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ABSTRACT

California's Greater Avenues for Independence (GAIN) program provides job services, as well as training, education, and support services to Aid to Families with Dependent Children (AFDC) recipients to help them attain unsubsidized employment. The GAIN program includes an initial appraisal of participants' basic reading, mathematics, and functional listening skills. On the basis of test results, participants lacking basic skills may have provisions for obtaining these skills included in their Basic Participant Contract. This report discusses educational, demographic, and other characteristics of the 32,850 individuals participating in GAIN between July 1986 and August 1987. Selected findings include the following: (1) as of August 1987, 58% of the participants were female, though the percentage of females is expected to rise to 65% by the time the program is fully operational; (2) approximately 44% of the participants were White, 29% Hispanic, and 15% Black; (3) approximately 85% were under the age of 40; (4) approximately 90% had at least an 8th grade education; (5) 900 of the participants were referred to English as a Second Language (ESL) instruction without being tested; and (6) 74% received reading test scores placing them at a high school level or higher, while only 35% scored at a high school level or higher in mathematics. (EJV)

GAIN
APPRAISAL PROGRAM
II
SECOND REPORT

NOVEMBER 1987

PREPARED BY

The **CASAS** System

The Comprehensive Assessment Model

GAIN Appraisal Program, Second Report, November 1987 Developed by the Comprehensive Adult Student Assessment System in cooperation with the California State Department of Education for the California State Department of Social Services.

GAIN Appraisal Program Second 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 the 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 equivalency may also be provided with the opportunity to obtain one, thus facilitating their movement toward unsubsidized employment. In addition to basic skills testing, demographic and other participant data are collected concerning each participant. This report discusses the educational, demographic, and other participant characteristics of the current sample of GAIN participants.

Scope and Limits of this Report

Data for this report were gathered from July 1986 through August 1987 for 32,850 participants. Although this report updates the demographic and test score information presented in the first GAIN Appraisal Program Report (CASAS, 1987), and includes data from four additional counties, it also contains some of the limits to extrapolation inherent in the first report. Almost two-thirds of the data reported here are from three counties and do not include some of the larger, more demographically

diverse counties (e.g., Los Angeles, Alameda, San Francisco) which have yet to implement GAIN. In addition, the California State Department of Social Services projects that by 1991 the number of GAIN participants will be approximately 197,000 (Subvention Estimate for FY 1987, SDSS 1987). Of this number, Los Angeles county is expected to contribute approximately one-third. Thus the participant sample reported here cannot be regarded as an accurate 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 population. Also included are projections for some of these same characteristics once GAIN is fully operational statewide.

Participant test performance on the Reading, Math, and Listening Appraisal tests is also discussed. Educational referral information is reported by test score ranges, prior educational attainment and other demographic data. These test results and educational referral projections have implications for educational and social service delivery throughout the state.

Participant Category Data

This report also discusses the demographic and test score characteristics of participants within AFDC Aid Category, Aid Status, and Registration Status, providing a first-look (albeit preliminary) at the basic skills and demographic characteristics of the significant subpopulations who receive social service assistance.

Findings

The findings of this report are necessarily preliminary in nature and therefore should not be regarded as representative of the actual GAIN caseload once the program is fully implemented statewide.

Demographic Characteristics

Gender. Females outnumbered males in the sample, 58% to 42%. By 1990 it is expected that the GAIN population will be 65% female and 35% male.

Ethnicity. Approximately 44% of the current GAIN caseload were Caucasian, 29% were Hispanic, and 15% were Black. These three groups comprised approximately 88% of the participant sample. The remaining 14% were distributed among Native American (3.5%), Asian

and Indo-Chinese (6%), Filipino, Pacific Islander and Other. This distribution is reliably different from the projected model which is, 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 model. Approximately 85% of the participant sample were under the age of 40. Almost 50% were between the ages 25 and 34, while approximately 18% were under age 25. It is 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 identified as the native language by approximately 84% of the participants and Spanish by 10%. The remaining 6% were Vietnamese, Laotian, Tagalog and other languages.

Education. The average number of years of education was 10.8 with approximately 90% of the sample reporting attainment of at least an eighth grade education, while 44% reported completing a minimum of 12 years of education. Almost 50% reported completing between 7 and 11 years of education. Less than 4% completed 6 years or less.

Approximately 44% reported having a high school diploma, a GED certificate, or had passed the California High School Proficiency Exam. Eight percent of the sample reported having a technical degree, AA degree, or were college graduates. Forty-four percent reported not having a degree.

Test Score Information

Test results reported on the CASAS scale are based on four years of statewide educational achievement data for approximately 150,000 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 200 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's educational background to assist in determining appropriate educational referrals.

Test Score Performance

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

Reading. Seventy-four percent of the sample achieved a scale score of 225 or above, while almost 90% achieved higher than a 215 scale score, suggesting that most participants sampled have basic reading skills. The mean score was 232.88, with a standard deviation of 15.42.

Math. Participants did not perform as well on the Basic Math test, although 60% did perform above a functional competency level (above a 215 scale score). Forty percent scored below a functional competency level. The average score on the Math test was 218.02, with a standard deviation of 15.8.

Listening. Although the GAIN Listening Test has been available to participating counties since the inception of the program, only a few counties have made extensive use of it. For example, approximately 90% of all Listening Test data reported are from Santa Clara county. Some of the reasons for this are presented and discussed in Appendix B of this report. Available Listening Test data are discussed in Appendix A.

Educational Referral Projections

Educational referral projections and test score data suggest that most participants are not lacking in basic reading and math skills. Approximately 57% of the sample either do not require an educational referral or the educational referral indicated is high school equivalency or GED. This

suggests that they either have an educational degree or the basic skills necessary to obtain a high school equivalency in a relatively short period of time. Test score performance data suggests that most of these referrals were for basic math instruction. Referral projections are based on the participant's scores and educational background.

No Educational Referrals. Almost 40% indicated they possessed a high school diploma, GED, or other educational degree and both reading and math scores were above 215, a functional literacy level. No 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, 7% would be short-term referrals (100 to 300 hours of instruction). Participants requiring only a short-term GED referral generally have the reading and math skills necessary to succeed in these programs in a relatively short period of time. The remaining 12% would be referred to GED or high school equivalency programs of longer duration (400 to 1200 hours of instruction).

Adult Basic Education. Thirty-eight percent lack sufficient basic reading and math skills for entry level employment or training and would be referred to Adult Basic Education (ABE) programs for instruction in these basic subjects. Of these participants referred for basic skills instruction, almost 31% require from 900-1200 hours of instruction in basic reading or math. The remaining 7% would be referred for a somewhat shorter duration (600-1200 hours).

Further Diagnostic Testing. Approximately 3% scored below a 200 scale score and lack basic functional literacy. Additional diagnostic information and testing is recommended for this group.

Participant Category Data

Of the available data for AFDC participant categories, 88% were in two groups, mandatory participants categorized as AFDC-Family Group and AFDC-Unemployed Parent. Voluntary participants in these two groups totaled approximately 10%.

New, Existing, and Restoration cases

Available data included approximately 43% New cases, 49% Existing, and 9% Restoration cases.

Conclusions

Although 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 needs to be gathered and analyzed before reliable conclusions can be reached. The number of participants has increased since the period of the first report (CASAS, 1987), and data from four additional counties are included, but many of the larger, more demographically diverse counties have yet to implement GAIN. Thus data reported here only represent a partial profile of the eventual GAIN participant population and must be regarded as preliminary in nature.

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GAIN Appraisal Program November 1987 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 recipients to assist them in attaining unsubsidized employment. The GAIN program includes an initial appraisal process designed to collect information about the participant to determine their future role in GAIN. This report will discuss participant demographic and educational achievement data collected during the educational testing component of the initial appraisal.

Initial Appraisal Component

An integral component of the GAIN Appraisal process is the assessment of the participant's basic reading, mathematics, and functional listening 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 or mathematics skills may have provisions in their Basic Participant Contract for obtaining these skills in Adult Basic Education programs.

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 and the California State Department of Social Services. The three tests together have been designated as the "GAIN Appraisal Program."

Description of Tests

A brief description of each test follows:

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 are 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.

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.

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.

Field Test Results

Figure 1 on page six summarizes field test data for each county by percent of cases each county contributed to the original field test data base. To better represent the regional characteristics of the state for field test purposes, five counties were designated as field test counties by

CASAS. These five: Fresno, Butte, San Diego, Santa Clara, and Napa, were selected in part because they were considered representative of the ethnic, rural/urban, demographic, and geographic diversity of the state. Data from four additional counties (Madera, Ventura, Kern, and San Mateo) which implemented GAIN during the field test period were also included in the field test results. This was done to build a larger data set for analysis, and to partially offset a disproportionately high number of cases reported from San Diego and Fresno counties (see Figure 1).

Two counties (Butte and San Diego) elected to participate before officially implementing GAIN, while one county (Santa Clara) began testing on a limited basis approximately two months before officially implementing GAIN.

Psychometric Properties

As discussed earlier, the 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). The results, briefly summarized below, show the instrumentation used in the GAIN Appraisal tests to be internally consistent and accurate with the psychometric model used.

Reliability. Computation of Kuder-Richardson (KR)-20 and KR-21 indices for GAIN Reading and Math Test items indicated that in the case of the GAIN Reading Test, the KR-20 was .89 and the KR-21 was .88. The corresponding figures for the GAIN Math Test were .86 and .84, respectively.

Item-Total Correlations. Point bi-serial correlation coefficients were obtained for the GAIN Reading and Math Tests. This correlation should generally fall between .40 and .60 for each of the individual test items. In the case of the GAIN Reading Test, the coefficients ranged from .40 to .60, with a mean value of .49. Similar coefficients for the GAIN Math Test ranged from .24 to .63, with a mean of .51.

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 Reading Test, 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 Math Test, the P-Values ranged from .25 to .90, with an average P-Value of 56.

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 to measure the ability of people to read and compute in a pre-employment context. The specific model within IRT is the one parameter Rasch model. This model postulates that, under certain conditions, item difficulty estimates are invariant, that is, the standardized difficulties do not fluctuate or change, 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 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 Reading Test, the correlation between local and bank difficulties was .81. The corresponding correlation was computed independently for Blacks, Caucasians and Hispanics. For the GAIN Reading Test the correlation for Blacks, Caucasians and Hispanics was .75, .81, and .80, respectively. For the GAIN Math Test, the correlation for the total sample was .85, for Blacks .85, for Caucasians .82, and for Hispanics .86.

A correlation of .70 existed between Reading and Math Scale Scores for the total sample of participants. This correlation did not differ appreciably by sex or ethnicity.

Psychometric Properties Update

Data regarding the psychometric properties of the GAIN Appraisal Program were again gathered and analyzed for this report. These analyses indicated that the findings described above did not differ appreciably with respect to Reliability, Item-Total Correlations, P-Values, and Local to Bank Difficulty Correlations. An alternate form of the GAIN Appraisal Program Reading and Math Tests is currently in press and should be made available to participating counties by January 1988. The next GAIN Appraisal Program report, scheduled for October 1988, will also include data regarding the psychometric properties of this new test form.

Field Test Summary

Although the Field Test yielded some preliminary data regarding the educational and demographic characteristics of GAIN participants, readers were cautioned that the demographic characteristics of the Field Test participants did not match projections of the GAIN participant population once the program is fully operational statewide.[1] In addition, the population size (N=6,331) was insufficient to draw conclusions concerning how GAIN participants may score on the tests once the program is fully implemented statewide. (For a complete description of the Field Test results, please see the GAIN Appraisal Program Field Test Report, April 1987 (CASAS, 1987). These same caveats apply to this report. The data contained in this second report, while updating and expanding the information contained in the Field Test report, cannot be considered a representative profile of the demographic and educational achievement characteristics of the entire GAIN caseload once the program is fully implemented statewide. Although the number of participants has increased (N=32,850), and data from four additional counties are included in this report (Stanislaus, Sutter, Merced, and Yuba), many of the larger, more demographically diverse counties (e.g., Los Angeles, Alameda, San Francisco) have yet to implement GAIN (see Figure 1). As more individuals are tested, and the number of counties reporting data increases, a more reliable demographic and educational achievement profile of the GAIN caseload will emerge. Subsequent CASAS reports will provide annual updates on the GAIN population as the program continues to be implemented.

