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ABSTRACT

The Division of Adult Education in the Arizona Department of Education and the Arizona Adult Literacy and Technology Resource Center contracted with the Morrison Institute for Public Policy to develop an evaluation system for Arizona's adult education program. During phase I, the institute analyzed existing program data on Arizona's adult education providers. Interviews were conducted in January and February 1997 of 379 current and past program participants; they were done in English or Spanish, as appropriate. Interviewees were asked 10 questions about reasons for entering the program, amount of time spent in the program, and feelings about what the program did or did not help them accomplish. Past participants were asked an additional question about their reasons for leaving the program. Findings indicated that over 90 percent of interviewees felt their adult education experiences had met their needs and been positive overall. The proportions of participants who mentioned having entered with a specific goal, e.g., preparing to take the General Educational Development tests or to get a job, were closely aligned with the proportions who said their participation in the program had helped them reach that particular goal. More than one-quarter of program participants in 1996 showed improvement on three indicators that suggested they were becoming more self-sufficient: moving off public assistance, gaining employment, and maintaining or improving their job situation. (Appendixes contain 10 references, 3 data tables, and interview forms.) (YLB)

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Development of an  
Evaluation System for the Arizona  
Adult Education Program:  
Report on Phase I

SCHOOL OF PUBLIC AFFAIRS  
ARIZONA STATE UNIVERSITY

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MORRISON INSTITUTE FOR PUBLIC POLICY  
SCHOOL OF PUBLIC AFFAIRS, ARIZONA STATE UNIVERSITY

**Development of an  
Evaluation System  
for the Arizona  
Adult Education Program:  
Report on Phase I**

Presented to  
**The Arizona Adult Literacy  
and Technology Resource Center  
and  
The Arizona Department of Education  
Division of Adult Education**

by  
**Linda Sandler,  
Linda Wetzel, and  
Howard Sullivan, Ph.D.**

March 1997

# Executive Summary

Research has affirmed that literacy skills reduce an individual's risk of falling into dependency and enhance the ability to become economically self-sustaining. Adult education programs that develop such skills are particularly important now, as welfare reform focuses more attention on the most effective means of moving people toward self-sufficiency. Arizona, home to thousands of individuals with insufficient language and mathematics skills to function effectively in society, is working to develop a system to assess the effects of its adult education program on its more than 50,000 annual program participants. The intent is to shift the current evaluation emphasis on *process data* to *outcome data* such as jobs obtained, diplomas earned, and participants' satisfaction with their course work. In other words, the goal of a new evaluation system will be to determine the *impact* of the adult education program.

The Arizona Department of Education (ADE) and the Arizona Adult Literacy and Technology Resource Center (AALTRC) commissioned the Morrison Institute for Public Policy at Arizona State University to analyze existing program data on Arizona's some 60 adult education providers. In addition, interviews were conducted in January and February 1997 of 379 current and past program participants. The interviews were done either in English or in Spanish as appropriate. Although the group of interviewees did not represent a scientifically random sample, the diversity of their backgrounds, needs, and program experiences does produce a fairly comprehensive picture of the program's impact on participants.

Interviewees were asked ten questions about their reasons for entering the adult education program, the amount of time spent in the program, and their feelings about what the program did or did not help them accomplish. Past participants were asked an additional question about their reasons for leaving the program. Of the 379 program participants interviewed, over 90% indicated that their adult education experiences had met their needs and had been positive overall. The proportions of participants who mentioned having entered with a specific goal—e.g., preparing to take the GED or to get a job—were closely aligned with the proportions who said that their participation in the program had helped them reach that particular goal.

The new information from participant interviews generally affirms conclusions that can be drawn from program data published annually by ADE. Among other things, these data reveal that during the 1996 program year, nearly three-quarters of those who successfully completed the class level at which they started moved on to more advanced classes, and nearly 20% of all participants attained an educational "milestone" such as an adult high school diploma or equivalent.

In the next phase of this project, a long-term evaluation system for Arizona's adult education program will be designed and data collection instruments will be developed, based in part on the data collected in Phase I. Moreover, consideration will be given during Phase II to other

states whose experiences with measuring the impacts of adult education may prove instructive. Phase III will consist of a field test of the new Arizona system and refinement of same. Given the current urgency to demonstrate accountability in providing education and welfare, Arizona must be able to document the results of its efforts to move people toward productive participation in society.

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# Acknowledgment

A special note of appreciation must go to the many individuals—directors, teachers, staff, and volunteers—who provide continuing educational opportunities for adults in Arizona. Their willingness to add interviewing participants to their many other tasks produced information critical to this report.

# Overview

In December 1996, the Division of Adult Education, Arizona Department of Education (ADE) and the Arizona Adult Literacy and Technology Resource Center (AALTRC) contracted with the Morrison Institute for Public Policy (MI) at Arizona State University to develop an evaluation system for Arizona's Adult Education Program. Tasks include a review of program data for the past several years in order to identify trends in adult education programs, and the development and implementation of an evaluation system that will continue to demonstrate the aggregate impact and value of the program.

Historically, the evaluation emphasis in Arizona's adult education program has been on *process data*—the number of participants, number of instruction hours, and other program inputs. The Division of Adult Education has recently instituted activities to underscore their focus on the provision of quality services. The intent is to shift the evaluation emphasis to include *outcome data* such as jobs and job advancements obtained, diplomas earned through the General Educational Development (GED) test, and participants' overall satisfaction with their adult education course work.

The evaluation system to be developed by MI, working in collaboration with AALTRC, will enable the Department of Education to assess outcomes of adult education programs and to produce reliable data on the impact of those programs. The development of the evaluation system is being conducted in three phases: Phase I, Analysis; Phase II, Design and Development; and Phase III, Implementation and Evaluation.

