DOCUMENT RESUME

ED 337 657 CE 059 319

AUTHOR Armstrong, Bill; And Others
TITLE GAIN Appraisal Program III. Third Report.
INSTITUTION Comprehensive Adult Student Assessment System, San Diego, CA.
SPONS AGENCY Bemidji State Univ., Minn. Child Development Training Program.; California State Dept. of Education, Sacramento.
PUB DATE Aug 89
NOTE 49p.; For the second and fourth reports, see ED 297 819 and ED 334 354.
PUB TYPE Reports - Evaluative/Feasibility (142)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS *Academic Achievement; *Adult Basic Education; Basic Skills; Educational Background; Educational Legislation; *Employment Programs; English (Second Language); Functional Literacy; Listening Comprehension; Mathematics Skills; *Participant Characteristics; Reading Comprehension; Refugees; *Skill Development; State Legislation; Student Evaluation; *Welfare Recipients
IDENTIFIERS California; *Greater Avenues for Independence

ABSTRACT

Demographic and educational data were gathered from July 1986 through April 1989 for approximately 121,504 participants in Greater Avenues for Independence (GAIN) from all 58 counties in California that have implemented GAIN. Instrumentation was the GAIN Appraisal Program, three tests developed to provide an initial appraisal of participants' level of skill development in basic reading comprehension, basic mathematics computation, and listening comprehension. Major findings regarding demographic characteristics were as follows: (1) females outnumbered males, 58 percent to 42 percent; (2) approximately 45 percent were Caucasian, 26 percent were Hispanic, and 15 percent were Black; (3) approximately 84 percent were under the age of 40; (4) English was the native language of approximately 82 percent; (5) the average number of years of education was 10.8; and (6) approximately 45 percent reported having a high school diploma or its equivalent. Findings related to test score performance included the following: (1) almost 87 percent scored above a functional competency level on the GAIN Appraisal Reading Test; (2) 57 percent performed above a functional competency level on the Math Test; and (3) 82 percent achieved scores indicating less than a functional level of competency. Of the available data for Aid to Families with Dependent Children participant categories, 81 percent were mandatory participants and 19 percent were voluntary. (Appendixes include English-as-a-Second-language data.) (YLB)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED337657

GAIN

APPRAISAL PROGRAM

III

THIRD REPORT

AUGUST 1989

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☐ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

[signature]

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

PREPARED BY

CASAS

Comprehensive Adult Student Assessment System

BEST COPY AVAILABLE

CE059319

The GAIN III Report was prepared by:

Bill Armstrong
John Martois
Patricia Rickard

with

Richard Ackermann
Elizabeth Howard
Randy Ilas

◇ ◇ ◇

GAIN Appraisal Program, Third Report, August 1989. Developed by the Comprehensive Adult Student Assessment System, San Diego Community College District Foundation, in cooperation with the State Department of Education and the State Department of Social Services.

GAIN Appraisal Program Third Report
Executive Summary

Implicit in the goals of the GAIN program is the recognition that preparation for the world of work and self-sufficiency must include education and training. Without basic education and training, the chances for positive long-term reductions in the current as well as future state welfare caseload will be greatly diminished. Through such intervention GAIN seeks to interrupt the cycle of dependency in this generation and future generations of welfare recipients.

Educational Testing

As part of preparing welfare recipients for employment, the GAIN program includes an initial appraisal of a participant's basic reading, mathematics, and functional listening comprehension skills. Three tests have been developed for this purpose. All three tests were developed by the Comprehensive Adult Student Assessment System (CASAS) through a contract administered by the California State Department of Education (SDE) and the California State Department of Social Services (SDSS). The three tests together have been designated as the "GAIN Appraisal Program."

On the basis of these test results and participant educational background, those participants lacking basic reading, mathematics or English comprehension skills may be provided the opportunity to upgrade these skills in Adult Basic Education (ABE) or English-as-a-Second-Language (ESL) programs. Participants lacking a high school diploma or equivalency are provided the opportunity to obtain one, thus facilitating their movement toward unsubsidized employment. In addition to basic skills test data, demographic and other participant data are collected. This report discusses the educational, demographic, and other salient characteristics of the current sample of GAIN participants.

Scope and Limits of this Report

Data for this report were gathered from July, 1986 through April, 1989 for over 121,504 participants. Although this report updates the demographic and test score information presented in the second GAIN Appraisal Program Report (CASAS, 1987) and includes data from all counties, it also contains some of the limits to extrapolation inherent in the second report. Only about 2.6% of the current GAIN participant sample was from some of the more demographically diverse counties (e.g. Los Angeles,

San Francisco, Alameda) which have only been fully operational in GAIN for a few months. In addition, the California State Department of Social Services Projected Participant Model (Subvention Estimate for FY 1987, SDSS 1987) forecasts that by 1991 the number of GAIN participants will be approximately 197,000 . Of this number, Los Angeles County is expected to contribute approximately one-third of the statewide population. Consequently, the participant sample reported here cannot be regarded as a reliable profile of the actual GAIN caseload once the program is fully implemented statewide.

The demographic characteristics discussed include the gender, ethnicity, native language, age, and education of the current GAIN sample. Participant test performance on the Reading, Math, and Listening Appraisal Tests is also discussed. Educational referral projections were obtained through analyses of participant test scores and educational background. These test results and educational referral projections have implications for educational and social services delivery throughout the state.

Participant Category Data

This report discusses the demographic and test score characteristics of participants within AFDC Aid Category, Aid Status and Registration Status. Information is also included regarding basic skills and demographic characteristics of New, Existing, and Restoration AFDC Cases.

Demographic Characteristics

Gender. Females outnumbered males in the sample 58% to 42%. There was no significant change from the second report (CASAS, 1987). According to the Projected Participant Model, it is expected that by 1991 the GAIN population will be 65% female and 35% male by 1991.

Ethnicity. Approximately 45% of the current GAIN caseload were Caucasian, 26% were Hispanic, 15% were Black. These three groups comprised approximately 86% of the participant sample. The remaining 14% were distributed among Native American (4%), Asian/ Indo-Chinese/Pacific Islander (8%), Filipino, and Other. This distribution was almost the same as the GAIN II Report but reliably different ($p<.001$) from the Projected Participant Model which was 36% Caucasian, 22% Hispanic, 28% Black, 13% Asian/Pacific Islander, and 2% Native American.

Age. The current sample was more heavily weighted toward the

younger age categories than the Projected Participant Model. Approximately 84% of the participant sample was under the age of 40. Almost 48% were between the ages of 25 and 34, while approximately 19% were under age 25. There are no appreciable changes in the age distribution since the GAIN II Report. It was expected that 72% of the statewide GAIN population will be under the age of 40 and 44% will be between the ages of 25 and 34, while 10% will be under age 25.

Native Language. English was the native language of approximately 82% of the participants, while Spanish was the native language of 9%. Languages of the remaining 9% were Vietnamese, Laotian, Tagalog and Other.

Education. The average number of years of education was 10.8. Approximately 92% of the sample reported attainment of at least an eighth grade education, 45% completed a minimum of 12 years of education, 49% completed between 7 and 11 years of education, and about 6% reported completing 6 years or less.

Approximately 45% reported having a high school diploma, a GED Certificate, or passing the California High School Proficiency Examination (CHSPE). The percent of the sample having a technical degree, AA degree, or a college degree was 8%. Forty-seven percent reported not having a degree.

Last High School Attended. Based on conclusions and findings in the GAIN II Report, more information was requested about where GAIN participants had obtained their education, particularly high school. To respond to these requests, a new data field was added to the GAIN Appraisal answer sheet. Participants were asked to respond either yes or no to the question, "Was last school attended, high school or below, in California?". These data for "in-state" compared to "out-of-state" high school attendance were collected for 8,496 GAIN participants.

Those last attending high school in California scored significantly higher on the GAIN Appraisal Reading Test compared to those not attending high school in California. These data showed 91% of those attending high school in California achieved above a 215 scale score while 80% of those not attending high school in California achieved above a 215 scale score. The difference in reading scores could be attributed to a lack of English proficiency. Native language data indicated that 37% of the "out-of-state" group reported a language other than English as their native language compared to only 15% of those attending high school in California. Asian and Indo-Chinese was the ethnic background of 20% of those not attending high school in California compared to only 3% for

those who did go to high school in California. Math scale scores were similar for the two groups. Thus, the lower achievement in Reading scale scores of the "out-of-state" group may be due to English language difficulties rather than inadequate preparation in high school.

Test Score Information

Test results reported on the CASAS scale are based on eight years of statewide educational achievement data for over 200,000 students enrolled in Adult Basic Education (ABE) programs throughout the state. Based on these statewide data, the following achievement levels have been identified.

Below 200. Adults functioning below a 200 scale score are at or below a beginning ABE or English-as-a-Second-Language (ESL) level of instruction and therefore have difficulty with the basic literacy and computational skills necessary to function in employment and in the community.

200 to 215. These adults can function in intermediate level ABE or ESL programs but have difficulty pursuing other than entry level programs requiring minimal literacy skills.

215 to 224. These adults are considered to be at an advanced ABE/ESL level and are achieving above a functional literacy level. They are able to handle basic literacy tasks and computational skills in a functional setting related to employment.

225 and above. These adults can function at a high school level in basic reading and math. At this level, they can generally profit from instruction in GED preparation and in a short time have a high probability of passing the GED test.

These test scores are used in conjunction with participant educational background to assist in determining appropriate educational referrals.

Test Score Performance

The following discussion summarizes test score performance for the GAIN population included in this report.

Reading. Seventy-two percent of the sample achieved a scale score of 225 or above, while 87% achieved at or above a 215 scale score, suggesting that most participants sampled have basic reading skills. The mean score was 231.61, with a standard deviation of 15.24. Little or no change was seen from the GAIN II Report in 1987.

Math. Participants did not perform as well on the Basic Math Test although 57% did perform above a functional competency level (at or above a 215 scale score). Forty-three percent scored below a functional competency level compared to approximately 40% reported in the GAIN II Report. The average score on the Math Test was 217.02, with a standard deviation of 15.72.

Listening. With a larger sample, more data are available regarding the GAIN Listening Test. Although a majority of counties have used the test to some extent, approximately 75% of all Listening Test data were reported from three counties (Santa Clara, San Diego and Merced). Eighty-two percent of the sample achieved below a scale score of 215 while 18% scored above a 2 scale score.

Educational Referral Projections

Educational referral projections and test score data suggest that almost half of the participants were not lacking in basic reading and math skills. Approximately 47% of the sample either did not require an educational referral or the educational referral indicated was high school equivalency or GED. This suggests that they either had an educational degree or the basic skills necessary to obtain a high school equivalency in approximately one hundred to three hundred hours of instruction. Test score performance data suggested that most of these referrals were for basic math instruction. Referral projections were based on the participant's scores and educational background.

No Educational Referrals. Approximately 39% indicated that they possessed a high school diploma, GED, or other educational degree and achieved reading and math scores above a 215 scale score, a minimal functional literacy level. No initial educational referral was projected for this group.

High School Equivalency or GED Programs. Referrals to high school equivalency programs were projected at 19%. Of these participants, 8% were short-term referrals (one hundred to three hundred hours of instruction). Participants requiring only a short-term GED referral generally had the reading and math skills necessary to succeed in these programs in a relatively short period of time. The remaining 11% were referred to a GED or high school equivalency programs of longer duration (four hundred to twelve hundred hours of instruction).

Adult Basic Education. Approximately 34% lacked sufficient basic reading and math skills for entry level employment or training and were referred to Adult Basic Education (ABE) programs. Of these participants

referred for basic skills instruction, 6% required from nine hundred to twelve hundred hours of instruction in basic reading or math. The remaining 28% were referred for a somewhat shorter duration (six hundred to twelve hundred hours). These data represent little or no change since the GAIN II Report.

Further Diagnostic Testing. Less than 2% scored below a 200 scale score, indicating a lack of basic functional literacy. Additional diagnostic information and testing was recommended for this group.

Participant Category Data

Of the available data for AFDC participant categories, 81% were mandatory participants and 19% were voluntary. Mandatory participants were categorized as AFDC Family Group (AFDC-FG) and AFDC-Unemployed Parent (AFDC-U).

AFDC New, Existing, and Restoration Cases

Available data included approximately 47% New Cases, 46% Existing Cases, and 7% Restoration Cases.

Conclusions

This report contributes a significant amount of new information concerning the demographic and basic skills achievement characteristics of the current GAIN participant population. Additional data for under-represented counties needs to be gathered and analyzed before reliable conclusions can be reached concerning the GAIN participant profile. The number of participants has increased since the period of the GAIN II Report by approximately 90,000 (CASAS, 1987). Data from all counties are now included but several of the larger and more demographically diverse counties have been fully operational in GAIN for only a few months. This might explain the differences in the Projected Participant Model and the current GAIN sample. Thus, information reported here represents a partial profile of the eventual GAIN participant population statewide and must be regarded as such in the interpretation of the data.

Table of Contents

List of Tables

List of Figures

List of Figures-Continued

GAIN Appraisal Program
August 1989 Report

Description of GAIN

The Greater Avenues for Independence (GAIN) legislation, AB 2580 (Chapter 1025), passed by the California Legislature in 1985, is an employment and training program intended to provide Aid to Families with Dependent Children (AFDC) recipients with the skills necessary to make them employable. This mandatory program provides job services as well as training, education, and support services to AFDC and RCA (Refugee Cash Assistance) recipients to assist them in attaining unsubsidized employment. The GAIN program includes an initial appraisal component designed to collect information about the participant to determine the need for an educational referral. This report will discuss the participant demographic and educational achievement data collected during the educational testing component.

Initial Appraisal Component

An integral component of the GAIN Appraisal process is the assessment of the participant's basic reading, mathematics, and English language skills. State GAIN regulations mandate that:

> The County Welfare Department shall determine if the registrant lacks basic literacy or mathematics skills or English language skills by using the appropriate testing instruments provided by the State Department of Social Services in conjunction with the State Department of Education. (Manual of Policies and Procedures, Sect. 42-761.161)

On the basis of these test results, participants lacking basic reading, mathematics, or English Language skills may have provisions in their GAIN participant contract for obtaining these skills in Adult Basic Education (ABE) and English as a Second Language (ESL).

GAIN Appraisal Program Tests

Three tests have been developed for the initial appraisal component of GAIN. These tests are designed to assess a participant's level of skill development in the areas of basic reading comprehension, basic mathematics computation, and listening comprehension. All three tests were developed by the Comprehensive Adult Student Assessment System (CASAS) through a contract administered by the California State Department of Education (SDE) and the California State Department of Social Services (SDSS). The three tests together have been designated as the "GAIN Appraisal Program."

Description of Tests

The GAIN Appraisal Program tests were developed from the CASAS Item Bank. This Bank of over 4,000 items has been under continual development and refinement since 1980. The application of Item Response Theory (IRT) to these 4,000 items assigns to each item a reliable index of standardized difficulty. Test forms developed from these items accurately measure basic skills in a functional context.

The GAIN Listening Test. The GAIN Listening Test is designed to assess a participant's listening comprehension of functional skills and is intended for individuals who have limited proficiency in English. Only registrants who have been determined to have difficulty understanding English take this test. The test consists of twelve multiple-choice items.

The GAIN Basic Reading Test. The GAIN Basic Reading Test is designed to assess a participant's ability to apply basic reading skills in a functional or "life-skills" context and consists of thirty multiple-choice items.

The GAIN Basic Math Test. The GAIN Basic Math Test is designed to assess a participant's ability to perform basic math computation and to apply basic math skills in a functional or "life-skills" context. The test consists of twenty multiple-choice items.

An alternate form of the GAIN Appraisal Reading and Math tests (Form 2) has also been developed. This form may be used in the event that an alternative testing measure is needed.

