCIES	253	3	6	11	6	6	13	128	10	40	57	33	78	11
ABE TOTAL	2147	26	31	73	53	49	71	827	857	465	133	104	92	73

This page indicates the highest grade completed in school in the United States and the home location of the students:

CORE - core metropolitan
 URBN - other urban area
 RNF - rural non-farm

FARM - farm
 MIGR - migrant
 OTHR - other area

16
TABLE 7

ARIZONA DEPARTMENT OF PUBLIC INSTRUCTION
ADULT BASIC EDUCATION DIVISION
STUDENT ENROLLMENT AND ACHIEVEMENT

PROJECT	TOTAL	REFERRED BY												
		CHRCH	WELF	SCHL	OEO	EMPL	SERV	STUD	RA-TV	VA	NEWSPAPER	OTHR		
CHINLE	17							14						3
CO TOTAL	17							14						3
COCHISE	22			1	6			5	3			5		2
CO TOTAL	22			1	6			5	3			5		2
COCONINO	22	1			7			6	1			1		5
CO TOTAL	22	1			7			6	1			1		5
SAFFORD	24	2	1	5	2			5	1			3		2
CO TOTAL	24	2	1	5	2			5	1			3		2
P U H S	774	11	6	138	65		13	125	16	3		25		113
GLENDALE	43			19			3	7	1			2		11
DYSART	13			3	1			3						6
TOLLESON	21	6		3	1			10						
MESA	48	6		2	1			8	1			10		13
ST HOSP	79							4						20
CO TOTAL	978	23	6	165	68		19	157	18	3		37		163
HOLBROOK	6		1	2				1	1			1		
CO TOTAL	6		1	2				1	1			1		
TUCSON	212	1		14	12		2	16	5			2		152
SUNNYSIDE	233	1		44	4		1	63	48			22		29
IND OASIS	11				11									
CO TOTAL	456	2		58	27		3	79	53			24		181
C AZ COLL	199	4	2	29	16		8	49	5			6		69
CO TOTAL	199	4	2	29	16		8	49	5			6		69
NOGALES	86		1	4	1		9	22	10	1		3		33
CO TOTAL	86		1	4	1		9	22	10	1		3		33
PRESCOTT	8			3	1			1						2
CO TOTAL	8			3	1			1						2
A WSTRN C	76			22	4			15				2		6
CO TOTAL	76			22	4			15				2		6
TITLE III	1894	52	11	289	132		39	354	92	4		82		466
MOP MTC	180	3	5	6	33		11	52	3					63
SUN-SER	73			25	1		1	25	2					5
AGENCIES	253	3	5	31	34		12	77	5					68
ABE TOTAL	2147	55	14	320	166		51	431	97	4		82		534

This page indicates how the student was referred to the ABE class

CHRCH - church	OEO - Office of Economic Opportunity	NEWSPAPER
WELF - welfare	EMPL SER - Employment Service	VA - Veteran's Administration
SCHL - school	STUD - Other ABE student	OTHR - Other sources
	RA-TV - Radio and/or television	

Class Participation

The following pages of the printout contain data from the monthly reports submitted by classroom teachers. The reports were originals from the teacher record books of entries made during the month. Some students might have nothing except attendance recorded. Other data were cumulative by class, that is, if three students took the California Adult Achievement test one month the printout would show three. If four more took it the next month the printout would then show seven.

Satisfactory completion of a subject area on any of the tests was recorded by student and totalled in the same manner in the computer by project, county, and state. It may be noticed in Table 8 that most achievement was in reading, math, spelling and vocabulary in that order although the number of students in any one subject was ten percent or less. It must also be pointed out that this would represent actual achievement only if the same tests were administered twice to each student with the second test measuring achievement beyond the first. The data collected did not show this and collection procedures should be altered to do so.

Two of the class participation Tables, 9 and 10, show characteristics of the methodology used rather than of students. Here data were recorded by student to show cumulative impact. Not all students participated in each subject or used each learning technique. The computer has each student's individual participation record, however, and if the Division of Adult Basic Education should want to know the relationship between subjects taught and audio-visuals used and other class participation data or student enrollment data it can be determined just as easily. The opportunities for detailed analysis of the State's entire program or any part of it on a month by month basis are almost unlimited.

18
TABLE 8

ARIZONA DEPARTMENT OF PUBLIC INSTRUCTION
ADULT BASIC EDUCATION DIVISION
STUDENT ENROLLMENT AND ACHIEVEMENT

PROJECT	TOTAL	ACHIEVEMENT TESTS							SUB-SCORES					
		WR	GO	ABE	CAL	MET	OTHR	READ	VOC	LISTN	SPLG	MATH	SS	
CHINLE	17			1	1									
CO TOTAL	17			1	1									
COCHISE	22													
CO TOTAL	22													
COCONINO	22							1						
CO TOTAL	22							1						
SAFFORD	24													
CO TOTAL	24													
P U H S	774	246		1	28			23	148	56		121	136	1
GLENDAL	43													
DYSART	13					8								
TOLLESUN	21							18	19	19		14	19	
MESA	48							8		8				
ST HOSP	79	59			1	29		1	13			2	5	
CO TOTAL	978	265		1	29	37		50	180	83		137	160	1
HOLBROOK	6								6					
CO TOTAL	6								6					
TUCSON	212							22	16	5		2	2	
SUNNYSIDE	233						1	201	3	9	16			
IND OASIS	11													
CO TOTAL	456						1	223	19	14	16	2	2	
C AZ COLL	199	42	14		12			2	9	2		1	11	
CO TOTAL	199	42	14		12			2	9	2		1	11	
NOGALES	86				51			11						
CO TOTAL	86				51			11						
PRESCOTT	8													
CO TOTAL	8													
A WSTRN C	76				21									
CO TOTAL	76				21									
TITLE III	1894	327	16	51	100		1	297	214	99	16	140	173	1
MOP MTC	180	2	1	21				20	11	7		10	22	
SUN-SEK	73	50												
AGENCIES	253	52	1	21				20	11	7		10	22	
ABE TOTAL	2147	379	17	72	100		1	307	225	106	16	150	195	1

This page indicates the achievement tests administered to the students:

WR - Wide Range
GO - Gray Oral
ABE - Adult Basic Education
CAL - California Adult
MET - Metropolitan
OTHR - Other

and the subscores:

READ - Reading
SPLG - Spelling
VOC - Vocabulary
MATH - Mathematics
Listn - Listening
SS - Social Studies

19
TABLE 9

ARIZONA DEPARTMENT OF PUBLIC INSTRUCTION
ADULT BASIC EDUCATION DIVISION
STUDENT ENROLLMENT AND ACHIEVEMENT

PROJECT	TOTAL	SUBJECTS TAUGHT											
		ENG-S	ENG-R	ENG-L	ENG-W	COMP	MATH	FAM	CIT	FIELD	COMM	PR-V	OTHR
CHINLE	17	15	15	9	16		14	4	1	1		6	
CO TOTAL	17	15	15	9	16		14	4	1	1		6	
COCHISE	22	5	5		5		5						
CO TOTAL	22	5	5		5		5						
COCONINO	22	8	21	12	18	7	13						
CO TOTAL	22	8	21	12	18	7	13						
SAFFORD	24	23	19	10	12	16	16	5	10		2	2	11
CO TOTAL	24	23	19	10	12	16	16	5	10		2	2	11
P U H S	774	445	477	407	422	401	456	84	280	61	253	62	173
GLENDALE	43	42	43	39	39	39	15		13		13		
DYSART	13	10	10	10	10	5	8		2				3
TOLLESUN	21	21	21	21	21	19	19	14	14		14		
MESA	48	46	46	46	46	42	28	28	26		14	9	12
ST HOSP	79	22	31	24	32	49	50		5		7	1	19
CO TOTAL	978	586	626	547	570	555	576	126	340	61	301	72	207
HOLBROOK	6	6	6	6	6	3	6		6				
CO TOTAL	6	6	6	6	6	3	6		6				
TUCSON	212	156	121	75	106	117	66	2	8	1	22	13	57
SUNNYSIDE	233	146	175	146	121	169	50	2	25	9	64	3	68
IND OASIS	11	11	11	11			11						
CO TOTAL	456	293	307	232	227	286	127	4	33	10	86	16	125
CAZ COLL	199	104	188	108	166	189	188	50	60	34	69		81
CO TOTAL	199	104	188	108	166	189	188	50	60	34	69		81
NOGALES	86	85	84	85	82	72	22				16		
CO TOTAL	86	85	84	85	82	72	22				16		
PRESCOTT	8	8	8	8	8	6							
CO TOTAL	8	8	8	8	8	6							
AWSTRN C	76	73	51	45	51	43			33				1
CO TOTAL	76	73	51	45	51	43			33				1
TITLE III	1894	1206	1530	1062	1161	1177	967	189	483	106	480	90	425
MOP MTC	180	118	101	96	93	113	109		62		8	37	26
SUN-SER	73	56	71	48	20	45	32						17
AGENCIES	253	174	172	144	113	158	141		62		8	37	43
ABLE TOTAL	2147	1380	1502	1206	1274	1335	1108	189	545	106	488	127	468

This page indicates the subjects taught and the number of hours per subject:

ENG - s --English Spelling COM - English Comprehension
 ENG - r --English Reading MATH - Mathematics FIELD - Field Trips OTH - Other
 ENG - l --English Listening FAM - Family Living COMM - Community Relations
 ENG - w --English Writing CIT - Citizenship PR-V - Prevocational

20
TABLE 10

ARIZONA DEPARTMENT OF PUBLIC INSTRUCTION
ADULT BASIC EDUCATION DIVISION
STUDENT ENROLLMENT AND ACHIEVEMENT

PROJECT	TOTAL	AUDIO-VISUALS USED											
		TV	RADIO	TAPE	RECD	35MM	STRIP	O/H PROJ	8/16MM	OTHR			
CHINLE	17			17		5	14	11		12		14	5
CO TOTAL	17			17		5	14	11		12		14	5
COCHISE	22												5
CO TOTAL	22												5
COCONINO	22			12						9		2	
CO TOTAL	22			12						9		2	
SAFFORD	24			20	19			23		3			23
CO TOTAL	24			20	19			23		3			23
P U H S	774	14	34	215	53	105		120		202		154	306
GLENDAL	43			12	12			19		43		28	13
DYSART	13			12	8	8		8				9	7
TOLLESUN	21		14	21	19	3		21		21		19	14
MESA	48			16	6	26		41		34		27	37
ST HOSP	79	20	1	20	32	32		31		35		51	25
CO TOTAL	978	34	49	296	130	174		240		335		288	402
HOLBROOK	6		1					6		1			6
CO TOTAL	6		1					6		1			6
TUCSON	212	19		87	1	10		1		1		11	47
SUNNYSIDE	233	19	22	137	6	18		56		175		56	168
IND OASIS	11			9									
CO TOTAL	456	38	22	233	7	28		57		176		67	215
C AZ CULL	199	17		113	25	42		97		60		47	108
CO TOTAL	199	17		113	25	42		97		60		47	108
NOGALES	86	29		54	22			31		50		30	29
CO TOTAL	86	29		54	22			31		50		30	29
PRESCOTT	8			8	6	8				8		8	8
CO TOTAL	8			8	6	8				8		8	8
A WSTRN C	76		33	76				16		19			3
CO TOTAL	76		33	76				16		19			3
TITLE III	1894	119	104	829	214	266		481		673		456	804
MOP MTC	180	8		73	20	2		52		67		10	77
SUN-SER	73		16	32	18			18		44			20
AGENCIES	253	8	16	105	38	2		70		111		10	97
ABE TOTAL	2147	127	122	934	252	268		551		784		466	901

This page indicates the audio-visuals used in class - indicated by number of students using them. These figures are cumulative

TV - Television
RADIO - Radio
TAPE - Tapes

RED - Record players
35 mm - 35 mm
STRIP - Film strip

O/H PROJ - Overhead Projector
8/16 mm - 8 & 16 mm
OTHR - Other

21
TABLE 11

ARIZONA DEPARTMENT OF PUBLIC INSTRUCTION
ADULT BASIC EDUCATION DIVISION
STUDENT ENROLLMENT AND ACHIEVEMENT

PROJECT	TOTAL	REASONS FOR DROPPING FROM PROGRAM								
		EMPL	TRN	CH-JOB	MOVED	HLTH	FAM PROB	LACK INT	CHD CARE	OTHR
CHINLE	17	4	1		7		1	2		1
CO TOTAL	17	4	1		7		1	2		1
COCHISE	22									
CO TOTAL	22									
COCONINO	22			2	4		1	3		
CO TOTAL	22			2	4		1	3		
SAFFORD	24	1		2	1	2	3	5		
CO TOTAL	24	1		2	1	2	3	5		
P U H S	774	43	28	36	28	22	24	60	4	76
GLENDAL	43			2	2	1	5		1	9
DYSART	13		2		3		6	9		2
TOLLESUN	21	1			1	4				3
MESA	48	5	1	1	4	6	6			21
ST HOSP	79	7	11		3			8		36
CO TOTAL	978	56	42	39	41	33	41	77	5	147
HOLBROOK	6	1					2			5
CO TOTAL	6	1					2			5
TUCSON	212	8	4	5	9	4	8	52		90
SUNNYSIDE	233	20	3	3	14	2	12	33		29
IND OASIS	11									
CO TOTAL	456	28	7	8	23	6	20	85		119
C AZ COLL	199	15	1	6	7	3	8	18	1	27
CO TOTAL	199	15	1	6	7	3	8	18	1	27
NOGALES	86	13		1	4	7	5	7		16
CO TOTAL	86	13		1	4	7	5	7		16
PRESCOTT	8			1	4					2
CO TOTAL	8			1	4					2
A WSTRN C	76	1		1	1					
CO TOTAL	76	1		1	1					
TITLE III	1894	119	51	60	92	51	81	197	6	317
MOP MTC	180	10		5	2	2	2	20		33
SUN-SER	73	1	2	1	6	5	4	6		3
AGENCIES	253	11	2	6	8	7	6	26		36
ABE TOTAL	2147	150	55	66	100	58	87	223	6	353

This page indicates why the students dropped out of class:

EMPL - took a job
TRN - entered a training program
CH-JOB - Job Change
MOVED
HLTH - health problems
FAM - PROB - family problems
LACK INT - lack of interest
CHD CRD - child care
OTHR - other reasons

(The first column is membership, the remaining columns are dropouts.)

TABLE 12

 ARIZONA DEPARTMENT OF PUBLIC INSTRUCTION
 ADULT BASIC EDUCATION DIVISION
 STUDENT ENROLLMENT AND ACHIEVEMENT

PROJECT	TOTAL	OTHER LANGUAGES USED IN CLASS					AGG HRS ATTENDED MONTH	ACCUM
		SPAN	NAV	PAP	PIMA	HOPI		
CHINLE	17		16					2150
CU TOTAL	17		16					2150
COCHISE	22	5						982
CU TOTAL	22	5						982
COCONINO	22	8						1487
CU TOTAL	22	8						1487
SAFFORD	24	19				8		2271
CU TOTAL	24	19				8		2271
P U H S	774	220	1			60		49638
GLENDALE	43	33				10		2662
DYSART	13	1					318	2059
TOLLESON	21	16						2873
MESA	48	46				5		3322
ST HOSP	79	10	2	2		2		12229
CU TOTAL	978	326	3	2		77	318	72783
HOLBROOK	6	2	4					1716
CU TOTAL	6	2	4					1716
TUCSON	212	106			1	3		14850
SUNNYSIDE	233	136	13		9	45		17740
IND OASIS	11							404
CU TOTAL	456	242	13		10	48		32994
CAZ CULL	199	74						9785
CU TOTAL	199	74						9785
NOGALES	86	85	13					6203
CU TOTAL	86	85	13					6203
PRESCOTT	8	8						727
CU TOTAL	8	8						727
WESTERN C	76	75				18		1581
CU TOTAL	76	75				18		1581
TITLE III 1894	844	844	49	2	10	151	318	132679
MOP MTC	180	110						11748
SUN-SER	73	70						2253
AGENCIES	253	180						14001
ABLE TOTAL	2147	1024	49	2	10	151	318	146680

This page indicates the other languages used in class

SPAN - Spanish
 NAV - Navajo
 PAP - Papago

PIMA - Pima
 HOPI
 OTHR - Other Indian Languages

Student Achievement

The following pages show numbers of students in each project who received certain benefits in the judgment of the teachers. These achievements were noted in the teachers' record books when they became evident and then recorded. By printing both monthly and cumulative totals, project officers and division personnel can observe peak periods of achievement as well as totals. If relationships between either peak periods or cumulative achievement and methods used are wanted, the computer can produce this information. If relationships between student characteristics and individual achievements are wanted, this can also be programmed and known. In all probability, the Division of Adult Basic Education will want to develop such information and can easily do so. There is no possible way to do it by hand.

Achievement data show comparatively few students receiving benefits, but it must be pointed out that these are adults with personal lives of meager achievement up to this point. To read for the first time, or to vote, or to perform any of the activities listed here for the first time in one's entire life is an event of far greater impact than that one achievement alone. It can be the first domino to fall in a row that stretches for thirty or forty years or more of far greater achievements.

The graph on page 30 shows student achievement as reported in the followup. In some respects these are the most valuable data available because the information comes directly from the students themselves after they have left the program. Again, the followup was by no means exhaustive but illustrates what can be done with this technique. Improvements in both the data collected and the procedures used should be made each year.

TABLE 13
ARIZONA DEPARTMENT OF PUBLIC INSTRUCTION
ADULT BASIC EDUCATION DIVISION
STUDENT ENROLLMENT AND ACHIEVEMENT

PROJECT	TOTAL	SELF ASSUR		QUESTIONS		INITIA		NEATNESS		SPEECH		IMP OTHR	
		CUR	CUM	CUR	CUM	CUR	CUM	CUR	CUM	CUR	CUM	CUR	CUM
CHINLE	17		22		24		11		12		16		1
CU TOTAL	17		22		24		11		12		16		1
COCHISE	22		2		11		4				2		
CU TOTAL	22		2		11		4				2		
COCONINO	22		3		5		6		5		9		
CU TOTAL	22		3		5		6		5		9		
SAFFORD	24		24		16		10		6		21		2
CU TOTAL	24		24		16		10		6		21		2
P U H S	774		250		281		179		141		186		43
GLENDALE	43				3						2		
DYSART	13		0		4								
TOLLESUN	21		27		28		24		24		27		2
MESA	48		42		53		48		39		28		9
ST HOSP	79		60		65		42		22		12		14
CU TOTAL	978		385		434		293		226		255		68
HOLBROOK	6		11		10		5		3		10		4
CU TOTAL	6		11		10		5		3		10		4
TUCSON	212		33		21		25		4		71		14
SUNNYSIDE	233		156		121		54		24		146		45
IND OASIS	11												
CU TOTAL	456		189		142		79		28		217		59
C AZ CULL	199		104		117		92		51		64		30
CU TOTAL	199		104		117		92		51		64		30
NOGALES	86		5		19		4				17		
CU TOTAL	86		5		19		4				17		
PRESCOTT	8		3		7		6		2		5		
CU TOTAL	8		3		7		6		2		5		
A WSTRN C	76		13		26		20		2		10		
CU TOTAL	76		13		26		20		2		10		
TITLE III 1994			761		811		530		335		626		164
MOP MTC	180		78		108		56		23		85		18
SUN-SEK	73		59		40		42		12		23		2
AGENCIES	253		137		148		98		35		108		20
ABE TOTAL	2147		696		959		628		370		734		184

This page indicates student improvement because of ABE - both current and cumulative totals

SELF ASSUR - student developed self assurance
 QUESTIONS - asks questions SPEECH - speech improvement
 INITIA - takes initiative OTHR - Other
 NEATNESS

Figures on this page represent number of students.