This report describes Phase I of the project, which included the design and analysis of participant interviews conducted by program providers, and an examination of existing process data and outcomes as described in ADE annual performance reports. It provides AALTRC and ADE with an analysis of available data on adult education programs statewide, and an assessment of those programs as compared to programs elsewhere in the United States. In a *Preliminary Data Report* (February 1997), Morrison Institute researchers provided AALTRC and ADE with a summary and brief discussion of data collected in interviews during January and February 1997 with current and past participants in projects offered by some 60 adult education providers overseen by ADE's Adult Education Division. The current report includes the complete results of those participant interviews and discusses the implications of the results for Arizona's adult education program. It should be noted, however, that this is *not* intended to be the definitive report on the adult education program. Rather, as specified in the agreement among AALTRC, ADE, and MI, this Phase I report is intended to lay the groundwork for Phase II of the project, the design and development of a statewide evaluation system.



# Literacy and Welfare Reform: A National Perspective

As welfare reform is implemented across the nation, considerable public attention is centered on how best to assist people in moving along a path toward economic self-sufficiency. With a focus on improving literacy and basic skills, adult education programs will be important contributors to the success of this process. A recent national report (Barton and Jenkins, 1995) explored the relationship between literacy and welfare dependence, analyzing data from the 1992 National Adult Literacy Survey. Predictably, these two issues are closely intertwined. People with higher literacy competencies do better economically: they work for longer periods of time, at a higher average weekly wage, yielding a higher annual income than people with lower literacy skills. Overall, levels of success in the labor market are linked to a great degree with literacy levels. This relationship is true for welfare recipients as well as the general population.

The presence of literacy skills moderates the degree of risk of falling into dependency as well as the capacity for improving self-sufficiency. One of the principal messages of the study underscores this connection: "Welfare dependency can be reduced in two ways: by increasing literacy levels in the general population...and by raising the literacy levels of those already on welfare to help them become more financially self-sufficient." (Barton and Jenkins, p. 60.)

The implications of this relationship are apparent. In Arizona, improving the literacy and basic education skills of the 500,000 adults without high school diplomas and the thousands of citizens with insufficient skills to function effectively has both individual and statewide impact. As Arizona invests in moving people from welfare to work and in helping low-income workers improve their ability to be economically self-sufficient, positive outcomes for participants in the state's adult education programs will be a key factor in its success.

# Adult Education in Arizona

Adult education has been a concern in the state of Arizona for several decades. A testing service and certificate program were begun in the 1940s, and in 1965 the State Board of Education approved a State Plan for a formal program of adult education instruction. In addition to GED preparation classes, Adult Basic Education (ABE), English for Speakers of Other Languages (ESOL), and citizenship classes are offered. In fiscal year 1996, the various programs funded through the Arizona Department of Education/Division of Adult Education served 56,242 people, a 40% increase from fiscal year 1990. (Arizona Adult Literacy and Technology Resource Center, September 1996.)

The “student body” for adult education programs in Arizona—as throughout the United States—is demographically diverse. More than half of the participants in the state program are of Hispanic origin. Of the 56,242 individuals served in FY 1996, 34,565 (61%) were Hispanic; 12,843 (23%) were non-Hispanic Caucasian; 3,238 (6%) were American Indian/Alaskan Native; 2,835 (5%) were Asian or Pacific Islander; and 2,761 (5%) were non-Hispanic Blacks. Enrollees in the Arizona program tend more often to be female and middle-aged or younger. In FY 1996, women outnumbered men, 31,354 (56%) to 24,888 (44%). Participants aged 16-24 numbered 23,527 (42%) and those aged 25-44 were 26,973 (48%); participants aged 45 and older numbered 5,742 (10%). (See Appendix A for demographic and program trend data.)

## The Impact of Arizona’s Adult Education Program on Participants

The Arizona Adult Education Program mission states that “programs will assure that adults have access to quality educational opportunities to bridge and support them in their employment, job training, and higher educational aspirations, and acquire the knowledge and skills necessary for effective participation in society.” Two methods of assessing the impact of adult education classes on program participants were utilized in the current analysis: (1) an interview questionnaire specifically developed for this project to elicit the perceptions of current and past participants in the Arizona adult education program; and (2) an analysis of statistical data gathered and reported annually by the Division of Adult Education.

### Interview Data: Participants’ Perceptions of Program Impact

It should be noted that, given time constraints, a true random sample of Arizona adult education program participants was not attempted during this phase of the project. Thus, although some random sampling procedures were employed in developing the interview pool, *the data and analysis presented below do not reflect a scientifically random sample.*

### *Interview Procedures*

The evaluation plan called for telephone or in-person interviews of current and past participants in the adult education program to be conducted by a local program provider staff member at as many as possible of the 61 projects in Arizona that offer adult education. Interview forms were developed by Morrison Institute and approved by Division of Adult Education administrators. Ten individuals per site were randomly selected by Morrison Institute for interviews: five from among FY 1997 participants to gather data on the quality of current programs and five from among FY 1996 students who are no longer enrolled (*i.e.*, past participants) to provide information on reasons that students stop attending adult education classes. The Director of the Division of Adult Education sent a letter to the program directors or coordinators at all 61 projects requesting that they conduct the interviews and Morrison Institute followed up with a fax asking that the projects provide lists of all local FY 1996 and FY 1997 program participants to the Institute so a sample could be drawn. Local programs with very large numbers of participants were allowed to submit representative samples of 200 names each from their 1997 and 1996 lists to reduce staff time and paperwork. One program was excluded from the study at its request because it serves severely mentally impaired adults. Participant lists were provided as requested from 54 of the remaining 60 local projects, a 90 percent response rate.