Scope of this Report

Data for this report were gathered from July 1986 through August 1987 for 32,850 cases (see Figure 1). Information presented here includes data from the first report which represented 6,331 cases. This report updates the demographic and test score information presented in the first report and includes four additional counties (Merced, Sutter, Yuba, and Stanislaus) that have implemented GAIN since the first report. As noted in Figure 1, almost two-thirds of the data reported are from San Diego (33%), Fresno (20%), and Santa Clara counties (9%). Thus, data presented in this report tend to over-represent the participant population from these three counties and are not generalizable statewide. This

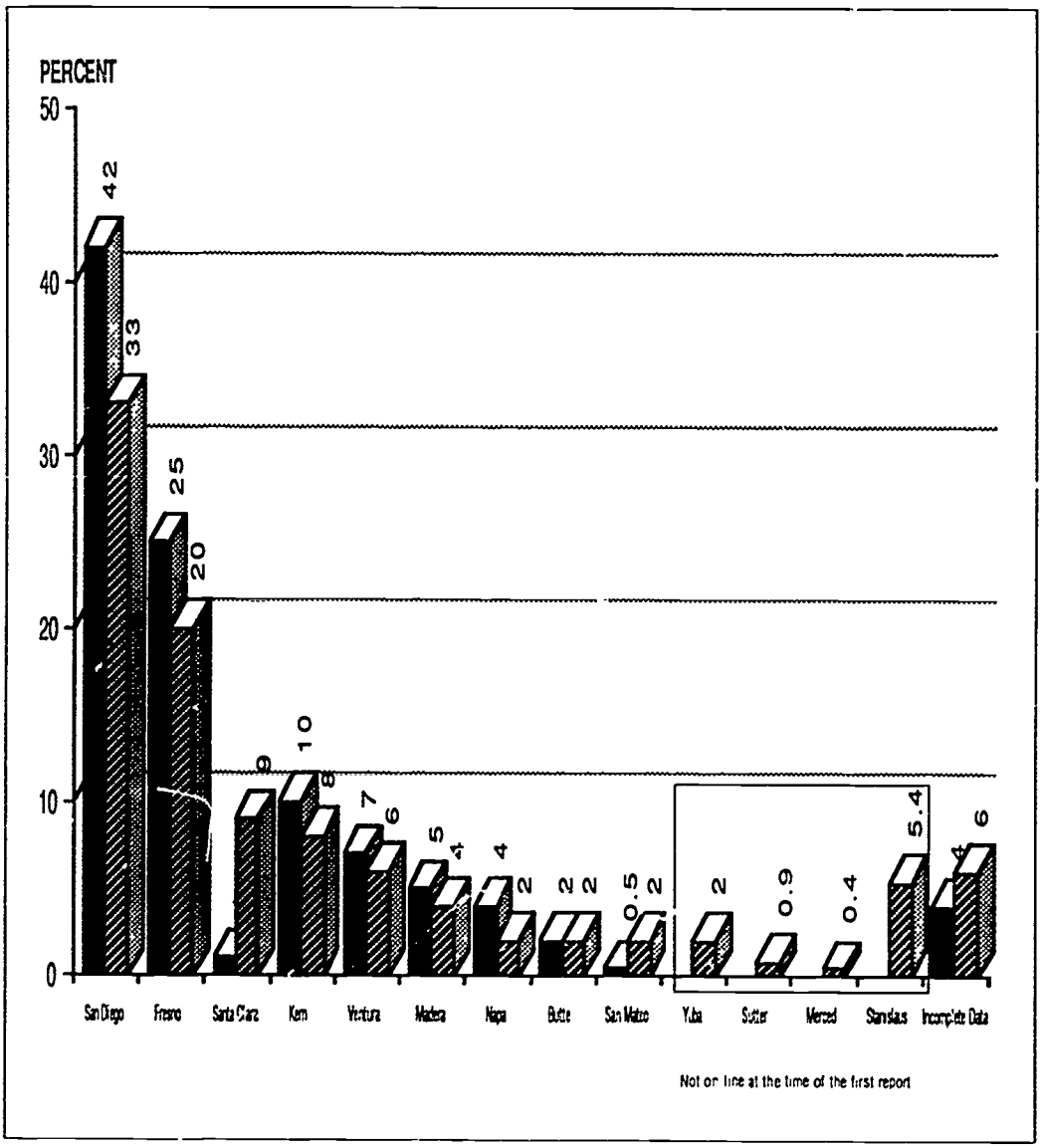
1 Source of all projections regarding the demographic characteristics of the GAIN participant caseload once the program is fully operational are based on the October 1982, Aid to Families with Dependent Children (AFDC) Characteristics Survey.

report also presents new data on the educational achievement levels of GAIN participants by Participant Aid Category, Registration Status, and Aid Status. In addition, data collected from May 1987 through August 1987 indicating the number of limited English proficient participants referred to English-as-a-Second Language programs (ESL) are presented. The GAIN Appraisal Program answer sheets were the source of all information regarding participant test score performance, demographic data, participant category information, and ESL referral information. Listening Test results are discussed in Appendix A of this report.

Percent of Participants by County

Field Test and November 1987

FIGURE 1



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Demographic Data

The demographic characteristics (sex, 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 projections for the gender, age, and ethnicity of GAIN participants once the program has been implemented statewide. Comparisons are also made between the gender, age, and ethnic breakdowns of the Projected Participant Model and subpopulations of the 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 discussed. Test score performance is based on four 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 projecting the basic reading and mathematics skills of the current GAIN participant caseload. In addition, new information regarding the basic reading and math skills of GAIN participants within Participant Aid Category (AFDC-FG, AFDC-U), Registration Status (Mandatory, Voluntary) and Aid Status (New, Existing, and Restoration Case) are also presented. These data are among the first to 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 again reminded that the test score performance reported here represents only those counties which had implemented GAIN during the period of this report, and thus should not be regarded as representing the basic skills abilities of the entire GAIN eligible population.

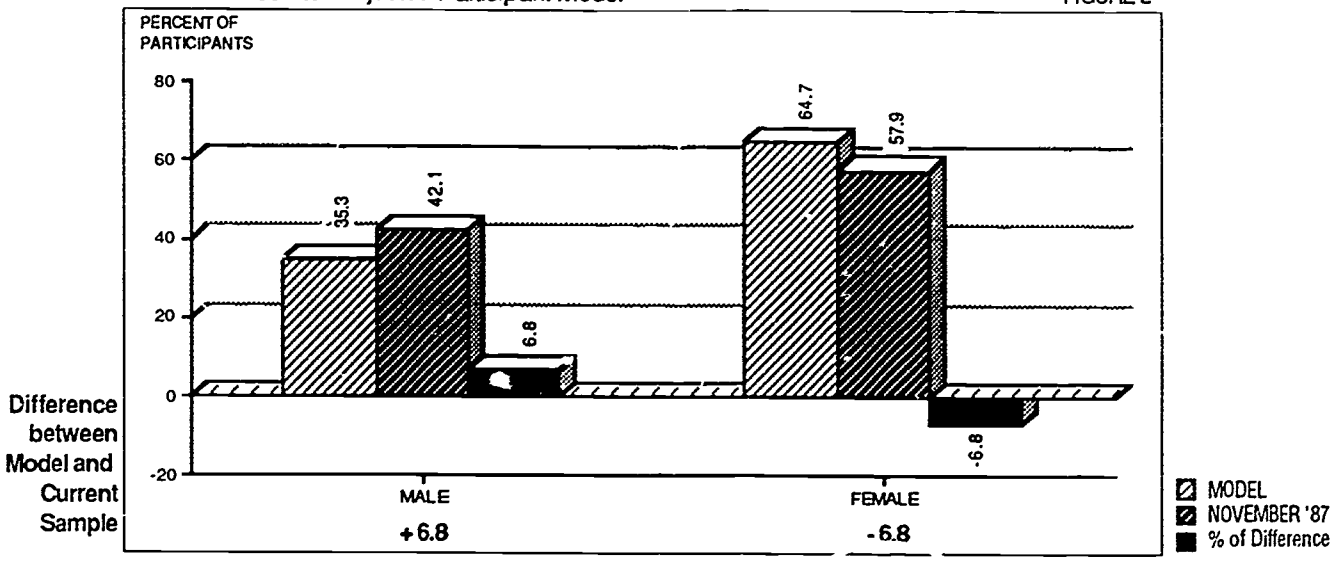
Demographic Characteristics

Gender. The sex of the participants included in this report was approximately 58% Female and 42% Male. It is expected that the statewide GAIN participant caseload, once the program is fully operational, will be approximately 65% Female and 35% Male. Figure 2 presents comparisons that suggest a reliable difference ($p < .001$) between the current sex composition of GAIN participants and the Projected Model. Males are currently over-represented by 6.8% and females under-represented by approximately the same amount.

Gender Comparison

November 1987 to Projected Participant Model

FIGURE 2



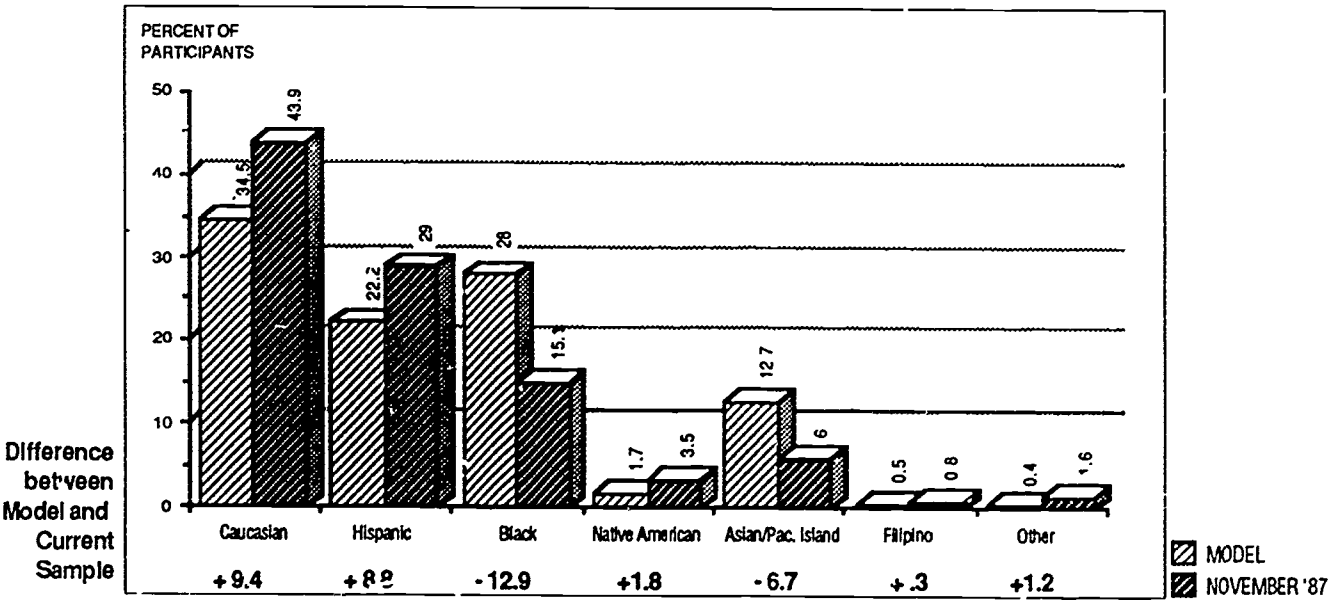
The CASAS Report, November 1987

Ethnicity. Approximately 44% of the current GAIN caseload are Caucasian, 29% are Hispanic, and 15% are Black. These three groups comprise approximately 88% of the participant sample. The remaining 12% are distributed among Native American (3.5%), Asian and Indo-Chinese (6%), Filipino, Pacific Islander, and Other. As noted in Figure 3, this distribution is reliably different ($p < .001$), from the projected participant model which is, 36% Caucasian, 22% Hispanic, 28% Black, 13% Asian/Pacific Islander, and 2% American Indian/Alaskan.