TABLE 14
 ARIZONA DEPARTMENT OF PUBLIC INSTRUCTION
 ADULT BASIC EDUCATION DIVISION
 STUDENT ENROLLMENT AND ACHIEVEMENT

PROJECT	TOTAL	FOUND JOB		BETTER JOB		OFF WELFARE		CITIZENSHIP		REG TO VOTE	
		CUR	CUM	CUR	CUM	CUR	CUM	CUR	CUM	CUR	CUM
CHINLE	17		1								
CU TOTAL	17		1								
COCHISE	22				1		1		5		
CU TOTAL	22				1		1		5		
COLONINO	22										
CU TOTAL	22										
SAFFORD	24										
CU TOTAL	24										
P U H S	774		22		25		9		3		9
GLENDALE	43								1		1
JYSART	13										
TOLLESUN	21				3						7
MESA	48		1		2						
ST HUSP	79		3		1						
CU TOTAL	978		26		31		9		4		17
HOLBROOK	6										
CU TOTAL	6										
TUCSON	212		2		3				3		
SUNNYSIDE	233		1		3				8		1
INDU OASIS	11										
CU TOTAL	456		3		11				11		1
C AZ COLL	199		2		3				4		
CU TOTAL	199		2		3				4		
NOGALES	86		2								
CU TOTAL	86		2								
PRESCOTT	8										
CU TOTAL	8										
A WSTRN C	76								1		
CU TOTAL	76								1		
TITLE III 1894			34		46		10		25		18
MOP MTC	180		3		1						14
SUN-SER	73		10		14				1		1
AGENCIES	253		13		15				1		15
ABE TOTAL	2147		47		61		10		26		33

The remainder of the pages indicate student growth because of ABE classes - both current and cumulative totals. The figures on these pages represent number of students.

This page indicates:

FOUND JOB - found a job

BETTER JOB - found a better job

OFF WELFARE - discontinued public welfare

CITIZENSHIP - applied for citizenship

REG TO VOTE - registered to vote

26
TABLE 15
ARIZONA DEPARTMENT OF PUBLIC INSTRUCTION
ADULT BASIC EDUCATION DIVISION
STUDENT ENROLLMENT AND ACHIEVEMENT

PROJECT	TOTAL	FIRST VOTED		SUB TO PUBLICATION		TO CONTINUE ED		ENT JOB TRAINING	
		CUR	CUM	CUR	CUM	CUR	CUM	CUR	CUM
CHINLE	17					14			1
CO TOTAL	17					14			1
COCHISE	22					4			
CO TOTAL	22					4			
COCONINO	22								
CO TOTAL	22								
SAFFORD	24							3	
CO TOTAL	24							3	
P U H S	774				4	140			13
GLENDALE	43				1				1
DYSART	13					4			4
TOLLESON	21		5		13	29			1
MESA	48				4	14			
ST HOSP	79					41			4
CO TOTAL	978		5		22	228			23
HOLBROOK	6								
CO TOTAL	6								
TUCSON	212					17			4
SUNNYSIDE	233		14		7	60			3
IND OASIS	11								
CO TOTAL	456		14		7	77			7
C AZ COLL	199					59			2
CO TOTAL	199					59			2
NOGALES	86		1			23			
CO TOTAL	86		1			23			
PRESCOTT	8					1			
CO TOTAL	8					1			
A WSTRN C	76								
CO TOTAL	76								
TITLE III	1894		20		29	409			33
MOP MTC	180				1	46			
SUN-SER	73					31			4
AGENCIES	253				1	77			4
ABE TOTAL	2147		20		30	486			37

This page indicates the number of students who:
 FIRST VOTED - voted for the first time
 SUB TO PUBLICATION - subscribed to a publication
 TO CONTINUE ED - planned to continue his education
 ENT JOB TRAINING - entered vocational or job training

TABLE 16
 ARIZONA DEPARTMENT OF PUBLIC INSTRUCTION
 ADULT BASIC EDUCATION DIVISION
 STUDENT ENROLLMENT AND ACHIEVEMENT

PROJECT	TOTAL	RECRUITED STUDENTS	JOINED CIVIC ORG		PASSED GED TEST	
			CUR	CUM	CUR	CUM
CHINLE	17	1		4		
CO TOTAL	17	1		4		
COCHISE	22					
CO TOTAL	22					
COCONINO	22					
CO TOTAL	22					
SAFFORD	24	2				
CO TOTAL	24	2				
P U H S	774	54		19		39
GLENDAL	43	2		1		
DYSART	13	3				3
TOLLESUN	21	17		2		
MESA	48	2				
ST HOSP	79	14				7
CO TOTAL	978	92		22		49
HOLBROOK	6			1		
CO TOTAL	6			1		
TUCSON	212	7		5		12
SUNNYSIDE	233	29		20		20
IND OASIS	11					
CO TOTAL	456	36		25		32
C AZ COLL	199	24		1		21
CO TOTAL	199	24		1		21
NOGALES	86			1		
CO TOTAL	86			1		
PRESCOTT	8					
CO TOTAL	8					
A WSTRN C	76	2				
CO TOTAL	76	2				
TITLE III	1894	162		54		102
MOP MTC	180	34		3		3
SUN-SER	73	23		5		1
AGENCIES	253	57		8		4
ABE TOTAL	2147	219		62		106

This page indicates the number of students who:
 RECRUITED ABE STUDENTS - recruited other students for the class
 JOINED CIVIC ORG - joined a civic organization
 PASSED GED TEST - passed his high school equivalency test

Table 17

ARIZONA DEPARTMENT OF PUBLIC INSTRUCTION
ADULT BASIC EDUCATION DIVISION
STUDENT ENROLLMENT AND ACHIEVEMENT

PROJECT	TOTAL	SPEAK ENG		READ ADV		WRITE ENG		ASSUME LEADERSHIP		WORK WITH OTHERS	
		CUR	CUM	CUR	CUM	CUR	CUM	CUR	CUM	CUR	CUM
CHINLE	17		7		2		2		6		12
CO TOTAL	17		7		2		2		6		12
COCHISE	22		2		1		11		3		2
CO TOTAL	22		2		1		11		3		2
COCONINO	22		16		10		8		4		
CO TOTAL	22		16		10		8		4		
SAFFORD	24		23				2		1		1
CO TOTAL	24		23				2		1		1
P U H S	774		44		79		46		28		79
GLENDAL	43		7		5		3				
DYSART	13		1		2		3				
TOLLESON	21		24		24		24		23		26
MESA	48		13		3		3		3		3
ST HOSP	79		12		6		7		16		43
CO TOTAL	978		101		119		86		70		151
HOLBROOK	6		5		9		1				3
CO TOTAL	6		5		9		1				3
TUCSON	212		55		23		23		8		6
SUNNYSIDE	253		77		24		25		24		84
IND OASIS	11										
CO TOTAL	456		132		47		48		32		90
C AZ COLL	199		46		33		40		18		69
CO TOTAL	199		46		33		40		18		69
NOGALES	86		22		4		14				14
CO TOTAL	86		22		4		14				14
PRESCOTT	8										
CO TOTAL	8										
A WSTRN C	76										
CO TOTAL	76										
TITLE III	1894		356		225		212		134		342
MOP MTC	180		60		48		49		7		59
SUN-SER	73		19		16		16		20		49
AGENCIES	253		85		64		65		27		108
ABE TOTAL	2147		441		289		277		161		450

This page indicates the number of students who learned to:
 SPEAK ENGLISH - speak enough English for a simple conversation
 READ AD - read advertisements and simple directions
 WRITE ENG - write sufficient English to fill out a job application
 ASSUME LEADERSHIP - assume leadership
 WORK WITH OTHERS - cooperatively

TABLE 18
ARIZONA DEPARTMENT OF PUBLIC INSTRUCTION
ADULT BASIC EDUCATION DIVISION
STUDENT ENROLLMENT AND ACHIEVEMENT

PROJECT	TOTAL	HELP CHILD		SCH WK WORK WITH SCH		READ FIRST TIME		WRITE FIRST TIME	
		CUR	CUM	CUR	CUM	CUR	CUM	CUR	CUM
CHINLE	17								
CO TOTAL	17				6		6		7
					6		6		7
COCHISE	22								
CO TOTAL	22								
COLONINO	22								
CO TOTAL	22						8		6
							8		6
SAFFORD	24		1		2		9		8
CO TOTAL	24		1		2		9		8
			1		2		9		8
P U H S	774		51		26		22		18
GLENDAL	43						9		6
DYSART	13						3		1
TOLLESON	21		4		3		3		6
MESA	48						8		8
ST HOSP	79		10		8		1		1
CO TOTAL	978		65		37		46		40
HOLBROOK	6		2				1		2
CO TOTAL	6		2				1		2
			2				1		2
TUCSON	212		1		1		1		1
SUNNYSIDE	233		22		10		16		11
IND OASIS	11								
CO TOTAL	456		23		11		17		12
C AZ COLL	199		19		15		18		16
CO TOTAL	199		19		15		18		16
			19		15		18		16
NOGALES	86		3						
CO TOTAL	86		3						
			3						
PRESCOTT	8								
CO TOTAL	8								
A WSTRN C	76								
CO TOTAL	76								
TITLE III	1894		113		71		105		91
MOP MTC	180		1		1		38		29
SUN-SER	73		3		1		6		5
			3		1		6		5
AGENCIES	253		4		2		44		34
			4		2		44		34
ABE TOTAL	2147		117		73		149		125
			117		73		149		125

This page indicates the number of students who learned to:

HELP CHILD WORK - help children with school work

WORK WITH SCH - work with school personnel to assure children's attendance and progress

READ FIRST TIME - read for the first time

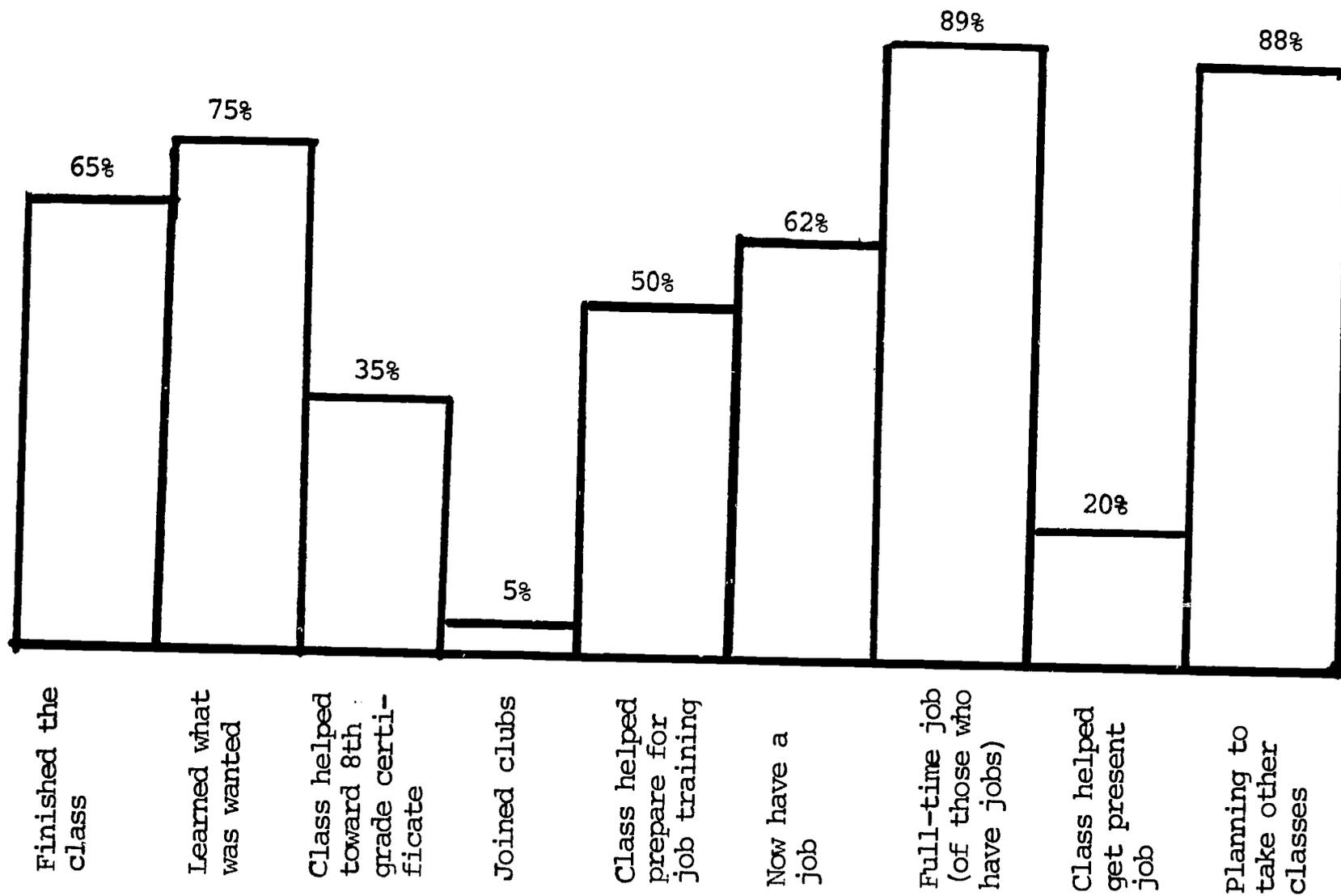
WRITE FIRST TIME - write for the first time

FIGURE 2

FOLLOWUP SURVEY

At the end of the school year a followup of all students enrolled was undertaken. Addresses were available for only 2,533 of the 3,163 enrolled, and these were sent card questionnaires. Only one mailout was made with a response of eighteen per cent. Appendix L a stratified random sample of the non-respondents was drawn and these were followed up by telephone and in person. Appendix M the data from the sample correlated sufficiently high with those of the first response group to suggest fairly valid results in the total followup. Appendix N the chart in Figure 2.

1. How many finished the class?
2. How many learned what they wanted to learn?
3. How many were helped by the class to get an 8th grade certificate?
4. How many have joined any clubs since starting the class?
5. How many have been helped by the class to prepare for job training?
6. How many more have a job?
7. Of those, how many are full-time jobs?
8. How many were helped to get their jobs by the class?
9. How many are planning to take other classes?



Financial Data

The allocation and disbursement of funds can easily be kept in paper record files, but there are advantages in placing this information in the computer. Project officers and Division administrators can see at a glance each month where they are in relation to their budgets. The greatest potential benefit, however, is to relate costs to performance. This is done here only in terms of cost per student, but with the data in the computer any kind of cost/performance analysis can be made.

Financial data should be the most reliable input in the system, but only if the Division exercises proper care to see that actual records are used. The Research Coordinating Unit had no way of knowing if the financial input was reliable because the data came from project directors' reports rather than Division records. These reports were extremely uncertain in coming in and for several months no financial data printouts were made because of insufficient data. The following table should be reviewed only as an indication of the kind of printout that is possible, not as a reliable record of costs this year.

Cost data should actually be collected from each source rather than from the Division of Adult Basic Education only. In some cases funds from more than one Federal program were being used in the same project, not necessarily for the same students. Local resources were being contributed in varying kinds and amounts. Complete cost accounting data are difficult to assemble, but as educational institutions turn increasingly to data processing this task will become easier. In any case, it is essential if cost effectiveness ratios are desired for any kind of proper program evaluation.

TABLE 19

PROJECT FINANCIAL DATA

PROJECT	TOTAL	CODE	AUIH	BAL FOR LAST MO	RECEIVED CUM	EXPENDED CUM	RECEIVED CURR	EXPENDED CURR	PAL FOR CURR	HRS ATT CUM	COST/PIUP CUM	COST/HR CUM
CHINLE	17	U1	.	1,654.76	7,000.03	5,345.27	.	.	1,654.76	2,150		
CHINLE	17	U9	.	.00	2,812.44	2,812.44	.	.	.00	2,150		
PROJECT	TOTAL		.00	1,654.76	9,812.47	8,157.71	.00	.00	1,654.76		470.86	3.79
COLONINO	22	U2	.00	68.49	2,975.00	2,906.51	.00	.00	68.49	1,487	132.11	1.95
SAFFURJ	24	U1	.	1,613.95	3,020.00	1,406.05	.	.	1,613.95	2,271		
SAFFURJ	24	U2	.	131.32	466.57	335.25	.	.	131.32	2,271		
PROJECT	TOTAL		.00	1,745.27	3,486.57	1,741.30	.00	.00	1,745.27		72.55	.76
COLLESUN	21	U1	.00	821.00	1,621.00	800.00	.00	.00	821.00	2,873	38.09	.27
MESA	48	U1	.00	336.33	568.00	231.67	.00	.00	336.33	3,322	4.82	.06
ST HUSP	79	U1	.	6,191.89	8,050.00	1,858.11	.	.	6,191.89	12,229		
ST HUSP	79	U9	.	1,470.00	4,348.20	2,878.20	.	.	1,470.00	12,229		
PROJECT	TOTAL		.00	7,661.89	12,398.20	4,736.31	.00	.00	7,661.89		59.95	.38
HOLKROK	6	U1	.	1,859.84	4,450.00	2,590.16	.	.	1,859.84	1,716		
HOLKROK	6	U3	.	2,292.36	9,001.00	6,708.64	.	.	2,292.36	1,716		
PROJECT	TOTAL		.00	4,152.20	13,451.00	9,298.80	.00	.00	4,152.20		1540.80	5.41
IULSUN	212	U1	.	20,883.61	45,810.00	24,926.39	.	.	20,883.61	14,850		
IULSUN	212	U3	.	4,082.73	59,741.65	55,658.92	.	.	4,082.73	14,850		
PROJECT	TOTAL		.00	24,966.34	105,551.65	80,585.31	.00	.00	24,966.34		380.11	5.42
SUNNYSIDE	233	U3	.	.00	.00	.00	.	.	.00	17,740		
SUNNYSIDE	233	U0	.	.00	.00	.00	.	.	.00	17,740		
PROJECT	TOTAL		.00	.00	.00	.00	.00	.00	.00		.00	.00
INU VASIS	11	U1	.00	317.80	.00	317.80	.00	.00	317.80	404	28.89	.78
C AZ CULL	199	U1	.	3,270.57	6,800.00	3,529.43	.	.	3,270.57	9,785		
C AZ CULL	199	U2	.	4,534.69	4,534.69	.00	.	.	4,534.69	9,785		
C AZ CULL	199	U4	.	5,069.05	7,704.74	2,635.69	.	.	5,069.05	9,785		
PROJECT	TOTAL		.00	12,874.31	19,039.43	6,165.12	.00	.00	12,874.31		30.98	.63
NOVALES	66	U1	.00	5,637.85	9,100.00	3,462.15	.00	.00	5,637.85	6,203	40.25	.55
PRESLOIT	8	U1	.00	115.50	665.00	549.50	.00	.00	115.50	727	68.68	.75

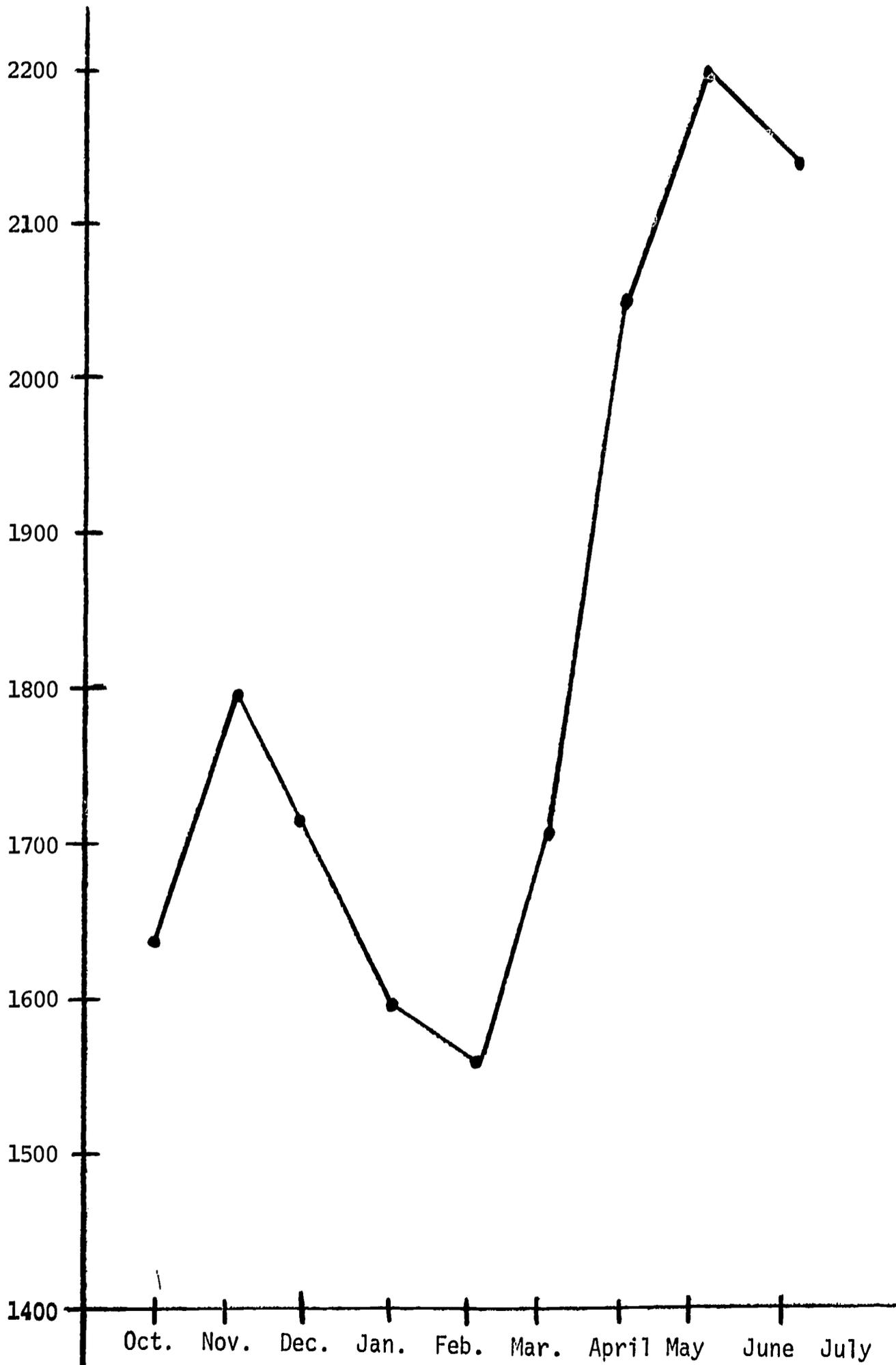
Enrollment Characteristics

On the following pages are graphs and charts in which some of the data from the whole year's series of printout tables have been illustrated. Some of these graphs could have been prepared from hand records but not as easily. Some of them are possible only because monthly summaries were generated in the computer. They are presented here not to show the results of the Adult Basic Education program as much as to suggest the translation of computer printout data into more familiar forms of graphic communication.