Morrison Institute staff used the participant lists to select a sample of 20 individuals from each 1996 and 1997 list. Each sample represented the five participants from each list to be called first for interviews, plus 15 potential replacement interviewees for participants who could not be reached after three calls to their home or workplace telephone number of record. The two lists (FY 1996 and FY 1997) of randomly selected interviewees and replacement interviewees for each project were then sent back to the providers. The interview forms and directions for local project personnel to conduct the interviews (see Appendix B) were sent with the interviewee lists. Interviews were to be conducted in either English or Spanish as needed.

Morrison Institute mailed the interviewee lists and forms to the 54 projects between January 23 and February 14, 1997 with the request that the completed forms be returned to MI by February 26. Interview data were received from a total of 46 projects. The 46 projects represent 77 percent of the 60 selected Adult Education Program projects in the statewide program and 85 percent of the 54 projects that provided Morrison Institute with FY 1996 and 1997 participant lists. Several of the remaining eight projects informed MI staff that they were unable to complete their interviews by the deadline. It is not known how—if at all—interview data from the 14 program providers who did not return completed interviews might have changed overall results. Thus, it must be kept in mind that the data provided by the 46 projects who responded may present an exaggeratedly positive picture of adult education in Arizona.

### *Respondents*

Interview data were received on 379 present and former students—213 from FY 1997 and 166 from FY 1996—from the 46 projects. One hundred thirty-six interviewees were male and 243

were female. Of the 364 interviewees who gave their ages, 131 were under age 25, 173 were between the ages of 25 and 44, and 60 were 45 or above. Of the 373 interviewees who provided information on their ethnic backgrounds, 219 interviewees were Hispanic, 77 were Caucasian, 53 Native American, 16 African-American, 6 Asian/Pacific, and one each Syrian and "mixed." Although interviewers were more successful at reaching women and older individuals, these proportions closely correspond to the demographic profile of Arizona adult education program participants.

### *Results*

The interview results are itemized and summarized on page 6. The results are described below under topic headings that correspond to items or item groupings on the survey.

#### *Personal Goals and Guidance*

Three questions on the interview form (items 1-3) dealt with the interviewees' personal goals and the guidance they received from a program representative. The questions were "Why did you enter the Adult Education Program?"; "Who did you talk to when you started the program?"; and "Did someone help you figure out what you should learn from the program?"

Participants who had more than one reason for entering the program were told to give each reason. It can be seen from the summary data that "Learn to read/write English better" was the most common reason, cited by 200 of the 379 participants (53%). Other frequently reported reasons were "Prepare for the GED" (181 participants, 48%), "Get a job or get a better job" (133 participants, 35%), and "Get into a school or training program" (72 participants, 19%).

With regard to guidance from a program representative, 353 of the interviewees (93%) reported that they talked to a program representative such as the director or coordinator, an instructor, or a staff member, at the time they started the program. Three hundred eleven of these participants who said they got help (98%) stated that a program representative helped them figure out what they should learn from the program.

#### *Time in Program*

Interviewees were asked two questions (items 6 and 7) about their time in the program. The most common responses to the question "How long [have you been/were you] in the Adult Education Program?" were 1 to 3 months (111 of 379 respondents, or 29%) and 3 to 6 months (96 respondents, 25%). Fifty-seven participants (15%) reported that they had been in the program more than a year. The most common number of hours of class time logged by participants in the program were 10 to 50, reported by 136 participants (36%). Ninety-eight respondents (26%) reported having more than 100 hours of class time.

## Adult Education Program: Summary Data from Participant Interviews

The data below are from interviews conducted by Arizona Adult Education Program providers with 379 randomly selected program participants in the FY 1996 and FY 1997 programs at 46 local projects throughout the state. The numbers in italics represent the number and percentage of interviewees giving the designated response. Not all respondents answered all questions; percentages given are of the total number of respondents to each question.

**1. Why did you enter the Adult Education Program? (Multiple responses were accepted)**

200 (53%) Learn to read/write English better	133 (35%) Get a job or get a better job
59 (16%) Learn math better	72 (19%) Get into a school or training program
181 (48%) Prepare for the GED	56 (15%) Prepare for citizenship
74 (20%) Other	

**2. Who did you talk to when you started the program?**

353 (96%) Program representative (Director, instructor, staff member, etc.)  
 15 (4%) Other (Relative, friend, employer, etc.) or no one

**3. Did someone help you figure out what you should learn from the program?**

Yes 318 (84%)	No 59 (16%)	If yes, who?	
		Program representative	311 (98%)
		Other	6 (2%)

**4. Do you think the class [you're taking/you took] [is/was] a good one?**

Yes 363 (97%) No 11 (3%)

**5. [Does/Did] the class cover what you [want/wanted] to learn?**

Yes 351 (93%) No 25 (7%)

**6. How long [have you been/were you] in the Adult Education Program?**

1 month or less	64 (17%)	1 to 3 months	111 (29%)	3 to 6 months	96 (25%)	6 months to 1 year	51 (14%)	More than 1 year	57 (15%)
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**7. About how many hours of class [have you had/did you have] in the Adult Education Program?**

Less than 10	42 (11%)	10 to 50	136 (36%)	50 to 100	101 (27%)	More than 100	98 (26%)
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**8. [Is/Did] the program [helping/help] you?**

Yes 352 (94%) No 23 (6%)

**If yes, how? (multiple answers accepted)**

207 (59%) Learn English better	57 (16%) Prepare for citizenship
93 (26%) Learn math better	126 (36%) Prepare to get a job or better job
156 (44%) Prepare for the GED	71 (20%) Get into a school or training program
89 (25%) Other	

**9. [Is/Was] the program a good one for you?**

Yes 364 (96%) No 15 (4%)