CASAS Level A and AA Tests. These tests are used in the appraisal process to assess basic skills for lower levels of achievement or functional literacy. They are administered when a participant scores below a 200 scale score in reading or indicates a learning disability. Please refer to Table 1 (see page 13) for referral criteria.

Field Test

A field test of the GAIN Appraisal Program was conducted from July 1, 1986 to December 4, 1986. The purpose of the field test was to gather data regarding the psychometric properties of the test forms and to help identify early operational problems in the county test administration procedures. Procedural problems such as proper and efficient test administration, testing conditions, and scoring and interpretation of the tests were addressed during the field test through site visits and technical assistance by CASAS and state personnel.

Psychometric Properties

As mentioned earlier, a field test was conducted primarily to gather data regarding the psychometric properties of the GAIN Appraisal Program Forms. These results were summarized and presented in the GAIN Appraisal Program Field Test Report (CASAS, 1987, pp. 5-6) and the GAIN II Report (CASAS, 1987). The GAIN Appraisal Reading and Math Tests Form 2 have been implemented since publication of the GAIN II Report and their psychometric properties have been analyzed. The results briefly summarized below indicate that the instrumentation used in the GAIN Appraisal Tests Forms 1 and 2 are internally consistent and accurate with the psychometric model used. These psychometric properties are discussed below.

Reliability. Computation of Kuder-Richardson (KR)-20 indices for GAIN Appraisal Reading and Math Test items indicate that in the case of GAIN Appraisal Reading Test Form 1, the (KR)-20 was .89, and for GAIN Appraisal Reading Test Form 2 the figure was .94. The same computation for the GAIN Math Test Form 1 was .86, and for the GAIN Appraisal Math Test Form 2 was .89.

Item-Total Correlations. Point biserial correlation coefficients were obtained for the GAIN Appraisal Reading and Math Tests. This correlation should generally fall between .40 and .60 for each of the individual test items. In the case of GAIN Appraisal Reading Test Form 1, the coefficients ranged exactly from .40 to .60 with a mean of .49. For GAIN Appraisal Reading Test Form 2, point- biserial coefficients ranged from .43 to .77 with a mean of .63. Similar coefficients for the GAIN Appriasal Math Test Form 1 ranged from .24 to .63 with a mean of .51, and for the GAIN Appriasal Math Test Form 2 from .48 to .65 with a mean of .58.

P-Values. The P-Value refers to the proportion of examinees passing an individual item and gives an index of difficulty for each item relating to the sample of persons being tested. In the case of the GAIN Appriasal Reading Test Form 1, the P-Values ranged from .45 to .95 with an average P-Value of .77 indicating that an average of 77% of the examinees passed each item. For the GAIN Appriasal Reading Test Form 2, P-Values ranged from .42 to .87 with an average value of .71. For GAIN Appriasal Math Test Form 1, the P-Value ranged from .25 to .90 with an average P-Value of .56 and for the GAIN Appriasal Math Test Form 2, values ranged from .34 to .83 with an average P-value of .53.

Local to Bank Difficulty Correlations. The psychometric theory underlying the development of the CASAS Item Bank and therefore the

GAIN Appraisal instruments is commonly referred to as Item Response Theory (IRT). This measurement model standardizes or indexes the difficulty of test items in order to measure the ability of people to read and compute in a pre-employment context. This model postulates that under certain conditions, item difficulty estimates are invariant; that is, the standardized difficulties do not fluctuate like P-Values do depending on the differing abilities of test respondents or samples of persons being tested. A measure of this invariance may be found in the correlation of the local difficulties to the established item bank difficulties. As this correlation approaches 1.00, confidence in the application of the psychometric model to the data set increases as does confidence in the application of the bank difficulties to the population of examinees of interest.

In the case of the GAIN Appriasal Reading Test Form 1, the correlation between local and bank difficulties was .81. For the GAIN Appriasal Reading Test Form 2, the correlation was .89. A corresponding correlation was computed independently for Blacks, Caucasians, and Hispanics. For the GAIN Appriasal Reading Test Form 1, the respective figures were .75, .81, and .80. For the GAIN Appriasal Reading Test Form 2, they were .89, .84, and .91. For the GAIN Appriasal Math Test Form 1, the correlation for Blacks .49, Caucasians, and Hispanics was .85, .82, and .86 respectively and for GAIN Appriasal Math Test Form 2, they were .84, .76, and .83 respectively.

A correlation of .70 existed between Form 1 Reading and Math Scale Scores and a correlation of .76 existed between Form 2 Reading and Math Scale Scores. These correlations did not differ appreciably by gender or ethnicity.

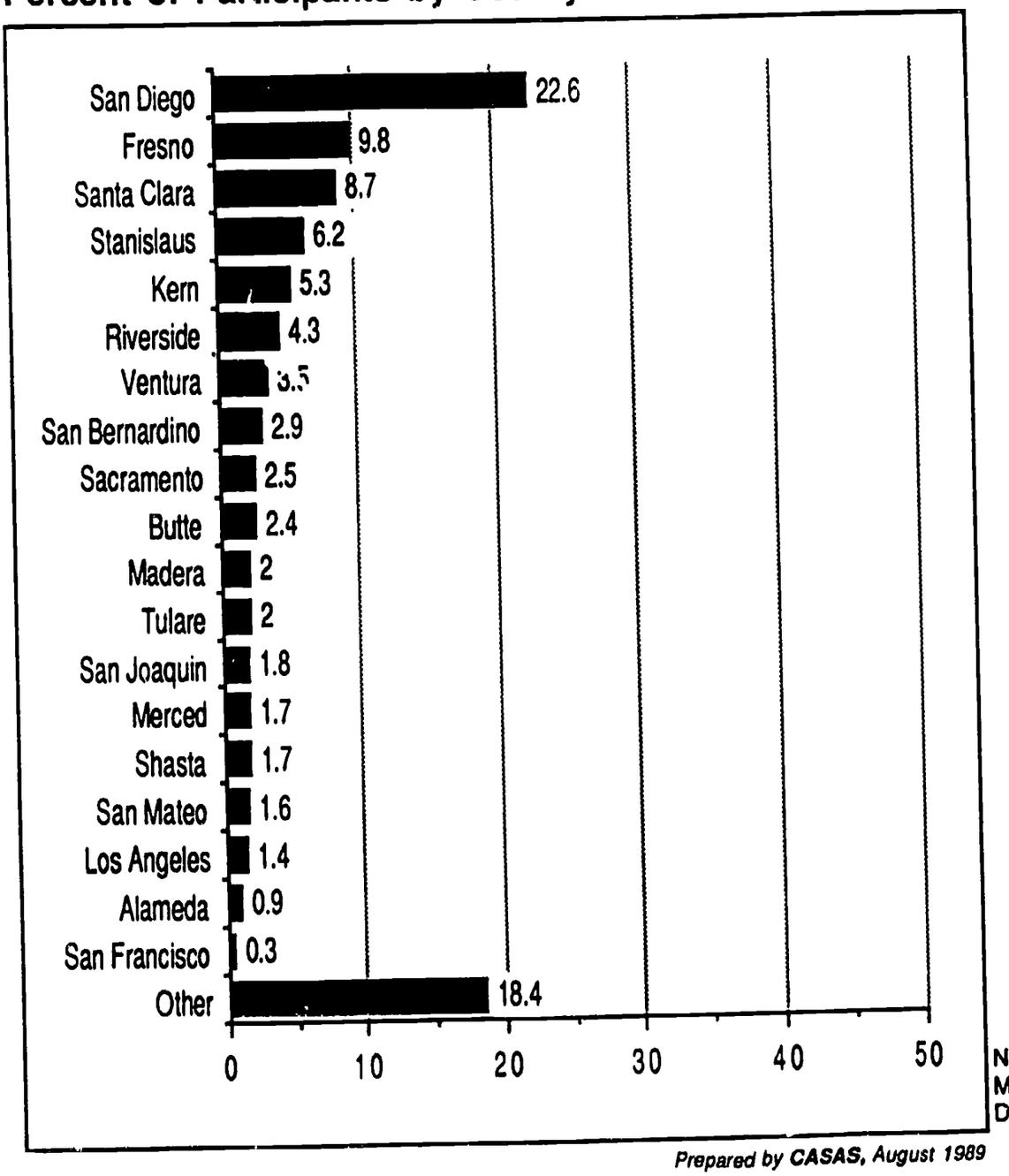
Scope of this Report

Data for this report were gathered from July 1986 through April 1989 for 121,504 cases (see Figure 1). This report updates the demographic and test score information presented in the GAIN II Report. It includes data from all 58 counties which have implemented GAIN. It is important to note that although all counties have contributed data to this report, three of the state's largest and most demographically diverse counties (Alameda, Los Angeles, San Francisco) accounted for only 2.6% of the sample. Thus, data presented in this report tend to over-represent the participant sample from all other counties and are not generalizable statewide. This report includes data obtained from administration of the GAIN Appriasal Listening Test. Included also in this report are data pertaining to the location of the last high school attended by participants

to enable comparisons between California and non-California school attendees. GAIN Appriasal Listening Test results and additional data on the educational achievement levels of GAIN participants by Participant Aid Category, Registration Status, and Aid Status are also discussed. The GAIN Appraisal answer sheets were the source of all information regarding participant test score performance, demographic data, participant category information, and ESL referral information.

Percent of Participants by County

Figure 1



Prepared by CASAS, August 1989

Demographic Data

The demographic characteristics (gender, ethnicity, age, and education) of the current GAIN participant population are described below and presented in the tables and charts which follow. Also included in these descriptions are comparisons of the gender, age, and ethnic breakdowns of the Projected Participant Model (Subvention Estimate for FY 1987, SDSS 1987) developed by SDSS and the gender, age, and ethnic breakdown of the current GAIN caseload which may provide a more accurate demographic profile of the actual GAIN-eligible population.

Test Score Performance

GAIN participant test performance on the Reading and Math Appraisal Tests is also presented and d scussed. Test score performance is based on eight years of CASAS statewide achievement data from Adult Basic Education (ABE) and English-as-a-Second Language (ESL) students enrolled in Adult Basic Education programs in California. These data provide a basis for indicating the basic reading and math skills of the current GAIN participant sample. In addition, information regarding the basic reading and math skills of GAIN participants within Participant Aid Category (AFDC-FG, AFDC-U) and Aid Status (New, Existing, and Restoration Case) are also presented. These data provide a basic skills profile of AFDC participants within these various categories. These test results, reported on the CASAS scale, have implications for educational and social service delivery throughout the state. The reader is reminded again that the test score performance reported here does not represent a represenative sampling of all counties and thus should not be regarded as representing the basic skills abilities of the entire GAIN-eligible population.

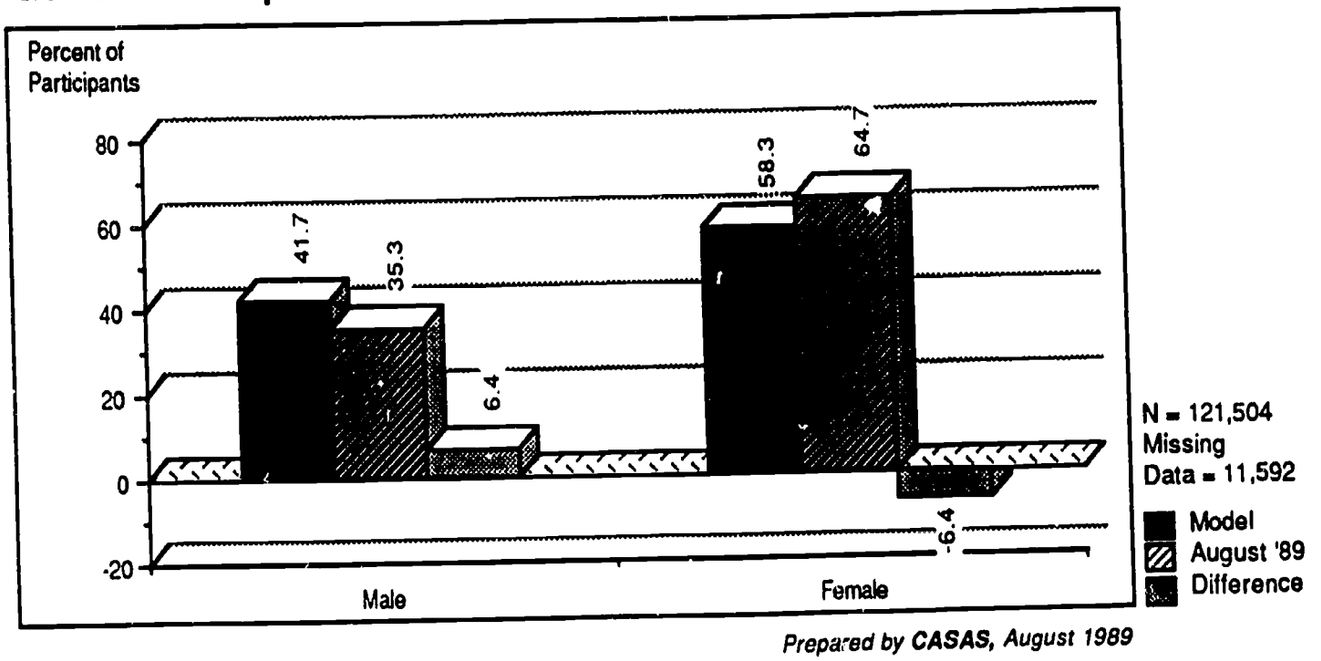
Demographic Characteristics

Gender. The gender of the participants included in this report were approximately 58% female and 42% male. It is expected that the statewide GAIN participant caseload, once the program is fully operational, will consist of approximately 65% female and 35% male. Figure 2 presents comparisons that suggest a reliable difference ($p<.001$) between the current gender composition of the GAIN participant sample and the Projected Participant Model. Males were over-represented by 6.4% and females under-represented by approximately the same amount.

Ethnicity. Approximately 45% of the current GAIN caseload were Caucasian, 26% were Hispanic, and 15% were Black. These three groups comprised approximately 86% of the participant sample. The

Gender Comparison

Figure 2

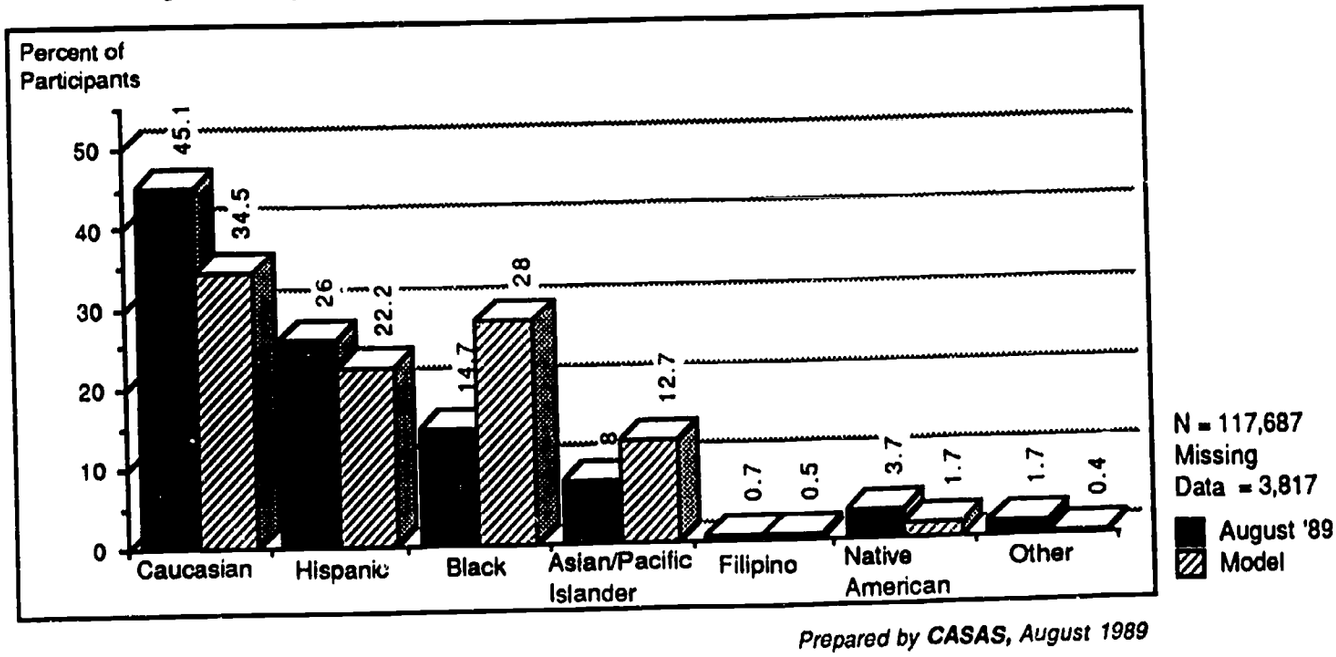


*Prepared by **CASAS**, August 1989*

remaining 14% were distributed among Native American (4%), Asian/ Indo-Chinese/Pacific Islander (8%), Filipino, and Other. As noted in Figure 3, this distribution is reliably different ($p<.001$) from the Projected Participant Model which was approximately 35% Caucasian, 22% Hispanic, 28% Black, 13% Asian / Pacific Islander, and 2% Native American / Alaskan.