To further illustrate the graphic analyses made possible by computer printouts, some of the charts contain data from the monthly tabulations combined with frequency distributions of student characteristics.

FIGURE 3

TOTAL ENROLLMENT OF ADULT BASIC EDUCATION



The first of the figures on the results of the reporting system indicates the growth of the Adult Basic Education program in Arizona. Generally speaking, most classes began in October, 1968. The sharp decline in December was due to a lack of reports on the part of three projects. (see Figure 4)

The growth indicated between March and April can be attributed partially to the beginning of projects at Central Arizona College (see Figure 4) Glendale, and Indian Oasis.

Although the data cannot be correlated to determine the exact time, 24.6% of the students first learned of the program from other students. This word of mouth publicity probably accounted for the increased enrollment in the total program.

Project and Classes

The Adult Basic Education program in Arizona is a statewide program. Figure 3 is a capsule view of the total Adult Basic enrollment for the school year. This figure provides enrollment by project location, head count and month. Note that classes were begun from October through May. The highest enrollment numbers appear in the larger metropolitan areas. Numerous classes are being taught in these areas because the population is available while only one class may be in operation in a small community.

The sharp drop in enrollment in December is partially accounted for by the fact that three locations (Coconino, Chinle, and Nogales) did not report. These three locations had an enrollment of 157 students which was 42.6% of the total drop of 368. When these three locations reported in January the enrollment again increased.

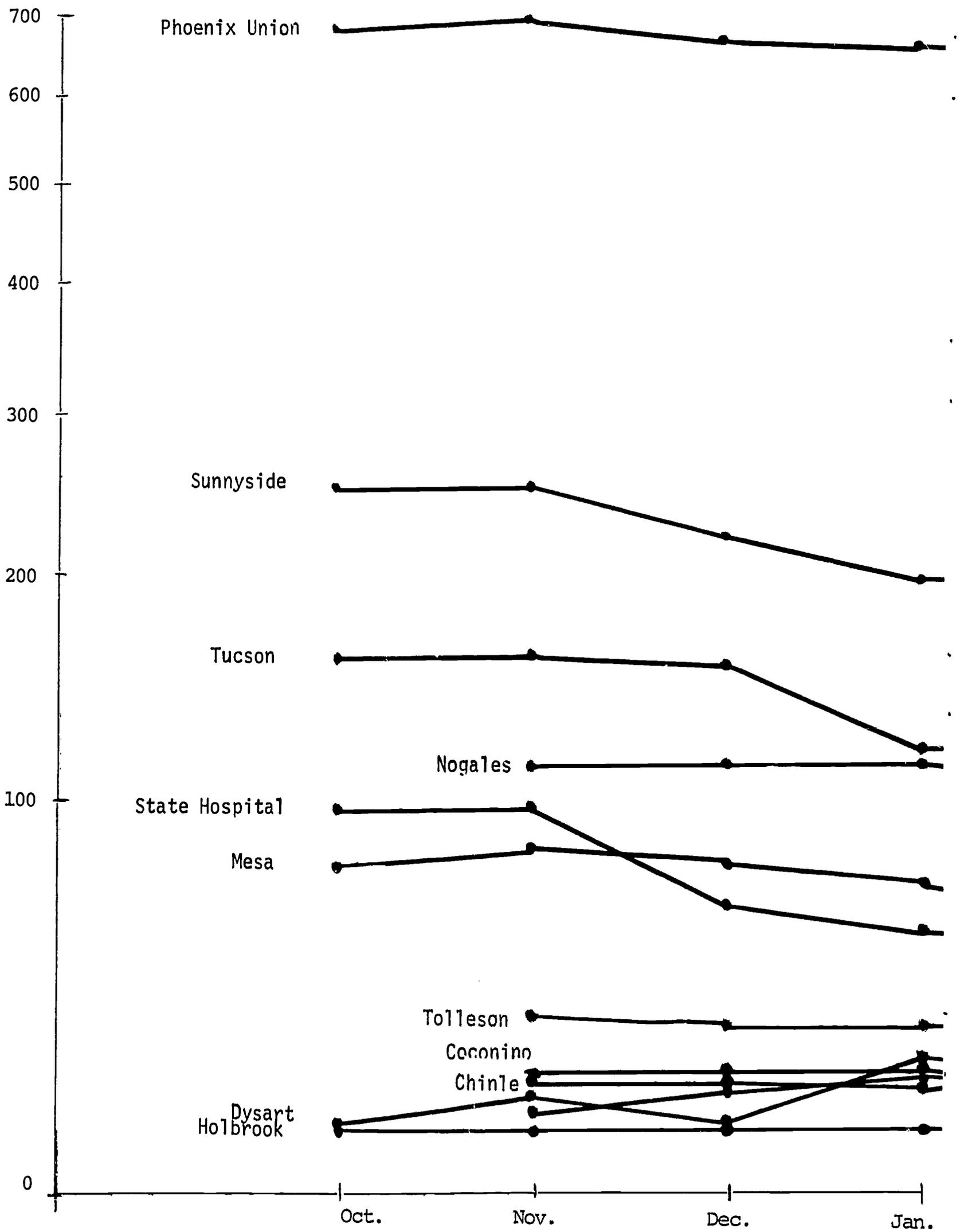
Of the seventeen projects using the reporting system, five projects were in Maricopa County -- Phoenix Union, Mesa, Glendale, Dysart, Tolleson and the State Hospital. Pima County had three projects -- Sunnyside, Tucson and Indian Oasis. Eight counties had one project each -- Apache at Chinle, Coconino at Flagstaff, Graham at Safford, Navajo at Holbrook, Pinal at Central Arizona College (Coolidge), Santa Cruz at Nogales, Yavapai at Prescott, and Yuma at Arizona Western College (Yuma). Four counties did not have any projects -- Cochise, Gila, Greenlee, and Mohave.

Phoenix Union held classes in twenty-two different locations in the Phoenix area. Sunnyside district held classes in fourteen locations and Tucson District #1 in seven locations in the Tucson area.

Central Arizona College's project was held in nine different cities which include -- Superior, Maricopa, Coolidge, Randolph, Florence, Casa Grande, Eloy, Eleven Mile Corner, and Stanfield. These nine cities were responsible for more than twenty separate classes.

FIGURE 4

ACTUAL ENROLLMENT BY PROJECT LOCATION AND HEAD COUNT



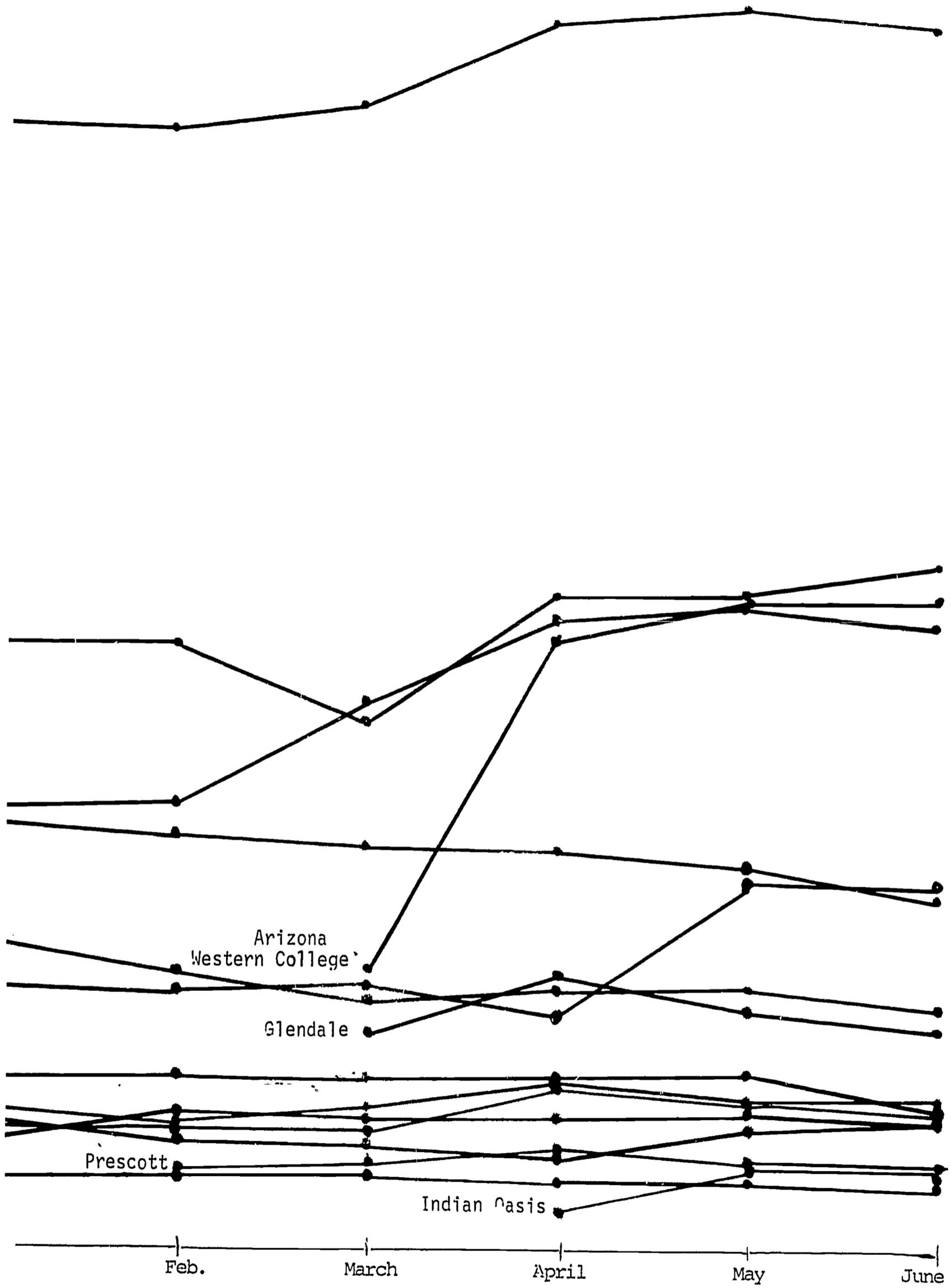
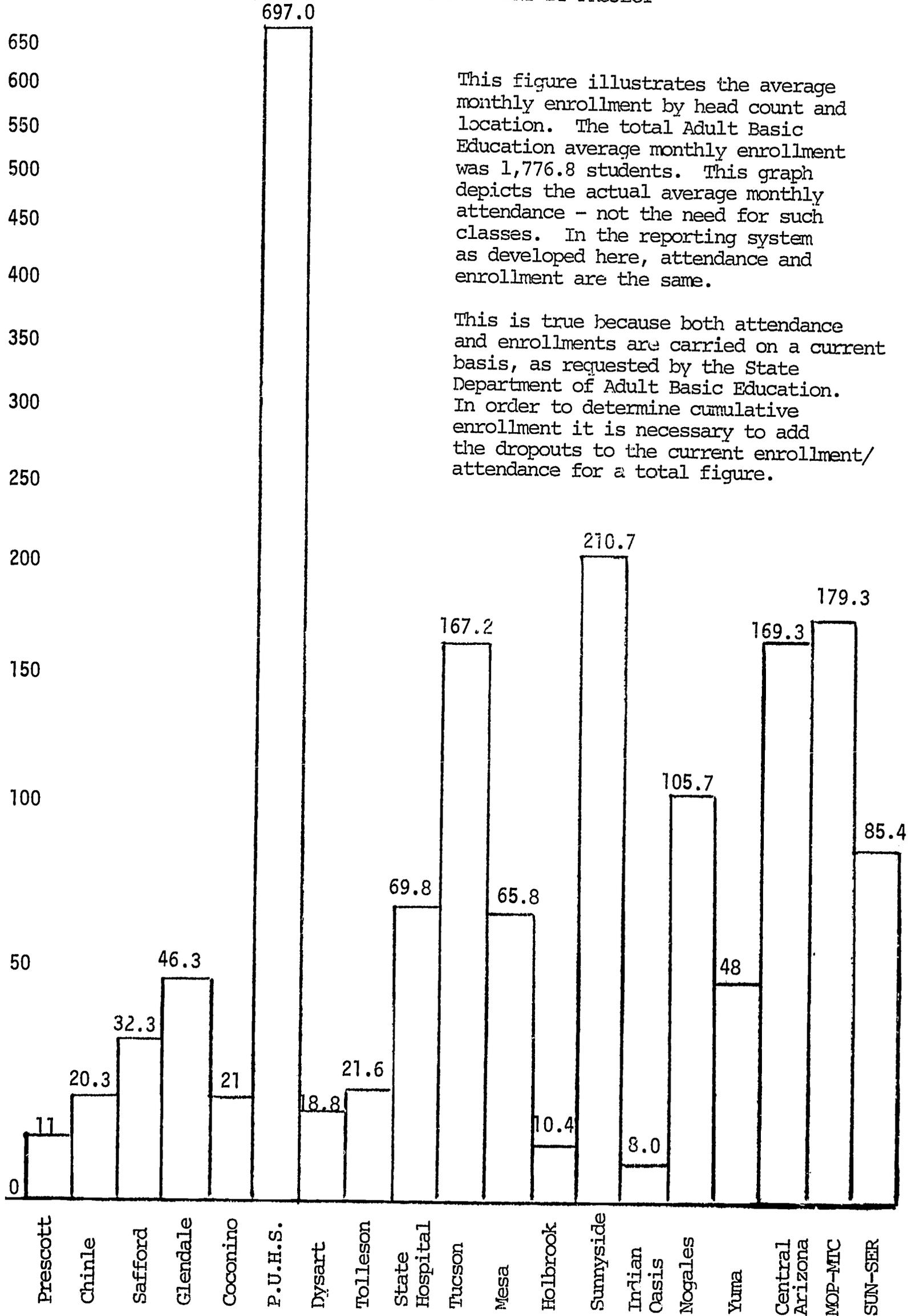


FIGURE 5

AVERAGE MONTHLY ENROLLMENT BY PROJECT

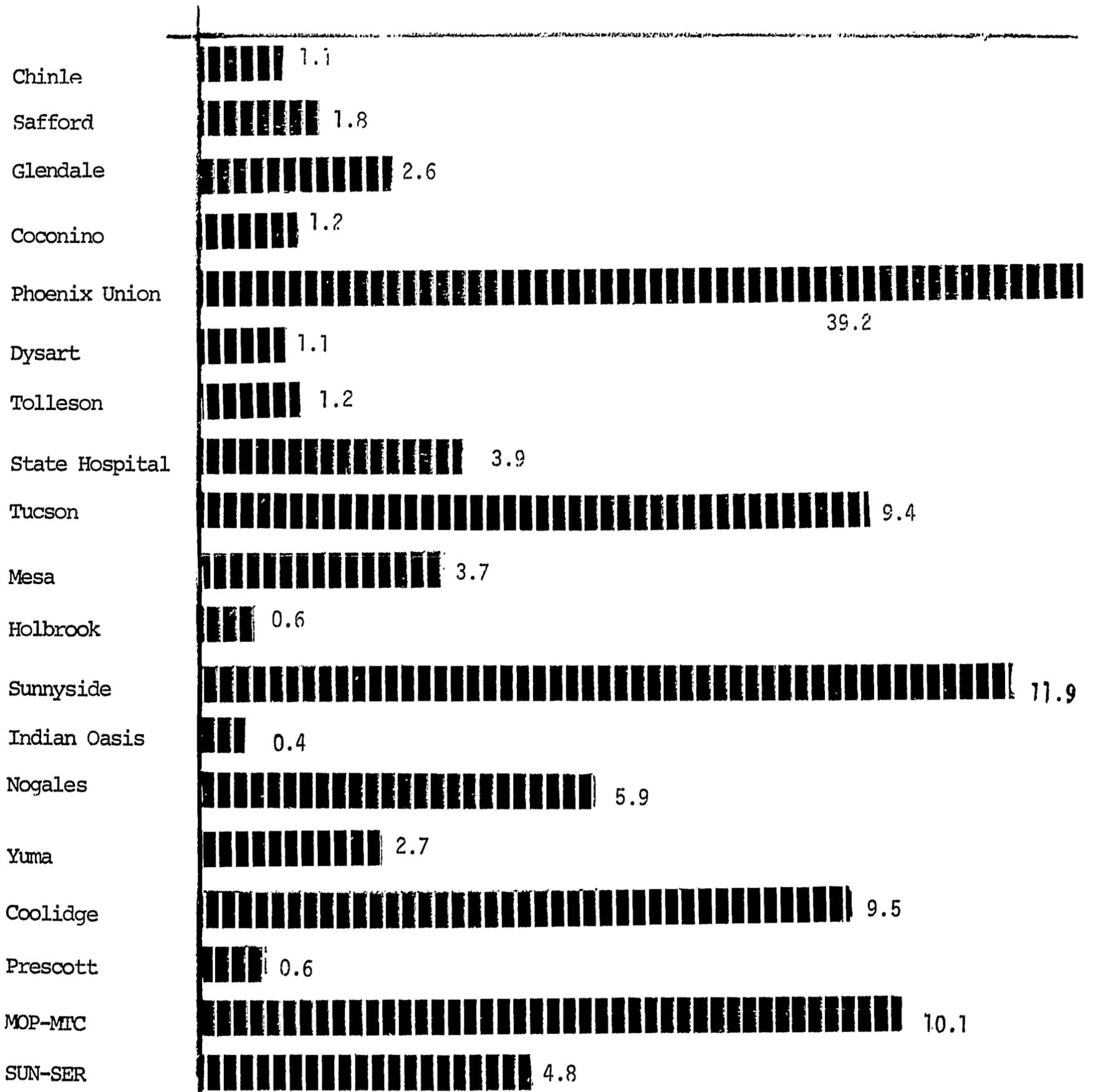


This figure illustrates the average monthly enrollment by head count and location. The total Adult Basic Education average monthly enrollment was 1,776.8 students. This graph depicts the actual average monthly attendance - not the need for such classes. In the reporting system as developed here, attendance and enrollment are the same.

This is true because both attendance and enrollments are carried on a current basis, as requested by the State Department of Adult Basic Education. In order to determine cumulative enrollment it is necessary to add the dropouts to the current enrollment/attendance for a total figure.

FIGURE 6

PERCENTAGE OF ENROLLMENT BY LOCATION



This chart illustrates the percentage of average monthly enrollment by project. These are the same data as in Figure 5, except in percentage form. It is significant to note that three projects, Holbrook, Prescott, and Indian Oasis, had enrollments of less than 1%. Five projects, Chinle, Safford, Coconino (Flagstaff), Dysart and Tolleson, all had enrollments of less than 2% of the average monthly enrollments.