**10. FY '96 only: Why did you stop attending the program? (Multiple answers were accepted)**

63 of 166 (38%) Got what I needed/Accomplished my goals	7 of 166 (4%) Not appropriate for me
41 of 166 (25%) Took a job	7 of 166 (4%) Enrolled in another school
11 of 166 (7%) Lost interest in it	30 of 166 (18%) Transportation or time problems
48 of 166 (29%) Other	

**How could we make the program better for you? Is there anything else you'd like us to know?**

144 (38%) Happy/satisfied/grateful for program and/or instructors  
 54 (14%) Increase duration, frequency and/or number of classes  
 24 (6%) Expand computer capacity and availability  
 23 (6%) Provide more personalized instruction  
 12 (3%) More/better books and/or materials

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### *Program Value*

Four interview questions (items 4, 5, 8, and 9) dealt with the value of the Adult Education Program to the interviewees. These questions asked whether the classes that the interviewee is taking (or has taken, in the case of past participants) are good, whether they cover what the interviewee wants (or wanted) to learn, whether the program is helping (or did help) the interviewee, and whether the program is (or was) a good one for the interviewee.

Over 90 percent of the interviewees responded positively to each of the four questions related to the value of the program or of the classes in it. A total of 363 of the 379 interviewees (96%) reported that their class(es) are (or were) good ones, and 351 participants (93%) indicated that the class(es) cover or covered what they wanted to learn. Three hundred fifty-two students (93%) responded “yes” to the question about whether the program is helping (or did help) them, and 364 (96%) stated that the program is (or was) a good one for them. When students who said that the program was helping or had helped them were asked “How?,” 59 percent responded that it helped (or is helping) them learn English better, 44 percent said it helped them prepare for the GED, 36 percent indicated that it helped them get a job or get a better job, 26 percent that it helped them learn math better, and 20 percent that it helped them get into a school or training program.

### *Termination of Attendance*

Participants from FY 1996 were asked why they stopped attending the program. Sixty-three of the 166 FY 1996 participants (38%) replied that they either had gotten what they needed or had accomplished their goals. Forty-one respondents (25%) reported that they stopped attending because they got a job and 30 (18%) left because of transportation or time problems. Of the 48 respondents who gave “Other” reasons for leaving, 15 (9%) specifically cited personal problems, health problems, or family responsibilities.

### *Interviewee Comments*

Interviewees were also asked two open-ended questions: “How could we make the program better for you?” and “Is there anything else you’d like us to know?” Responses that were similar from two or more interviewees were summarized into a single response category, rather than being listed individually, to facilitate reporting and comprehension of the results. By far the most common response given by 144 of the 379 participants (38%), was that the interviewee was happy, satisfied, or grateful for the program and/or the instructors. Other responses made by more than ten participants were “Increase the duration, frequency, and/or number of classes” (54 participants or 14%), “Expand the computer capacity and/or availability” (24 participants, 6%), “Provide more personalized instruction” (23 participants, 6%), and “Provide more/better books and/or materials” (12 participants, 3%).



## *Discussion*

The 379 participant interviews reveal favorable perceptions of the Arizona Adult Education Program. The most impressive data are the results for the four items dealing with the value of the program and the classes in it. Participants consistently reported that the program classes are good, that they cover what the participants want to learn, that the classes are helping them, and that the program is a good one for them.

Participant perceptions of how the program is helping them corresponded very closely with their reported personal goals or reasons for entering the program. This correspondence can be seen below in the comparison of the top four reasons given for entering the program and the responses later in the interview to the question "How?" asked of the 352 respondents who reported that the program is helping or did help them.

### *Top Reasons for Entering Program*

53% Learn to read/write English better  
48% Prepare for the GED  
35% Get a job or get a better job  
19% Get into a school or training program

### *How Program Is Helping*

59% Learn English better  
44% Prepare for the GED  
36% Prepare to get a job/better job  
20% Get into a school or training program

The close correspondence in percentages for each of these items seems to indicate that the learning opportunities provided in the program successfully address participants' primary reasons for entering it.

The two most common reasons reported by FY 1996 interviewees for terminating participation in the program also appear to indicate positive accomplishments for the participants and the program. Thirty-eight percent of the participants reported that they stopped attendance because they accomplished their goals or got what they needed from the program. Twenty-five percent stated that they stopped attending because they took a job. Less frequently cited reasons for terminating included transportation problems, time demands, personal and family matters, and loss of interest in the program.

Interviewee responses to the two open-ended questions at the end of the interview generally support the favorable perceptions of the Adult Education Program reflected in the other interview data. Thirty-eight percent of the participants took this opportunity to express positive reactions to the program and/or the instructors. However, many respondents also expressed a desire for expanded program services. A combined total of nearly 30 percent of the interviewees indicated that their program could be improved by:

- more and longer classes
- increased computer access and capabilities
- more personalized instruction
- improved or more plentiful texts and materials.

## *Verification of Interview Data*

The data presented in this report were gathered by personnel at Adult Education Program local projects in interviews conducted with known participants from their own local projects. This procedure was used in order to involve the local projects, ensure the cooperation of local participants in the interviews, and collect a sufficient amount of data during the short duration of the project. However, data are often less reliable when the data collectors and interviewees may know each other and/or when the data collectors may have a special interest in the nature of the results. Further development of an evaluation system for the Arizona Adult Education Program should move toward a process in which meaningful evaluation data are collected systematically as a part of the ongoing education program.

To help address the issue of the reliability of the interview data, follow-up verification of the interview results was conducted with a sub-sample of interviewees. Using an alphabetized list of the 46 program providers who submitted completed interviews, evaluators selected every second provider for follow-up. For each of the 23 providers composing the sub-sample, the intent was to contact one current and one past participant by telephone to verify their original interview responses; that is, to check on data that were reported by adult education program providers. Five providers had no pool of past participants, resulting in a sub-sample of 41 possible contacts.