Ethnicity Comparison

Figure 3



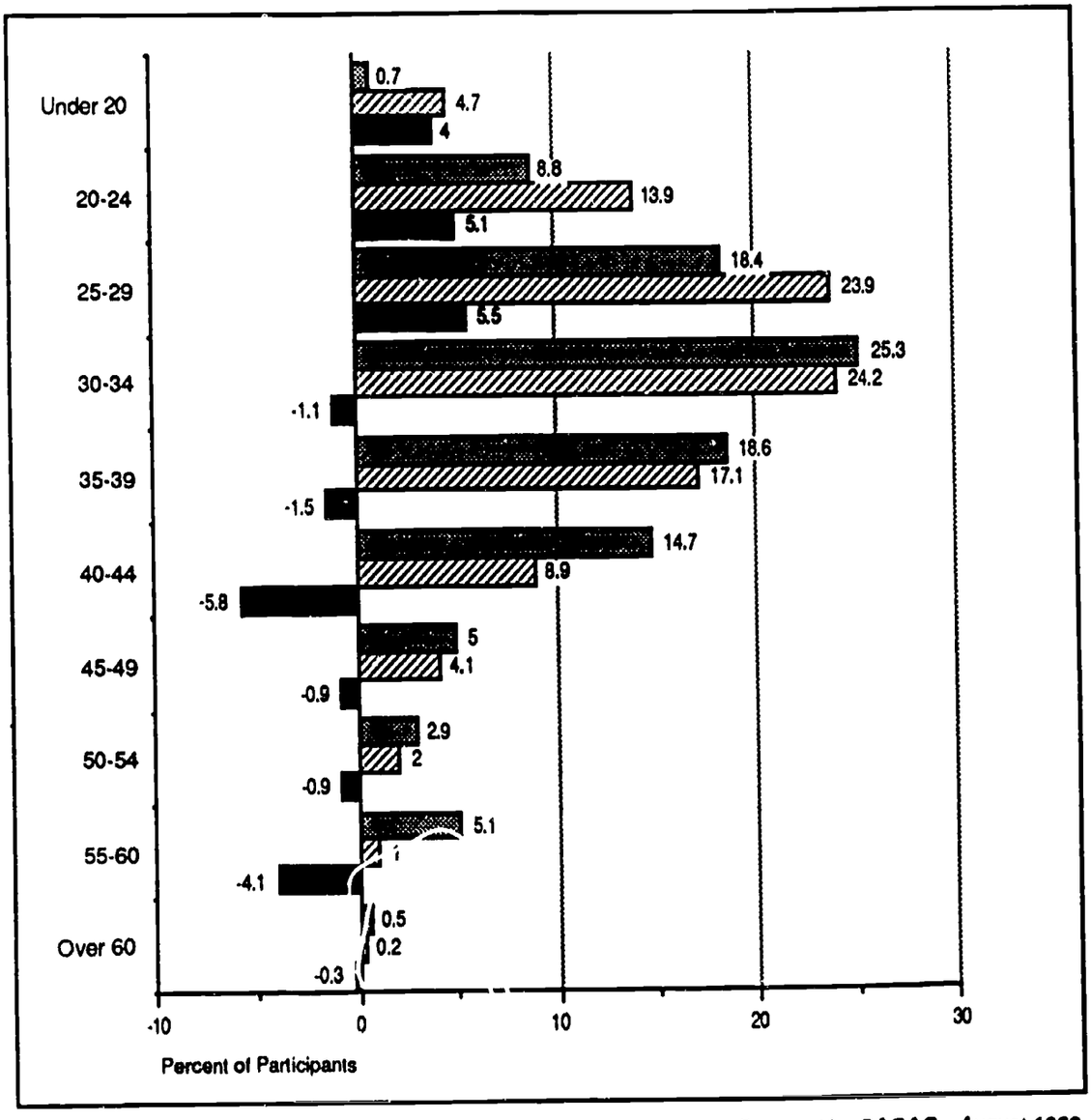
*Prepared by **CASAS**, August 1989*

Age. Figure 4 compares the ages of the current GAIN sample with the Projected Model. Approximately 84% of the participant sample were under the age of 40. Almost one-half (48%) were between the ages of 25 and 34, while approximately 19% were under age 25. Approximately 16% were above the age of 40. This was different from the Projected Participant Model in which indicated that 72% of the statewide GAIN population will be under the age of 40 and 44% will be between the ages of 25 and 34 while 10% will be under age 25.

This comparison suggests that the two samples are reliably different ($p<.001$) and similar only with respect to those participants between a few age groups. The current sample was more heavily weighted toward the younger age categories than was the Projected Model.

Age Comparison

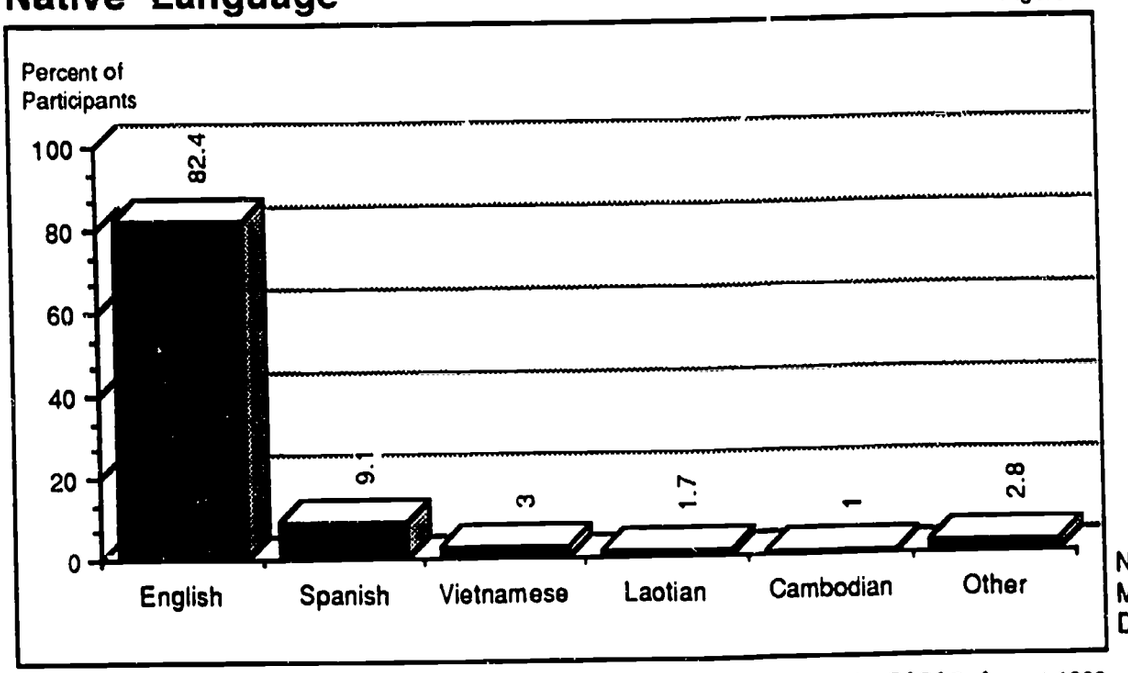
Figure 4



Prepared by CASAS, August 1989

Native Language

Figure 5



N = 117,014
Missing Data = 4,490

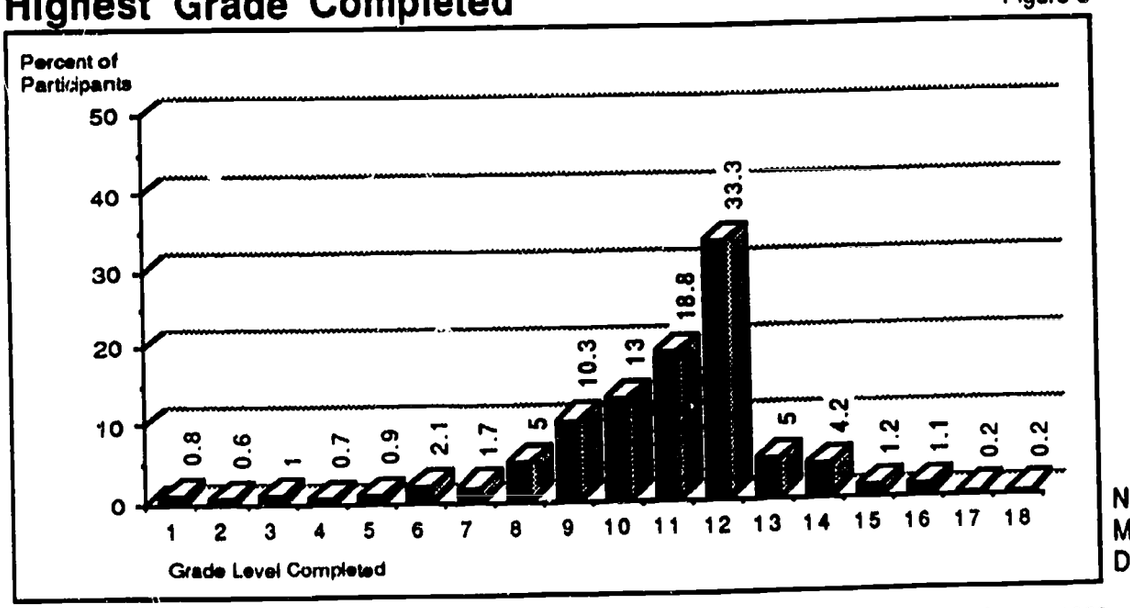
*Prepared by **CASAS**, August 1989*

Native Language. English was the native language of approximately 82% of the participants while Spanish was the native language of 9% (see Figure 5). The remaining 9% indicated Vietnamese, Laotian, Cambodian, or Other as their native language. Information was not available to compare these data to a statewide projection of the native language of GAIN participants.

Education. Approximately 92% of the sample had achieved at least an eighth grade education and 45% had a minimum of 12 years of

Highest Grade Completed

Figure 6



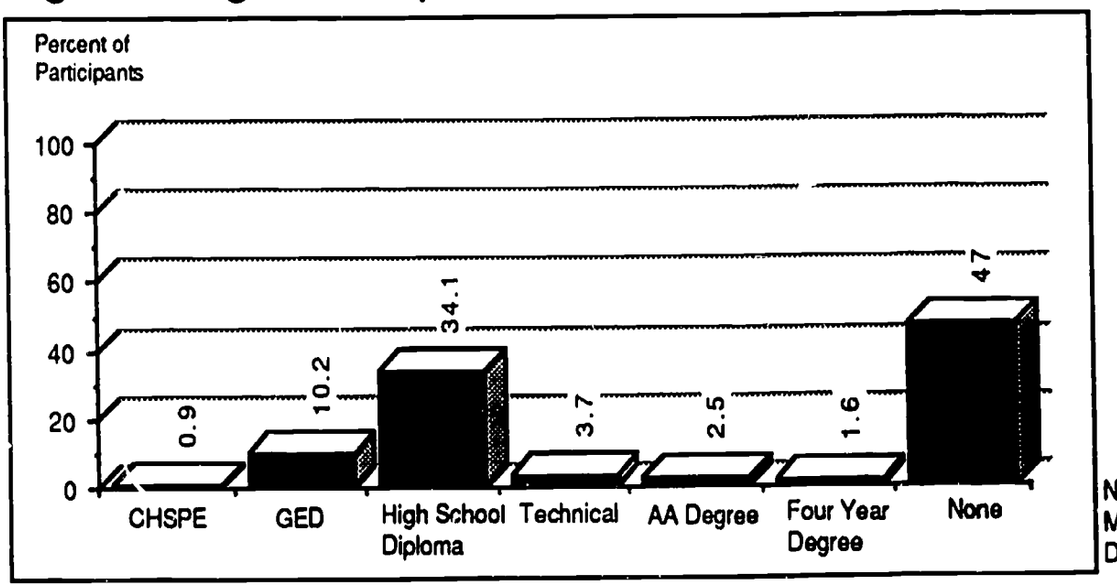
N = 115,468
Missing Data = 6,036

*Prepared by **CASAS**, August 1989*

education. Almost 49% of the participants had 7 through 11 years of education, while 6% reported completing only 6 years of school or less (see Figure 6). The mean or average years of education for all participants was approximately 10.8. Approximately 45% reported having a high school diploma, a General Education Development (GED) Certificate, or having passed the California High School Proficiency Examination (CHSPE, the legal equivalent of a high school diploma in California). Approximately 47% reported not having a degree (see Figure 7).

Highest Degree Completed

Figure 7



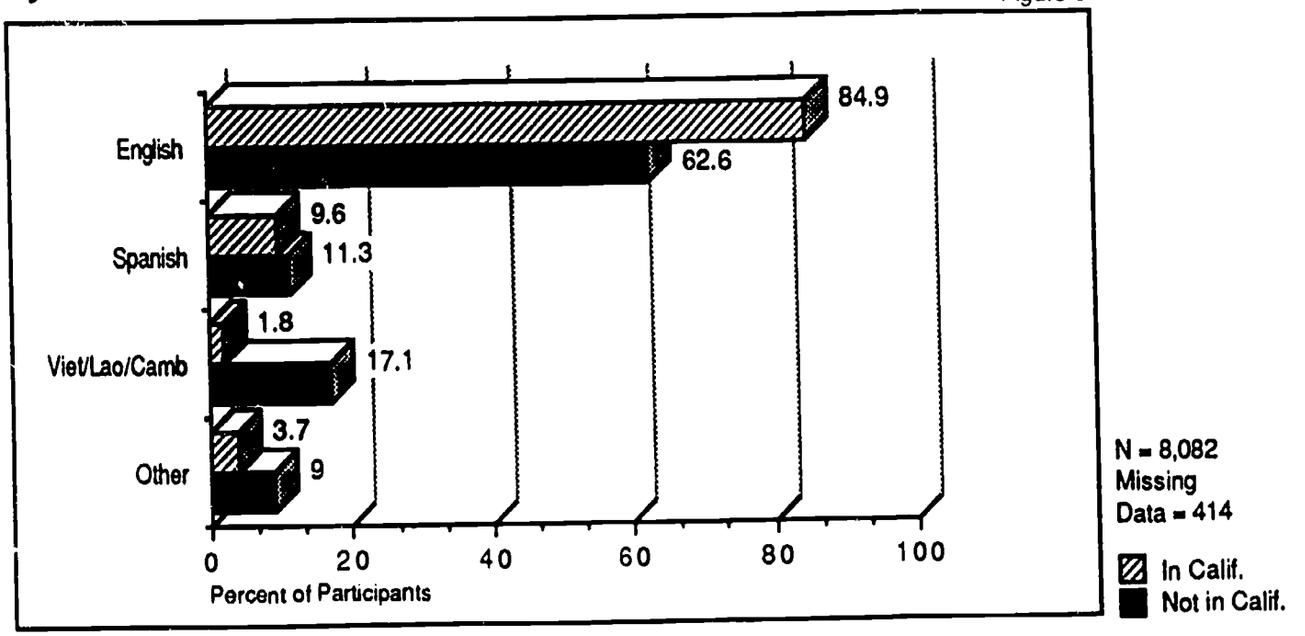
Prepared by CASAS, August 1989

Last High School Attended. Based on findings in the GAIN II Report, more information was requested about where GAIN participants had obtained their education, particularly high school. To respond to these requests a new data field was added to the GAIN Appraisal answer sheet. Participants were asked to respond either yes or no to the question, "Was last school attended, high school or below, in California." Since July, 1988, data for location of last high school attended has been collected for 8,496 cases. Sixty-four percent (5,437) of this sample reported last attending high school in California compared to 36% (3,058) who attended high school outside of California.