FIGURE 7

TOTAL ENROLLMENT BY SEX

This figure illustrates the proportion of males and females in the Adult Basic program by month (this is the only area in which responses were one-hundred percent of enrollment every month). The percentage of females in the program decreased from approximately seventy-two percent to sixty percent while males increased from twenty-eight to forty percent. By head count there were almost twice as many females as males. Notice that the number of females enrolled in June is 1,107 or forty-four less than the starting female enrollment of 1,151, a drop of 3.8%; however, the male enrollment of 732 in June shows an increase of 253 over the beginning enrollment of 479, an increase of 52.8%.

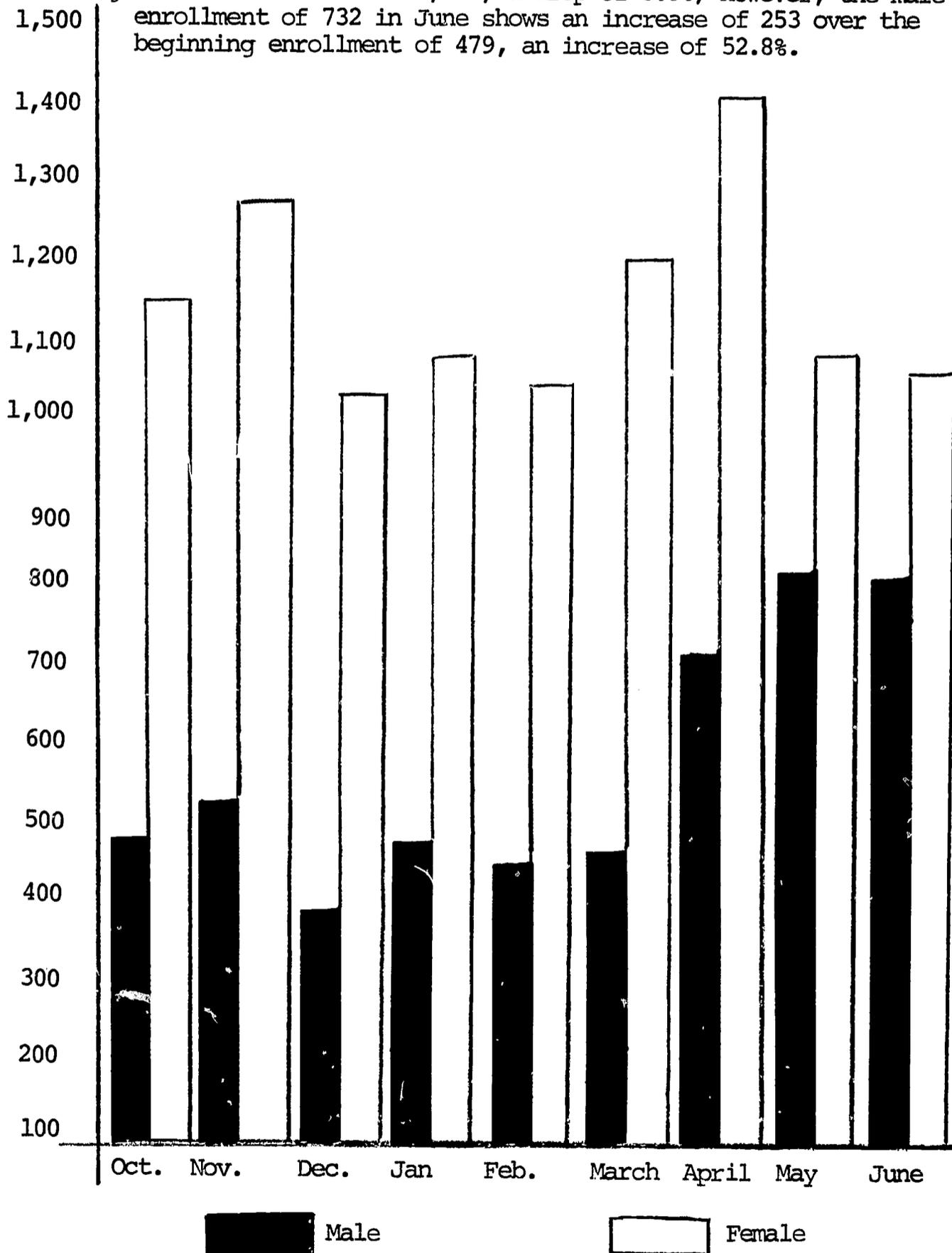
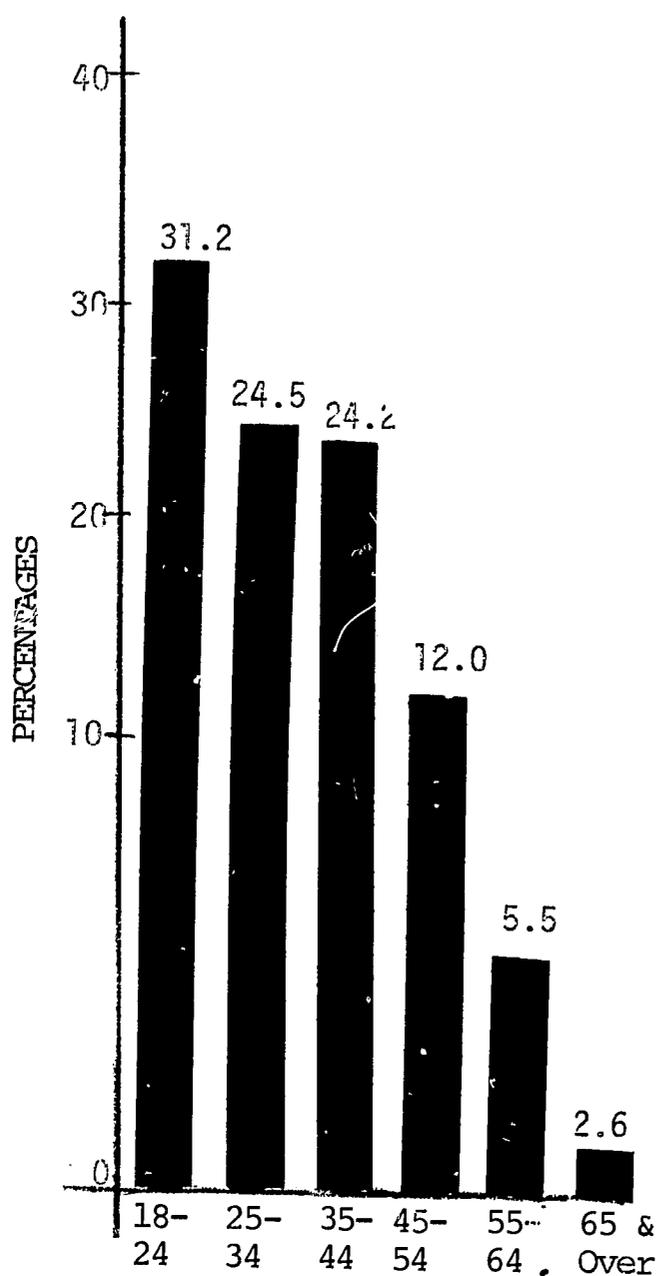


FIGURE 8

AGE OF ENROLLEES



This figure shows enrollment by age. Although the average total monthly enrollment is 1,776.8, average monthly responses in the age area were only 1,187.8 or 66.9%. Almost one-third of the enrollees who responded were in the eighteen to twenty-four age group. Almost one-fourth of the enrollees were in the twenty-five to thirty-four and the thirty-five to forty-four age groups each. In other words, approximately eighty percent of the enrollees who responded were between the ages of eighteen to forty-four. It is interesting that as the age increased, the percentage of enrollees decreased. According to the frequency distribution data, the youngest enrollee is twelve and the oldest eighty-three.

Although Adult Basic Education is designed primarily for adults sixteen years and over, the data indicates there were twenty-three enrollees below sixteen years of age.

Of these twenty-three, five were twelve years old, two were thirteen, five were fifteen years old. A question which might be asked -- were parents enrolled in the program bringing the children instead of leaving them home, alone?

The group of persons sixty-five and over comprised 2.6% of the enrollment and included twenty-six students between sixty-five and seventy, five students between seventy-one and seventy-five and six students between seventy-six and eighty-three years of age.

FIGURE 9
ENROLLMENT PERCENTAGES BY RACE AND ETHNIC GROUP

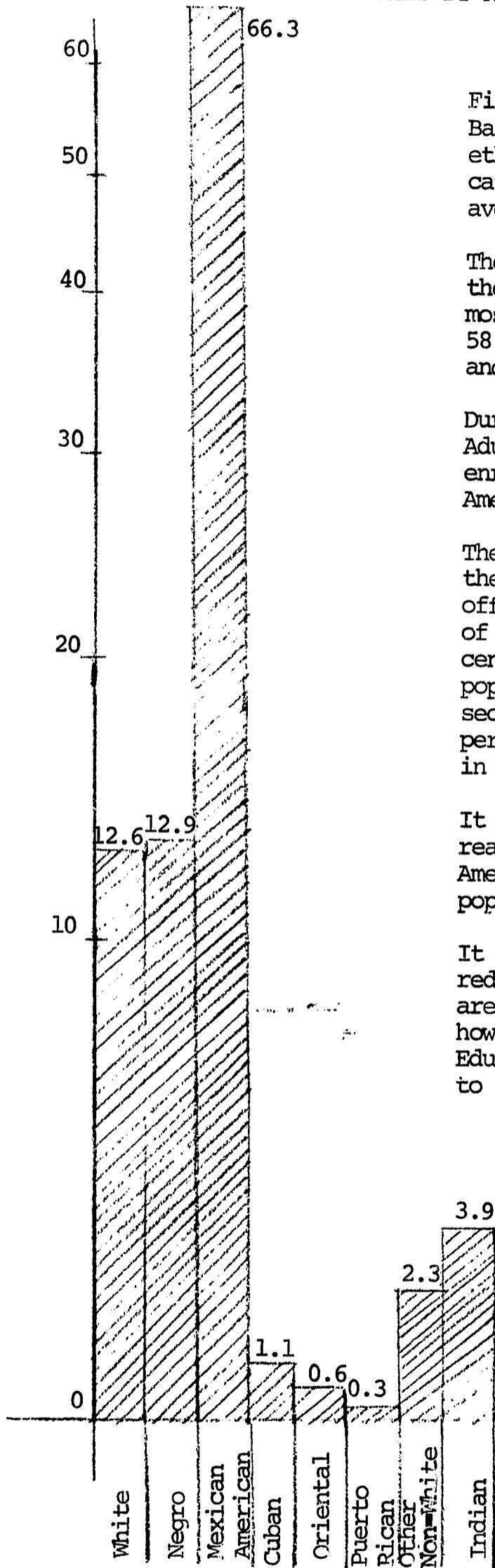


Figure 9 shows the percentages of Adult Basic Education enrollment by race and ethnic group. The responses in these categories were 1,353.5 or 76.2% of the average monthly enrollment of 1,776.2.

The significance of this chart is that the last census reported that the groups most needful of basic education were: 58.8% Mexican-Americans; 29.9% Indians; and thirteen percent Negroes.

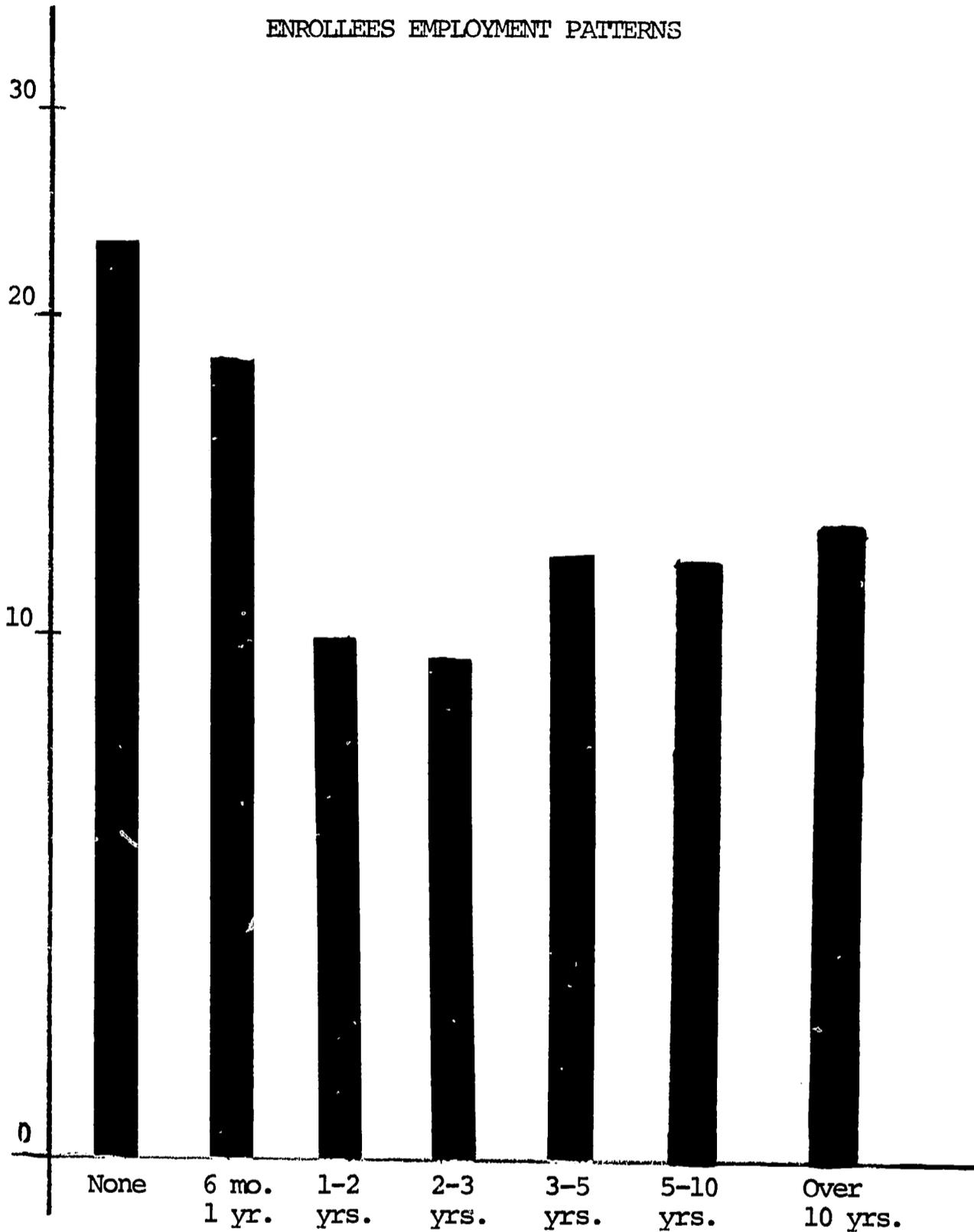
During the current reporting year, the Adult Basic Education figures show an enrollment percentage of: 66.3% Mexican-American; 3.9% Indian; and 12.9% Negro.

These figures are not meant to mislead the reader, so this explanation is offered. Of those people most in need of basic education, the figures were the 1960 census figures and include the entire population of Arizona. However, the second group of figures shows the percentage of the 3,163 people enrolled in the Adult Basic Education program.

It is significant that the program is reaching an equivalent amount of Mexican-Americans and Negroes while the Indian population is hardly being reached.

It is evident that the need has to be redefined, since the figures being used are nine years old. It is also evident, however, that the entire Adult Basic Education program has to be expanded to serve more people.

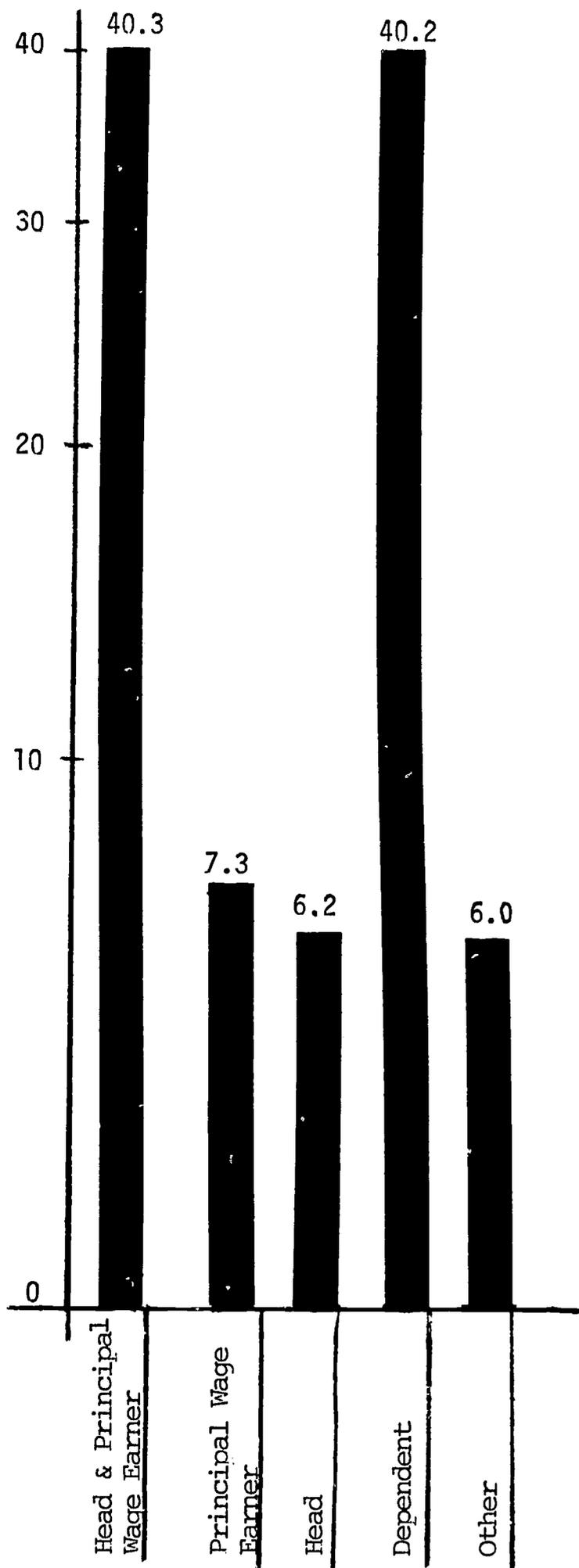
FIGURE 10



The longest full-time employment of the student is shown here. Of the average monthly enrollment of 1,776.8, 1,110.4 or 62.5% responded to this question. Almost one fourth of the students have never held a full-time job. The next largest group, or 18.8% held full-time jobs for six months to a year. The remainder of the students or 57.7% appear to be fairly evenly distributed between the other five categories.

FIGURE 11

FAMILY POSITION OF ENROLLEES



The category of family position was added to the printout in June, 1969 for the first time. This figure illustrates the family position of the 2,143 persons enrolled for that month. There were 1,721 responses to the questions or 80.3%.

Of the five possible categories, the head and principal wage earner category and the dependent category are almost identical. These two categories represent 80.5% of the responses.

A breakdown in two of these categories (taken from the frequency distribution data) indicates: (1) that 72.1% of the males and only 25.8% of the females are head and principal wage earners; and (2) that 11.8% of the males and 86.3% of the females are in the dependent category.

It is reasonable to conclude that most of the women enrolled in this program are not the head of and the principal wage earner of the family.

Because all of the data was not complete in the area of student supplied data, it has not been possible to define a prototype of the average adult basic education student. However, the data supplied on these figures can convey a general impression of the student, his background, etc.