Follow-up telephone calls were made between February 21 and February 27, 1997, including evenings and a weekend. The calls were conducted by a bilingual member of the evaluation team who was able to query participants in either English or Spanish. When reached, each participant was told that the evaluation team wanted to ensure that her/his views on the adult education program were accurately and completely reflected. A script that included open-ended questions was used to elicit responses that would either confirm or dispute the responses recorded by the original interviewer. In the few instances in which reported data were *not* confirmed by participants, efforts were made to uncover possible interviewer-specific confusion or misreporting.

Of the original 41 possible contacts, seven participants either had no telephone or had an invalid number, and two could not be reached despite numerous attempts. Of the remaining 32 follow-up calls, 29 participants confirmed that the information recorded on their respective interview forms was accurate. Two participants could not remember having been interviewed and one participant indicated that she/he had made some negative remarks that were not recorded on the interview form. As a result of these apparent discrepancies, telephone calls were made to four additional participants who had been interviewed by the same interviewer(s) as the three participants whose interview responses had not been confirmed. In each of these subsequent calls, participants confirmed that the information recorded on their respective interview forms was accurate.

In summary, 36 telephone calls were successfully completed to current and past participants across 23 adult education projects. Of these, 33 participants (92%) confirmed the accuracy of the information recorded on their interview forms.



## ADE Annual Performance Data: Statistical Reflection of Program Impact<sup>1</sup>

The impact of the adult education program on individual participants is also illustrated by tracking their progression through increasingly higher levels of education and training; their attainment of educational “milestones;” and, ultimately, the effect that this expanded education and training have on moving them toward economic self-sufficiency.

### *Progressing to Higher Levels of Education and Training*

Students identified in Arizona’s adult education annual performance reports as having “moved to a higher level” of education or training are those who, for example, complete ABE classes and continue on with a GED class, or are ESOL students who move into GED-Prep classes. For those participants completing GED-Prep classes, higher level progress usually means enrollment in a community college, university, or job training program.

**Table 1 Adult Education Students Progressing to Higher Levels of Education/Training: 1996**

	ABE (I & II)	ESOL (I, II, III)	GED Prep
Number of students starting classes at this level	16,081	25,138	12,962
Percent of students completing these classes*	4294 (27%)	5320 (21%)	3843 (30%)
Percent of students completing these classes who went on to higher level of education/training*	3073 (72%)	3613 (68%)	1727 (45%)

Data in this table were derived from Table 3 in the amended FY 1996 Arizona Adult Education Student Data Report.

\*Rounded to nearest whole percent.

Many students in the state’s adult education program appear to be making progress along this education/training continuum. During the 1996 program year, more than 25 percent of students in ABE classes successfully completed the class level at which they started; of these students, nearly three-quarters (72%) proceeded on to more advanced-level classes. For those students beginning the year in ESOL classes, 21 percent completed the level at which they entered, with more than two-thirds (68%) then moving into a higher level of education. Similarly, 30 percent of students who started the year in GED-Prep completed the class, and nearly half of these students (45%) continued their education or training.

<sup>1</sup>Data used to develop this section come from the FY 1993-FY 1996 (updated) Arizona Adult Education Performance Reports prepared by the Arizona Department of Education, Division of Adult Education.

## *Reaching Educational "Milestones"*

Among the list of "student goals achieved" through participation in adult education classes, four in particular suggest students' attainment of educational milestones. These are: (1) obtaining a high school diploma; (2) passing the GED or being in process to take the GED; (3) entering another educational or training program; and (4) applying for college entrance. Data for FY 1996 indicate that 11,258 adult education students in Arizona (20%) reported reaching one or more of these four milestones. Although information on "students applying for college entrance" was not reported for the years prior to 1996, trend data for the three remaining indicators are available. Between 1993 and 1996, there was a steady increase in the percentage of adult education participants reaching one or more of these educational milestones, rising from 11.8 percent to 18.3 percent during this time period.

**Table 2 Adult Education Students Achieving Educational "Milestones": 1993-1996**

	1993	1994	1995	1996
Total # adult education students	44,828	48,354	52,616	56,242
Obtained adult high school diploma	54	89	61	60
Passed GED/in progress	4347	4776	6210	7320
Entered other education/job program	879	2828	2459	2930
Applied for college entry	N/A	N/A	N/A	[948]*
<b>Total percent of students achieving educational milestones</b>	<b>11.8%</b>	<b>15.9%</b>	<b>16.6%</b>	<b>18.3%</b>

Data in this table were derived from Table 6 in the FY 1993-FY 1996 (updated) Arizona Adult Education Annual Performance Reports

\*Not included in calculation of total percentage

N/A=not available

### *Reducing Welfare Dependency and Improving Employment*

One way to look at the progress made by adult education program participants is by reviewing "student goals achieved" during the program year as they relate to participant status recorded upon program entry. Three sets of items from these categories specifically relate to participants' progress toward self-sufficiency: (1) adults on public assistance/removed from public assistance; (2) unemployed adults/gained employment; and (3) employed adults/secured employment retention or obtained job advancement (see Table 3, page 12).

**Table 3 Adult Education Participant Status: Reduction in Welfare Dependency and/or Improvement in Employment: 1994-1996**

	1994	1995	1996
Participants on public assistance upon entry who went off public assistance during the year	4%	7%	8%
Participants unemployed at entry who gained employment during the year	9%	7%	6%
Participants employed on entry who maintained or improved their job situation	9%	11%	14%
<b>Total*</b>	<b>22%</b>	<b>25%</b>	<b>28%</b>

\* Since participant gains on these indicators are closely linked, data presented in this table likely reflect duplicated counts. Data were calculated using Tables 5 and 6 in the FY 1994-FY 1996 (updated) Arizona Adult Education Annual Performance Reports.