GAIN Appraisal Reading test scores indicated a significant difference ($p<.001$) between participants attending high school in California and those who did not. Approximately 91% of the participants attending in California scored above a 215 scale score compared to 80% of the participants from outside California. Among those that attended high school in California, 69% scored at or above a 225 scale score compared

Native Language by Location of Last High School Attended

Figure 8



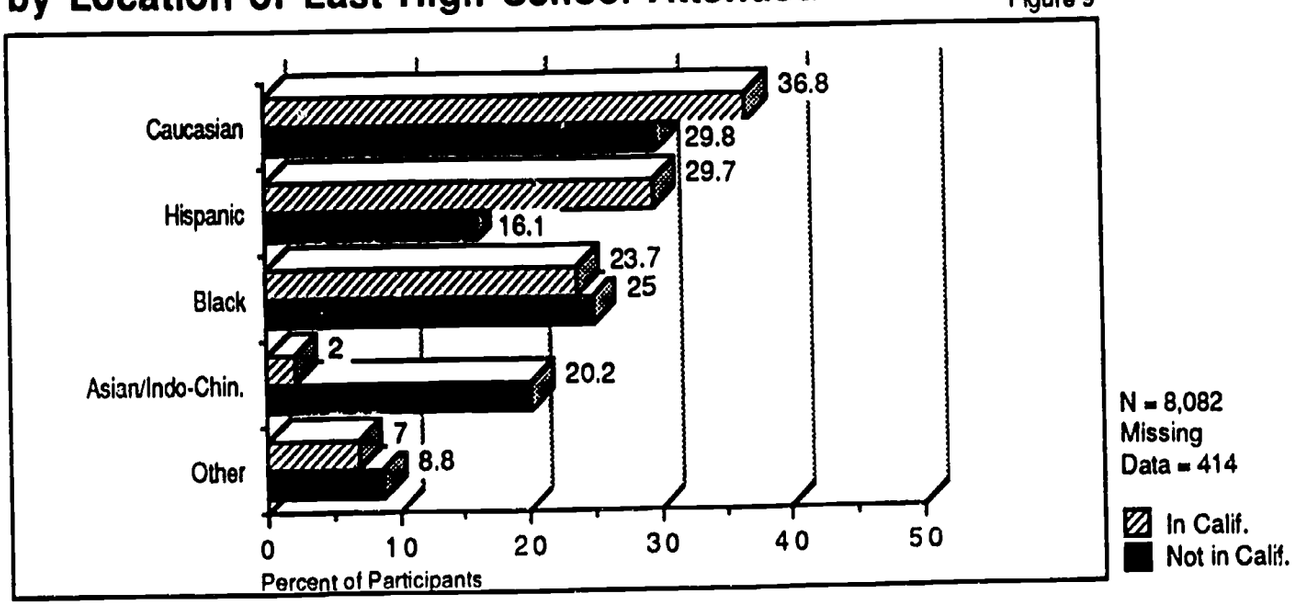
*Prepared by **CASAS**, August 1989*

to 31% of those who attended high school outside of California. GAIN Appraisal Math test scale scores for the two groups indicated little or no difference .

The difference in reading scale scores among participants be attributed to a lack of English language proficiency. Figure 8 displays the native

Ethnic Background by Location of Last High School Attended

Figure 9



*Prepared by **CASAS**, August 1989*

language distribution of participants either attending or not attending high school in California. Eighty-five percent of those attending in California identified English as their primary language, while only 63% of those not attending in California reported English as their native language. More specifically, 17% of those not attending high school in California reported Vietnamese, Laotian, or Cambodian as their native language compared to 2% of those attending school in California. Similarly, in Figure 9, 20% of those attending high school outside California reported Asian or Indo-Chinese as their ethnic background compared to 2% for those attending school in California. These data suggest that the lower reading scale scores for participants who did not attend high school in California are closely associated with native language and ethnic background.

Test Score Characteristics

Test score results reported on the CASAS scale are based on eight years of statewide educational achievement data for approximately 200,000 students enrolled in Adult Basic Education (ABE) and English as a Second Language (ESL) programs throughout California. Based on these statewide data the following functional levels have been identified.

Below 200. Adults functioning below a 200 scale score (beginning ABE/ESL) have difficulty with the basic literacy and computational skills necessary to function in employment and in the community. These adults can handle routine, entry-level jobs. These students are often limited to jobs that involve only the most basic oral communication and in which all tasks can be demonstrated. These adults have difficulty providing basic personal identification in written form, are not able to compute wages and deductions on paychecks, and cannot follow basic written directions or safety procedures.

200 to 215. Those adults scoring between 200 and 215 scale scores can function in intermediate level ABE and ESL programs but have difficulty pursuing other than entry-level programs requiring minimal literacy skills. They are able to satisfy basic survival needs and some limited social demands. At this level, adults can function in entry-level jobs that involve simple oral communication but in which required tasks are demonstrated. They can provide some basic written information and perform basic computations.

215 to 224. Those adults functioning between 215 and 224 scale scores are functioning above a basic literacy level and are able to handle basic literacy tasks and computational skills in a functional setting related to employment. They are generally able to function in jobs and job training that involve following oral and written instructions and diagrams. They usually have difficulty following more complex sets of directions.

Table 1

GAIN Appraisal Program
Recommended Educational Referrals and Estimated Duration Based on Appraisal Test Scores and Participant Educational History

Appraisal Test	Score	High School Diploma or GED?	Referral	Estimated Duration (approximate)
Reading Math	225+ 225+	Yes	No Educational Referral	
Reading Math	225+ 225+	No	GED Instruction	100 - 3 00 hours
Reading Math	225+ 215-224	Yes	No Educational Referral	
Reading Math	215-224 225+	No	GED Instruction	400 - 600 hours
Reading Math	215-224 215-224	Yes	No Educational Referral	
Reading Math	215-224 215-224	No	GED Instruction	600 - 1200 hours
Reading Math	225+ 200-214	Yes/No	Basic Education	600 - 1200 hours
Reading Math	200-214 225+	Yes/No	Basic Education	600 - 1200 hours
Reading Math	215-224 200-214	Yes/No	Basic Education	600 - 1200 hours
Reading Math	200-214 215-224	Yes/No	Basic Education	600 - 1200 hours
Reading Math	200-214 200-214	Yes/No	Basic Education	600 - 1200 hours
Reading Math	200-214 Below 200	Yes/No	Basic Education	900 - 1200 hours
Reading Math	Below 200 200-214	Yes/No	Further Appraisal Needed	
Reading Math	Below 200 200-214	Yes/No	Further Appraisal Needed	

*Prepared by **CASAS**, August 1989*

Above 225. Those adults functioning at or above a 225 scale score are considered to be at an advanced ABE/ESL level and can function at a high school entry level in basic reading and math. They can usually perform work that involves following oral and written directions in familiar and some unfamiliar situations. At this level, they can profit from instruction in GED preparation and in a short time have a high probability of passing the GED test.

These test scores are used in conjunction with other participant information (i.e., educational background) in the GAIN educational referral process (see Table 1 for a summary of these referrals). Limited English proficient participants who speak no English or score below 215 on the GAIN Appraisal Listening Test are referred to ESL instruction. Listening Test data are discussed in the Appendix to this report.

Test Score Data

As discussed earlier, the total sample for this report was 121,504. Of these, 4,278 (approximately 3.5%) were referred directly to ESL without being tested (see figure 19), 3,540 (approximately 2.9%) scored below a 215 scale score on the GAIN Appraisal Listening Test and were also referred to ESL, leaving 114,644 cases with Reading and Math Test score data.

Reading. Seventy-six percent of the sample achieved a scale score of 225 or above while approximately 2% achieved less than a 200 scale score. Almost 90% achieved higher than a 215 scale score. The mean or average score was 231.6, with a standard deviation of 15.24.

Math. Scores were more evenly dispersed for the Math Test compared to the Reading Test. Approximately 37% achieved above a 225 scale score,

Score Group Estimates by Reading and Math Scores

Table 2

	Number Row % Column % Total %	GAIN MATH SCORE				
		Less than 200	200 - 214	215 - 224	225 Plus	Row No. Row %
GAIN READING SCORE	Less than 200	1130 54.9% 13.1% 1.0%	843 40.9% 2.5% 0.7%	78 3.8% 0.3% 0.1%	9 0.4% 0.0% 0.0%	2060 1.8%
	200 - 214	2963 31.9% 34.4% 2.6%	5314 57.2% 16.0% 4.7%	861 9.3% 2.9% 0.8%	155 1.7% 0.4% 0.1%	9293 8.2%
	215 - 224	2584 16.5% 30.0% 2.3%	8907 57.0% 26.8% 7.9%	3367 21.5% 11.3% 3.0%	767 4.9% 1.9% 0.7%	15625 13.9%
	225 Plus	1936 2.3% 22.5% 1.7%	18207 21.2% 54.7% 16.1%	25408 29.6% 85.5% 22.5%	40208 46.9% 97.7% 35.7%	85759 76.1%
	Column No. Column %	8613 7.6%	33271 29.5%	29714 26.4%	41139 36.5%	112737 100.0%

N = 112,737
Missing Data = 1,907

Prepared by CASAS, August 1989

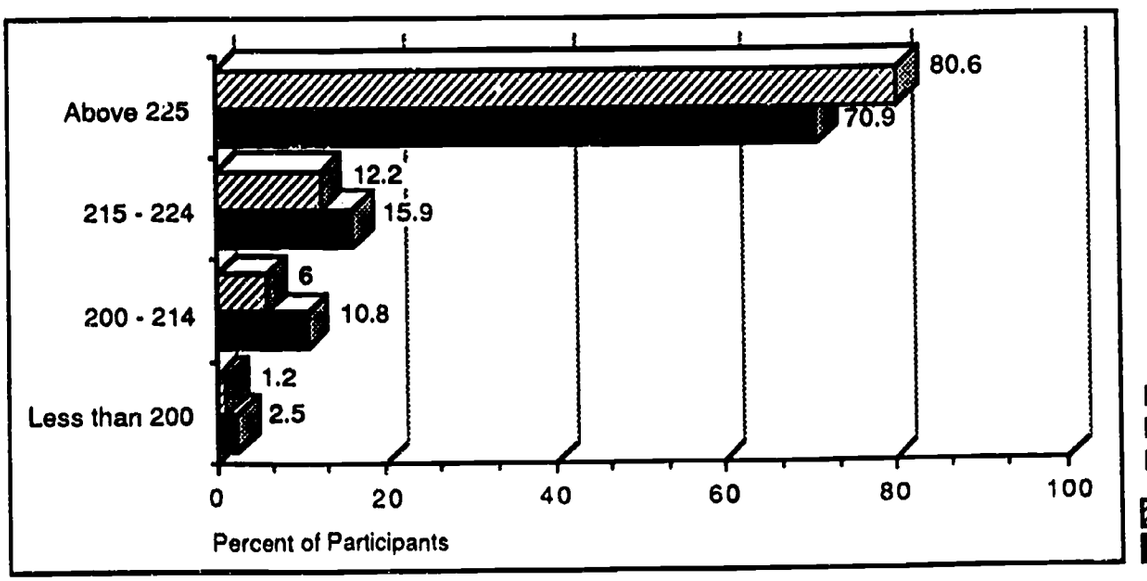
26% scored between 215 and 224, 30% scored between 200 and 214, while 8% scored less than 200. The average score on the Math Test was 217.0 with a standard deviation of 15.7.

Math and Reading. Of those participants who scored 225 or above in Math, 98% scored above 225 in Reading. In contrast, for those participants scoring 225 or above in Reading, only 47% scored at or above 225 in Math. Of those participants who scored less than 200 on the Math Test, 13% scored less than 200 on the Reading Test, 34% scored between 200 and 214, 30% percent scored between 215 and 224, while 23% scored 225 or above. Of those participants who scored between 200 and 214 on the Math Test, 3% scored less than 200 on the Reading Test, 16% scored between 200 and 214, 27% scored between 215 and 224, while 55% scored at or above 225. Of those participants scoring between 215 and 224 on the Math Test, less than 1% scored less than 200 on the Reading Test, 3% scored between 200 and 214, 11% scored between 215 and 224, while 86% scored at or above 225 in Reading (see Table 2).

Gender. Analyses of test score performance by participant gender are presented in Figures 10 and 11 for the GAIN Appraisal Reading and Math Tests respectively. Differences in performance between males and females ere notable with respect to scores on the Reading Test. A somewhat larger percentage of males scored below a 215 scale score (13%) than did females (7%). Eighty-one percent of the females in the sample scored above 225 compared to 71% of the males. Little difference existed between males and females with respect to the various scale score categories for Math.