FIGURE 12

INCOME SOURCE OF ENROLLEES

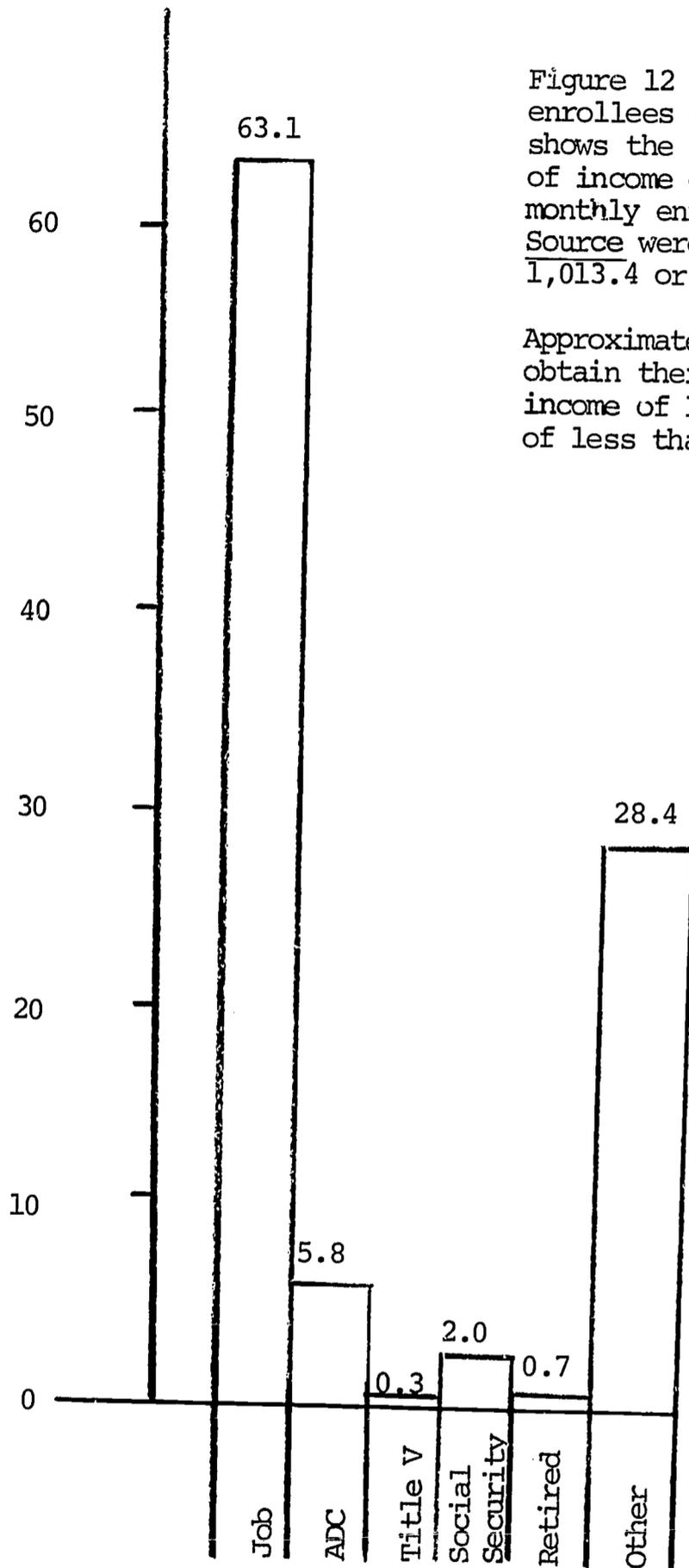


Figure 12 illustrates the source of income of the enrollees of Adult Basic Education while Figure 13 shows the amount of income of students and the amount of income of their families. Although the average monthly enrollment is 1,776.8, responses to Income Source were 1,172.8 or 66.0%; to Student Income, 1,013.4 or 57.0%; to Family Income, 1,025.2 or 57.7%.

Approximately two-thirds of the responding enrollees obtain their income from jobs, yet 43.9% have individual income of less than \$2,000 and 22.2% have family income of less than \$2,000.

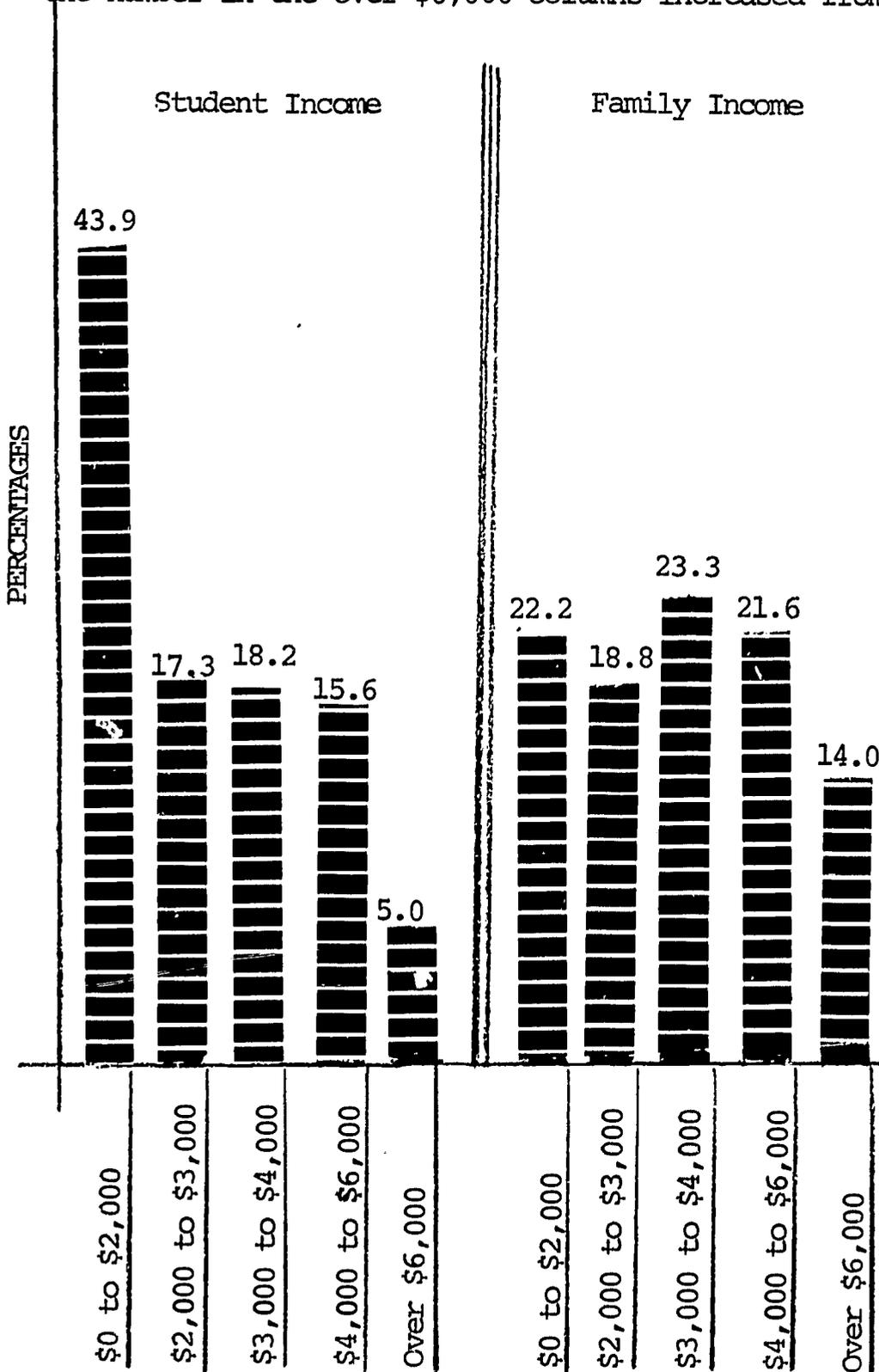
In Figure 12, 63.1% have jobs and only 6.1% receive their income from Welfare. It would appear that there should be more people in these categories in this type of program. Perhaps these agencies need to inform their recipients and encourage them to further their education through this program. It would be interesting to know where the 28.4% in the "Other" category obtain their income. Perhaps these sources should be identified and added to the printout.

In many cases the data raise additional questions. Are the two-thirds who obtain their income from jobs the same ones as those who have family or individual incomes of less than \$2,000? This could be determined by the computer. There are many examples of this throughout the data reported.

FIGURE 13

STUDENT AND FAMILY INCOME SOURCES

Figure 13 shows that the greatest number of students, 43.9% have incomes of \$2,000 or less. Income is fairly evenly distributed among the "\$2,000 to \$3,000," "\$3,000 to \$4,000," and "\$4,000 to \$6,000" categories; however, only five percent have incomes over \$6,000. From October, 1968, to March, 1969, no students appeared on the printout in the "Over \$6,000" category which may be due to error. The enrollment in several locations dropped from March to April yet the number of students in this category increased. For example, Chinle dropped in enrollment from 25 to 22 students but the number in the "Over \$6,000" columns increased from 0 to 3;



Coconino dropped from 24 students in March to 21 in April but the number in this category increased from 0 to 5. The number in this "Over \$6,000" category are an average of the months in which an item appeared on the printout.

Family income is fairly evenly distributed with percentages ranging from 23.3% down to fourteen percent. The largest group is in the "\$3,000 to \$4,000" column and the smallest group again is in the "Over \$6,000" column.

A comparison of student's income to income of the family shows a wide variance in the "\$2,000" or less category. This can be explained by consulting Figure 11 which indicated that forty percent of the students enrolled in Adult Basic Education were dependents. Obviously then, those students who earned \$2,000 a year or less were in this dependent category and provided a supplement to family income rather than the whole amount.

FIGURE 14

HIGHEST GRADE COMPLETED IN THE UNITED STATES BY ENROLLEES

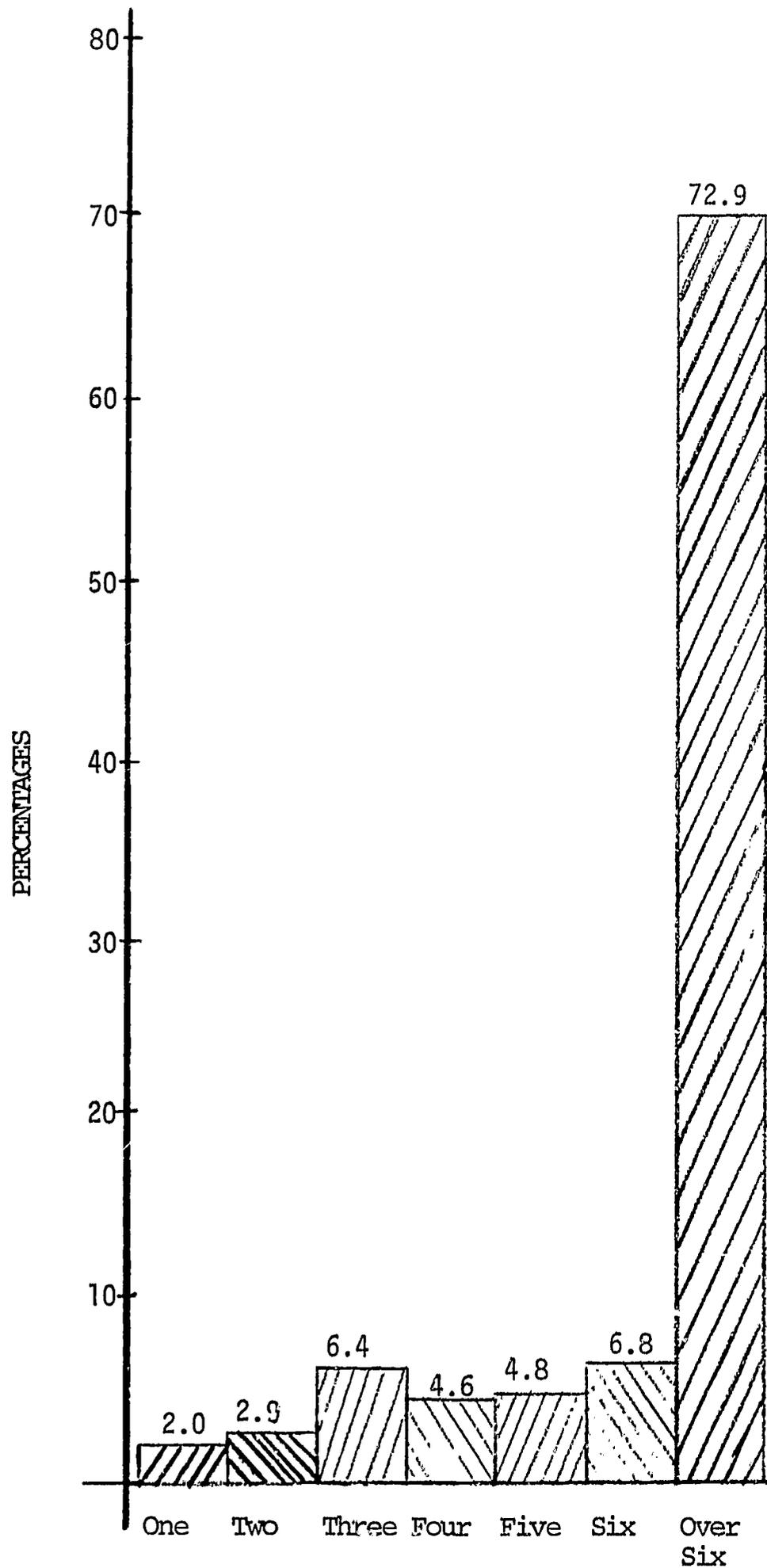


Figure 14 illustrates the highest grade completed by the students within the United States. The responses to this query brought only a 38.3% response.

Since Adult Basic Education's primary purpose is to teach basic subjects, it is obvious that those students who have completed six or more grades of school did not feel competent in these areas and are therefore enrolled in this program.

This chart depicts the percentages of grade completions from information supplied on the enrollment card. The frequency distribution gives a more definite breakdown of the 72.9% who completed more than six grades in school.

Approximately 62.5% had completed grade eight or more, twenty-seven percent had completed grade ten or more, and five percent had completed high school or more.

To provide for more accurate reporting at another time there should be a space available for those people who did not attend school in the United States and a space to indicate at least twelve years of school for those who did attend school in the United States.

FIGURE 15

HOME LOCATION OF ENROLLEES

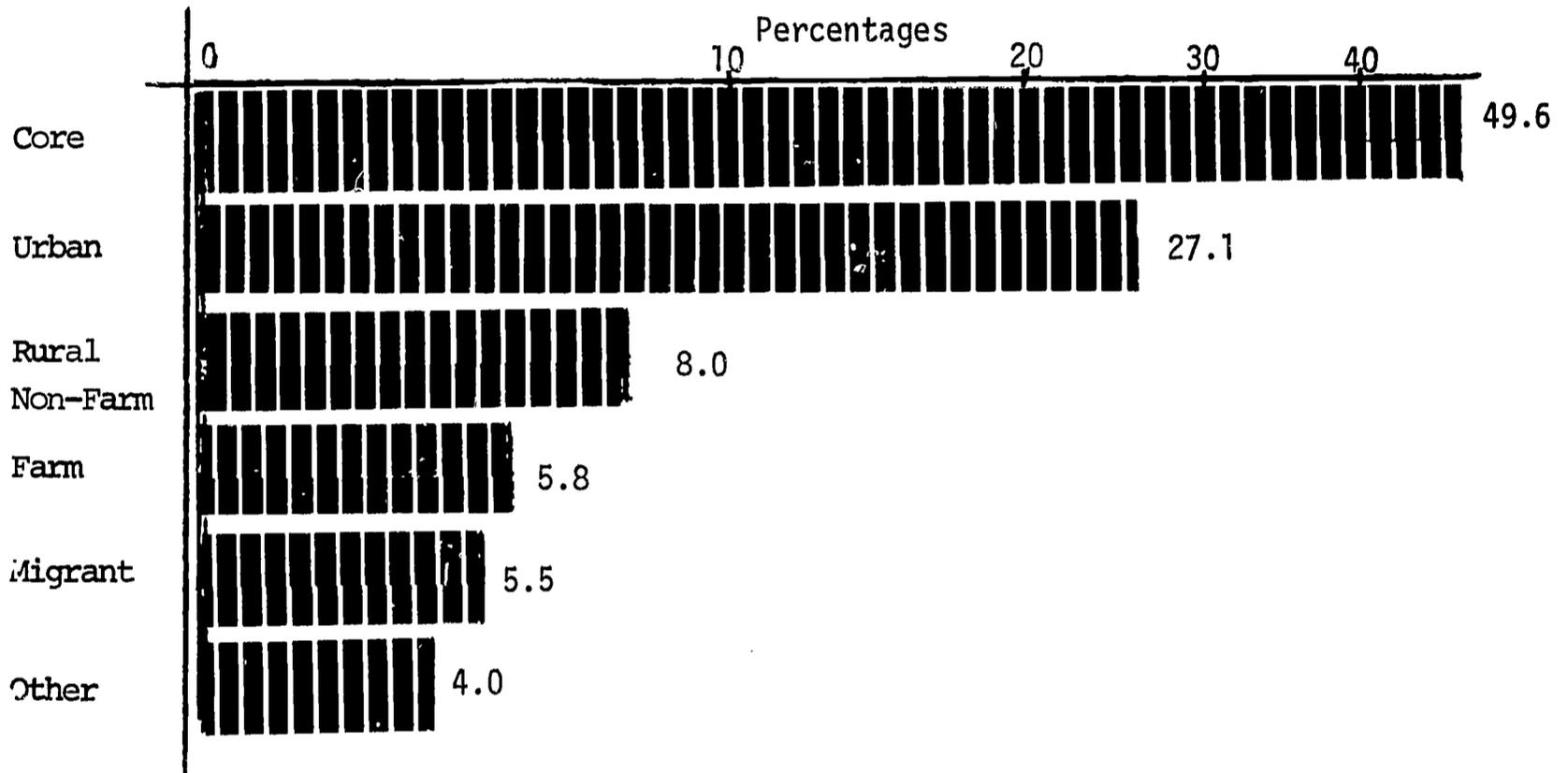
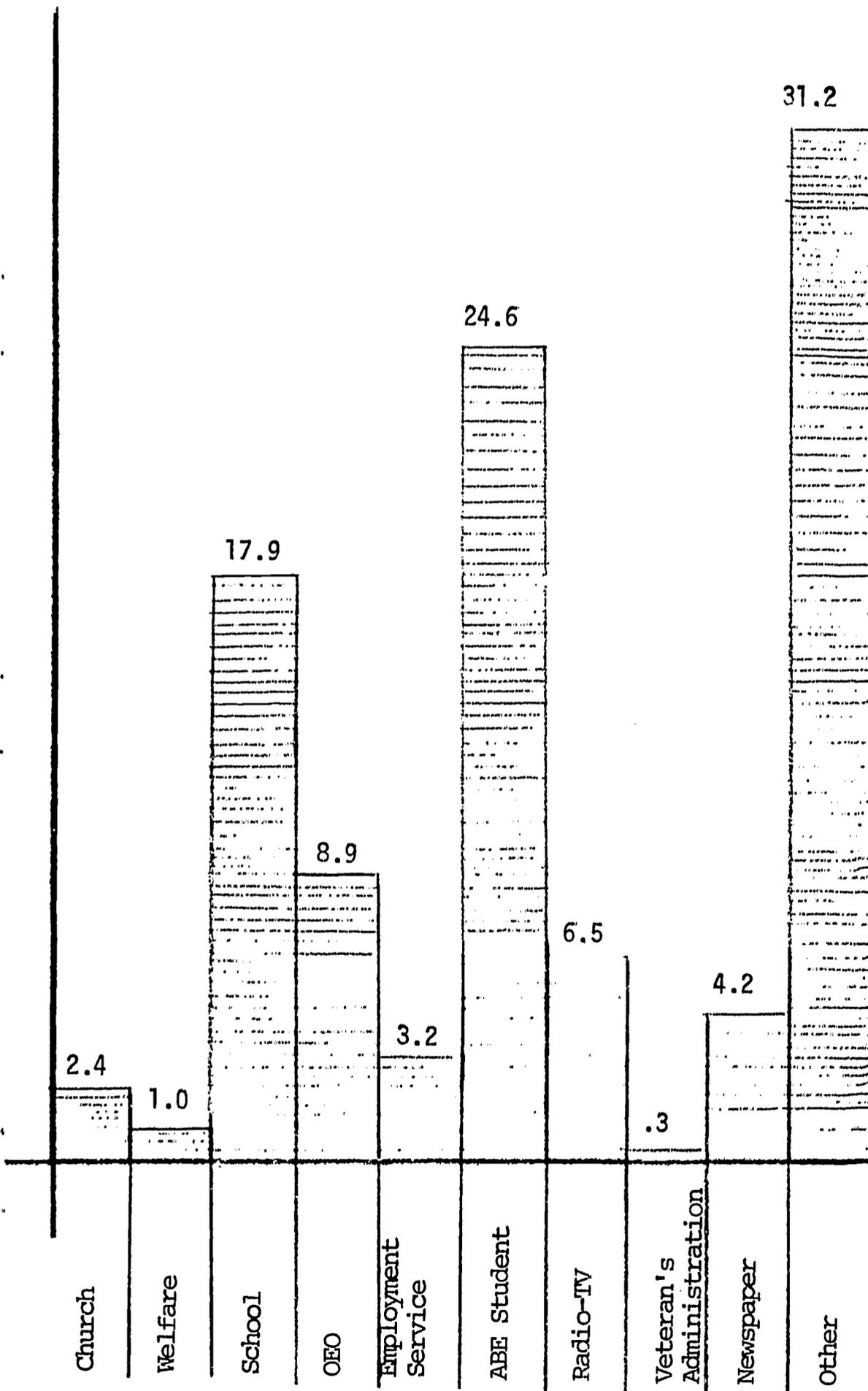


Figure 15 shows the home location of the Adult Basic Education students. The figures were computed on a total enrollment of 3,163 with 1,809 responses or 57.2%. About one-half of the enrollees live in "Core Metropolitan" area. Of the 897 responses from students who live in these areas, 448 or 49.9% were in the Phoenix Inner City and 221 or 25.6% were in the Tucson Inner City. Three locations, Phoenix Union High School District (18.3%), Sunnyside (20.6%), and Central Arizona College (17.7%) account for 56.6% of all students who responded in the "Urban" group. The percentage for rural, non-farm, farm and migrant categories correspond to the enrollments in these particular projects, i.e., SUN-SER, Chinle, Yuma, etc.