Ethnicity Comparison

November 1987 to Projected Participant Model

FIGURE 3



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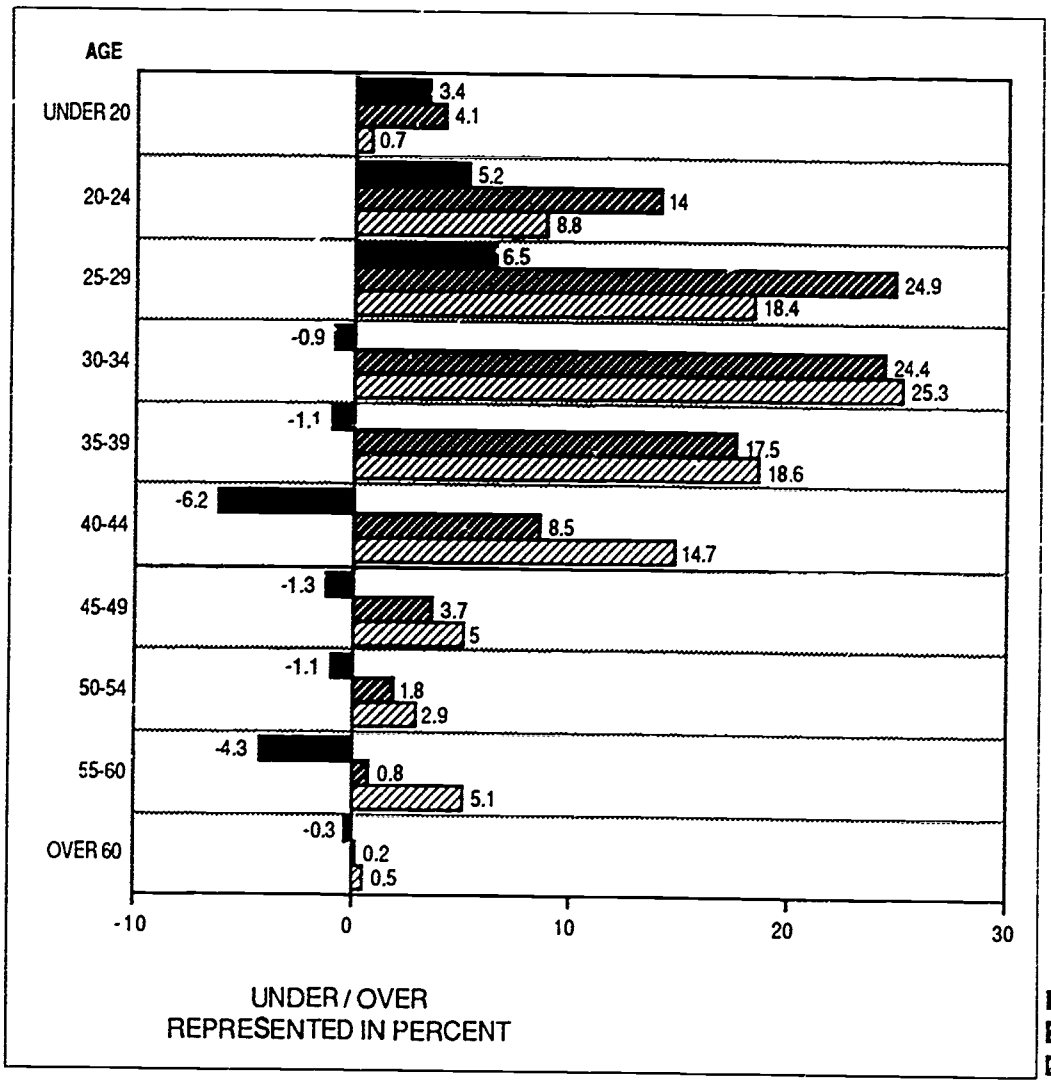
Age. Approximately 85% of the participant sample are under the age of 40. Almost one-half, (49%) are between the ages of 25 and 34, while approximately 18% are under age 25. Approximately 15% of this sample are above the age of 40. This is different from what was expected in that 72% of the projected 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. Figure 4 compares the ages of the current GAIN sample with the Projected Participant Model.

Age Comparison

November 1987 to Projected Participant Model

FIGURE 4



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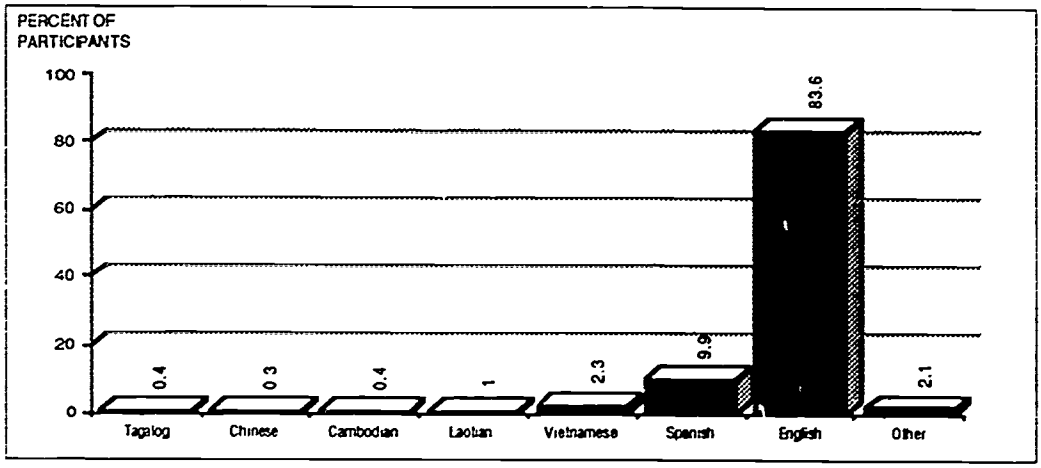
This comparison suggests that the two samples are reliably different ($p < .001$) and similar only with respect to those participants between the ages of 30 to 39. The current sample is more heavily weighted toward the younger age categories than the projected model.

Native Language. English was identified as the native language by approximately 84% of the participants and Spanish by 10% (see Figure 5). The remaining 6% were Vietnamese, Laotian, Tagalog and Other. Information was not available to compare these data to a statewide projection of the native language of GAIN participants.

Native Language

FIGURE 5



N = 31,701
Incomplete Data = 1,149

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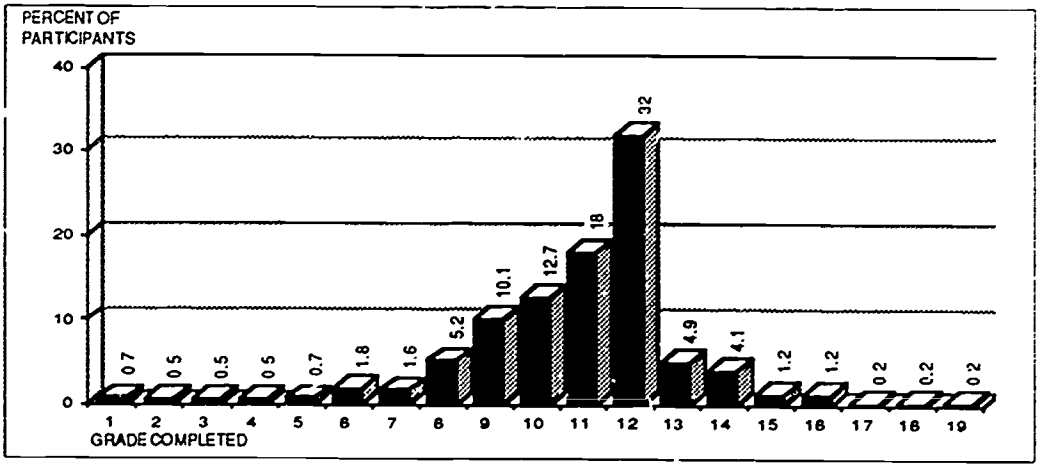
Education. Approximately 90% of the sample have at least an eighth grade education, and 44% have a minimum of 12 years of education. Almost 50% of the participants have 7 through 11 years of education, while less than 4% report completing a minimum of 6 years of school (Figure 6). The mean or average years of education for all participants is approximately 10.8. Approximately 44% report having a high school diploma, a General Education Development (GED) certificate, or have passed the California High School Proficiency Exam (CHSPE, the legal equivalent of a high school diploma in California). Approximately 44% report not having a degree (see Figure 7).

Highest Grade Level Completed

FIGURE 6



N = 31,604
Incomplete Data = 1,24

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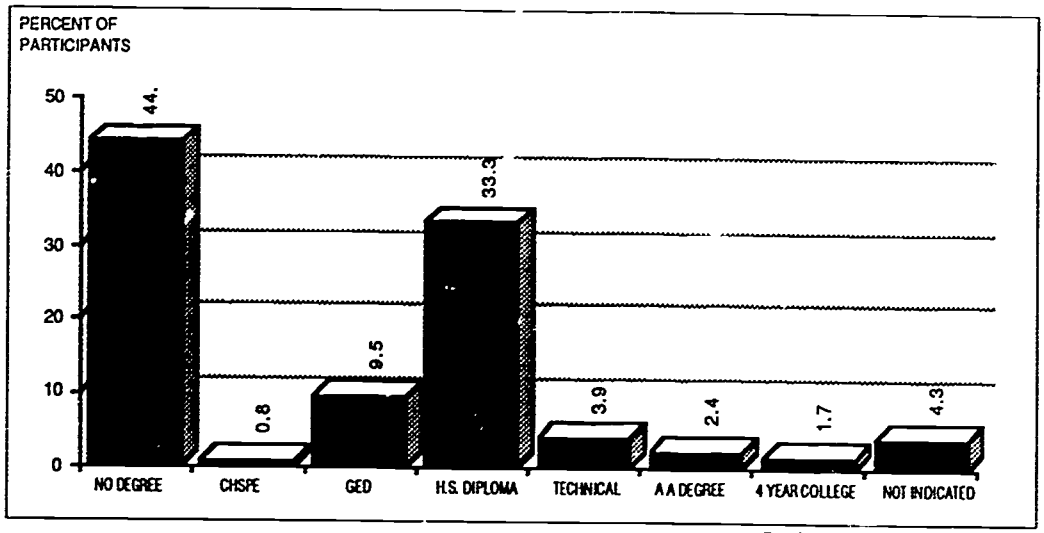
Highest Degree Earned

FIGURE 7



N = 32,850

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Test Score Characteristics

Test score results reported on the CASAS scale are based on four years of statewide educational achievement data for approximately 150,000 students enrolled in Adult Basic Education programs throughout California. Based on these statewide data, the following functional levels have been identified.

Below 200. Adults functioning below 200 (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, and ESL students are 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 and safety procedures.

200 to 215. Those adults scoring between 200 and 215 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 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.

Above 225. Those adults functioning at 225 or above are considered to be at an advanced ABE/ESL level, and can function at a high school 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 Listening Comprehension Appraisal Test are referred to ESL. This is addressed later in the report.