GAIN Reading Scores by Participant Gender

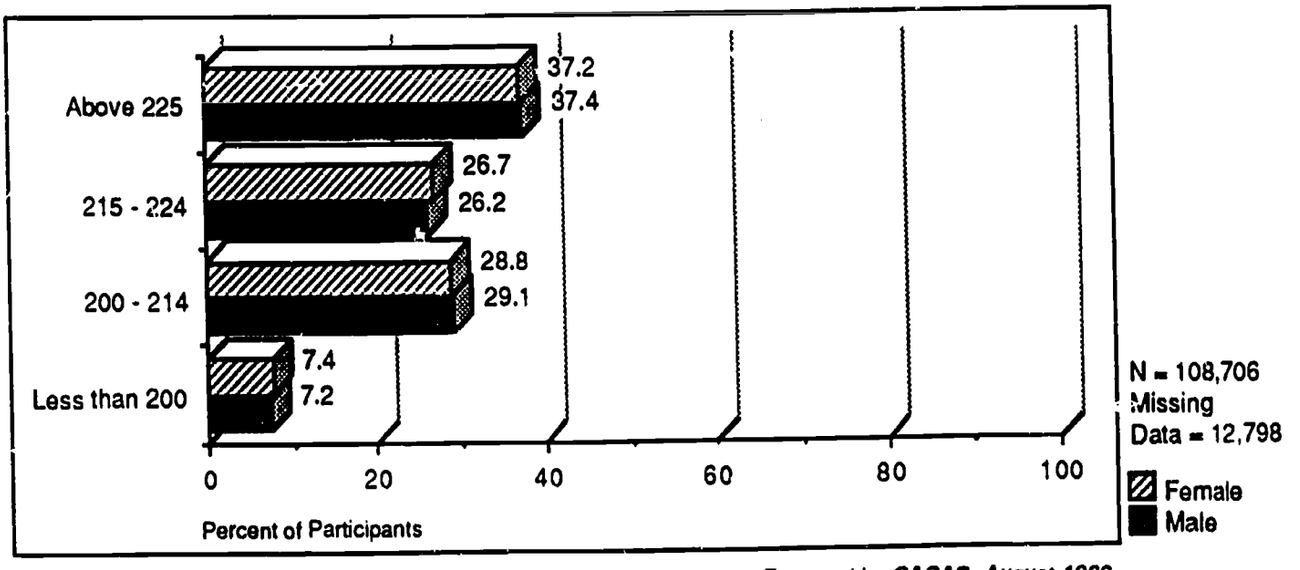
Figure 10



Prepared by CASAS, August 1989

GAIN Math Scores by Participant Gender

Figure 11

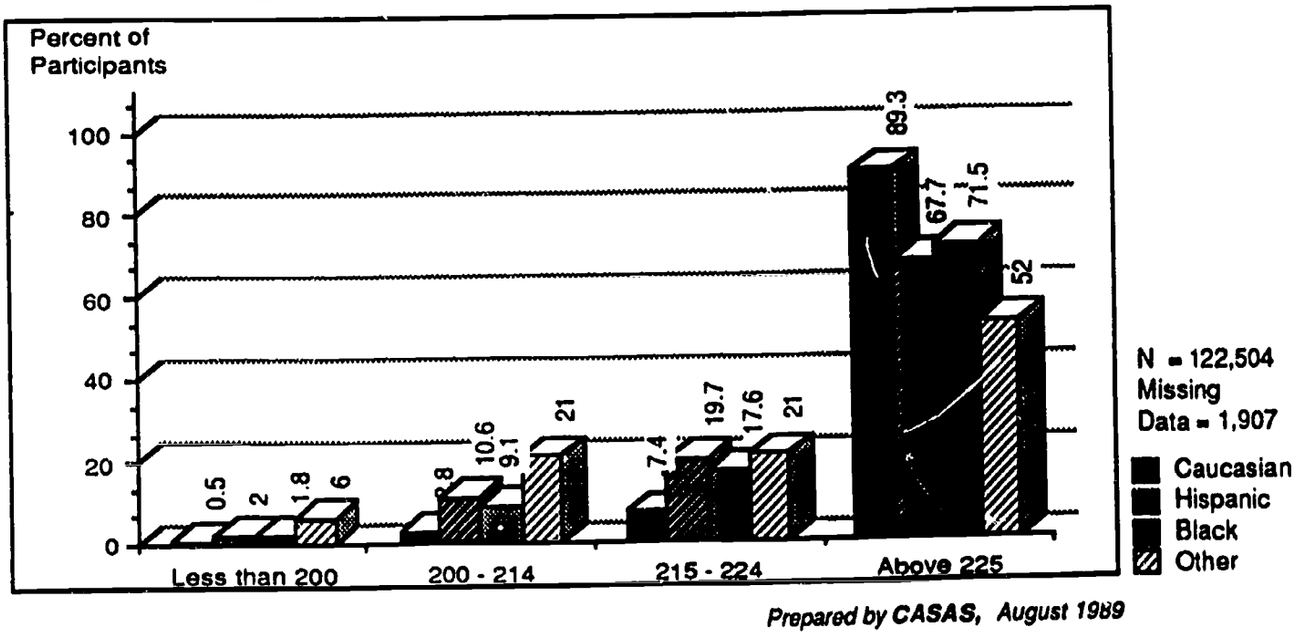


Prepared by CASAS, August 1989

Ethnicity. Figures 12 and 13 present cross-tabulations of GAIN Appraisal Reading and Math Test scores with participant ethnic background. As indicated in Figure 12, 89% of the Caucasians achieved scores of 225 and above on the GAIN Appraisal Reading Test as compared to 68% of the Hispanics, and 72% of the Blacks. Little difference existed between these three groups relative to the percent of respondents scoring below a 200 scale score. On the GAIN Appraisal Math Test, 53% of the Caucasians achieved scale scores of 225 and above, compared to 23% of the Hispanics and 21% of the Blacks (see

GAIN Reading Scores by Participant Ethnicity

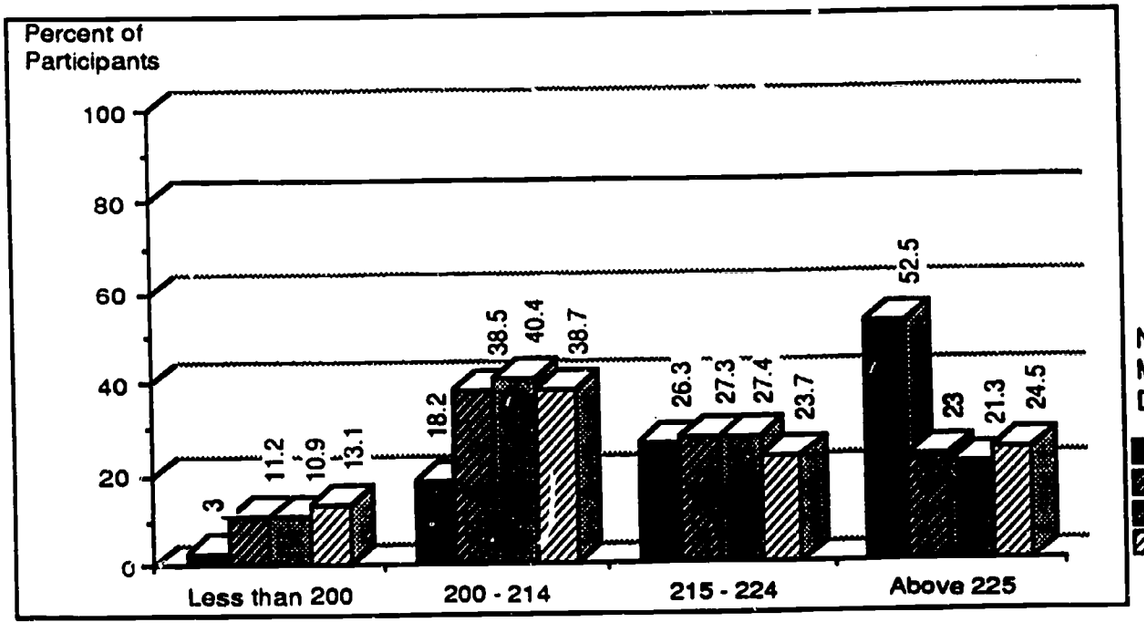
Figure 12



Prepared by CASAS, August 1989

GAIN Math Scores by Participant Ethnicity

Figure 13



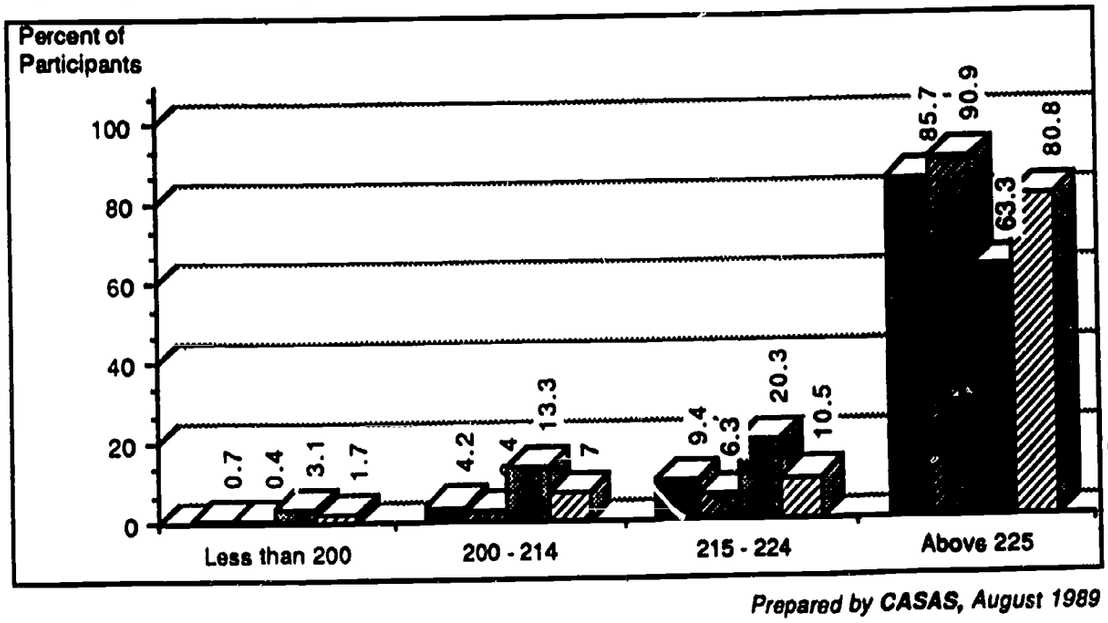
Prepared by CASAS, August 1989

Figure 13). Approximately 3% of the Caucasians achieved below a 200 scale score, compared to 11% of the Hispanics, and 11% of the Blacks. Similar results were found for scores in the 200 to 214 range. Little difference existed between these three groups for scores between 215 and 224.

Education. Among those participants who had a high school diploma, 86% scored at or above 225 on the Reading Test, 9% scored between

GAIN Reading Scores by Highest Degree Earned

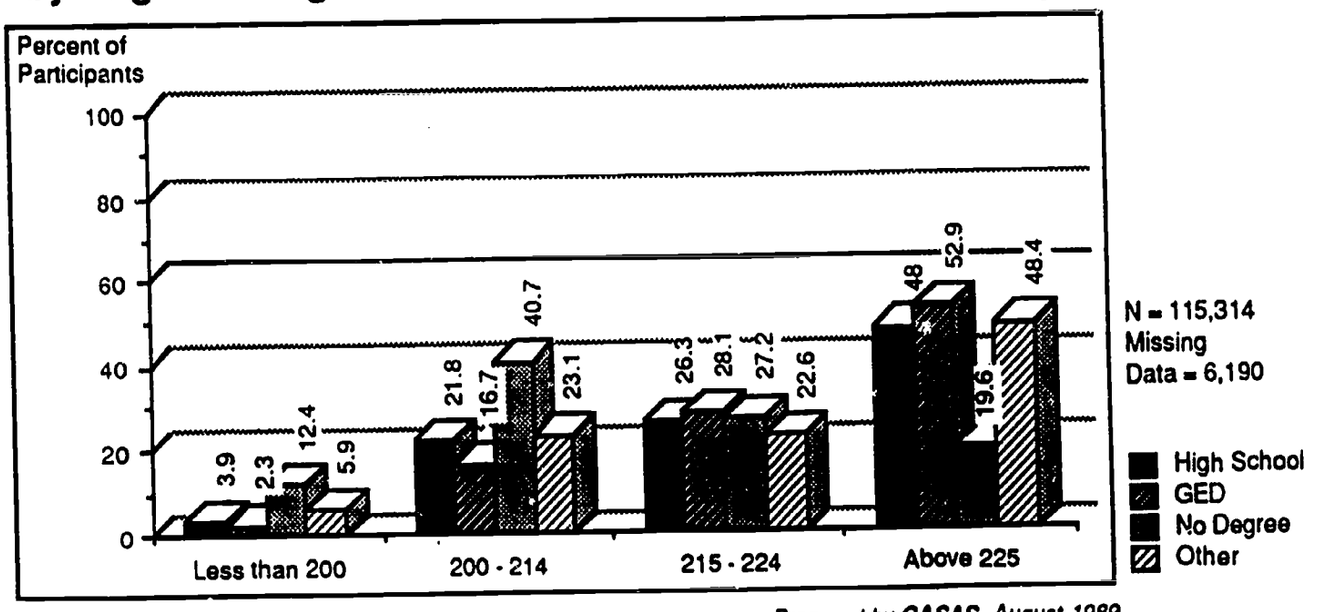
Figure 14



Prepared by CASAS, August 1989

GAIN Math Scores by Highest Degree Earned

Figure15



Prepared by CASAS, August 1989

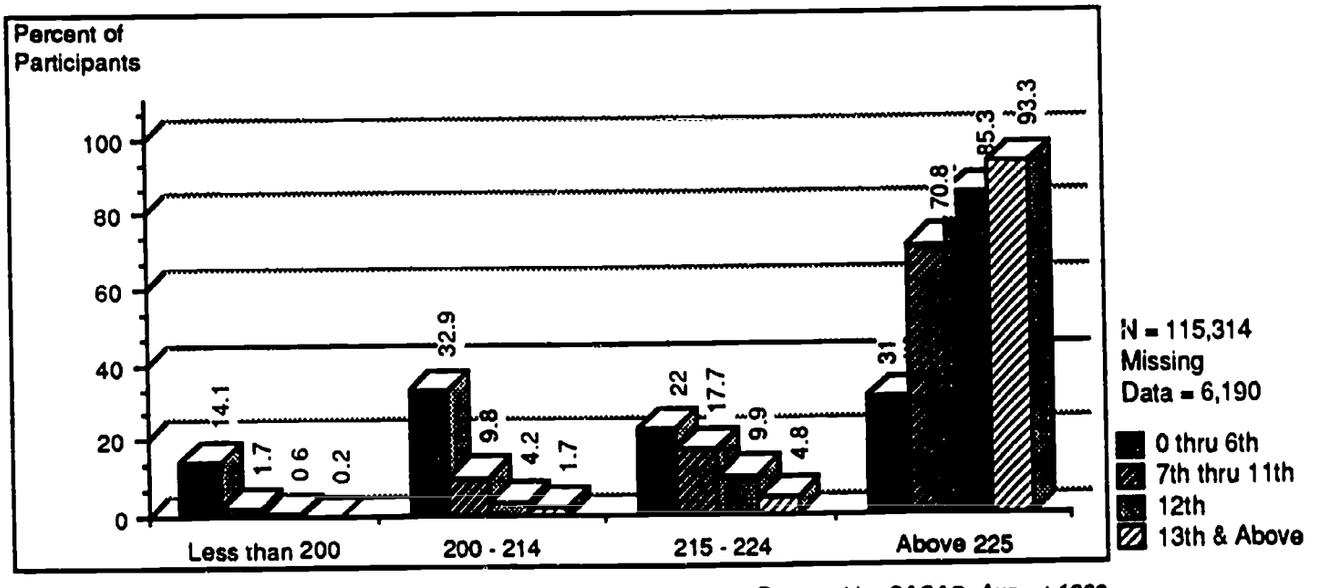
215 and 224, while the remaining 5% scored below a 215 scale score (see Figure 14). A similar pattern existed with those participants having a GED Certificate, although their overall scores were somewhat higher. Among those participants without an educational degree, 63% percent achieved above a 225 scale score on the Reading Test, and 16% percent scored below 215. Participants with a post-secondary or technical degree (Other) performed similarly to high school graduates.

A similar pattern existed with respect to the GAIN Appraisal Math Test. As noted in Figure 15, among those persons with a high school diploma, approximately 48% scored above a 225 scale score, 26% scored between 215 and 224, 22% scored between 200 and 214, while 4% scored less than 200. Participants with a GED performed similarly. Among those participants lacking formal high school completion or equivalency, only 20% scored 225 and above, and 53% scored below a 215 scale score. Among those participants with a post-secondary or technical degree (Other), approximately 48% achieved above a 225 scale score, 23% scored between 215 and 224, while 29% scored below 215.