A comparison of the home location of the students and the projects indicates that the greatest number of classes are being taught in urban areas. In actual numbers, of the 160 classes taught during the school year, 119 were in urban areas. It is evident that Adult Basic Education in Arizona is currently at least directed toward the urban population, which accounts for 76.7% of the students.

FIGURE 16

HOW ENROLLEES LEARNED OF ADULT BASIC EDUCATION PROGRAM



How the enrollees became aware of the Adult Basic Education program is shown in Figure 16. Of the total 3,163 students enrolled, responses totalled 1,825 or 57.7%. It is significant to note that 24.6% of the students were referred by other students. Schools referred 17.9% of the students, and an undisclosed "Other" accounted for almost 1/3 of the enrollees. It is surprising that so few enrollees have been referred to the program by the Department of Welfare, the State Employment Service and the Veteran's Administration. Presumably these three agencies come in contact with many people who could benefit from the Adult Basic Education program, yet only 4.5% have been referred by these groups collectively.

FIGURE 17

WHY THE STUDENT IS ENROLLED

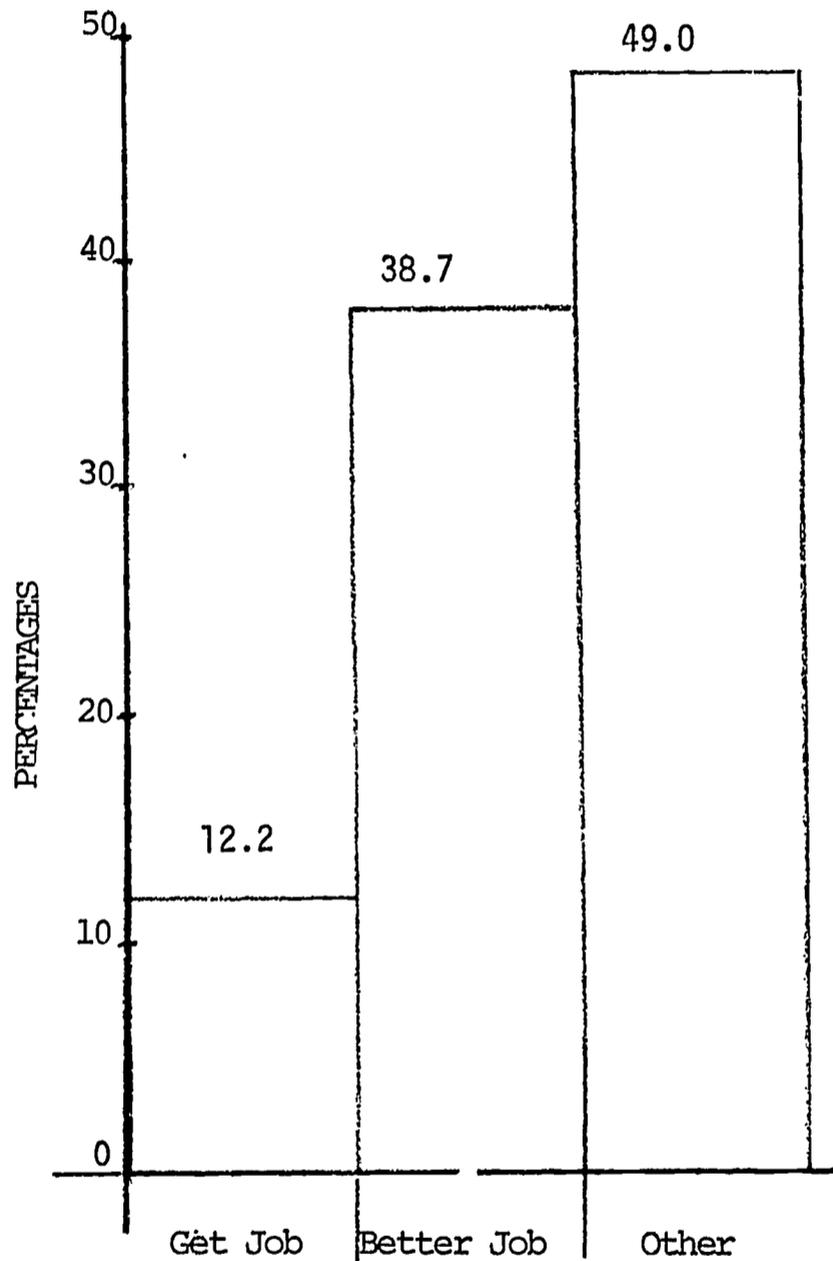


Figure 17 illustrates why the students are enrolled in the Adult Basic Education program. Of the 3,163 total enrollment, 1,807 or 57.3% responded. It is curious that 23.5% of the students have never been employed (Figure 10), yet only 12.2% are enrolled so that they can obtain a job. Those wishing to obtain a better job through Adult Basic Education were 38.7%.

According to the printouts concerning those who have left the program (Figure 19), 170 enrollees have become employed. Of this group, 123 have left the program and forty-seven are still in the program. This is 5.4% of the total enrollment.

FIGURE 18

DROPOUTS - REASONS WHY STUDENTS LEFT THE PROGRAM

Perhaps the most important of all the charts and graphs, Figure 18 illustrates the reasons why the students have left the Adult Basic Education program. There were a total of 1,020 students or 32.2% of the total enrollment who dropped out. It is interesting to note that 12.2% or 123 people became employed and dropped from the program. Considering the type of physical work and long hours that many of these people would be working, it is not surprising that they found it necessary to drop from the program. A large group, 20.2% left the program because of lack of interest. A small number of people, 0.5% or 5 people, dropped due to child care problems. Approximately one third of those who left the program are in the "Other" category. It has been determined that the major portion of these people dropped due to transportation problems. This indicates the importance of class location in Adult Basic Education.

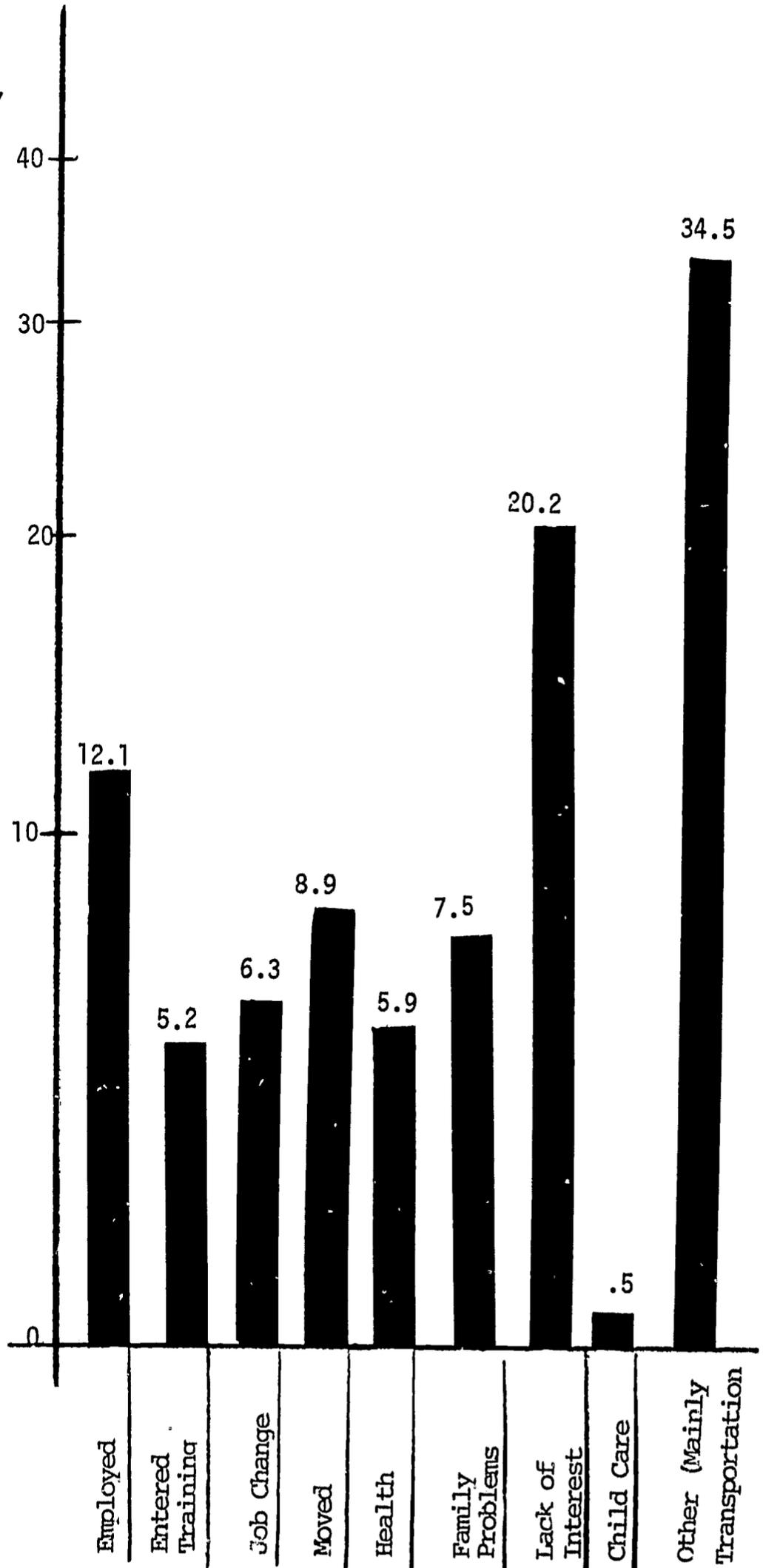


FIGURE 19

SUBJECTS TAUGHT AND TIME SPENT ON EACH

Figure 19 shows the subjects taught and the percentages of the total hours, 34,282, in each subject. A total of 69.9% of the time was spent on the five different areas of English. This suggests that regardless of the amount of previous education many of the enrollees had a basic problem with the English language. Relatively small amounts of time were spent in other subjects, which may be accounted for by the fact that a good foundation in English is necessary before a great deal can be accomplished in the other areas. Also, one of the primary purposes of Adult Basic Education is to provide education in the use of the English language.

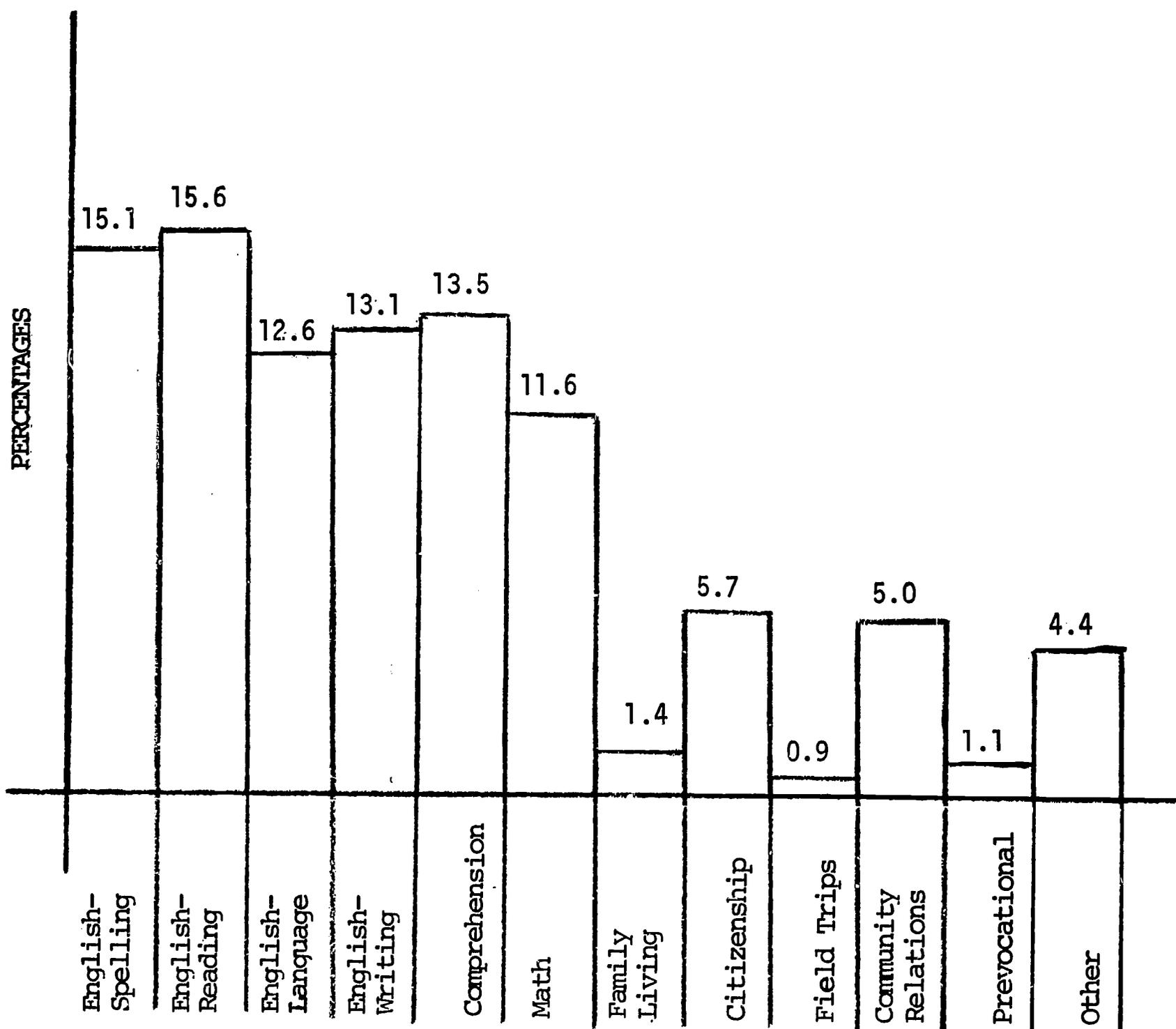


Figure 20 (on the next page) shows student improvement, achievement and progress and includes all of the behavioral patterns in the tables on pages 24, 25, 26, 27, 28, and 29.

A total of 3,162 students, including dropouts were enrolled during the reporting year and 6,770 student achievements were reported giving an average of at least two improvements per student. Some students, of course, made a number of achievements while others made smaller amounts of improvement or none at all.

There were some students listed in each category, ranging from nine in "Discontinued Public Welfare" to 937 in "Asks Questions". Several of the categories with larger numbers recorded were in attitudes and behavior -- "Developed Self-Assurance," "Asks Questions," "Takes Initiative," "Neatness".

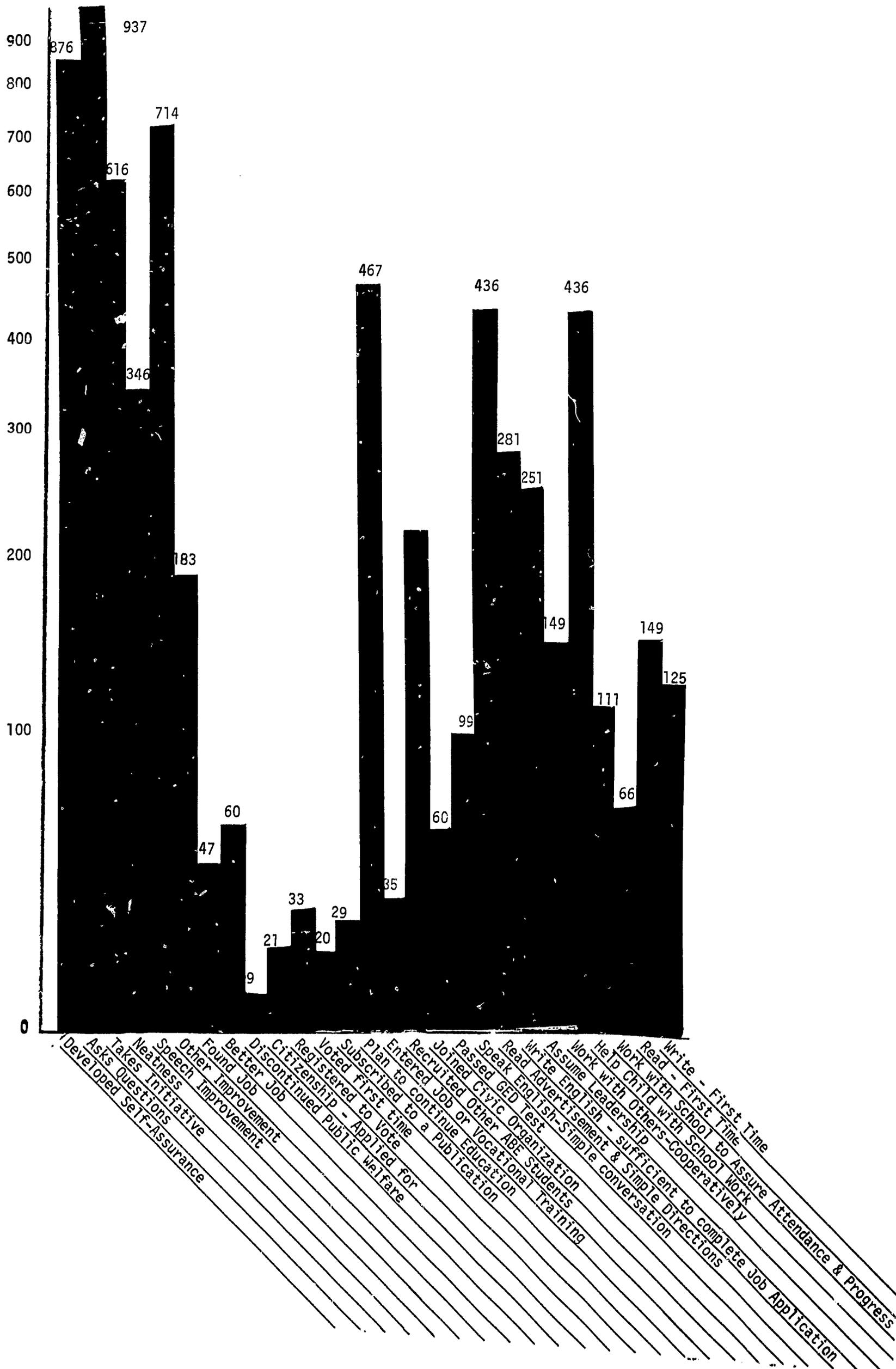
There can be little question of the need to build behavioral and attitudinal objectives into this program and subsequently attempt to measure them. It is important that 876 students developed assurance because of their Adult Basic Education, or at least the influence the program had on them. The same is true for 937 students who asked questions and 616 who took some kind of initiative.

A large number of students recorded an improvement in speech. This may be due to lack of practice in speaking English prior to coming to the program. The number no longer on welfare is very small; however, only a few students listed welfare as their source of income, 0.3%. The relatively small numbers in "Read-First Time" and "Write-First Time" can be explained by the fact that many students had completed several years of school prior to entering this program.

A total of 170 enrollees have become employed including 123 who dropped out of the program. This is 5.4% of total enrollment. Sixty people or 1.4% of total enrollment have gotten better jobs. Also eighty-eight people, thirty-five in the program and fifty-three who dropped out, have entered job or vocational training.