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	1-3 months
Reading Math	225+ 215-224	Yes	No Educational Referral	
Reading Math	215-225 225 +	No	GED Instruction	4-6 months
Reading Math	215-224 215-224	Yes	No Educational Referral	
Reading Math	215-224 215-224	No	GED Instruction	6-12 months
Reading Math	225+ 200-214	Yes/No	Basic Education	6-12 months
Reading Math	200-214 225 +	Yes/No	Basic Education	6-12 months
Reading Math	215-224 200-214	Yes/No	Basic Education	6-12 months
Reading Math	200-214 215-224	Yes/No	Basic Education	6-12 months
Reading Math	200-214 200-214	Yes/No	Basic Education	6-12 months
Reading Math	200-214 Below 200	Yes/No	Basic Education	9-12 months
Reading Math	Below 200 200-214	Yes/No	Further Appraisal Needed	
Reading Math	Below 200 Below 200	Yes/No	Further Appraisal Needed	

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* Estimates are based on 25 instructional hours per week, or approximately 100 hours per month.

Test Score Data

As discussed earlier, the total sampled for this report was 32,850. Of these, 900 were referred directly to ESL without being tested (see Figure 17), leaving 31,950 cases with test score data.

Reading. Seventy-four percent of the sample achieved a scale score of 225 or above, while approximately 3% achieved less than a 200 scale score. Almost 90% achieved higher than a 215 scale score. The mean or average score was 232.88, with a standard deviation of 15.42.

Score Group Estimates by Reading and Math Test Score

TABLE 2

	Number Row % *Col %* **Total %**	*GAIN READING SCOREReading Score*				
		LESS than 200	200 thru 214	215 thru 224	225 PLUS	Row No. Row %
GAIN MATH SCORE	LESS than 200	566 19.3% *65.1%* 1.8%	942 32.2% *33.9%* 2.9%	802 27.4% *17.4%* 2.5%	616 21.1% *2.6%* 1.9%	2926 9.2%
	200 - 214	270 2.8% *31.0%* .8%	1559 16.0% *56.1%* 4.9%	2678 27.5% *58.0%* 8.4%	5222 53.7% *22.0%* 16.3%	9729 30.5%
	215 - 224	29 .4% *3.3%* .1%	235 2.9% *8.5%* .7%	954 11.6% *20.7%* 3.0%	6986 85.2% *29.5%* 21.9%	8204 25.7%
	225 PLUS	5 .0% *.6%* .0%	42 .4% *1.5%* .1%	182 1.6% *3.9%* .6%	10862 97.9% *45.9%* 34.9%	11,171 34.7%
	Column No. Col. %	970 2.7%	2778 8.7%	4616 14.4%	23686 74.1%	31950 100.0%

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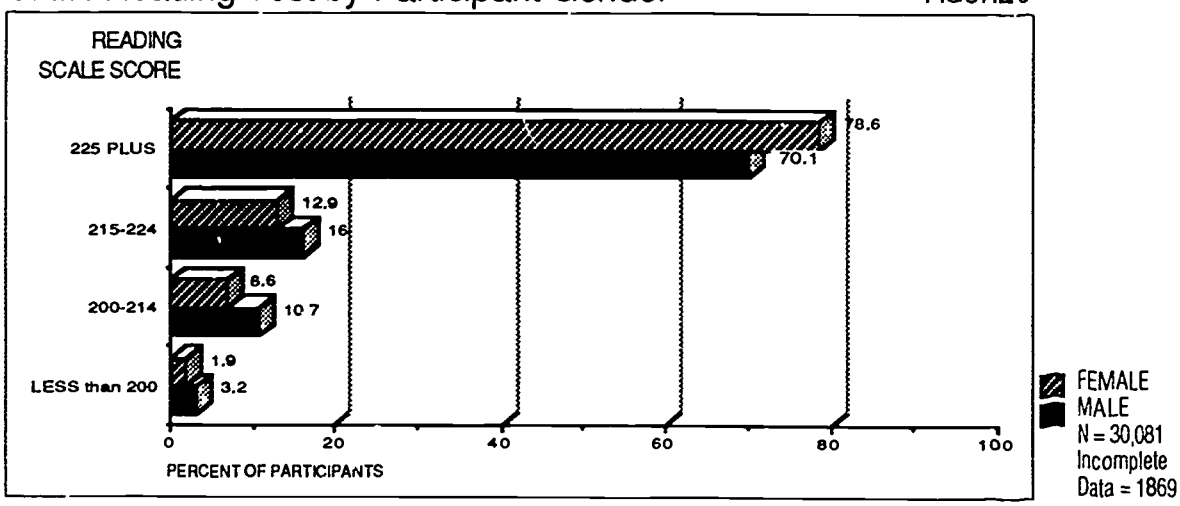
Math. Scores were more evenly dispersed for the Math Test compared to the Reading Test. Approximately 35% achieved above a 225 scale score, 26% scored between 215 and 224, 31% scored between 200 and 214, while 9% scored less than 200. The average score on the Math Test was 218.02, with a standard deviation of 15.8.

Math and Reading. Of those participants who scored 225 or above in Math, 98% scored above 225 in Reading. By contrast, for those participants scoring 225 or above in Reading, only 46% scored at or above 225 in Math. Of those participants who scored less than 200 on the Math Test, 19% scored less than 200 on the Reading Test, 32% scored between 200 and 214, 27% scored between 215 and 224, while 21% 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, 28% scored between 215 and 224, while 54% 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, 12% scored between 215 and 224, while 85% scored at or above 225 in Reading.

GAIN Reading Test by Participant Gender FIGURE 8



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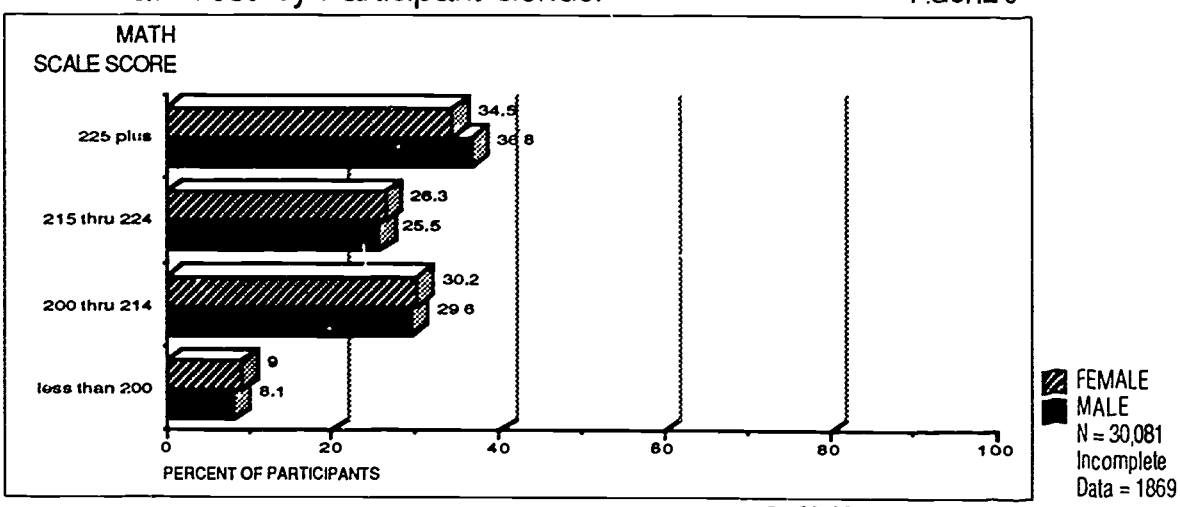
GAIN Math Test by Participant Gender FIGURE 9



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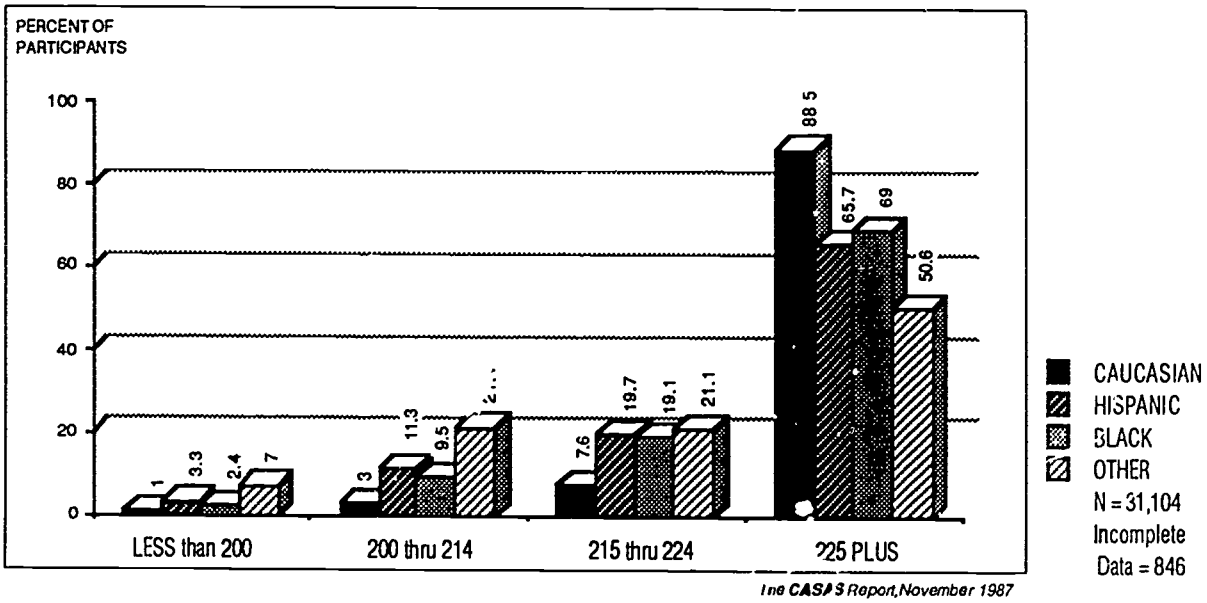
Gender. Analyses of test score performance by participant gender are presented in Figures 8 and 9 for the GAIN Reading and Math Tests, respectively. Differences in performance between males and females can be noted with respect to scores on the Reading Test. A somewhat larger percentage of males scored below a 215 scale score (14%) than did females (9%). Seventy-nine percent of the females in the sample scored above 225 compared to 70% of the males. Little difference existed

between males and females relative to the percent of participants falling in the various scale score categories for Math.

Ethnicity. Figures 10 and 11 present cross-tabulations of GAIN Appraisal Reading and Math Test scores with participant ethnic background. As indicated in Figure 10, 89% percent of the Caucasians had scores of 225 and above on the GAIN Reading Test as compared to 66% of the Hispanics, and 69% of the Blacks. Little difference existed between these three groups in the percent of respondents scoring below a 200 scale

GAIN Reading Scores by Participant Ethnicity

FIGURE 10



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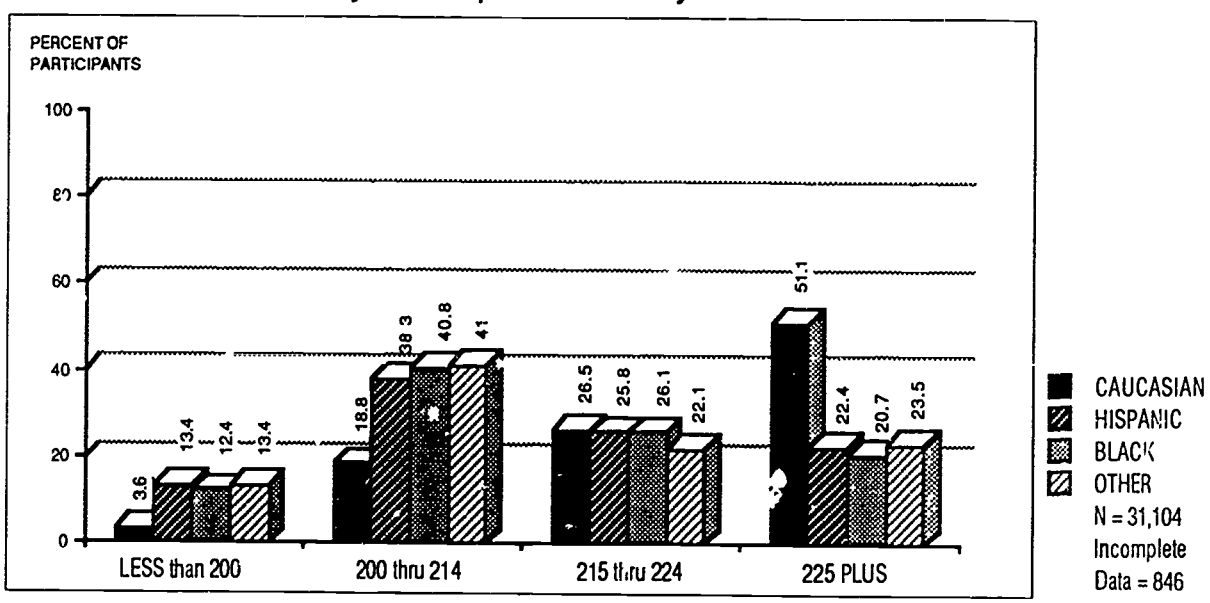
GAIN Math Scores by Participant Ethnicity