As might be expected, participant-reported years of education was positively related to achievement levels on the GAIN Appraisal Reading and Math tests. As noted in Figure 16, among those participants who completed six or fewer years of education, approximately 31% achieved scale scores of 225 and above on the Reading Test, while almost half (47%) achieved below a 215 scale score. The data shown in Figure 6

GAIN Reading Scores by Highest Grade Level Completed

Figure 16

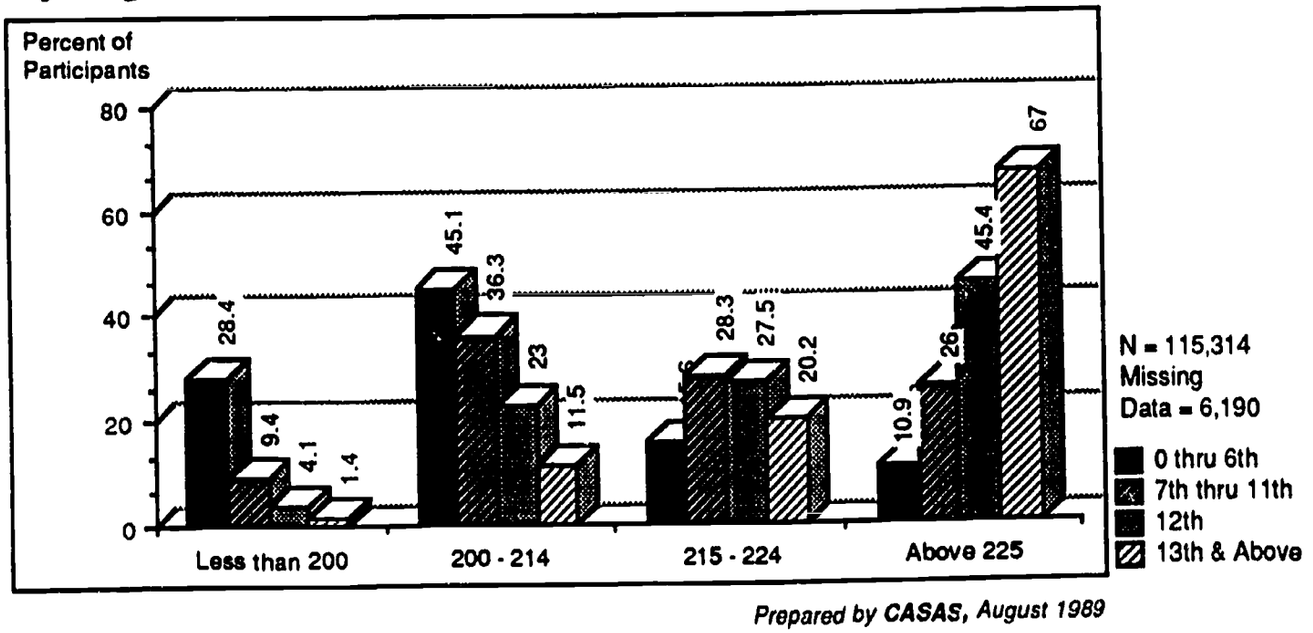


Prepared by CASAS, August 1989

Indicate that participants completing seven to eleven years of education comprised about one-half of the current GAIN participant sample. Among these participants, 71% scored 225 or above, and 12% scored below a 215 scale score. Among those participants who indicated completion of the 12th grade (32% of the current sample), 85% scored above a 225 scale score, while approximately 5% scored below a 215 scale score.

GAIN Math Scores by Highest Grade Level Completed

Figure 17



Prepared by CASAS, August 1989

A similar pattern existed with the Math Score distribution (see Figure 17). Among those participants who completed fewer than seven years of education, only 11% scored above a 225 scale score, while 74% achieved below a 215 scale score. Among those participants completing from seven through eleven years of education, 26% scored at or above a 225 scale score, while approximately 46% achieved below a 215 scale score.

As with the Reading Test scores, completion of the 12th grade is positively related with math achievement. Among those participants who reported completing the 12th grade, 45% attained a scale score of 225 and above, while the percent of participants scoring below 215 was approximately 27%.

Educational Referral Projections

Referral projections for the current GAIN participant sample are presented in Figure 18. These data represent expected educational referrals based on GAIN Appraisal Test scores and participant educational background as indicated in Table 1 (see page 13). Approximately 39% of the sample would not have an educational referral, that is, neither their Reading nor Math score was below a 215 scale score, and they possessed a high school diploma, GED certificate, or other educational degree. The data in Figure 18 project that approximately 19% would be referred to obtain a high school diploma or GED; of these participants, 8% would be short term referrals (100 to 300 hours of instruction). Approximately 34% lack sufficient basic reading and/or math skills for entry level employment or training, and thus would be referred to Adult Basic Education for 600 to 1200 hours of basic skills instruction. Most of these referrals are for math instruction. Less than 2% of the participants scored below 200 on the GAIN Appraisal Reading and Math tests and thus would be referred to take the CASAS Level A or AA Tests for additional diagnostic information. These tests accurately measure achievement at a lower level.

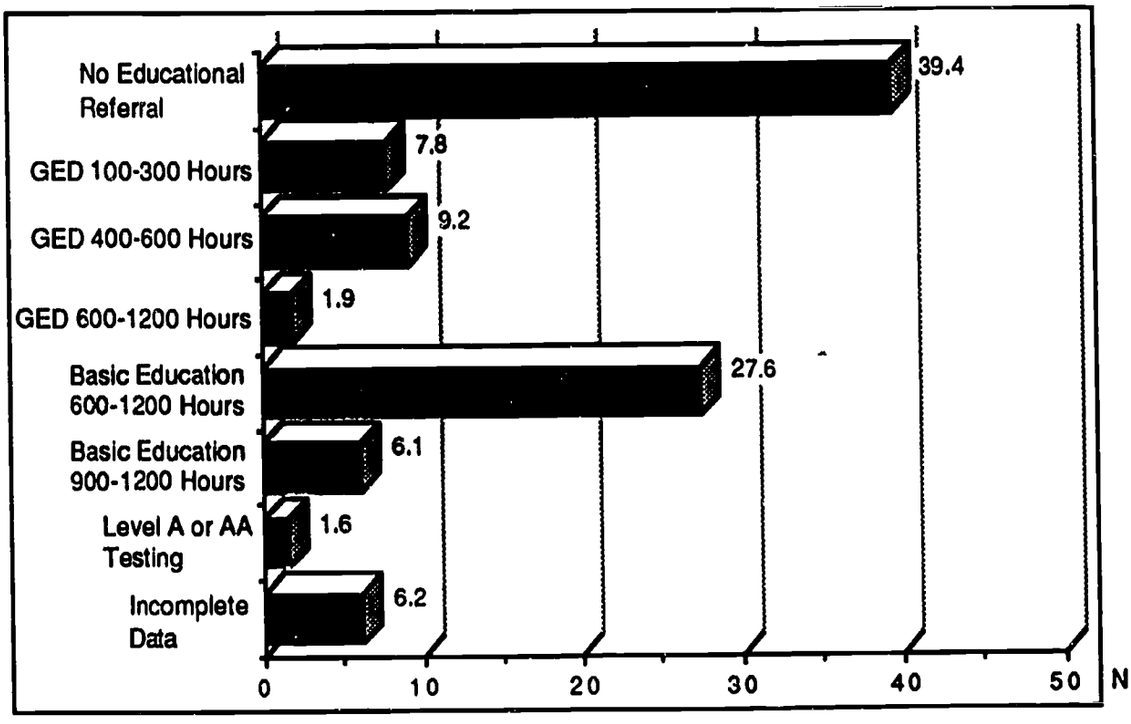
The data in Figure 18 and the test score data presented earlier in Table 2 (see page 14) suggest that most participants are not lacking in basic reading and mathematics skills. Approximately 47% of the projections were "No Educational Referral" or for one hundred to three hundred hours of GED instruction. This suggests that these participants have an educational degree, or they have the basic skills necessary profit from entry level high school instruction.

Participant Category Information

Beginning in March of 1987, GAIN-implementing counties started

GAIN Educational Referral Projections

Figure 18



Prepared by CASAS, August 1989

collecting Participant and Aid category information for participants taking the GAIN Appraisal Reading and Math Tests. In addition, counties were asked to indicate whether participants referred to the ESL componet had been sent directly without being tested or had achieved below a 215 scale score on the GAIN Listening Test. Figure 19 indicates the percent of participants included in this report for whom Participant Category and ESL referral information was available as of April, 1989.

The data were presented with the average Appraisal Test scores for each category of participant where appropriate. Analyses of participants within these various categories focus primarily on "Family Group" and "Unemployed Parent." These two categories, as well as RCA (Refugee Cash Assistance) are summarized briefly below.

AFDC Aid Category Information

AFDC-Family Group (AFDC-FG). This category is comprised of a family group in which the child is deprived because of absence, incapacity, or death of the other parent. Cases in this aid category are typically female-headed households. This was confirmed by data which indicate that approximately 88% of the AFDC-FG participants were female.

AFDC-Unemployed Parent (AFDC-U). This category includes a family group in which the child is deprived because of the unemployment of a

parent living in the home. The majority of cases in this aid category are two-parent households where the father is the principal wage earner and unemployed. The data indicate that 87% of the AFDC-U participants were male.

Refugee Cash Assistance (RCA). This is federally-funded assistance for refugees in their first twelve months in the country who are not otherwise eligible for any other cash assistance program.

Registration Status

Upon registration for GAIN, participants are classified as Mandatory or Voluntary. All AFDC applicants are considered Mandatory registrants for GAIN unless otherwise exempt. (For a complete description of exemption criteria, see GAIN implementing regulations, Manual of Policies and Procedures, SDSS, 1989). Persons who are exempt from participation may, under certain conditions, participate in GAIN on a voluntary basis. Data collected for this report shows that of those indicating an aid category, 81% were mandatory participants, while the remaining 19% participated on a voluntary basis.

Aid Status

The "Aid Status" of participants is divided into three categories: New Existing, and Restoration. A New participant is one who has received aid within the previous 12 months; an Existing case descirbes a participant who was receiving aid when GAIN was implemented in the county; a Restoration case is an applicant who is reapplying for aid and received aid within the last 12 months. Analyses of participants by Aid Status will focus primarily on New and Existing Cases because they comprise approximately 92% of available Aid Status data. Existing Cases are of particular interest because they are thought to be more representative of the "long-term" aid recipient and thus may require additional educational and ancillary services to make the transition to unsubsidized unemployment.

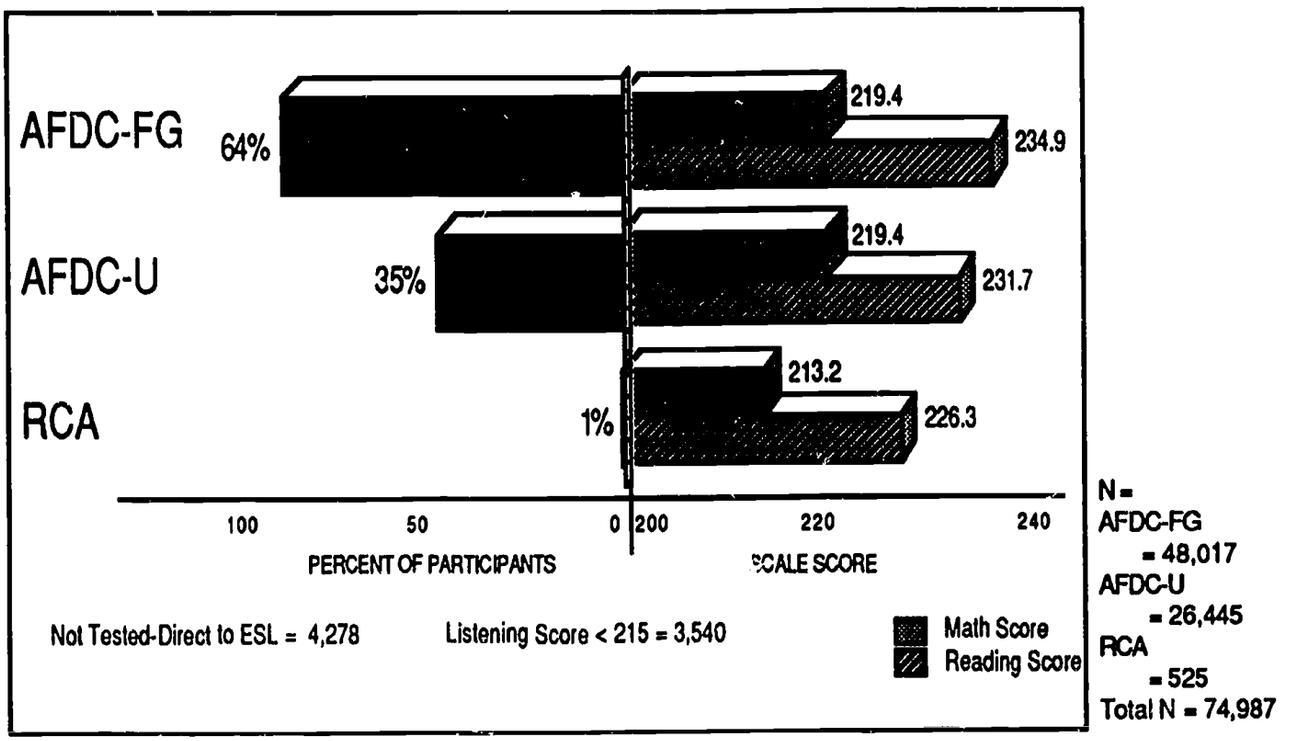
Relevance of Participant Category Data. Collection of these participant category data provide information to compare the demographic and basic skills characteristics of one participant category to another (e.g. Mandatory vs. Voluntary Participants, AFDC-FG to AFDC-U, or New vs. Existing Cases), thus creating a more comprehensive profile of the GAIN participant caseload. The continued collection of these data will enable social and educational service providers at the federal, state, and local levels to gain valuable insights regarding the educational skills and demographic characteristics of the significant subpopulations within AFDC categories and Aid Status. The

addition of the ESL referral field also enables program managers to track the number of referrals to ESL and to examine the demographic characteristics of this group.

Demographic and Test Score Characteristics of AFDC-FG and AFDC-U

AFDC Family Group (AFDC-FG). The AFDC-FG was the largest identified aid category represented. Of the population that indicated an aid category, 48,017 or 64% were single parents with children (see Figure 19). Forty-five percent were New cases, 47% Existing, and 8% Restoration. In this group, 76% were between the ages of 25 and 44.