FIGURE 20

STUDENT ACHIEVEMENTS



Discussion and Recommendations

Problems

As in any new program, especially one departing completely from established procedures, numerous problems were encountered. Many of them were solved but some remained to detract from the success of the project. One of these was an almost chronic delay in the monthly printouts due to problems in the program and inadequate traffic control in the data processing center. A change of administration occurred in the State Department Data Processing Center halfway through the year which also resulted in considerable confusion over schedules, program documentation, and handling input data.

A more serious problem that persisted throughout the year was a partial failure in communications between the Research Coordinating Unit and the Division of Adult Basic Education. Although the original agreement was satisfactorily clear to both agencies some confusion resulted from later interpretations of responsibility and omissions in detail. A certain amount of administrative breakdown was evident in decisions made at the top which were not adequately transmitted to the staff. The most serious failure in communications was between the Research Coordinating Unit and Adult Basic Education project officers. Initially these communications were channeled through the Division staff, but this proved totally unworkable and was changed halfway through the year. A satisfactory system of direct communications with project officers was never fully established. This was due to lack of control over reporting by the Research Coordinating Unit and/or inadequate administration of reporting by the Division of Adult Basic Education.

Some confusion was created through mistakes made in the original design of reporting forms which could not be corrected because they had been printed in quantity by a commercial firm. This was further aggravated by a lack of clarity in the printout tables due to abbreviated headings and difficulty in locating information. Explanatory notes were added to the tables after the first few printouts were made but the Division of Adult Basic Education never seemed to fully understand what the tables contained.

Another problem that was never completely solved was the inability of the computer programming personnel to handle the lag in enrollment cards behind student data from the monthly report forms. At first this resulted in considerable rejection of incomplete data by the computer and required throughout the year an excessive amount of hand checking and tracing. A substantial amount of data were incomplete during the year and in some cases were never collected because of difficulties in using the forms. Skill

center curriculum information could not be adapted to the general reporting form. Finally there was a continual lag in feedback from the Division of Adult Basic Education to the Research Coordinating Unit on results of the system as shown in the printouts and problems encountered in using these results. This was a communications problem again for which a solution should have been found.

Limitations

Ideally it should be possible for an outside objective agency to process another agency's records, but in this case it did not prove practicable. At the same time the Division of Adult Basic Education did not acquire sufficient familiarity with the system in one year to make possible a smooth transition in their taking it over. Consequently some of the achievements probably will be lost.

No system is any better than the validity of the records used, and the records generated in this system were quite uneven. The leniency with which enrollment data were gathered was a serious handicap. Some of the data collected are invalid because it was possible only to collect them from a very small number of persons. The most serious limitation in this project was inadequate administration of data reporting. This may have been equally true of the previous hand system, but in a computer operated system it shows up much sooner and much more conspicuously.

Achievements

In spite of the problems encountered and in spite of limitations in the results, an automated system has been designed, field tested, and largely de-bugged. It works. It provides considerably more data on every program and class than can be collected in a hand system and analyzes the results in monthly summaries that are current and quite capable of being complete. Experience has been gained in using the system by the Division of Adult Basic Education staff, the teachers, project officers, and the State Department of Public Instruction Data Processing Center. An evaluation of the total program by an evaluation team at the University of Arizona was made possible using the computer input.

The Division uses the printouts as source data for the preparation of United States Office of Education reports. These reports are submitted quarterly, and an annual report in summary form is also required. (See Appendices H, I, and J). These documents were used as the main criteria for the design of material contained in the printouts.

Probably most important has been the actual production of summary tabulations that revealed for the first time to the State Division of Adult Basic Education just how many students they have had this year, the characteristics of those students, and what they achieved -- or at any rate what was actually reported by their teachers and project officers.

Recommendations

1. The second-year phase originally planned for this project should be carried out. Apparently considerable uncertainty and confusion exists over the use of curriculum materials in Adult Basic Education, and the record keeping system at its present stage is not capable of measuring the effectiveness of the subject matter or materials used. A teacher evaluation probably should be made of textbooks and materials used, tests used, and audio-visuals used. These materials should also be analyzed with the followup. Additional research in Adult Basic Education reported in ERIC should be reviewed. New curriculum materials should be examined in the light of documented results -- not commercial publishers' claims -- and experimentation with new materials should be carefully observed and results documented.
2. The project reported here has been a record keeping system -- not an evaluation of the program. Yet the manner in which records are kept has a bearing on the effectiveness of the system, and the records themselves provide the data on which evaluations are based. Greater care needs to be exercised in completing the records used and in forwarding them to the State Division of Adult Basic Education on schedule. Teachers should be better instructed in their responsibility and required to carry it out.
3. Better data are needed on achievement. Standardized tests are not regularly administered, and other data on achievement are largely subjective. Correlation studies between achievement shown in class records and accomplishments reported in the followup have not been made and this should be done.
4. The State Division of Adult Basic Education should assign one staff member to full responsibility for operating the reporting system from this point on, and Research Coordinating Unit consultation should be provided to complete the transition. The work involved is not highly complicated and any good clerk-typist can handle it under supervision. It does require careful attention to detail and strict adherence to a routine.
5. The record keeping system itself as developed up to this point should be revised and expanded somewhat to provide better cost accounting and cost effectiveness data. Reporting of cost data has been extremely haphazard during the past year, and it is doubtful if great reliability can be placed on this part of the report. Cost effectiveness research in education is still in its infancy and not to be relied on for decisions affecting program continuation or perhaps even modification. Nevertheless the data necessary for cost effectiveness research can be collected and should be part of a continual evaluation of the program. It is difficult to assign monetary values to the human accomplishments in a program of this kind, but it is possible to know with a high degree of precision the actual costs that have gone into the program on a per student and per student hour basis.

STUDENT DATA _____ DATE _____ PROJECT NO. _____
DISTRICT NO. _____
SCHOOL NO. _____
CLASS NO. _____
CLASS BOOK NO. _____

1. STUDENT'S NAME _____ AGE _____

2. ADDRESS & CITY _____

3. SOCIAL SECURITY NUMBER _____ PHONE _____ SEX _____

4. HOME LOCATION: () Core Metropolitan () Other Urban () Rural Non-farm
() Farm () Migrant () Other _____

5. REFERRED BY: () Church () Welfare () School () O.E.O. () Employment
() Other student () Radio-TV () V.A. () Newspaper () Other

6. ETHNIC GROUP: () Anglo () Negro () Mexican-American () Cuban () Oriental
() Puerto Rican () Other Non-White () Indian _____

7. CURRENT STATISTIC: () Single () Married () Divorced () Separated
() Widowed () Unknown

8. ADULT HOME LANGUAGE(S): () English () Spanish () Navajo Indian () Other Indian
() Other _____

9. CHILDREN SPEAK: () English () Spanish () Navajo Indian () Other Indian
() Other _____

10. HIGHEST GRADE COMPLETED IN U.S. _____ OUTSIDE U.S. _____
- - SEE OTHER SIDE OF CARD - -

12. NUMBER OF YEARS STUDIED ENGLISH OUTSIDE U.S. _____

13. ENROLLED CURRENTLY: () A.B.E. () Voc-Ed () M.D.T.A. () V.A. () Armed Forces
() WIN () S.U.N. () S.E.R. () MOP () CEP () CAP
() S.T.O.P () BIA () NYC () JOBS () B.A.T.
() Other _____

14. ENROLLED PREVIOUSLY: () NEVER () A.B.E. () Voc-Ed () M.D.T.A. () V.A.
() Armed Forces () SUN () MOP () CEP () CAP () BIA
() NYC () Other _____

15. REASON FOR ENROLLMENT: () GET A JOB () GET A BETTER JOB () Other _____

16. LONGEST PERIOD OF FULL-TIME EMPLOYMENT: () None () 6 mos. - 1 yr. () 1-2 yrs.
() 2-3 yrs. () 3-5 yrs. () 5-10 yrs. () 10 yrs. & over

17. POSITION IN FAMILY: () Head of family and primary wage earner () Primary wage
earner () Head of family () Dependent () Other

18. INCOME SOURCE: () Job () A.D.C. () TITLE V () Social Security
() Retirement () Other _____

19. ESTIMATED ANNUAL INCOME OF A.B.E. STUDENT: () 0-\$1999 () \$2000-\$2999 () \$3000-
\$3999 () \$4000 - \$5999 () \$6000 and over

20. ESTIMATED ANNUAL INCOME OF FAMILY: () 0-\$1999 () \$2000 - \$2999 () \$3000 - \$3999
() \$4000 - \$5999 () \$6000 and over

21. DEPENDENTS - AGE AND SEX _____

22. OCCUPATION: PRESENT _____ PRIMARY _____ RECENT _____
(See Occupation Code Numbers on inside cover of Teacher Book)

60 APPENDIX B

PERSONNEL - ALL CATEGORIES

PROJECT NO. _____
 DISTRICT NO. _____
 SCHOOL NO. _____
 CLASS BOOK NO. _____

1. NAME _____ (_____)
 Husband's
2. HOME ADDRESS _____ PHONE _____
 Street City State Zip
3. BUSINESS ADDRESS _____ PHONE _____ S.S.# _____
4. STATUS: () A.B.E. Salaried () VANGUARD Volunteer () '66-'67 () '67-8
 () '68-'9 () Approximate number of hours in volunteer program
 () Other agency sponsored
5. ASSIGNMENT: () Teacher () Teaching asst. () Aide () Counselor () Cur-
 riculum Committee () Project () State () Other () Clerical
 () Typing () Secretarial () Telephoning () Library
 () Other _____
6. EDUCATION: () High school diploma () 2 yrs. of college or less () 3 yrs.
 of college or more () College degree - no teaching certificate
7. CERTIFICATION: () Valid Arizona certificate () Certificate, no degree () Limited
 Adult Certificate () Elementary () Secondary
8. A.B.E TRAINING: () None () 1-2 hours () 3-4 hours () 5-10 hours () Pre-
 vious A.B.E. experience () Pre-workshop orientation () Workshops
 () National Institutes () '65-'6 () '66-'7 () '67-'8
 () '68-'9
9. DESIRE FOR ATTENDING WORKSHOP () Local () Regional () National () '68='9
 () '69-70

IF VANGUARD VOLUNTEER, PLEASE FILL OUT REVERSE SIDE OF THIS CARD

1. PRESENT OCCUPATION _____
2. LANGUAGES YOU SPEAK: () Spanish () Navajo () Other Indian () Oriental
3. HOW DID YOU LEARN OF THE VANGUARD VOLUNTEER PROGRAM? _____
4. PLEASE INDICATE IN ORDER OR PREFERENCE ACTIVITIES IN WHICH YOU WISH TO PARTICIPATE:

_____ Teaching Assistant _____ Teacher Aide _____ Development program for children of adults attending classes _____ Publicity, speaking _____ Publicity, writing _____ Library _____ Curriculum Com. ttee	_____ Audio-visual productions, drama and narration _____ Audio-visual productions, photo- graphy _____ Typing _____ Transportation
---	--
5. SPECIFY WHICH HOURS YOU CAN WORK: M _____ T _____ W _____ TH _____ F _____ S _____
6. CHANGE OF STATUS _____ DATE _____
7. FOR OFFICE USE ONLY - - COMMENTS _____

CURRICULUM DEVELOPMENT

PROJECT NO.

DISTRICT NO.

SCHOOL NO.

CLASS NO.

REMARKS

MONTH

19

ACHIEVEMENT TESTS	DATE GIVEN	AUDIO-VISUALS USED	SENTENCE PATTERN PRACTICE	OTHER LANGUAGE USED IN CLASS	SUBJECT TAUGHT	HOURS SPENT	ABE GRADE BLOCK ACHIEVEMENT	TEXTS USED IN CLASS	HOURS SPENT	GENERAL RESULTS OF TESTS USED
SCORING 1 GOOD 2 FAIR 3 POOR 4 NOT APPLICABLE		1 Inst TV 2 Radic 3 Tape Recorder 4 Records 5 35mm 6 Filmstrips 7 O/H Projector 8 8/16 mm 9 Other	1 Through Recordings 2 Through Instructor 3 Bath 4 Other	1 Spanish 2 Navajo 3 Papago 4 Pima 5 Hopi 6 Yaqui 7 Chinese 8 Japanese 9 Other	1 English-speaking 2 English-reading 3 English-listening 4 English-writing 5 Comprehension 6 Math 7 Family 8 Citizenship 9 Field Trips 10 Community Knowledge 11 Pro Voc interest 12 Other		Indicate achievement by subjects grade levels 1 through 8	1. TESOL. 2. Individualize (programmed) instruction: 3. 4. 5. 6. Other. 7. 8.		1 Excel lent 2 Good 3 Fair 4 Poor 5 Very Poor 6 Inap- propriate for this Class
TESTS L Wide Range M. Gray Oral N ABE O Cali- fornia Adult P Metro- politan Q Other	SUB- SCORES R Read- ing Compre- hension V Vocab- ulary L Listen- ing S Spell- ing Ar Arith- metic SS Social Studies									
CLASS	/									
ROLL #1	/									1
2	/									2
3	/									3
4	/									4
5	/									5
6	/									6
7	/									7
8	/									8
9	/									9
10	/									10
11	/									11
12	/									12
13	/									13
14	/									14
15	/									15
16	/									16
17	/									17
18	/									18
19	/									19
20	/									20
21	/									21
22	/									22
23	/									23
24	/									24
25	/									25
26	/									26
27	/									27
28	/									28
29	/									29
30	/									30
31	/									31
32	/									32
33	/									33
34	/									34
35	/									35
36	/									36
37	/									37
38	/									38
39	/									39
40	/									40

GENERAL PROJECT EVALUATION OUTLINE

AREAS TO BE CONSIDERED BY
 Administrators
 Teachers
 Supplementary educational personnel

CATEGORIES UNDER THE LISTED AREAS
 ARE TO BE RATED FROM 1 THRU 5
 1. Excellent 4. Adequate
 2. Good 5. Inadequate
 3. Fair

PROJECT NO. _____
 DISTRICT NO. _____
 SCHOOL NO. _____
 CLASS NO. _____
 MONTH OF _____ 19__

1 2 3 4 5

I CLASSROOM EVALUATION

- A. GENERAL PHYSICAL ENVIRONMENT
- B. FUNCTIONAL SEATING ARRANGEMENT WITH ADULT SIZE SEATS
- C. SUPPLY OF MATERIALS
- D. VARIATION OF SOURCES OF MATERIALS
 - 1. TEACHER PREPARED
 - 2. REFERENCE
 - 3. PUBLISHED
 - 4. AUDIO VISUAL AIDS
- E. GUIDANCE YET FLEXIBILITY
- F. STUDENT - TEACHER RELATIONSHIP
- G. EVIDENCE OF PROGRESS

<input type="checkbox"/>				
<input type="checkbox"/>				
<input type="checkbox"/>				
<input type="checkbox"/>				
<input type="checkbox"/>				
<input type="checkbox"/>				
<input type="checkbox"/>				
<input type="checkbox"/>				
<input type="checkbox"/>				
<input type="checkbox"/>				

II TEACHER EVALUATION

- A. GENERAL ATTITUDE TOWARD STUDENTS (teacher as leader, not authoritarian)
- B. EVIDENCE OF ENTHUSIASM IN TEACHING
- C. AWARENESS OF INDIVIDUAL NEED OF STUDENTS
- D. PROVISION FOR SMALL GROUP TEACHING
- E. SENSITIVE TO WELL-BEING OF STUDENTS
- F. ORIGINAL AND IMAGINATIVE APPROACHES
- G. CREATIVE ACTIVITIES

<input type="checkbox"/>				
<input type="checkbox"/>				
<input type="checkbox"/>				
<input type="checkbox"/>				
<input type="checkbox"/>				
<input type="checkbox"/>				
<input type="checkbox"/>				
<input type="checkbox"/>				
<input type="checkbox"/>				
<input type="checkbox"/>				

III VOLUNTEER EVALUATION

- A. GENERAL ATTITUDE TOWARD STUDENTS (volunteer as leader, not authoritarian)
- B. DEPENDABILITY IN ATTENDANCE AND CARRYING OUT RESPONSIBILITIES
- C. CREATIVE LEADERSHIP

<input type="checkbox"/>				
<input type="checkbox"/>				
<input type="checkbox"/>				

IV STUDENTS EVALUATION

- A. INTEREST LEVEL OF STUDENTS
- B. STUDENTS HELP TO PLAN LEARNING ACTIVITIES
- C. STUDENTS UNDERSTAND AND CORRECT ERRORS
- D. GENERAL ATTITUDE TOWARD TEACHER

<input type="checkbox"/>				
<input type="checkbox"/>				
<input type="checkbox"/>				
<input type="checkbox"/>				

V LESSON EVALUATION

- A. APPROPRIATE TO AGE LEVEL OF STUDENTS
- B. CONSIDERATION OF INTEREST LEVEL OF STUDENTS
- C. CORRELATION WITH REAL-LIFE SITUATIONS
- D. FULFILL NEEDS OF STUDENTS IN PARTICULAR GEOGRAPHIC AREAS
- E. APPLICABLE TO SKILLS OF STUDENTS
- F. GUIDED YET FLEXIBLE
- G. DISCUSSION TOWARD GOALS AND OBJECTIVES OF STUDENTS

<input type="checkbox"/>				
<input type="checkbox"/>				
<input type="checkbox"/>				
<input type="checkbox"/>				
<input type="checkbox"/>				
<input type="checkbox"/>				
<input type="checkbox"/>				
<input type="checkbox"/>				
<input type="checkbox"/>				
<input type="checkbox"/>				

VI PLANS AND ACTIVITIES FOR COMING MONTH _____

VII ADDITIONAL COMMENTS AND SUGGESTIONS _____



GENERAL PROJECT EVALUATION OUTLINE

AREAS TO BE CONSIDERED BY
Administrators
Teachers
Supplementary educational personnel

CATEGORIES UNDER THE LISTED AREAS
ARE TO BE RATED FROM 1 THRU 5
1. Excellent 4. Adequate
2. Good 5. Inadequate
3. Fair

PROJECT NO. _____
DISTRICT NO. _____
SCHOOL NO. _____
CLASS NO. _____
MONTH OF _____ 19____

1 2 3 4 5

I CLASSROOM EVALUATION

- A. GENERAL PHYSICAL ENVIRONMENT
- B. FUNCTIONAL SEATING ARRANGEMENT WITH ADULT SIZE SEATS
- C. SUPPLY OF MATERIALS
- D. VARIATION OF SOURCES OF MATERIALS
 - 1. TEACHER PREPARED
 - 2. REFERENCE
 - 3. PUBLISHED
 - 4. AUDIO VISUAL AIDS
- E. GUIDANCE YET FLEXIBILITY
- F. STUDENT - TEACHER RELATIONSHIP
- G. EVIDENCE OF PROGRESS

II TEACHER EVALUATION

- A. GENERAL ATTITUDE TOWARD STUDENTS (*teacher as leader, not authoritarian*)
- B. EVIDENCE OF ENTHUSIASM IN TEACHING
- C. AWARENESS OF INDIVIDUAL NEED OF STUDENTS
- D. PROVISION FOR SMALL GROUP TEACHING
- E. SENSITIVE TO WELL-BEING OF STUDENTS
- F. ORIGINAL AND IMAGINATIVE APPROACHES
- G. CREATIVE ACTIVITIES

III VOLUNTEER EVALUATION

- A. GENERAL ATTITUDE TOWARD STUDENTS (*volunteer as leader, not authoritarian*)
- B. DEPENDABILITY IN ATTENDANCE AND CARRYING OUT RESPONSIBILITIES
- C. CREATIVE LEADERSHIP

IV STUDENTS EVALUATION

- A. INTEREST LEVEL OF STUDENTS
- B. STUDENTS HELP TO PLAN LEARNING ACTIVITIES
- C. STUDENTS UNDERSTAND AND CORRECT ERRORS
- D. GENERAL ATTITUDE TOWARD TEACHER

V LESSON EVALUATION

- A. APPROPRIATE TO AGE LEVEL OF STUDENTS
- B. CONSIDERATION OF INTEREST LEVEL OF STUDENTS
- C. CORRELATION WITH REAL-LIFE SITUATIONS
- D. FULFILL NEEDS OF STUDENTS IN PARTICULAR GEOGRAPHIC AREAS
- E. APPLICABLE TO SKILLS OF STUDENTS
- F. GUIDED YET FLEXIBLE
- G. DISCUSSION TOWARD GOALS AND OBJECTIVES OF STUDENTS

VI PLANS AND ACTIVITIES FOR COMING MONTH

.....
.....
.....