FIGURE 11



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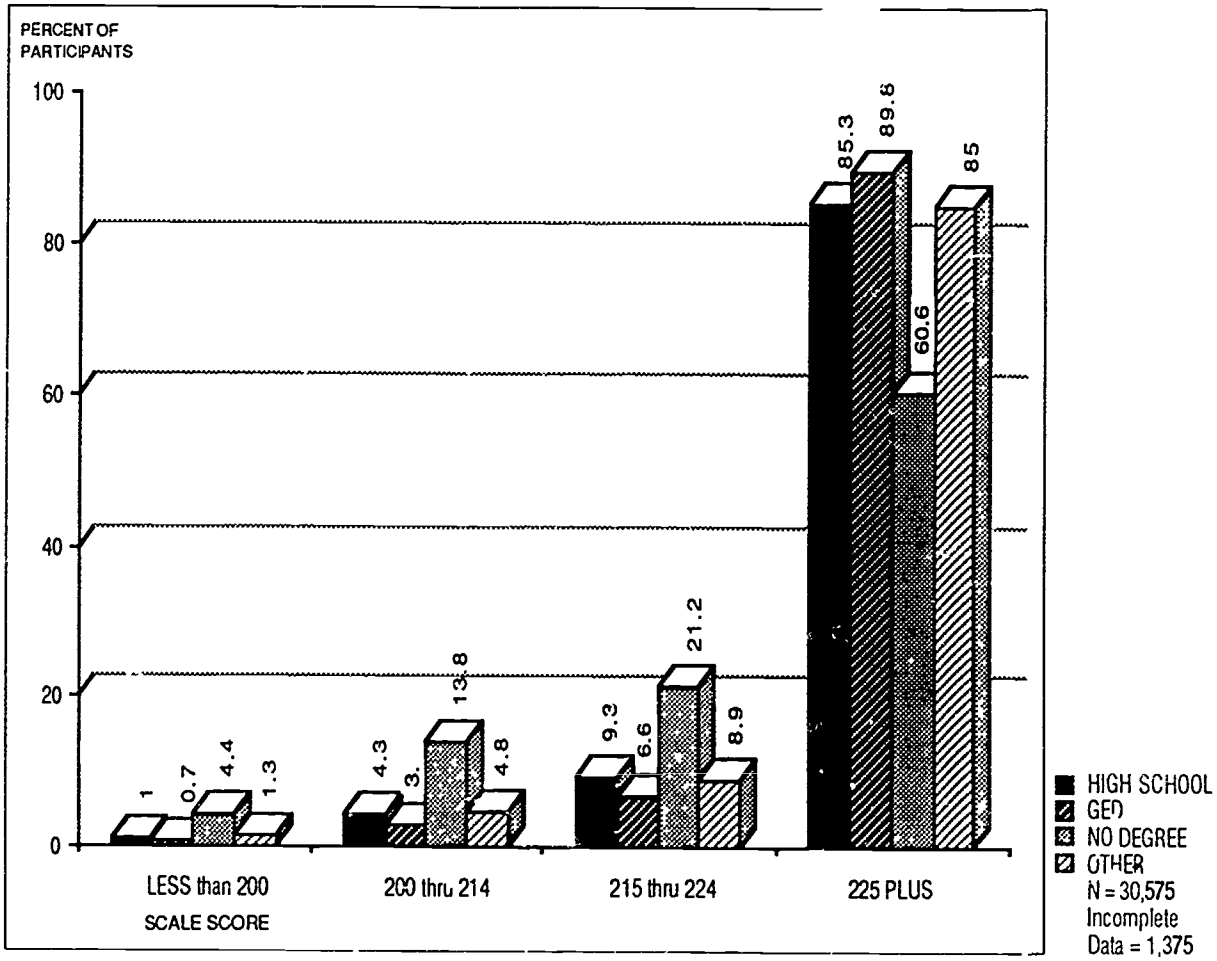
score. On the GAIN Math Test, 51% of the Caucasians achieved scale scores of 225 and above, compared to 22% of the Hispanics and 21% of the Blacks (Figure 11). Four percent of the Caucasians achieved below a 200 scale score, compared to 13% of the Hispanics, and 12% of the Blacks. Little difference existed between these three groups for scores between 215 and 224.

GAIN Reading Scores by Highest Degree Earned

FIGURE 12



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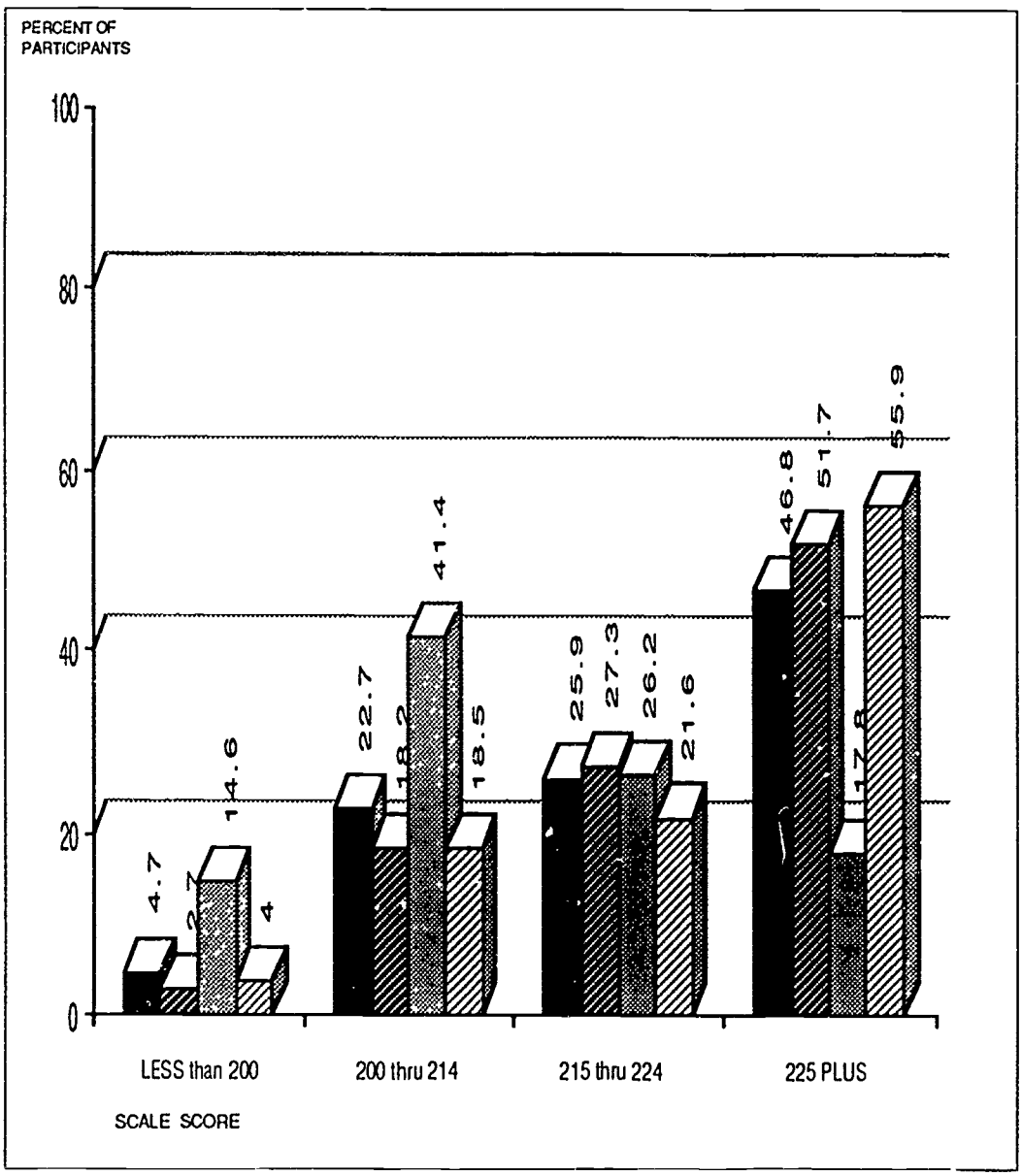
Education. Among those participants who had a high school diploma, 85% scored at 225 or above on the Reading Test, 9% scored between 215 and 224, while the remaining 5% scored below 215. A similar pattern existed with those participants having a GED certificate, although their overall scores were somewhat higher. Among those participants without an educational degree, the percent achieving above a 225 scale score dropped to 61% on the Reading Test, and the percent of participants scoring below 215 increased to approximately 18%. Participants with a post-secondary or technical degree (Other) performed similarly to high school graduates.

A similar pattern existed with respect to the GAIN Math Test. As noted in Figure 13, among those persons with a high school diploma, approximately 47% scored above a 225 scale score, 26% scored between 215 and 224, 23% scored between 200 and 214, while 5% scored less than 200. Participants with a GED performed similarly. Among those participants lacking formal high school completion or equivalency, only 18% scored 225 and above, and 56% scored below 215. Among those participants with a post-secondary or technical degree, approximately 56% achieved above a 225 scale score, 22% scored between 215 and 224, while 23% scored below 215.