Participant Category Figure 19

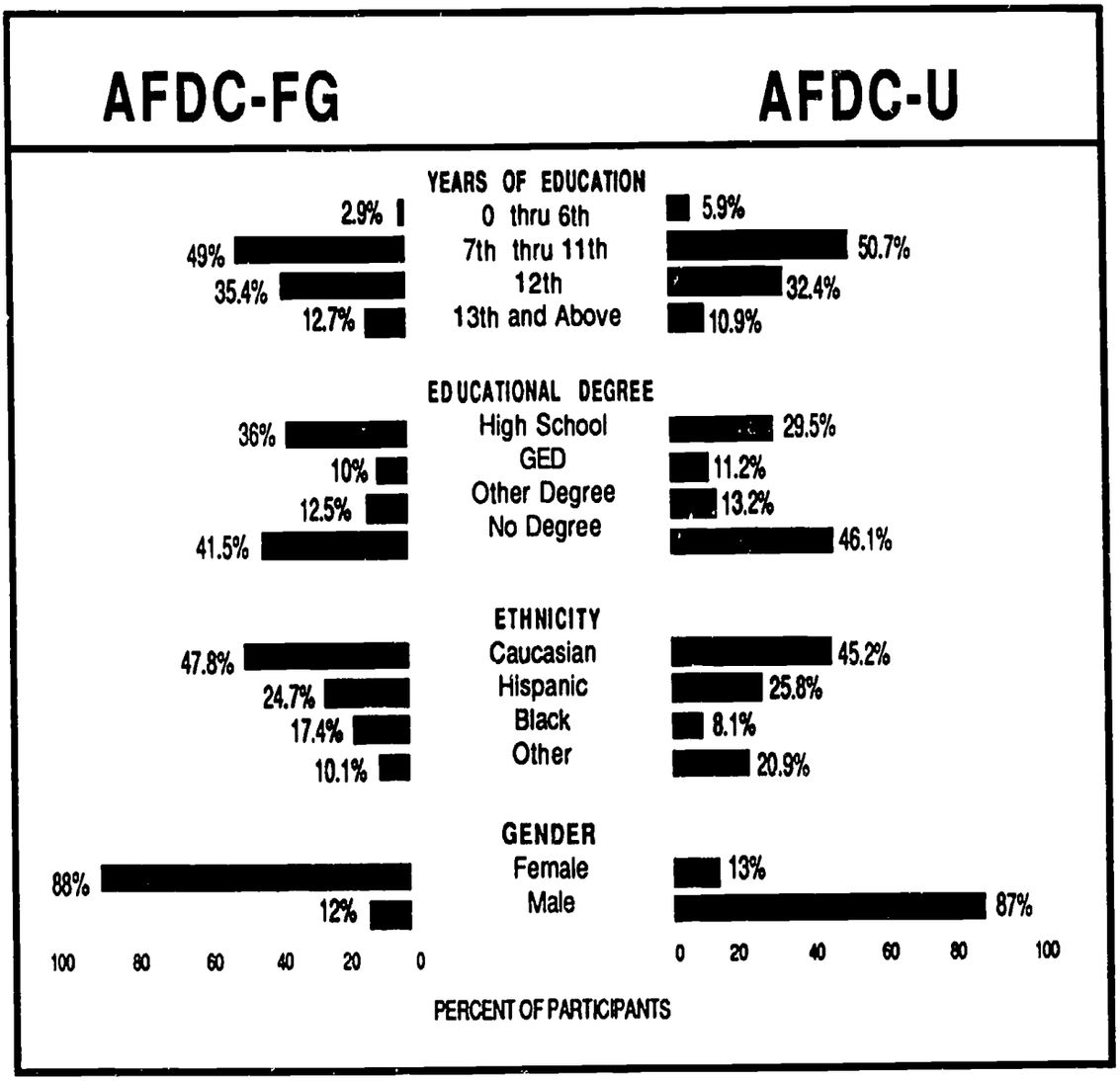


*Prepared by **CASAS**, August 1989*

They were approximately 12% male and 88% female. The ethnic groups included 48% Caucasian, 25% Hispanic, 17% Black, and 10% Other. Among this group, 42% had not obtained a high school diploma or high school equivalency. Their average years of education was 10.9, with a standard deviation of 2.1. Their average reading appraisal score was 234.9, with a standard deviation of 13.7. Math scale scores averaged 219.4, with a standard deviation of 15.2. Educational referral projections indicated that approximately 53% needed an educational referral. It is expected of this group, 34% were referred for basic education and 20% were referred to GED programs. Among the GED / high school referrals,

Gender, Ethnicity, and Educational Characteristics of ADFC-FG AFDC-U

Figure 20



Prepared by CASAS, August 1989

8% of this group was expected to obtain high school equivalency or a GED certificate the education componet within one hundred to three hundred hours of instruction, and 10% within four hundred to six hundred hours of instruction.

AFDC Unemployed Parent (AFDC-U)

AFDC-U participants represented another large group (26,445 or 35%) of the sample that indicated an aid category. Among this group, 49% were New Cases, 44% were Existing Cases, and 7% were Restoration Cases. Of these cases, 71% were between the ages of 25 and 44, and 23% were under the age of 25. AFDC-U. Cases were comprised of 87% males and

13% females. The ethnic groups included 45% Caucasian, 26% Hispanic, 8% Black, and 21% Other. It was projected that 38% were not expected educational referral while 17% of this group were expected to be referred to GED instruction from one hundred to six hundred hours. Approximately 36% would be referred to Adult Basic Education for basic skills instruction in reading or math or both.

Figure 20 presents the gender, ethnicity, and educational characteristics of the AFDC-FG and AFDC-U categories.

Demographic and Test Score Characteristics of New, Existing, and Restoration Cases

Figure 21 presents an analysis of the sample which included approximately 47% New Cases, 46% Existing Cases and 7% Restoration Cases.

Gender. Of the New Cases, approximately 44% were male and 56% were female. Of the Existing Cases approximately 36% were male and 64% were female. Restoration Cases consisted of approximately 40% male and 60% female.

Ethnicity. Little differnce existed between the three groups with regards to ethnic background; forty-seven percent were Caucasians, 25% Hispanic, and 14% was Black.

Language. Little differnce existed between the three groups with regards to native languge; approximately 83% indicated English as their native language while Spanish was identified as the native language of approximatley 9%.

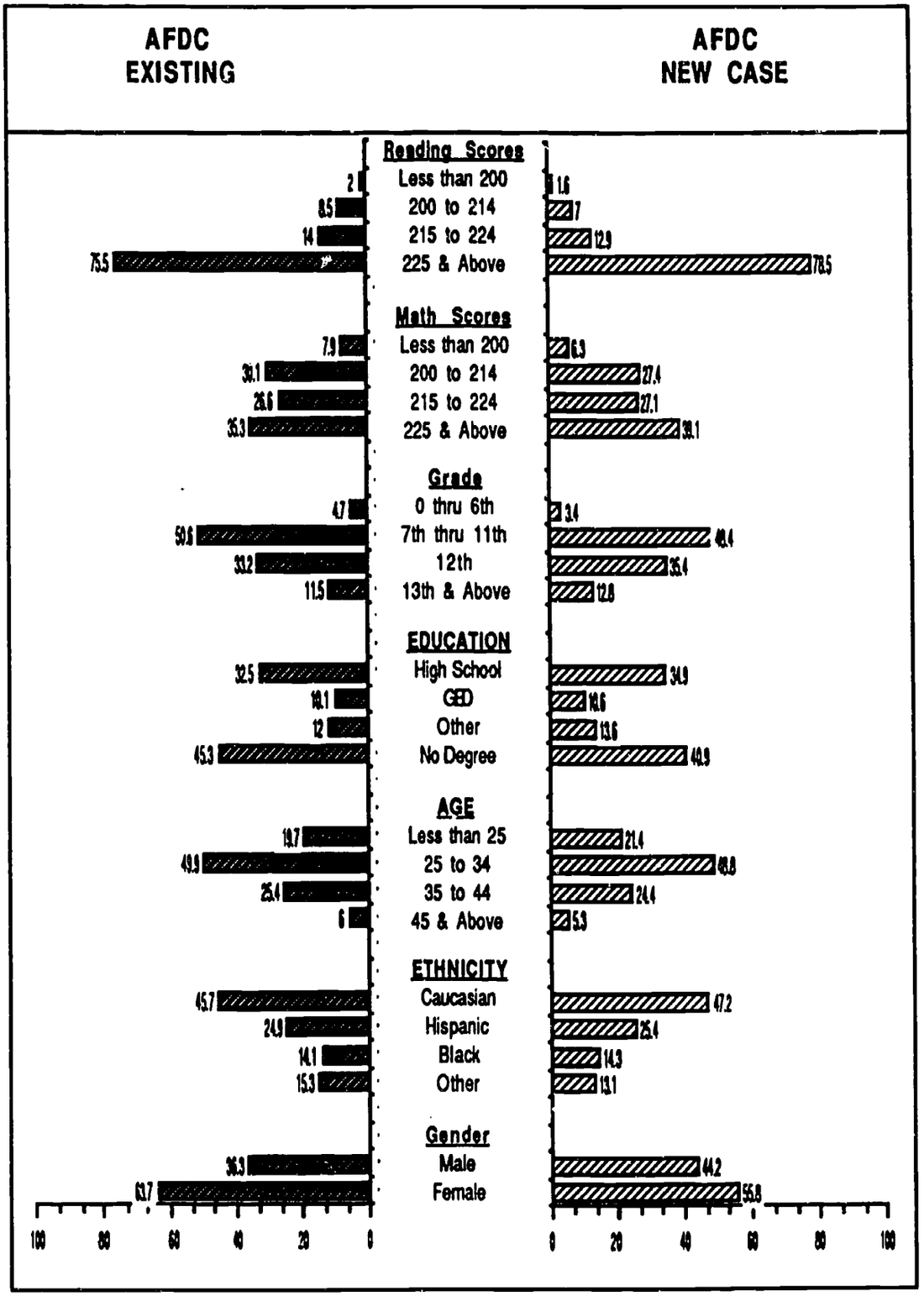
Age. There was little difference in the age distribution among the three groups; approximately 75% of the participants were between the ages of 25 and 44.

Education. Forty-six percent of the New Cases reported completion of high school or the requirements for a GED Certificate compared with 43% of the Existing Cases. Approximately 45% of the Existing Cases reported having no formal educational degree compared with approximately 41% of the New Cases.

New Cases reported a slightly greater number of years of education than Existing Cases. Among New Cases, 48% reported completion of 12th grade or higher, compared with 45% among Existing Cases and

Gender, Ethnicity, Age, Education, Grade, and Scale Score Characteristics of AFDC New and Existing Cases

Figure 21



N = 121,504
Missing Data = 6,860

Prepared by CASAS, August 1989

Restoration Cases. Among the three groups there does not appear to be any significant difference in the distribution of those completing 11 years or less of education.

Although New Case participants had higher average appraisal test scores than Existing Cases, the differences were not reliable. The average score for New Cases on the GAIN Appraisal Reading Test was 234.4 with a standard deviation of 14.1. For Existing Cases the average score was 233.1 with a standard deviation of 14.4. The average score for New Cases on the GAIN Appraisal Math Test was 220.1, with a standard deviation of 15.7, while the average score for Existing Cases was 218.6, with a standard deviation of 15.4. For Restoration Cases, the average Reading score was 233.3 with a standard deviation of 14.0, and the average Math score was 219.3 with a standard deviation of 15.4.

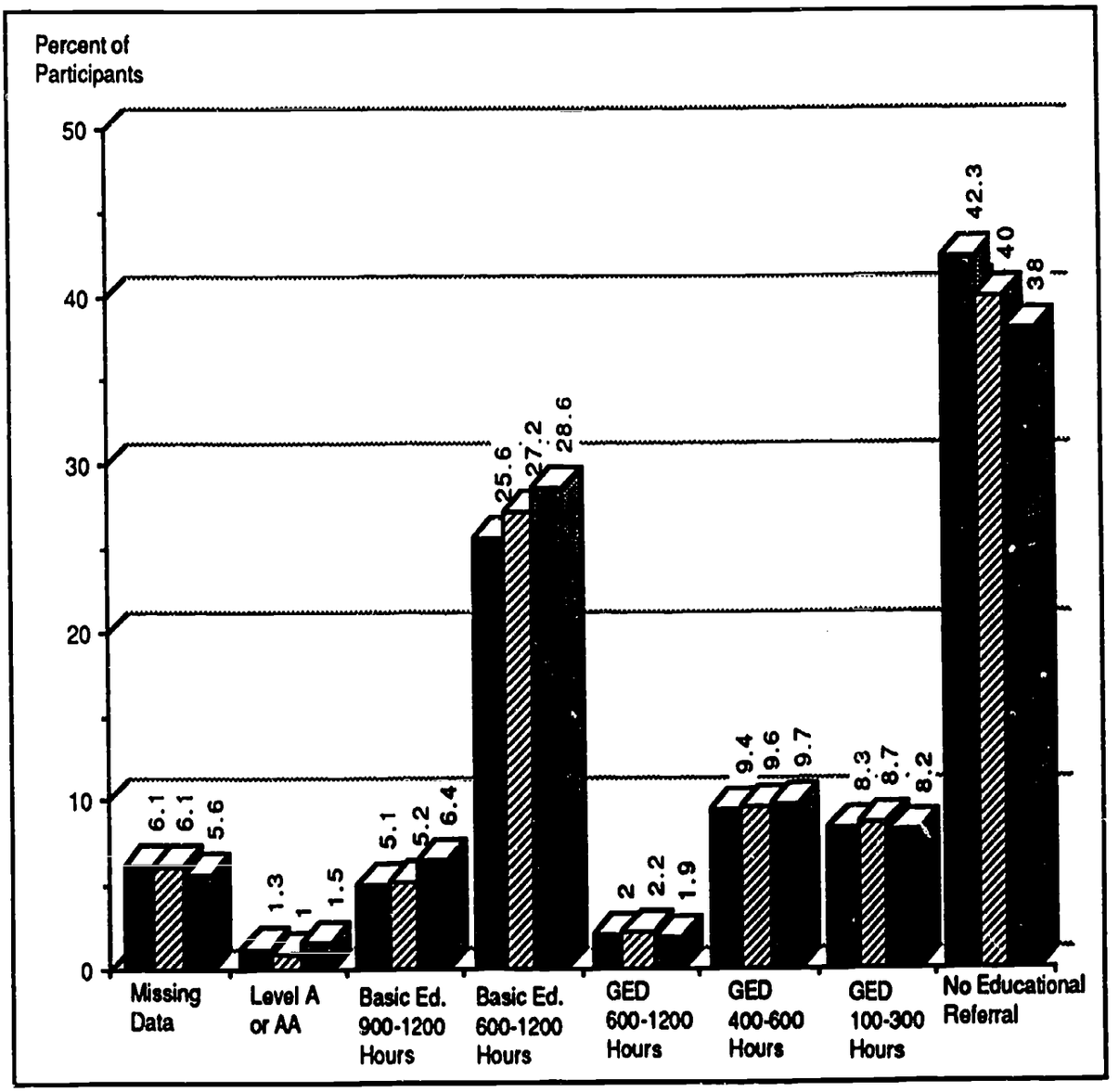
Approximately 79% of the New Cases had scale scores of 225 and above on the GAIN Appraisal Reading Test, while 8.6% scored below a 215 scale score. Among Existing Cases, approximately 76% scored 225 or above, while 11% scored below a 215 scale score. On the GAIN Appraisal Math Test approximately 39% of the New Cases achieved at or above a 225 scale, score while 34% scored below 215. Existing Cases scored slightly lower on the Math Test, 35% scored 225 or above, while approximately 38% achieved below a 215 scale score. For both Reading and Math score distributions, Restoration Cases performed similarly to New Cases.

Referral Projections

Referral projections for New, Existing, and Restoration Cases are shown in Figure 22. Existing Cases would be expected to have a slightly higher rate of referral to education than would New Cases, particularly for Adult Basic Education. Forty-two percent of the New Cases would not be expected to have an educational referral compared to 38% of the Existing Cases. Referral projections for Restoration Cases are similar to the projections for New Cases.

Referral Projections of New, Existing and Restoration Cases

Figure 22



*Prepared by **CASAS**, August 1989*

GAIN APPRAISAL PROGRAM
THIRD REPORT
SUMMARY AND MAJOR FINDINGS

This section summarizes the major findings of the data collection efforts conducted during the first three years of the implementation of the GAIN Appraisal Program. These data, while not a complete profile of the eventual statewide GAIN caseload, offer information from all fifty-eight counties implementing GAIN in California. Though some larger and more demographically diverse counties have yet to fully implement GAIN, this sample may provide a more reliable profile of the eventual statewide caseload.

Scope of this Report

Data for this report were gathered from July, 1986 through April, 1989 for approximately 121,504 participants from all 58 counties. Only 4% of the current GAIN sample was reported from such large counties as Los Angeles, Orange, Alameda, and San Francisco, thus limiting extrapolation of these data to the actual statewide GAIN caseload once the program is fully implemented.

Demographic data gathered include the participant's gender, age, ethnicity, native language, highest grade level completed in school, and highest degree earned. Data were also collected regarding the last school attended by participants, AFDC Aid Category, Registration Status, and Aid Status. The basic skill levels of participants were derived from analysis of participant performance on the CASAS-developed GAIN Appraisal Reading and Math Tests. Test score data were used to compare performance in various demographic subpopulations and AFDC assistance categories. Test score data in conjunction with a participant's educational background enable projections for participant referral to basic skills instruction, high school equivalency programs, or to another componet of the GAIN program.

Demographic Characteristics

Major findings were as follows:

Gender. Females outnumbered males in the sample, 58% to 42%. There was no significant change from the GAIN II Report.

Ethnicity. Approximately 45% of the current GAIN caseload were Caucasian, 26% were Hispanic, and 15% were Black. These three

groups comprise approximately 86% of the participant sample. The remaining 14% were distributed among Native American (4%), Asian/ Indo-Chinese/Pacific Islander (8%), Filipino, and Other.

Age. Approximately 84% of the participant sample were under the age of forty. Almost 48% were between the ages of 25 and 34, while approximately 18% were under age 25. There were no apparent changes in the population since the GAIN II Report.