VII ADDITIONAL COMMENTS AND SUGGESTIONS

.....
.....
.....



DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE OFFICE OF EDUCATION WASHINGTON, D.C. 20540 ADULT BASIC EDUCATION ANNUAL PROGRAM <i>(As required by the Adult Education Act of 1966)</i>	PERSONS COVERED	FORM APPROVED BUDGET BUREAU NO. 51-R0684
	FROM _____ TO _____	DATE OF REPORT _____
STATE _____		

INSTRUCTIONS: This form is to provide the Commissioner of Education with a detailed report on Adult Basic Education activities throughout the entire State for the fiscal year. A signed original and a copy of this report should be transmitted to the State Adult Education Branch, Office of Education, Washington, D.C. 20540 on September 1.

PART I - STATISTICAL (A total figure for the entire State should be reported for each item.)
(Definitions are provided for items not defined in Notes.)

<p>A. STUDENTS IN THE ABE PROGRAM THIS FISCAL YEAR <i>(At least 2 weeks' attendance)</i></p> <p>1. TOTAL NUMBER OF ALL STUDENTS IN THE PROGRAM</p> <p>a. BY GRADE LEVEL</p> <p>(1) BEGINNING LEVEL (1-3)</p> <p>(2) INTERMEDIATE LEVEL (4-6)</p> <p>(3) ADVANCED LEVEL (7-8)</p> <p>b. BY SEX</p> <p>(1) MALE</p> <p>(2) FEMALE</p> <p>c. BY AGE RANGE</p> <p>(1) 18-24</p> <p>(2) 25-34</p> <p>(3) 35-44</p> <p>(4) 45-54</p> <p>(5) 55-64</p> <p>(6) 65-OVER</p> <p>d. BY RACE</p> <p>(1) WHITE</p> <p>(2) NEGRO</p> <p>(3) AMERICAN INDIAN</p> <p>(4) ORIENTAL</p> <p>(5) OTHER NON-WHITE</p> <p>2. NUMBER OF ABE STUDENTS, BY SELECTED CATEGORIES</p> <p>a. BY ETHNIC GROUP</p> <p>(1) CUBANS</p> <p>(2) MEXICAN-AMERICANS</p> <p>(3) PUERTO RICANS</p> <p>b. BY TYPE OF INSTITUTION</p> <p>(1) CORRECTIONAL</p> <p>(2) HOSPITAL</p> <p>(3) OTHER TYPE OF INSTITUTION</p> <p>c. MIGRANT: MIGRANT WORKERS ARE INDIVIDUALS WHOSE PRIMARY EMPLOYMENT IS ON A SEASONAL OR OTHER TEMPORARY BASIS AND WHO ESTABLISH TEMPORARY RESIDENCES, WITH OR WITHOUT THEIR FAMILIES, FOR THE PURPOSE OF SUCH EMPLOYMENT</p> <p>d. WELFARE RECIPIENT</p> <p>3. TOTAL NUMBER OF NEW ENROLLEES DURING THIS FISCAL YEAR</p> <p>a. New For Nation And State (E₁): The total number of ABE students who entered for the first time in any fiscal year an ABE class in the United States or its outlying areas during this fiscal year.</p> <p>b. NOT NEW FOR NATION, NEW FOR STATE (E₂): THE TOTAL NUMBER OF ABE STUDENTS WHO PREVIOUSLY ENTERED AN ABE CLASS IN ANOTHER STATE OR OUTLYING AREA IN ANY FISCAL YEAR, BUT WHO HAVE NOT PREVIOUSLY ENTERED AN ABE CLASS IN THE GIVEN STATE DURING THIS FISCAL YEAR</p> <p>4. NUMBER OF STUDENTS THAT COMPLETED THE BEGINNING LEVEL (1-3)</p> <p>5. NUMBER OF STUDENTS THAT COMPLETED THE INTERMEDIATE LEVEL (4-6), WHO INITIALLY ENROLLED AT</p> <p>a. BEGINNING LEVEL (1-3)</p> <p>b. INTERMEDIATE LEVEL (4-6)</p> <p>6. NUMBER OF STUDENTS THAT COMPLETED THE ADVANCED LEVEL (7-8), WHO INITIALLY ENROLLED AT</p> <p>a. BEGINNING LEVEL (1-3)</p> <p>b. INTERMEDIATE LEVEL (4-6)</p> <p>c. ADVANCED LEVEL (7-8)</p> <p>7. NUMBER OF SEPARATIONS, BY GRADE LEVEL</p> <p>a. BEGINNING LEVEL (1-3)</p> <p>b. INTERMEDIATE LEVEL (4-6)</p> <p>c. ADVANCED LEVEL (7-8)</p> <p>B. NUMBER OF SEPARATIONS FOR</p> <p>a. EMPLOYMENT</p> <p>b. ENTRY INTO A TRAINING PROGRAM</p> <p>c. JOB CHANGE</p> <p>d. LACK OF INTEREST</p> <p>e. OTHER KNOWN REASONS (Specify)</p> <p>(1) _____</p> <p>(2) _____</p> <p>(3) _____</p> <p>(4) _____</p> <p>f. UNKNOWN REASONS</p> <p>TYPED NAME OF STATE DIRECTOR _____</p>	<p>9. AGGREGATE HOURS MEMBERSHIP, ALL STUDENTS: THE SUM OF THE HOURS PRESENT AND ABSENT OF ALL ABE STUDENTS WHEN CLASSES ARE IN SESSION DURING THE FISCAL YEAR, JULY 1 THROUGH THE FOLLOWING JUNE 30.</p> <p>B. LOCATION OF ABE CLASSES: AN ABE CLASS IS A GROUP OF ABE STUDENTS ASSEMBLED FOR INSTRUCTION FOR A GIVEN PERIOD OF TIME UNDER ONE OR MORE ABE TEACHERS IN A SITUATION WHERE THE TEACHER(S) AND THE STUDENTS ARE IN THE PRESENCE OF EACH OTHER.</p> <p>10. NUMBER OF CLASSES HELD IN</p> <p>a. PUBLIC SCHOOL BUILDINGS</p> <p>b. ALL OTHER FACILITIES</p> <p>c. TOTAL NUMBER OF CLASSES*</p> <p style="text-align: center;">C. TEACHING AND LEARNING</p> <p>11. AVERAGE NUMBER OF HOURS OF INSTRUCTION TO COMPLETE**</p> <p>a. BEGINNING LEVEL (1-3)</p> <p>b. INTERMEDIATE LEVEL (4-6)</p> <p>c. ADVANCED LEVEL (7-8)</p> <p>12. NUMBER OF TEACHER TRAINING WORKSHOPS</p> <p>a. STATE</p> <p>b. LOCAL</p> <p>13. NUMBER OF PERSONNEL THAT RECEIVED PRE-SERVICE AND/OR IN-SERVICE ABE TRAINING</p> <p>a. NATIONAL TRAINING</p> <p>b. STATE TRAINING</p> <p>c. LOCAL TRAINING</p> <p>14. CLASSES WHERE PROGRAMED INSTRUCTION METHODS WERE USED (programed instruction: instruction utilizing a workbook, textbook, or mechanical and/or electronic device which has been "programed" to help students attain a specified level of performance by (a) providing instruction in small steps, (b) asking one or more questions about each step in the instruction and providing instant knowledge of whether each answer is right or wrong, and (c) enabling students to progress at their own pace)</p> <p>a. NUMBER OF THESE CLASSES THIS YEAR</p> <p>b. NUMBER OF STUDENTS IN THESE CLASSES</p> <p>c. AVERAGE NUMBER OF HOURS OF INSTRUCTION IN THESE CLASSES TO COMPLETE</p> <p>(1) BEGINNING LEVEL (1-3)</p> <p>(2) INTERMEDIATE LEVEL (4-6)</p> <p>(3) ADVANCED LEVEL (7-8)</p> <p style="text-align: center;">D. ADULT BASIC EDUCATION PERSONNEL</p> <p>15. ABE TEACHERS</p> <p>a. NUMBER</p> <p>b. AGGREGATE HOURS OF INSTRUCTION FOR THE FISCAL YEAR</p> <p>16. ABE COUNSELORS</p> <p>a. NUMBER</p> <p>b. AGGREGATE HOURS OF COUNSELING FOR THE FISCAL YEAR</p> <p>17. ABE LOCAL SUPERVISORY PERSONNEL</p> <p>a. NUMBER</p> <p>b. AGGREGATE HOURS OF SUPERVISION FOR THE FISCAL YEAR</p> <p>18. ABE STATE LEVEL ADMINISTRATION AND SUPERVISORY PERSONNEL</p> <p>a. NUMBER</p> <p>b. AGGREGATE HOURS OF ADMINISTRATION AND SUPERVISION FOR THE FISCAL YEAR</p> <p>19. ALL OTHER ABE PERSONNEL</p> <p>a. AT THE LOCAL LEVEL</p> <p>(1) NUMBER</p> <p>(2) AGGREGATE HOURS OF EMPLOYMENT FOR THE FISCAL YEAR</p> <p>b. AT THE STATE LEVEL</p> <p>(1) NUMBER</p> <p>(2) AGGREGATE HOURS OF EMPLOYMENT FOR THE FISCAL YEAR</p> <p style="text-align: center;">E. ADULT BASIC EDUCATION ADVISORY COMMITTEES</p> <p>20. NUMBER OF LOCAL ABE ADVISORY COMMITTEES OPERATING</p> <p>21. IS A STATE ABE ADVISORY COMMITTEE OPERATING?</p> <p><input type="checkbox"/> a. YES <input type="checkbox"/> b. NO</p> <p>SIGNATURE OF STATE DIRECTOR _____</p>
--	---

*Total number of classes reported on Line 10c should include those classes reported on Line 10a.

**Average number of hours of instruction for completion of levels reported on Line 11 should not include those classes reported on Lines 14c(1), 14c(2) and 14c(3).

INFORMATION REQUESTED ON REVERSE SIDE OF FEDERAL REPORT OE 3058

ADULT BASIC EDUCATION ANNUAL PROGRAM

PART II - NARRATIVE (Provide in narrative format descriptive information explaining overall activities of the Adult Basic Education Program in this state during the fiscal year. Please attach other narrative information considered to be appropriate.) (Use additional pages as necessary for any item.)

- A. Describe any special, demonstration, research and/or innovative ABE projects, including the number of ABE students involved.

- B. Describe specific successes and accomplishments resulting from the ABE program, such as the number of ABE students registering to vote for the first time, the number obtaining jobs or getting promotions, and the number discontinuing public aid.

- C. Describe actual state and local program activities with cooperating public and private agencies, such as MDTA, CAP, Headstart, VISTA, Work Study, work experience, Vocational Education, Literacy Councils, private industry, churches and unions.

- D. Describe the major problems of the ABE program at the state and local levels, such as classes curtailed or closed, approximate number of adults on ABE waiting lists, teacher or administrator shortages, problems of matching funds, maintenance of effort, recruiting facilities, organization, and lack of support.

- E. Describe the instructional materials used in regular ABE classes and in ABE classes where programmed instructional methods were used.

YOU HAVE BEEN SELECTED TO BE A PART OF A STATE-WIDE SURVEY OF ADULT BASIC EDUCATION STUDENTS. IT IS VERY IMPORTANT THAT YOU FILL IN AND RETURN ONLY THE OTHER HALF OF THIS CARD. PLEASE READ THE FOLLOWING INSTRUCTIONS CAREFULLY.

1. Please mark your answer to each question. USE SOFT PENCIL ONLY.
2. Full-time work is 25 or more hours per week. Part-time work is less than 25 hours per week.

Thank you for your cooperation. You have performed a valuable service to your school, your teachers and yourself.

← SEPARATE CARDS AT PERFORATED FOLD. MAIL OTHER PART OF CARD. NO STAMPS NEEDED.

← SEPARATE CARDS AT PERFORATED FOLD.		RETURN THIS CARD ONLY.	NO STAMPS NEEDED
ADULT BASIC FOLLOW-UP	1. Did you finish the class?	YES <input type="checkbox"/>	NO <input type="checkbox"/>
	2. Did you learn what you wanted to learn in this class?	YES <input type="checkbox"/>	NO <input type="checkbox"/>
	3. Has this class helped you to get an eighth grade certificate?	YES <input type="checkbox"/>	NO <input type="checkbox"/>
	4. Since starting this class have you joined any clubs?	YES <input type="checkbox"/>	NO <input type="checkbox"/>
		5. Has this class helped you prepare for job training?	YES <input type="checkbox"/> NO <input type="checkbox"/>
		6. Do you now have a job?	YES <input type="checkbox"/> NO <input type="checkbox"/>
		If yes, is it	FULL TIME <input type="checkbox"/> PART TIME <input type="checkbox"/>
		7. Did this class help you to get your job?	YES <input type="checkbox"/> NO <input type="checkbox"/>
		8. Are you planning to take other classes?	YES <input type="checkbox"/> NO <input type="checkbox"/>

ADULT BASIC EDUCATION FOLLOWUP - FIRST RUN

PROJECT NAME	1-Y	1-N	2-Y	2-N	3-Y	3-N	4-Y	4-N	5-Y	5-N	6-Y	6-N	6-F	6-P	7-Y	7-N	8-Y	8-N
CHINLE	2	1	2	1		3		3	1	2		3				3	3	
COCONINO	2	1	2	1	1	2		3	2	1	1	2	1		1	1	3	
SAFFORD	5	2	5	1	1	5		6	2	4	2	4	2			5	6	
PHOENIX UNION	70	53	83	34	45	68	3	121	61	61	79	41	67	17	15	99	97	21
SUNNYSIDE	1		1			1	1			1		1				1	1	
CENTRAL ARIZONA COLLEGE	31	17	37	10	17	30	3	45	19	27	29	19	26	2	6	37	41	6
NOGALES	19	4	20	2	6	16	2	21	11	9	14	7	13	3	4	15	23	
PRESCOTT	5		2	2	2	2		5	2	3	4	1	3	1	1	4	5	
ARIZONA WESTERN COLLEGE	17	5	16	6	5	15	2	19	9	12	10	10	9	2	8	11	19	3
MTC-MOP	11	10	17	5	4	18	1	21	17	5	13	7	12	3	9	12	19	3
SUN-SER	3		3		3			3	3		3		3		3		3	

LEGEND

- Did you finish the class?
- Did you learn what you wanted to learn in this class?
- Has this class helped you get an eighth grade certificate?
If yes, is it Full-time
Part-time
- Since starting this class have you joined any clubs?
- Has this class helped you prepare for job training?
- Do you now have a job?
If yes, is it Full-time
Part-time
- Did this class help you to get your job?
- Are you planning to take other classes?

APPENDIX M
 A B E Straight Tally of Followup (2nd Group)

FOCUS	1-Y	2-Y	3-Y	4-Y	5-Y	6-Y	7-Y	8-Y	9-Y	10-Y	11-Y	12-Y	13-Y	14-Y	15-Y	16-Y	17-Y	18-Y	19-Y	20-Y
014302	6	2	3	3	3	3	2	5	1	1	3	7	1	1	3	7	1	1	8-N	
022304	6	1	1	3	3	4	2	5	1	1	7	5	1	7	6	1	1	1	8-N	
035502	6	2	2	5	3	3	3	5	2	1	4	2	4	6	2	2	4	4	8-N	
050304	5	1	3	4	1	3	2	2	2	2	4	4	4	4	4	4	4	4	8-N	
070705	102	24	127	67	22	112	7	167	67	98	117	77	88	31	31	163	142	32	32	
075203	14	2	15	7	9	13	23	23	4	14	12	13	7	4	22	18	18	5	5	
076102	2	4	3	5	7	2	12	5	6	7	6	6	5	1	12	11	11	1	1	
077702	7	2	2	5	4	7	1	10	5	5	7	4	6	1	3	9	9	2	2	
077801	10	10	11	11	3	47	2	27	4	22	22	7	19	5	4	24	24	3	3	
080302	3	0	4	1	1	4	5	3	3	3	3	2	3	1	5	4	4	1	1	
080301	78	77	67	57	37	112	15	147	71	83	72	80	58	16	21	126	132	20	20	
082202	24	12	17	23	2	33	1	33	11	22	13	17	18	4	40	40	40	40	40	
085401	3	2	4	1	1	2	5	3	3	2	4	1	3	1	5	4	4	1	1	
086301	22	20	23	17	15	17	7	23	27	25	11	12	22	7	3	45	45	7	7	
086402	11	8	12	4	3	11	17	17	3	3	10	7	8	2	1	15	17	17	17	
086401	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
086501	2	2	3	2	2	2	5	2	2	3	5	4	4	1	5	5	5	5	5	
080101	20	22	48	19	15	52	2	55	15	16	42	24	33	11	3	64	63	4	4	
080201	11	1	5	1	1	4	13	13	4	6	7	8	6	1	11	8	11	2	5	

APPENDIX N Straight Tally of Followup (Combined)

	1-Y	2-Y	3-Y	4-Y	5-Y	6-Y	7-Y	8-Y	9-Y	10-Y	11-Y	12-Y	13-Y	14-Y	15-Y	16-Y	17-Y	18-Y	19-Y	20-Y	21-Y	22-Y	23-Y	24-Y	25-Y	26-Y	27-Y	28-Y	29-Y	30-Y
010003	5	3	2	2	11	4	7	2	3	1	1	11	10	1	1	11	10	1	1	11	10	1	1	11	10	1	1	11	10	1
020004	6	1	1	4	3	3	4	2	5	1	1	7	6	1	1	7	6	1	1	7	6	1	1	7	6	1	1	7	6	1
030005	7	2	7	2	11	7	4	4	7	3	1	11	9	1	1	11	9	1	1	11	9	1	1	11	9	1	1	11	9	1
040006	8	3	2	1	9	3	7	4	3	4	4	9	10	4	4	9	10	4	4	9	10	4	4	9	10	4	4	9	10	4
050007	172	147	131	127	120	113	157	135	115	156	48	252	259	53	48	252	259	53	48	252	259	53	48	252	259	53	48	252	259	53
060008	14	5	7	14	13	6	14	10	13	7	4	22	16	4	4	22	16	4	4	22	16	4	4	22	16	4	4	22	16	4
070009	9	4	3	7	5	5	7	6	5	5	1	12	11	1	1	12	11	1	1	12	11	1	1	12	11	1	1	12	11	1
080010	7	4	3	4	7	4	5	7	4	6	7	3	5	3	3	3	5	3	3	3	5	3	3	5	3	3	3	5	3	3
090011	11	15	12	12	14	12	21	22	8	19	3	25	25	2	3	25	25	2	3	25	25	2	3	25	25	2	3	25	25	2
100012	3	3	1	1	4	2	3	3	2	3	3	5	4	3	3	5	4	3	3	5	4	3	3	5	4	3	3	5	4	3
110013	75	77	55	37	115	114	71	33	33	58	16	146	132	20	16	146	132	20	16	146	132	20	16	146	132	20	16	146	132	20
120014	15	16	13	14	14	12	23	23	21	19	4	44	44	4	4	44	44	4	4	44	44	4	4	44	44	4	4	44	44	4
130015	5	2	1	2	3	3	2	4	1	3	1	5	4	1	1	5	4	1	1	5	4	1	1	5	4	1	1	5	4	1
140016	10	14	11	11	11	13	12	10	11	13	9	16	15	9	2	16	15	9	2	16	15	9	2	16	15	9	2	16	15	9
150017	13	4	2	3	13	11	9	14	7	13	3	15	23	4	3	15	23	4	3	15	23	4	3	15	23	4	3	15	23	4
160018	6	6	3	3	6	7	4	3	1	4	1	5	6	1	1	5	6	1	1	5	6	1	1	5	6	1	1	5	6	1
170019	15	6	1	7	15	11	15	13	11	13	3	15	24	3	3	15	24	3	3	15	24	3	3	15	24	3	3	15	24	3
180020	15	10	10	10	10	10	11	10	11	10	14	12	11	12	14	12	11	12	14	12	11	12	14	12	11	12	14	12	11	12
190021	15	12	11	11	11	15	14	13	11	13	14	12	11	12	14	12	11	12	14	12	11	12	14	12	11	12	14	12	11	12
200022	15	12	11	11	11	15	14	13	11	13	14	12	11	12	14	12	11	12	14	12	11	12	14	12	11	12	14	12	11	12