GAIN Math Scores by Highest Degree Earned

FIGURE 13



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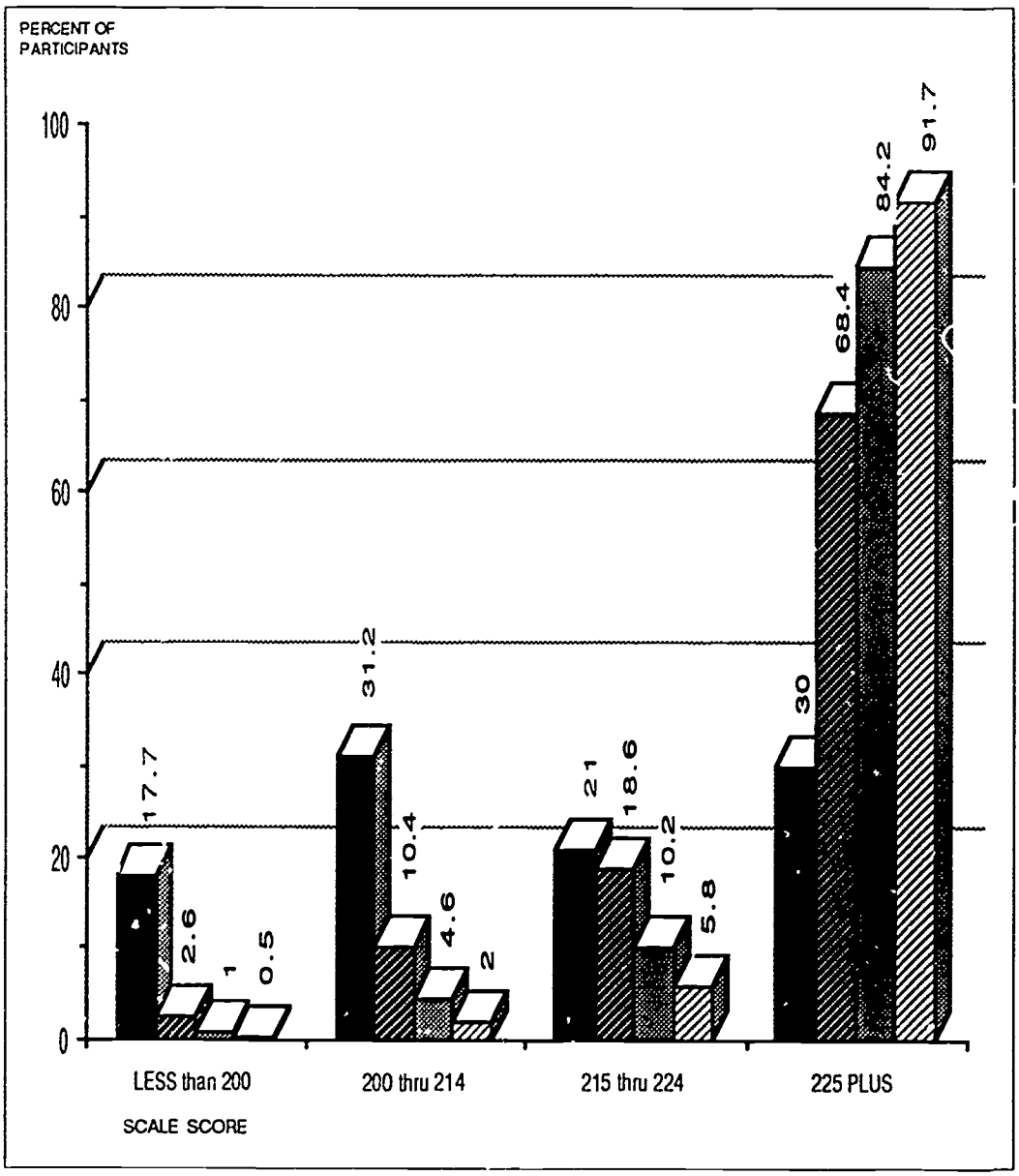
GAIN Reading Scores by Highest Grade Level Completed

FIGURE 14



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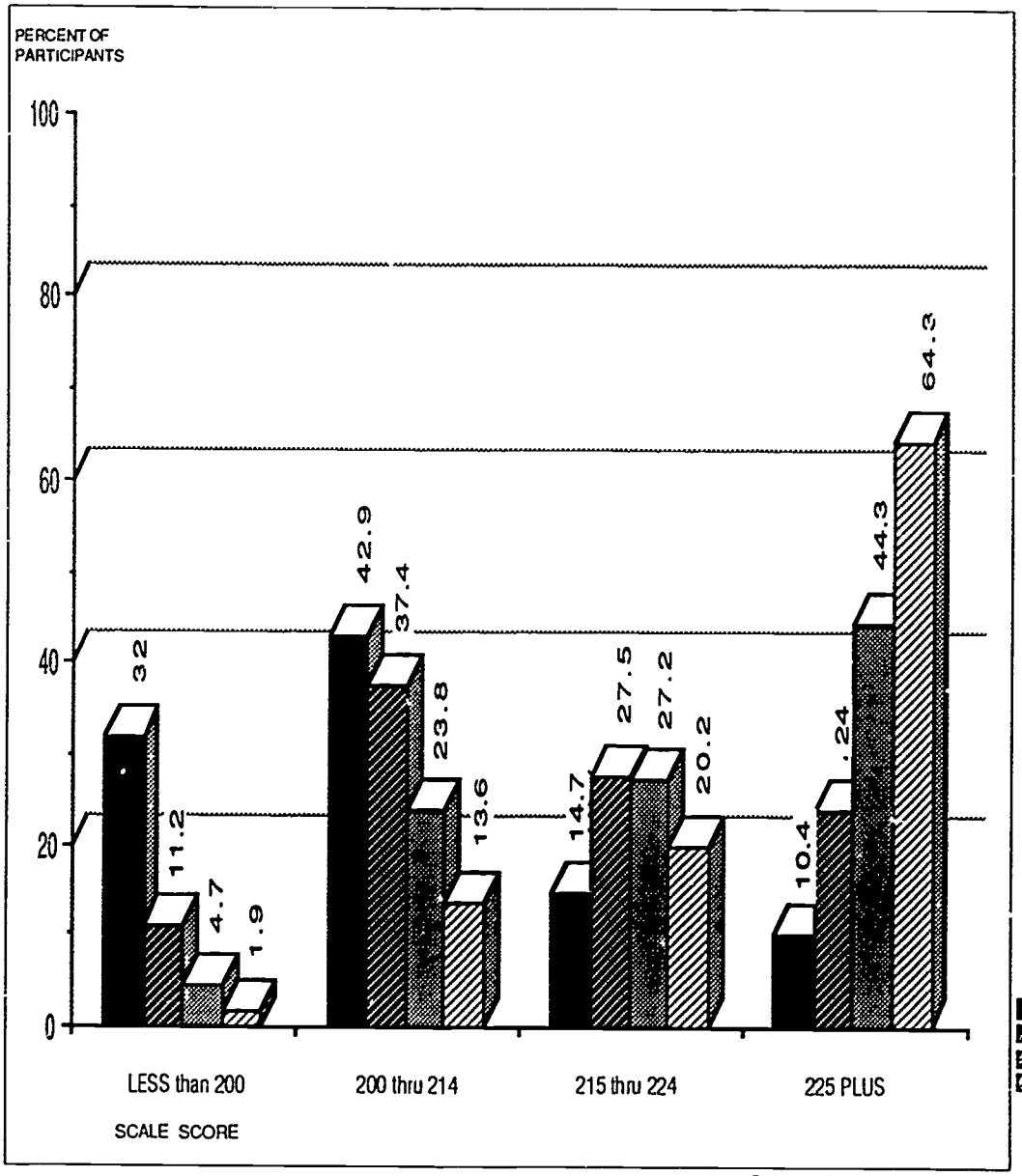
As might be expected, participant-reported years of education was positively related to achievement levels on the GAIN Reading and Math Tests. As noted in Figure 14, among those participants who completed six or fewer years of education, approximately 30% achieved scale scores of 225 and above on the Reading Test, while almost one-half achieved below a 215 scale score. The data in Figure 6 indicate that participants completing seven to eleven years of education comprise approximately 50% of the distribution. Among these participants, 68% scored 225 or above, and 13% scored below a 215 scale score.

GAIN Math Scores by Highest Grade Level Completed

FIGURE 15



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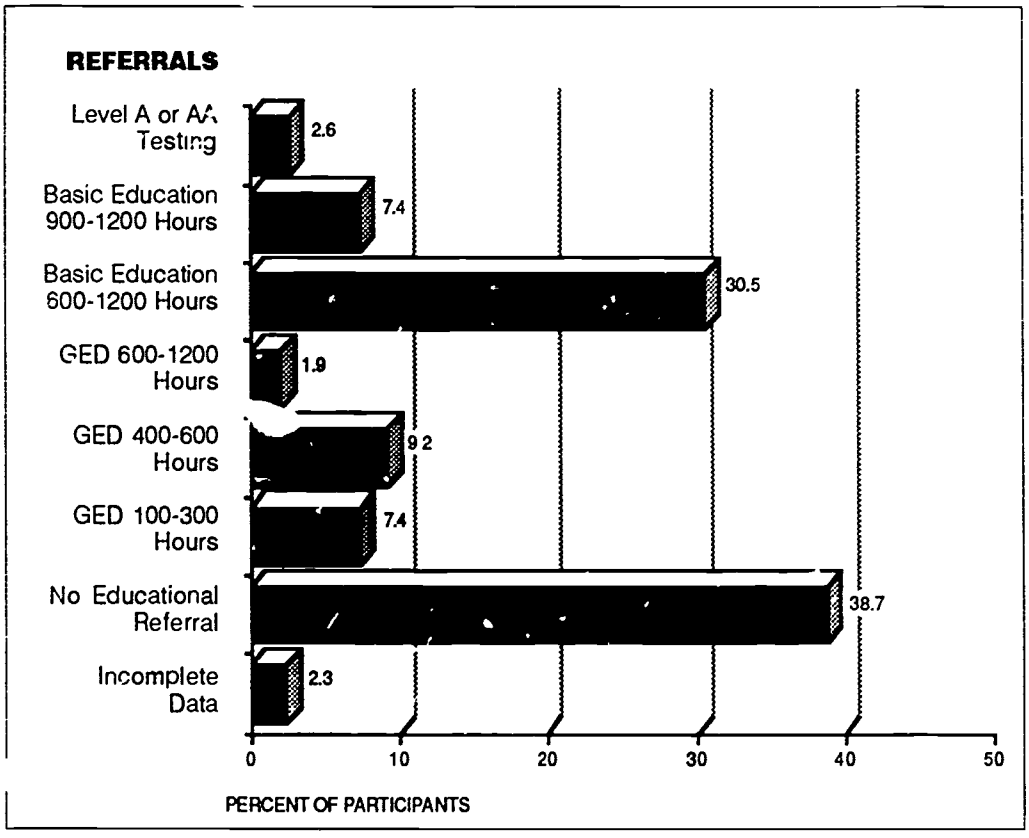
Among those participants who indicated completion of the 12th grade (32% of the distribution), 84% scored above a 225 scale score, while approximately 6% scored below 215. A similar pattern existed with the Math Score distribution (Figure 15). Among those participants who completed fewer than 7 years of education, only 10% scored above 225, while 75% achieved below a 215 scale score. Among those participants completing from seven through eleven years of education, 24% scored at or above a 225 scale score, while approximately 50% achieved below a 215 scale score. As with the Reading Test scores, completion of the 12th

grade had a strong effect on the distribution of scores. Among those participants who reported completing the 12th grade, 44% attained a scale score of 225 and above, while the percent of participants scoring below 215 dropped to approximately 29%.

GAIN Educational Referral Projections

FIGURE 16



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Educational Referral Projections. Referral projections for the current GAIN participant sample are presented in Figure 16. These data represent expected educational referrals based on Appraisal Test scores and participant educational history as indicated in Table 1 (Test Scores and Participant Referral Information). As noted in Figure 16, approximately 39% of the sample would not have an educational referral, that is, neither their Reading or 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 16 projected that approximately 19% would be referred to obtain a high school diploma or GED; of these participants, 7% would be short-term referrals (100 to 300 hours of instruction). Approximately 38% 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 instruction in basic skills. Most of these referrals are for math instruction. Approximately 2.6% 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.

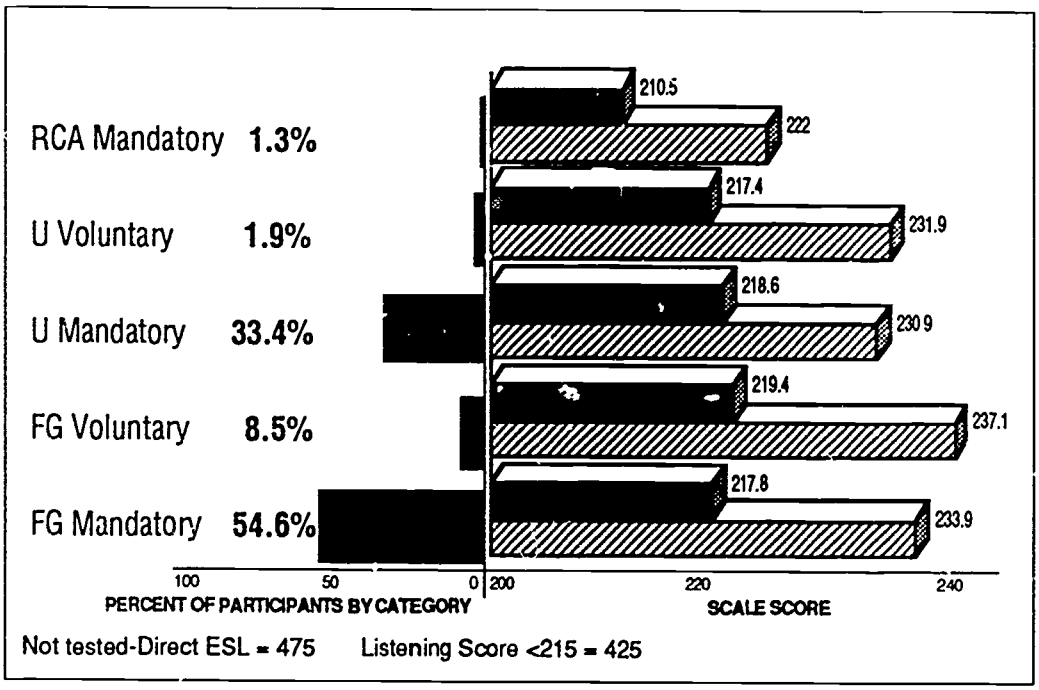
The data in Figure 16 and the test score data presented earlier suggest that most participants are not lacking in basic reading and mathematics skills. Approximately 55% of the projections are for "No Educational Referral" or for 100 to 600 hours of GED instruction. This suggests that these participants have an educational degree, or they have the basic skills necessary to obtain high school equivalency in a relatively short period of time.