More than one-quarter of adult education program participants in 1996 showed improvement on the three indicators that would suggest they were becoming more self-sufficient: students moving off public assistance, students gaining employment, and—for those students already employed upon entry—maintaining or improving their job situation. Overall for these three indicators, there has been small but steady progress between 1994 and 1996, from a total of 22 percent of program participants showing improvement in 1994 to a total of 28 percent in 1996. It should be noted that since participant gains on these indicators are often linked, the overall progress likely reflects some degree of overlap. Although the percentage of unemployed students who got jobs decreased slightly during this period, increases were recorded in the percentage of participants who left the welfare rolls and those who maintained or improved their employment.

# Arizona in a National Context

The overall picture of adult education in the United States is unclear because of information that varies widely in completeness and accuracy from state to state. In 1991, the most recent year for which published figures are available, the U.S. Department of Education (USDOE) could estimate the total number of individuals served by programs funded under the Adult Education Act (AEA; re-authorized in 1990) no more precisely than within the range of 2.6 million and 3.7 million people (U.S. Department of Education, 1995).

Among the findings of the 1993-94 national report was that enrollment in ESOL classes nationwide had risen dramatically in recent years as a proportion of enrollment in all adult education programs. Available data on Arizona's experience, however, show that the proportion remained roughly the same in 1996 as in 1990.

In attempting to assess the quality of adult education programs across the nation, the USDOE takes the following factors into account, as enumerated in the 1993-1994 biennial report:

- recruitment
- retention
- educational gains
- program planning
- curriculum and instruction
- staff development
- support services

The USDOE has explicitly noted the wide variations among state-level data collection and analysis procedures and the consequent failure of a USDOE-developed evaluation model to be applicable to all states. Nonetheless, currently available quantitative data and qualitative information from Arizona's adult education providers can be assessed in relationship to some of those national-level factors.

- *Recruitment.* Generally, neither the Arizona State Department of Education nor individual adult education program providers engage actively in recruitment efforts. The more than doubling of the number of participants within the past decade (25,330 participants in FY 1987; 56,242 in FY 1996) has been attributed by ADE administrators in part to "word-of-mouth" advertising.
- *Retention.* The record of Arizona's adult education program at retaining participants once they have enrolled has been addressed previously, in the analysis of students' progress across educational levels and their achievement of educational "milestones." In its FY 1993-1994 report, the USDOE noted that 33% of adult education program participants nationwide remained in those programs long enough to progress one instructional level; in that same period, 26% of Arizona program participants completed one full instructional level.

Concern has been voiced on the national level that inadequate or nonexistent support services such as transportation and child care have a seriously negative impact on participant retention. Data indicate that such factors can also be significant for Arizona participants when they are deciding whether or not to continue in state adult education programs. Among the reasons given by interviewed past participants for leaving Arizona adult education programs, the two most frequently cited were “Got what I needed” (35%) and “Took a job” (25%), with “Transportation or time problems” coming in third (18%). In ADE annual report data, the three reasons cited most often—by far—by participants for leaving adult education programs are “Took a job,” “changed address/moved,” and “lack of interest.” AALTRC administrators indicated that program providers tend to use “lack of interest” as the “default” category when they do not specifically know the reasons for participants’ departures.

- *Educational Gains.* As noted above, interviews of current and past participants in the Arizona adult education program focused heavily on the gains that individual participants had, in their own views, made as a result of their participation. Of those who responded that their programs had helped them, nearly half (44%) said that they had been adequately prepared to take the GED; 20 percent said that participation in the program had helped get them into a school or a training program; more than half (59%) said they had improved their knowledge of the English language; and 26 percent claimed that their mathematical abilities had improved.
- *Program planning, curriculum and instruction, and staff development* vary from provider to provider and from project to project within the state, and there currently are no consistent statewide standards. Arizona, through the Department of Education, has implemented a staff development initiative by providing funding, earmarked for this purpose, directly to local projects. ADE also provides special curriculum workshops and funds promising practices with discretionary funds. In addition, ADE sponsors statewide adult education conferences. With the recent development and implementation of a self-assessment process, projects are starting to focus on program outcomes.

Consideration also was given to a number of individual states that might facilitate a comparative assessment of Arizona’s adult education efforts. Five states were awarded federal grants in October 1993 to develop outcome measurement and reporting systems for their adult education programs. Of them, Virginia and Hawaii did not appear to have made great enough progress to allow measurement against Arizona. New York is a complicated case because that state does not handle data on adult education and on employment separately. Only Kentucky and Tennessee suggested themselves as potential exemplars. The experiences of these two states might prove informative during the design and development of Arizona’s evaluation system (Phase II of this project).

# Phase I: Concluding Thoughts

In addition to achieving the initial objective of laying the analytic groundwork for the second and third phases of the project, activities in Phase I produced some valuable insights. It must be noted again, however, that the results of the interviews conducted for Phase I do *not* represent a true random sample that would permit broad conclusions about Arizona's adult education program.

## Suggestions from Program Providers

In the course of the first "field-test" of the data collection procedures and interview forms developed for Phase I of the evaluation, MI researchers had an opportunity to speak with several program providers across the state. The more than 50 telephone conversations that took place with program providers between January 13 and February 5, 1997 offer some initial "logistical lessons learned" that will be taken into consideration in the design and development of the statewide evaluation system in Phase II of the project.

First, the definitions of "past" and "current" program participants need to be more clearly delineated. A designation based on fiscal-year enrollment does not account for students enrolled in the current year who have left the program by the time the interview is conducted. The definition of past participants contained in the Division of Adult Education request-for-proposal—participants who are no longer attending (irrespective of the fiscal year)—would appear to be the simplest way to address this issue.

Second, attention must be given to the problems described by many providers related to difficulties in accessing the previous year's database. Some providers *replace* the previous year's data in the computer, while others described difficulties due to changes in their computer programs.