Native Language. English was the native language of approximately 82% of the participants and while 9% identified Spanish as their native language. The remaining 9% indicated Vietnamese, Laotian, Tagalog or Other languages as their native language. It is expected that more non-native speakers of English will be represented when GAIN becomes fully operational in the larger, more ethnically diverse counties.

Education. The average number of years of education was 10.8, with approximately 92% of the sample reporting attainment of at least an eighth grade education while 45% reported completing a minimum of 12 years of education. Almost 49% reported completing between 7 and 11 years of education and approximately 6% reported completing 6 years or less. These data show little or no change from the GAIN II Report.

Highest Degree Earned. Approximately 45% reported having a high school diploma, a GED Certificate, or having passed the California High School Proficiency Exam. The percent of the sample having a technical degree, AA degree, or another college degree was 8%. Forty-seven percent reported not having a degree which indicates little change from the GAIN II Report. Data regarding high school diplomas, GED Certificates, technical or other degrees indicated minimal change from the GAIN II Report.

Last High School Attended. Data for "in-state" compared to "out-of-state" were collected for 8,496 cases. Those last attending high school in California scored significantly higher on the GAIN Appraisal Reading Test compared to those not attending high school in California. These data show that 91.4% of those attending high school in California scored above a 215 while 80% of those not attending high school in California scored above a 215 scale score. Math Test score distributions were similar for both groups. The difference in reading scores could be attributed to a lack of English language proficiency. These data show that of those not attending high school in the state, 37% reported a primary language other than English compared to only 15% of those attending high school in the state. Asian and Indo-Chinese was the ethnic background of 20% of those not attending high school in California,

compared to only 2.6% for those who did go to high school in the state. As more data are collected from the larger, more ethnically diverse counties, it is expected that the percent not attending high school in California will increase with a corresponding decrease in the overall mean reading scale scores of the GAIN participant population.

Test Score Performance

Reading. Almost 87% achieved higher than a 215 scale scoreon the GAIN Appraisal Reading Test, suggesting that most participants sampled have basic reading skills. The mean score was 231.61 with a standard deviation of 15.24. Little or no change was indicated from the GAIN II Report.

Math. Participants did not perform as well on the GAIN Appraisal Math Test, although 57% did perform above a functional competency level (above a 215 scale score). Forty-three percent scored below a functional competency level. The average score on the Math test was 217.02 with a standard deviation of 15.72.

Listening. Compared to the GAIN II Report more data were available regarding the GAIN Appraisal Listening Test. A majority of counties have used the test to some extent but approximately 75% of all Listening Test data were reported from three counties (e.g. Santa Clara, San Diego, and Merced). Eighty-two percent of the sample achieved below a scale score of 215. Approximately 3.5% of the current GAIN sample were determined to have limited or no understanding of English and were referred directly to ESL.

Participant Category Data

The available data for AFDC participant categories were made up almost entirely of two groups, AFDC-Family Group and AFDC-Unemployed Parent. Mandatory participants comprised 81% of these two groups, while the other 19% were voluntary.

Gender. AFDC-FG cases were approximately 88% female and 12% male. AFDC-U cases had almost an opposite distrabution, 87% male and 13% female.

Ethnicity. AFDC-FG cases were approximately 48% Caucasian, 25% Hispanic, and 17% Black. AFDC-U data showed 45% to be Caucasian, 26% Hispanic, and 8% as Black.

Referral Projections. Data for AFDC-FG and AFDC-U referral

projections were similar. Approximately 52% of the AFDC-FG participants were expected to need an educational referral. Among these, about 8% were referred for short-term high school equivalency programs from one hundred to three hundred hours. Thirty-three percent were expected to be referred for basic skills appraisal in reading or math.

AFDC New, Existing, and Restoration Cases

This report included 47% New Cases, 46% Existing Cases, and 7% Restoration Cases.

Gender. Among New Cases, 44% were male and 56% were female, while Existing Cases, 36% consisted of male and 64% were female. Restoration Cases were approximately 60% female and 40% male. These data show an increase of 8% in male participants for Existing Cases from the GAIN II Report .

Ethnicity. There was little difference between the three groups regarding ethnic distribution.

Referral Projections. Educational data suggest little difference in the projected educational referrals among New, Restoration, and Existing Cases. New Cases had achieved slightly more years of education compared to Existing Cases. Although differences exist, their magnitude has decreased since the GAIN II Report.

Summary

This report contributes a significant amount of new information concerning the demographic and basic skills achievement characteristics of the current GAIN participant population, however, additional data need to be gathered and analyzed before reliable conclusions can be reached and long-term trends can be clearly established. The number of participants has increased by approximately 90,000 since the period of the second report (CASAS, 1987), and data from all counties are now included, but several of the larger, more demographically diverse, counties have just started to implement GAIN. Thus, data reported here only represent a partial profile of the eventual GAIN participant population statewide and must be regarded as such in the interpretation of the data. This could explain the differences from the Projected Participant Model and the current GAIN sample. As the current GAIN sample continues to grow, a more accurate profile will emerge of the demographic and educational achievement levels of the total GAIN population. This information will provide program managers from all agencies involved in GAIN implementation and management with access to a reliable demographic and basic skills profile of the state's GAIN population.

Appendix A

English as a Second-Language (ESL) Data

The GAIN Listening Test

As discussed earlier, the GAIN Appraisal Listening Test is designed to assess a participant's listening comprehension of functional skills in a employability context. Designed for persons with limited proficiency in English, this twelve item, multiple-choice test is used to determine if a participant has sufficient English skills to take the GAIN Appraisal Reading and Math Tests or if he/she should be referred to ESL instruction. Participants who speak no English are not tested; they are referred directly to ESL instruction.

GAIN Listening Appraisal Test
Referral Recommendations Table A1

Scale Score	Recommended Referral
214 and Below	ESL Instruction
215 and Above	Gain Appraisal Program Reading and Math Tests

Prepared by CASAS, August 1989

Background. The GAIN Appraisal Listening Test was developed from the CASAS Item Bank. This bank has been under continual development and refinement since 1980. Test items used on the Listening Test have been extensively field tested and calibrated through the application of Item Response Theory (IRT) which assigns a reliable index of standardized difficulty to each item. Test forms developed from these items accurately assess basic listening comprehension in a functional context.

Although this test has been available to GAIN-implementing counties since the inception of the GAIN program, its use by many counties has been limited. Thies limited use may be attributed to:

1. The number of Limited English Proficient (LEP) participants in each county who are GAIN-eligible.

2. County methods for identifying and referring the LEP participant to take the GAIN Listening Test.

3. Procedures for scheduling the administration of the GAIN Listening Test.

4. Lack of familiarity with this type of test.

5. The fact that many LEP participants are currently being served through existing refugee re-settlement programs.

These reasons are based on the demographics of the current GAIN sample and observations made during GAIN Appraisal training and follow-up technical assistance to county welfare department staff provided by CASAS.

Scope of Listening Test Data

Data for the GAIN Appraisal Listening Test were gathered from July, 1986 through April, 1989 for 5,761 cases. Although a majority of counties reported Listening Test data, the majority of the data (75%) were reported from San Diego, Merced, and Santa Clara counties. As a result, these data present only a partial profile of the eventual GAIN caseload requiring the GAIN Appraisal Listening Test and should be regarded as such in the interpretation of the data.

Demographic Characteristics

Gender. Of those in the Listening Test sample, 65% were males and 35% were females.

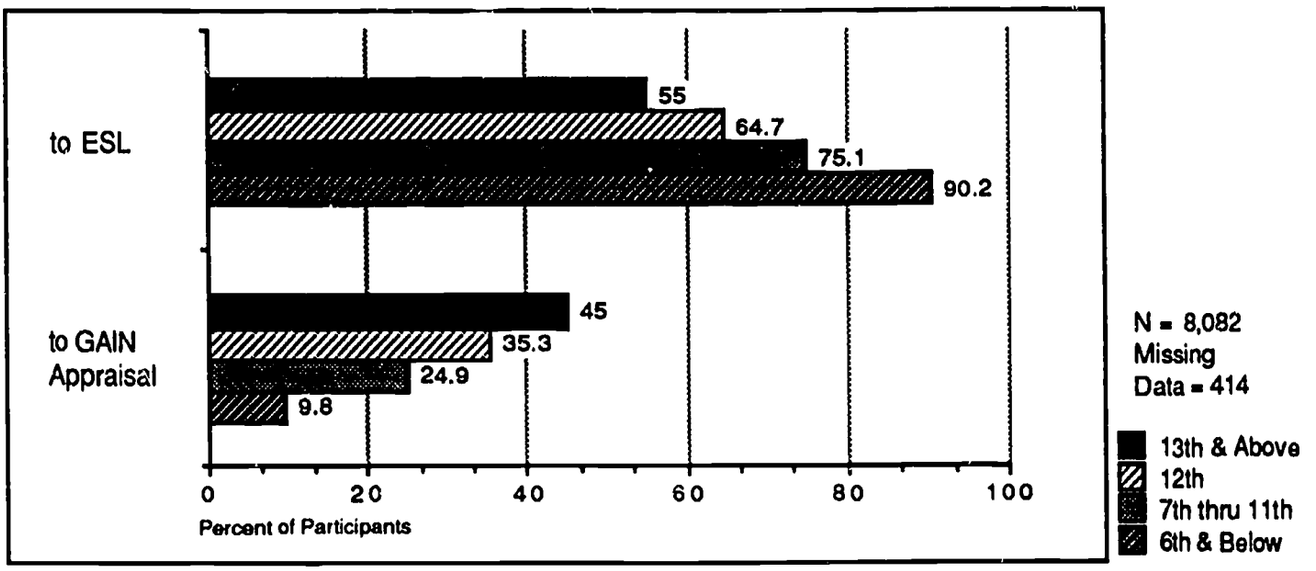
Ethnicity. Approximately 58% were Indo-Chinese, 30% were Hispanic, and 7% were Asian. The remaing 5% were distributed among Caucasians (2.%), Black, Native American, and Pacific Islander.

Native Language. Thirty-three percent reported Vietnamese as their Native Language. Spanish was identified by 28% and approximately 22% reported Laotian as their primary language. The remaing 17% were distributed among Cambodian (5%), Chinese (4%), English (4%), and Other (4%).

Age. Approximately 56% were between the ages of 30 and 44, while only 8% reported being under the age of twenty-five. Approximately 13% reported their age as over 50.

GAIN Listening Referral Projections by Highest Grade Completed

Figure A1



Prepared by CASAS, August 1989

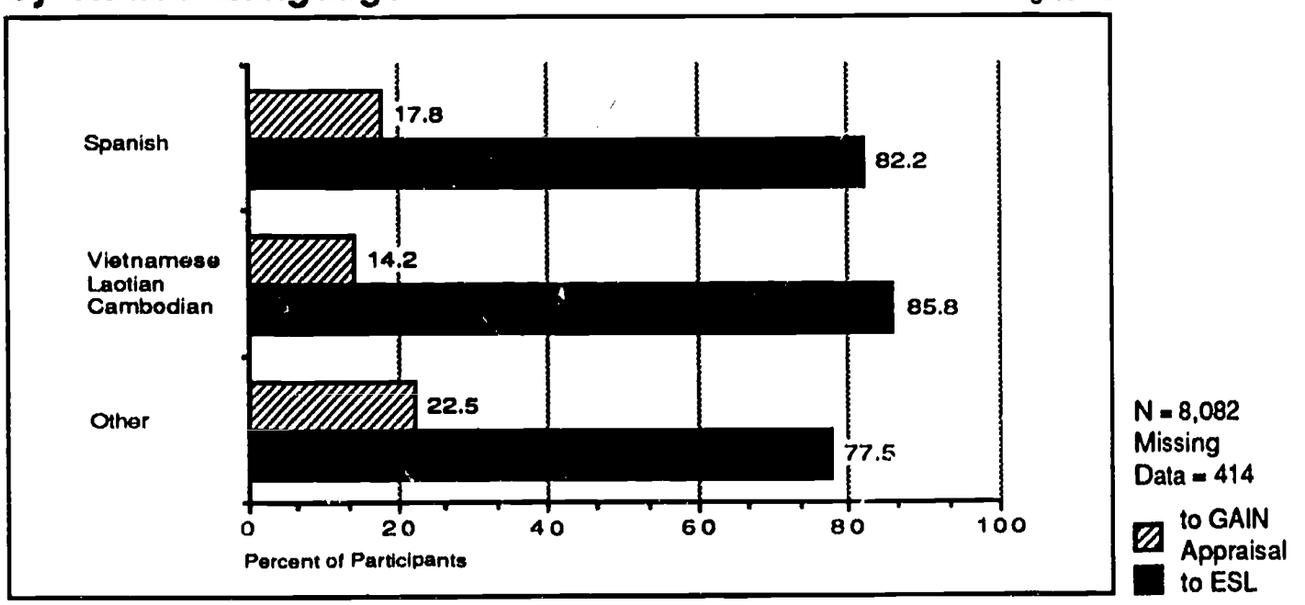
Education. Almost 84% reported not having any type of diploma or degree. Just under 50% reported completing six years or less of education while 18% reported completing twelve years or more.

Test Score Data

The mean score on the Listening Test was 204.5 with a standard deviation

GAIN Listening Referral Projections by Native Language

Figure A2



Prepared by CASAS, August 1989

of 12.7. Approximately 18% of the distribution achieved above a scale score of 215.

ESL Referrals

Almost 82% of participants given the Listening Appraisal Test were referred to ESL programs, the other 18% were referred to the GAIN Appraisal Reading and Math tests. Of those with six years or less of education, 90% were referred to ESL while 10% were sent to ABE or GED instruction. Seventy-five percent of those with 7 to 11 years of education were referred to ESL.

Eighty-two percent of the Spanish speakers and 86% of the Vietnamese or Laotian speakers were referred to ESL (see Figure A2).

Summary

Native Language data reported from the current GAIN sample indicated that approximately 18% of GAIN participants reported a language other than English as their primary or native language (see Figure 5 in this report). According to the State Department of Social Services (SDSS, 1986), approximately 23% of the total AFDC caseload in October, 1986 indicated a language other than English as their primary language. These data suggest that a significant number of AFDC or GAIN participants may be potential ESL candidates. It seems likely that the ESL segment of the GAIN-eligible population may increase as larger and more diverse counties continue implementation of GAIN. Many of these participants may lack the English reading skills needed to take the GAIN Basic Reading and Math Tests. Greater use of the Listening Test for this type of participant might assist in the identification and appropriate referral of the LEP participant for further GAIN Appraisal testing or for ESL instruction.

REFERENCES

California State Department of Social Services. (October 1983). Social and Economic Characteristics of Families Receiving Aid During October 1982 (Program Information Series Report 1983-06). Sacramento, CA: Health and Welfare Agency.

California State Department of Social Services. (October 1986). Characteristics of State AFDC Plans. Welfare Programs Operations Division. Sacramento, CA.

California State Department of Social Services. (April 1987). Social and Economic Characteristics of Families Receiving Aid During April 1986 (Program Information Series Report 1987-04). Sacramento, CA: Health and Welfare Agency.

California State Department of Social Services. (October 1987). Social and Economic Characteristics of Families Receiving Aid During April 1986 (Program Information Series Report 1987-06). Sacramento, CA: Health and Welfare Agency.

California State Department of Social Services. (May 1987) Subvention Estimate for Fiscal Year 1987 (May Subvention Estimate of 1987). Sacramento, CA.

Comprehensive Adult Student Assessment System (CASAS). (April 1987). GAIN Appraisal Program Field Test Report (Field Test Report No. 1). San Diego, CA.

Comprehensive Adult Student Assessment System (CASAS). (November 1987). GAIN Appraisal Program Second Report San Diego, CA.

Manual of Policies and Procedures (MPP), (GAIN implementation regulations). California State Department of Social Services (1989).