Participant Category Data

Beginning in March of 1987, GAIN-implementing counties began collecting Participant and Aid category information for clients taking the GAIN Appraisal Program Reading and Math Tests. In addition, counties were asked to indicate on the answer sheet whether a client had been sent directly to ESL without being tested with the GAIN Appraisal Reading and Math Tests. Figure 17 indicates the percent of participants included in this report for whom Participant Category and ESL referral information was available as of August 30, 1987.

Participant Category

FIGURE 17



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The data are presented with the average Appraisal Test scores for each category of participant where appropriate. Analyses of participants within these various categories will focus primarily on "Family Group Mandatory" and "Unemployed Parent Mandatory" because they constitute approximately 88% of the available data for participant categories (see Figure 17). These two categories are summarized briefly below.

AFDC Aid Category Information

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

AFDC-Unemployed Parent (AFDC-U). This category is 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 indicated that 89% of the AFDC-U participants (which includes both Mandatory and Voluntary cases) were male.

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, 1985). Persons who are exempt from participation, may, under certain conditions, participate in GAIN 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 not been a recipient of aid within the previous 12 months; an Existing case is one where the participant was receiving aid when GAIN was implemented in the county; a Restoration case is one where the applicant is reapplying for aid and was a recipient of aid within the last 12 months. Analyses

of participants by Aid Status will focus primarily on New and Existing cases because they comprise approximately 91% 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 enable comparison of 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 in-depth and 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 Mandatory and AFDC-U Mandatory

AFDC Family Group (AFDC-FG) Mandatory. The AFDC-FG Mandatory was the largest identified aid category represented. Of the population that indicated an aid category, 6,659 or 55% were mandatory GAIN participants, single parents with children (see Figure 17). Forty-three percent were new cases, 47% Existing, and 10% Restoration. In this group, 71% were between the ages of 25 and 39. They were approximately 13% male, 80% female, while 7% did not indicate. The ethnic groups represented include 47% Caucasian, 26% Hispanics, 18% Black and 7% Other, while 2% did not indicate. Among this group, 43% 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 234.2 with a standard deviation of 14.8, and the average math score was 218.0 with a standard deviation of 15.6. Educational referral projections indicated that approximately 57% needed an educational referral. Of this group, 19% were projected for GED programs and 38% were referred for basic education. Among the GED/high school referrals, 8% of this group were expected to complete within 100 to 300 hours of instruction and 10% within 400 to 600 hours of instruction.

Figure 18 represents 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

For this analysis the sample included approximately 43% New Cases, 49% Existing Cases, and 9% Restoration Cases.

Demographic Characteristics

Gender. Of the New Cases, approximately 46% were male and 54% were female. Of the Existing Cases, 36% were male, and 64% were female. Restoration Cases were 40% male and 60% female.

Ethnicity. New Cases included 51% Caucasians, compared to 39% of Existing Cases. Among New Cases, 25% were Hispanic compared to 32% among Existing Cases. The distribution of Blacks between New and Existing was almost identical (14.5% and 15.1%, respectively). Ethnic distribution among Restoration Cases resembled the distribution reported for New cases.

Language. English was identified as the primary language by approximately 87% of the New and Restoration Cases and by 82% of the Existing Cases. Spanish was the primary language of approximately 10% of the New Cases compared with 9% of the Existing and Restoration Cases.

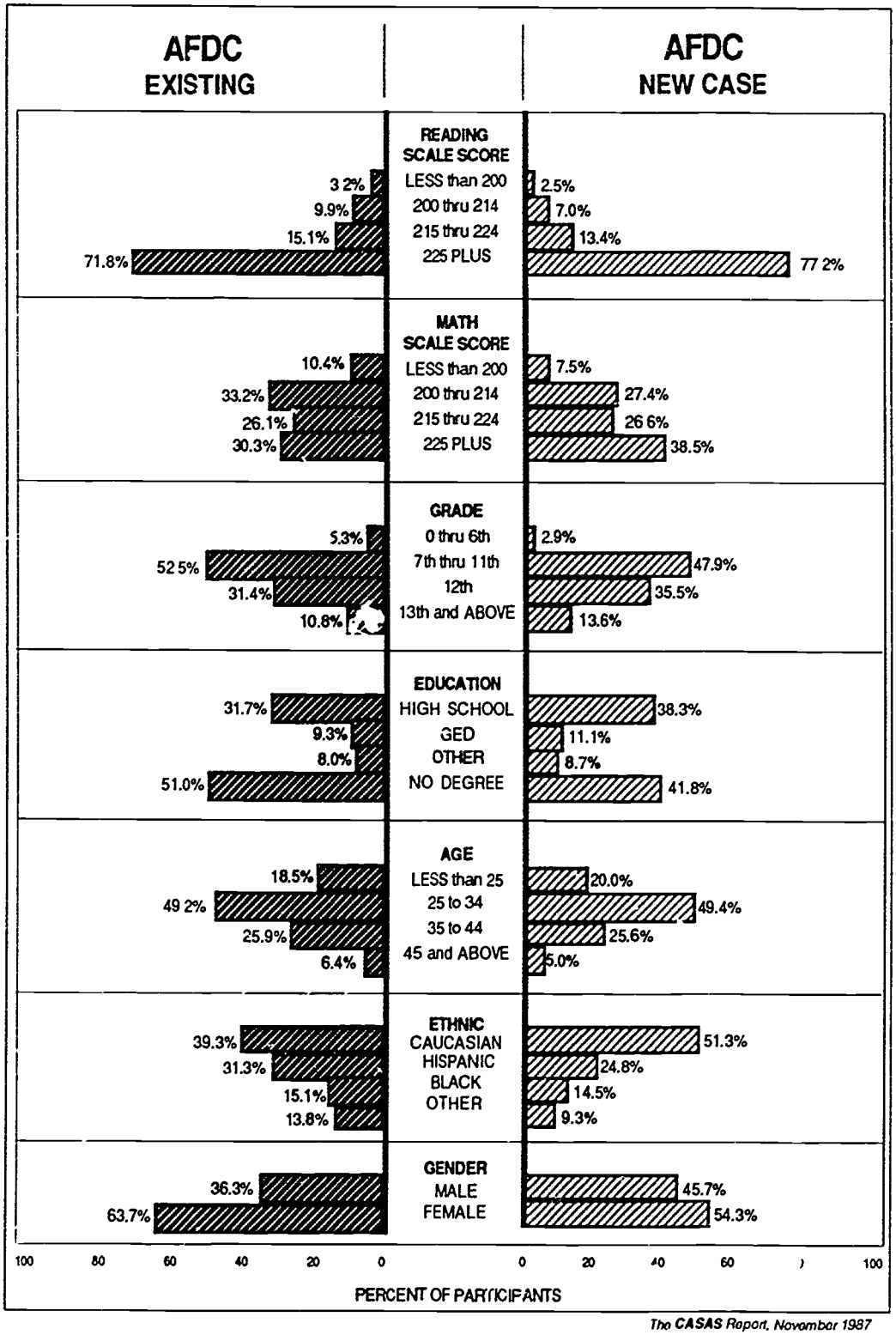
Age. There was little difference with respect to age among the three groups; approximately 75% of the participants were between the ages of 25 and 44.

Education. Forty-nine percent of the New Cases reported completion of high school or the requirements for a GED certificate, compared with 41% of the Existing Cases. Approximately 50% of the Existing Cases report having no formal educational degree, compared with approximately 42% of the New or Restoration Cases, and 44% of the entire GAIN sample. (see Figure 7)

New Cases report slightly more years of education than do Existing Cases. Among New Cases, approximately 48% report completion of the 12th grade or higher, while the remaining 50% completed 11 years or less. Among Existing Cases, approximately 42% report completion of 12th grade or higher, 58% report completion of 11 years or less of education. Approximately 87% of Existing Cases report completion of at least the eighth grade, compared with 91% of the New Cases. New and Restoration Cases completed an average of 11.0 years of education compared with 10.7 years of education for Existing Cases.

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

FIGURE 19



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Test Score Characteristics of New, Existing, and Restoration Cases

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 Reading Test was 234.6 with a standard deviation of 14.9; for Existing Cases the average score was 231.9 with a standard deviation of 15.3. The average score for New Cases on the GAIN Math Test was 219.8 with a standard deviation of 15.6, while the average score for Existing Cases was 216.7 with a standard deviation of 15.6. For Restoration Cases, the average Reading score was 234.4 with a standard deviation of 14.3, and the average Math score was 219.7 with a standard deviation of 15.