A final issue raised by providers was the difficulty encountered in trying to obtain data representative of all their project sites. This was particularly true for rural project sites that were not electronically "connected" to the official program provider—especially given the short turn-around time available for collecting the interview data in Phase I.

## Toward the Development of an Evaluation System

An appropriate data collection and evaluation system that becomes a routine part of each provider's ongoing program operations would help address issues raised during Phase I. Such an evaluation system would facilitate the collection of reliable data and help ensure that *all* program providers are able to submit requested data in a timely fashion.

In the current national atmosphere surrounding reforming both welfare and education, the need for accountability beyond traditional fiscal and program management measures is

particularly urgent. If Arizona wants to succeed in its efforts to move undereducated adults toward economic self-sufficiency and productive participation in society, it must be able to document that success in reliable, accessible, and meaningful ways, not only for legislators and funders but, through them, for taxpayers. The time is propitious for the state to develop an ongoing evaluation system that can capture all relevant data about adult education program participants, from enrollment through graduation or separation from the program, to document both immediate and long-term benefits.

Phase II of this project will focus on the design and development of such an evaluation system, building on the data and analysis produced in Phase I. A report on the results of Phase II will be completed by June 30, 1997.



# Bibliography

- Arizona Department of Education, Division of Adult Education. (1996, updated). *Arizona Adult Education Annual Performance Report: Fiscal Year 1996*. Phoenix, AZ: Author.
- Arizona Department of Education, Division of Adult Education. (1995). *Arizona Adult Education Annual Performance Report: Fiscal Year 1995*. Phoenix, AZ: Author.
- Arizona Department of Education, Division of Adult Education. (1994). *Arizona Adult Education Annual Performance Report: Fiscal Year 1994*. Phoenix, AZ: Author.
- Arizona Department of Education, Division of Adult Education. (1993). *Arizona Adult Education Annual Performance Report: Fiscal Year 1993*. Phoenix, AZ: Author.
- Arizona Department of Education, Division of Adult Education. (1992). *Arizona Adult Education Annual Performance Report: Fiscal Year 1992*. Phoenix, AZ: Author.
- Barton, P.E., & Jenkins, L. (1995). *Literacy and Dependency: The Literacy Skills of Welfare Recipients in the United States*. Princeton, New Jersey: Educational Testing Service, Policy Information Center.
- cael@wfdc.win.net (n.d./1997). *Kentucky Center for Adult Education and Literacy, Performance Measurement Initiative*. [WWW document]. URL <http://www.win.net/~wfdc/pmi.htm>.
- litstudy@utkux.utk.edu. (n.d./1997). *Tennessee Reporting and Improvement Management System*. [WWW document]. URL <http://funnelweb.utcc.utk.edu/~litstudy/trims.html>.
- U.S. Department of Education. (1995). *Biennial Evaluation Report: Fiscal Years 1993-1994*. Washington, DC: Author.
- U.S. General Accounting Office. (1995). *Adult Education: Measuring Program Results Has Been Challenging*. Washington, DC: Author.



## **Appendix A**

# **Arizona Adult Education Demographic and Program Trends FY 1992-FY 1996**

**Table A-1\* Proportional Distribution of Participants by Race and Ethnicity: 1992-1996**

	1992	1993	1994	1995	1996
White, not Hispanic	25%	25%	24%	23%	23%
Black, not Hispanic	8%	5%	6%	5%	5%
Hispanic	53%	56%	57%	61%	61%
American Indian/Alaska Native	5%	7%	7%	6%	6%
Asian/Pacific Islander	9%	7%	6%	5%	5%

**Table A-2 Proportional Distribution of Participants by Age: 1992-1996**

	1992	1993	1994	1995	1996
16-24 years	47%	44%	43%	41%	42%
25-44 years	41%	46%	47%	42%	48%
45+ years	12%	10%	10%	17%	10%

**Table A-3 Proportional Distribution of Participants by Class Type: 1992-1996**

	1992	1993	1994	1995	1996
ABE I and ABE II	30%	31%	32%	30%	29%
ESOL I, II, and III	46%	42%	41%	43%	45%
GED Prep	23%	26%	25%	24%	23%
Citizenship	1%	1%	2%	3%	3%

\* Data in Tables A-1, A-2, and A-3 were derived from original data tables in the FY 1992-FY 1996 Arizona Adult Education Annual Performance Reports.

**Appendix B**  
**Interview Forms**

## GUIDANCE FOR COMPLETING INTERVIEWS WITH ADULT EDUCATION PROGRAM PARTICIPANTS

- Ten (10) participants in your site's program should be interviewed. Five (5) must be *currently* enrolled and five (5) must be *past* participants (individuals from FY '96) who either completed the program or left for other reasons. Included in this packet are lists of randomly-selected current participants and past participants from your site. You will be interviewing participants whose names appear on these two lists.
- Begin by trying to contact the first five names on each list. Please make *three* attempts to contact each person. If you are unable to reach an individual after three attempts, proceed down the list *in numerical order* until you have successfully completed five interviews.
- Each provider should be prepared to interview participants in their primary language as necessary.
- Interviews may be conducted over the telephone or in person. Please indicate at the top of the interview form whether the interview took place on the telephone or in person.
- Following submission of all interview forms, researchers will spot-check to ensure accuracy and completeness.
- All ten interviews must be completed and the interview forms submitted to Morrison Institute by **Wednesday, February 26, 1997**.

**ADULT EDUCATION PROGRAM**  
**INTERVIEW FORM**  
**FOR CURRENT PARTICIPANTS ONLY**

Note: This form is for current participants only. It is to be completed by a representative of the program provider based on an oral interview with a designated current participant.

Name/Location of program provider: \_\_\_\_\_ Phone: \_\_\_\_\_

Name of interviewer: \_\_\_\_\_

In what language was the interview conducted?  English  Spanish  Other (specify)

Person interviewed: \_\_\_\_\_ Phone: \_\_\_\_\_ Age: \_\_\_\_\_

Gender:  M  F Ethnic Group:  Afro-American  Asian/Pacific  
 Hispanic  Native American  Caucasian

\*\*\*\*\*

1. Why did you enter the (name of program) \_\_\_\_\_ ?  
*(Probe, if necessary, to have the interviewee state his/her reason or reasons, then check each reason that he/she gives below)*

- |   |  |
|---|--|
| <input type="checkbox"/> Learn to read/write English better | <input type="checkbox"/> Get a job or get a better job         |
| <input type="checkbox"/> Learn math better                  | <input type="checkbox"/> Get into a school or training program |
| <input type="checkbox"/> Prepare for the GED                | <input type="checkbox"/> Prepare for citizenship               |
| <input type="checkbox"/> Other (Please write in below)      |  |

2. Who did you talk to at (name of program) \_\_\_\_\_  
when you started the program?

3. Did someone help you figure out what you should learn from the program?

Yes  No

If yes, who? \_\_\_\_\_

4. Do you think the class you're taking is a good one?

Yes  No

5. Does the class cover what you want to learn?

Yes  No

6. How long have you been in the Adult Education Program?

1 month or less     1 to 3 months     3 to 6 months     6 months to a year     More than a year

7. About how many hours of class have you had altogether in the Adult Education Program? (Help interviewee estimate the total number of hours if he/she is having trouble. For example, consider weeks in program and hours of class per week.)

Less than 10     10 to 50     50 to 100     More than 100

8. Is the program helping you?

Yes     No

If yes: How? (Have them answer and you check answers below. Check as many as they give, but don't prompt them by giving possible answers.)

<input type="checkbox"/> Helping me learn English better	<input type="checkbox"/> Helping me prepare for citizenship
<input type="checkbox"/> Helping me learn math better	<input type="checkbox"/> Helping me prepare to get a job or get a better job
<input type="checkbox"/> Helping me prepare for the GED	<input type="checkbox"/> Helping me get into a school or training program
<input type="checkbox"/> Other (please write in)	

If no: Why not?

Not appropriate for me     Didn't attend long enough  
 Other (please write in)

9. Is the program a good one for you?

Yes     No

10. How could we make the program better for you?

11. Is there anything else you'd like us to know?

ADULT EDUCATION PROGRAM

INTERVIEW FORM  
FOR PAST PARTICIPANTS ONLY

Note: This form is for past participants only. It is to be completed by a representative of the program provider based on an oral interview with a designated past participant.

Name/Location of program provider: \_\_\_\_\_ Phone: \_\_\_\_\_

Name of Interviewer: \_\_\_\_\_

In what language was the interview conducted?  English  Spanish  Other (Specify)

Person interviewed: \_\_\_\_\_ Phone: \_\_\_\_\_ Age: \_\_\_\_\_

Gender:  M  F Ethnic Group:  Afro-American  Asian/Pacific  
 Hispanic  Native American  Caucasian

\*\*\*\*\*

1. Why did you enter the (name of program) \_\_\_\_\_ ?  
(Probe, if necessary, to have the interviewee state his/her reason or reasons, then check each reason that he/she gives below)

- |   |  |
|---|--|
| <input type="checkbox"/> Learn to read/write English better | <input type="checkbox"/> Get a job or get a better job         |
| <input type="checkbox"/> Learn math better                  | <input type="checkbox"/> Get into a school or training program |
| <input type="checkbox"/> Prepare for the GED                | <input type="checkbox"/> Prepare for citizenship               |
| <input type="checkbox"/> Other (Please write in below)      |  |

2. Who did you talk to at (name of program) \_\_\_\_\_  
when you started the program?

3. Did someone help you figure out what you should learn from the program?

Yes  No  
If yes, who? \_\_\_\_\_

4. Do you think the class (es) you took was/were good?

Yes  No

5. Did the class (es) cover what you wanted to learn?

Yes  No

6. How long were you in the Adult Education Program? Was it . . .

1 month or less     1 to 3 months     3 to 6 months     6 months to a year     More than a year

7. About how many hours of class did you have altogether in the Adult Education Program? (Help interviewee estimate the total number of hours if he/she is having trouble. For example, consider total weeks in the program and hours of class per week)

Less than 10     10 to 50     50 to 100     More than 100

8. Did the program help you?

Yes     No

If yes: How? (Have them answer and you check answers below. Check as many as they give, but don't prompt them by giving possible answers.)

<input type="checkbox"/> Helped me learn English better	<input type="checkbox"/> Helped me prepare for citizenship
<input type="checkbox"/> Helped me learn math better	<input type="checkbox"/> Helped me get a job or get a better job
<input type="checkbox"/> Helped me prepare for the GED	<input type="checkbox"/> Helped me get into a school or training programs
<input type="checkbox"/> Other (please write in)	

If no: Why not?

<input type="checkbox"/> Not appropriate for me	<input type="checkbox"/> Didn't attend long enough
<input type="checkbox"/> Other (please write in)	

9. Was the program a good one for you?

Yes     No

10. Why did you stop attending the program? (Have them answer, then check reasons below. Check as many as they give, but don't prompt them by giving possible reasons.)

<input type="checkbox"/> Got what I needed from it	<input type="checkbox"/> Not appropriate for me
<input type="checkbox"/> Took a job	<input type="checkbox"/> Enrolled in another school
<input type="checkbox"/> Lost interest in it	<input type="checkbox"/> Transportation or time problems
<input type="checkbox"/> Other (please write in)	

11. How could we have made the program better for you?

12. Is there anything else you'd like us to know?



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