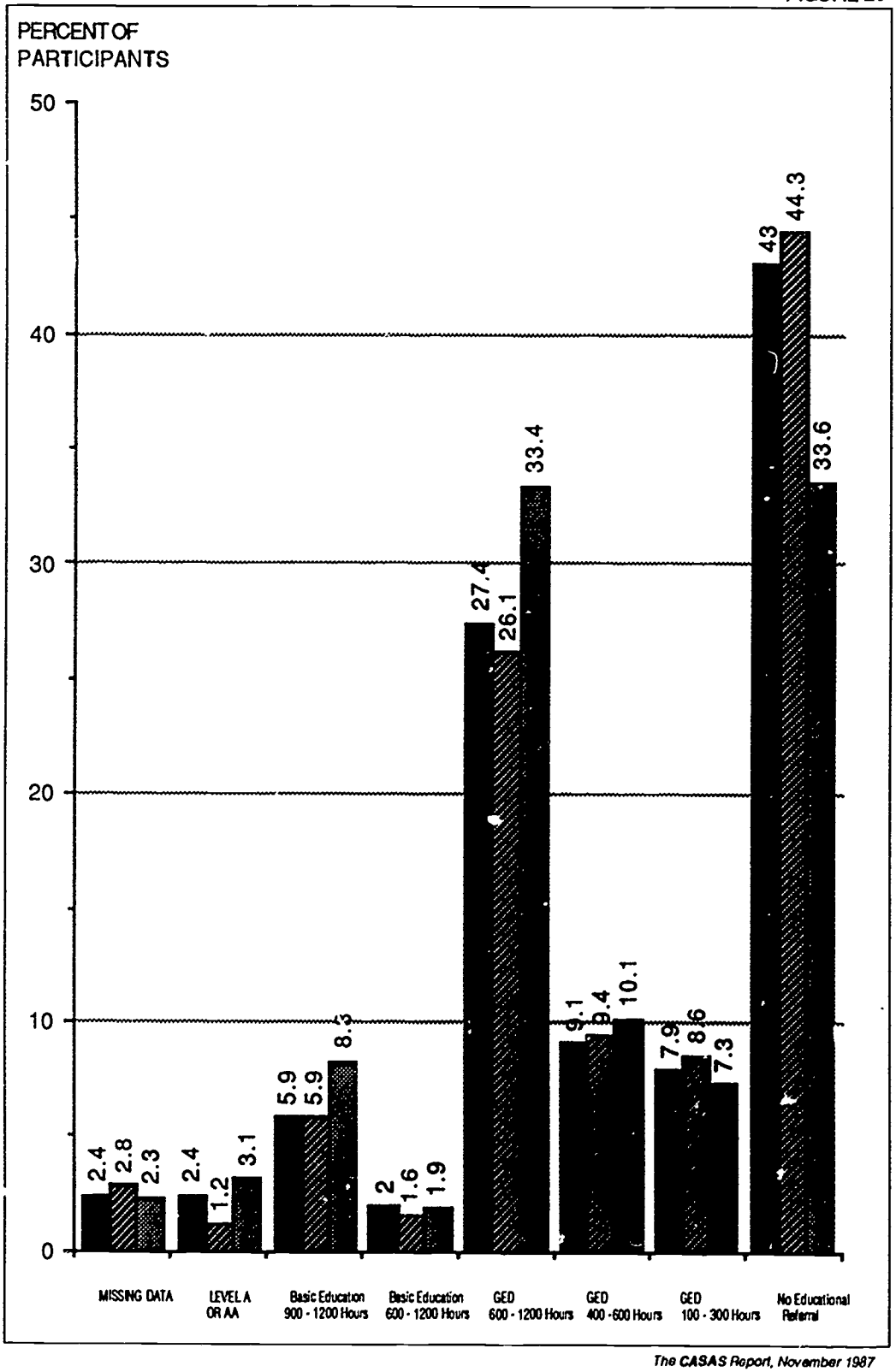
Seventy-seven percent of the New Cases received scale scores of 225 and above on the GAIN Reading Test, while 10% scored below a 215 scale score. Among Existing Cases, approximately 72% scored 225 or above, while 13% scored below a 215 scale score. Among New Cases on the GAIN Math Test, approximately 39% achieved at or above a 225 scale score, while 35% scored below 215. Existing Cases did not perform as well on the Math Test; 30% scored 225 or above, while approximately 44% achieved below a 215 scale score. For both Reading and Math score distributions, Restoration Cases performed similarly to New Cases.

Referral Projections

Referral projections by New, Existing, and Restoration Cases are represented in Figure 20. 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-three percent of the New Cases would not be expected to have an educational referral compared with 33% of the Existing Cases. Referral projections for Restoration Cases were similar to projections for New Cases.

Referral Projections of New, Existing and Restoration Cases

FIGURE 20



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GAIN APPRAISAL PROGRAM
SECOND REPORT
SUMMARY AND MAJOR FINDINGS

This section summarizes the major findings of the data collection efforts conducted during approximately the first year of the implementation of the GAIN Appraisal Program. These data, while not a complete profile of the eventual statewide GAIN caseload, do offer a preliminary "first look" at some of the demographic and basic skill levels of the **current** GAIN caseload.

Scope of this Report

Data for this report were gathered from July 1986 through August 1987 for approximately 32,850 participants from 13 counties. Approximately two-thirds of the data reported were from San Diego, Fresno, and Santa Clara counties, thus limiting extrapolation of these data to the actual statewide GAIN caseload when the program has been fully implemented.

Demographic data gathered included the participant's gender, age, ethnicity, native language, highest grade level completed in school, and highest degree earned. Also included are projections for some of these demographic characteristics when GAIN is fully operational statewide. Data were also collected regarding AFDC participant 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 Program Basic Reading and Math Tests. Test score data were used to compare the performance of the various demographic subpopulations and the AFDC assistance categories. These test score data in conjunction with participant's educational background enable projections for participant referral to basic skills instruction, high school equivalency programs, or to continue in the GAIN program without a direct educational referral following testing.

Demographic Characteristics

Major findings were as follows:

Gender. Females outnumbered males in the sample 58% to 42%. By 1990 it is expected that the GAIN population will be 65% female and 35% male.

Ethnicity. Approximately 44% of the current GAIN caseload were

Caucasian, 29% were Hispanic, and 15% were Black. These three groups comprised approximately 88% of the participant sample. The remaining 14% were distributed among Native American (3.5%), Asian and Indo-Chinese (6%), Filipino, Pacific Islander and Other. This distribution is reliably different from the projected model which is 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 model. Approximately 85% of the participant sample was under the age of 40. Almost 50% were between the ages 25 and 34, while approximately 18% were under age 25. It is 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 identified as the native language by approximately 84% of the participants and Spanish by 10%. The remaining 6% were Vietnamese, Laotian, Tagalog and other languages.

Education. The average number of years of education was 10.8 with approximately 90% of the sample reporting attainment of at least an eighth grade education, while 44% report completing a minimum of 12 years of education. Almost 50% reported completing between 7 and 11 years of education. Less than 4% completed 6 years or less.

Highest Degree Earned. Approximately 44% reported having a high school diploma, a GED certificate, or having passed the California High School Proficiency Exam. Eight percent of the sample reported having a technical degree, AA degree, or were college graduates. Forty-four percent reported not having a degree.

Test Score Performance

Reading. Seventy-four percent of the sample achieved a scale score of 225 or above, while almost 90% achieved higher than a 215 scale score, suggesting that most participants sampled have basic reading skills. The mean score was 232.88, with a standard deviation of 15.42.

Math. Participants did not perform as well on the Basic Math test, although 60% did perform above a functional competency level (above a 215 scale score). Forty percent scored below a functional competency level. The average score on the Math test was 218.02, with a standard deviation of 15.8.

Listening. Although the GAIN Listening test has been available to participating counties since the inception of the program, only a few counties have made extensive use of it. For example, approximately 90% of all Listening Test data reported are from Santa Clara county. Available Listening test data are discussed in Appendix A.

Participant Category Data

Of the available data for AFDC participant categories, 88% were in two groups, mandatory participants categorized as AFDC-Family Group and AFDC-Unemployed Parent. Voluntary participants in these two groups totaled approximately 10%.

Gender. AFDC-FG cases were approximately 80% female and 13% male, while 7% did not indicate. AFDC-U cases were approximately 86% male, 7.3% female, and 6.7% did not indicate.

Ethnicity. AFDC-FG cases were approximately 47% Caucasian, 26% Hispanic, 18% Black, while 2% did not indicate. AFDC-U cases were approximately 43% Caucasian, 28% Hispanic, 8% Black, 18% Other, and 4% did not indicate.

Referral Projections. Approximately 57% of the AFDC-FG participants were projected to need an educational referral. Of these, approximately 20% of this group were projected for short-term high school equivalency programs from one to six months. Thirty-eight percent would be referred for basic skills instruction in reading or math. Approximately 62% of the mandatory AFDC-U participants were projected to require an educational referral. Of this group, 17% were projected for referral to high school equivalency programs from one to six months. The remainder would need an educational referral of longer duration. The relatively large numbers of limited English proficient participants in this category suggest that many may need ESL instruction.

New, Existing, and Restoration cases

Available data included approximately 43% New cases, 49% Existing, and 9% Restoration cases.

Gender. Among Existing cases, 36% were male and 64% female. The gender ratio reported for Existing cases closely resembled that for the projected participant model for the eventual GAIN population.

Ethnicity. New cases included approximately 51% Caucasians, compared to 39% of Existing cases. Among New cases, 25% were

Hispanic compared to 32% of Existing cases. The distribution of Blacks between New and Existing cases was similar. Ethnic distributions reported for Restorations cases was similar to that reported for New cases.

Referral Projections. Educational data suggested that New and Restoration cases tended to have somewhat higher levels of achievement than did Existing cases, and Existing cases tended to have a higher educational referral rate than New cases, particularly for basic skills instruction. Forty-nine percent of the New cases reported attainment of a high school diploma or GED certificate co. ;pared with 41% of the Existing cases. Approximately 50% of the Existing cases have no formal educational degree compared with 42% of the New or Restoration cases. Also New cases had slightly more years of education than Existing cases. Educational and test score data suggested that referral projections for Restoration cases were similar to projections for New cases.

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 needs to be gathered and analyzed before reliable conclusions about the eventual GAIN caseload can be reached. The number of participants has increased since the period of the first report, and data from four additional counties are included, but many of the larger, more demographically diverse counties have yet to implement GAIN. Thus data reported here only represent a partial profile of the eventual GAIN participant population and must be regarded as preliminary in nature. As more individuals are tested and the number of counties reporting data increases, a more reliable demographic and educational achievement profile of the GAIN participant population will emerge, thus enabling program managers from all agencies involved in GAIN implementation and management to have access to a reliable demographic and basic skills profile of the state's GAIN caseload.

Appendix A

English-as-a-Second-Language (ESL) Data

The GAIN Listening Test

As discussed earlier in this report, the GAIN Listening Test is designed to assess a participant's listening comprehension of functional skills in a pre-employment 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 Basic Reading and Math Tests or should be referred to ESL instruction. Participants who speak no English are not tested; they are directly referred to ESL instruction.

GAIN Listening Appraisal Test Referral Recommendations TABLE A 1

SCALE SCORE	RECOMMENDED REFERRAL
214 AND BELOW	ESL Instruction
215 AND ABOVE	GAIN Appraisal Program Reading and Math Tests

Background. The GAIN Listening test was derived from the CASAS item bank. This bank has been under continual development and refinement since 1980. Test items used on the Listening appraisal have been extensively field tested and calibrated through the application of Item Response Theory (IRT) which assigns to each item a reliable index of standardized difficulty. 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 the counties has varied greatly (see Table A-2). Although precise reasons for this disparity are unclear, some of the differences 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, and

4. Lack of familiarity with this type of test.

Native Language data reported from the current GAIN sample indicate that approximately 20% of GAIN participants report a language other than English as their primary or native language (see Figure 5 in this report). According to the State Dept. 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. This percentage ranges from a low of 20% for AFDC-FG registrants to a high of 50% for AFDC-U registrants. These data suggest 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, more diverse counties implement 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 would assist in the identification and appropriate referral of the LEP participant for further GAIN Appraisal testing or for ESL instruction. Greater use of this test is encouraged when appropriate.

Mean GAIN Listening Test Score by County TABLE A 2

County	Mean	Std Dev	Cases	Percent of Total
Totals	203.45	14.2	1095	
SANTA CLARA	202.16	14.3	887	77.5
MERCED	205.70	10.4	60	5.2
FRESNO	211.90	13.3	55	4.8
VENTURA	212.43	10.9	45	4.1
OTHER	206.10	13.2	47	4.0

Total Cases = 1145
Insufficient Data = 50 OR 4 4 PCT.

Table A-2 reports the overall Listening Test score, average score for each county reporting over 30 cases, and the number each contributed to the analysis. The number of Listening Tests reported from Santa Clara county comprise approximately 78% of the total sample. Thus any overall Listening Test demographic and achievement data will reflect the characteristics of this county and can not be considered to be characteristic of the entire GAIN LEP caseload.

County by Participant's Ethnicity

TABLE A 3

ETHNIC->	Count **Row Pct** *Col Pct*	HISPANIC	ASIAN	INDO-CHINESE	OTHER	Row Total
COUNTY						
FRESNO		34 **61.8%** *14.9%*	4 **7.3%** *4.5%*	1 **1.8%** *.1%*	16 **29.1%** *47.1%*	55 **15.1%**
MERCED		1 **1.9%** *.4%*	2 **3.8%** *2.2%*	50 **94.3%** *6.8%*		53 **4.9%**
SANTA CLARA		121 **13.8%** *53.1%*	81 **9.2%** *91.0%*	672 **76.4%** *92.1%*	6 **.7%** *17.6%*	880 **81.4%**
VENTURA		37 **80.4%** *16.2%*	1 **2.2%** *1.1%*	2 **4.3%** *.3%*	6 **13.0%** *17.6%*	46 **4.3%**
OTHER		35 **74.5%** *15.4%*	1 **2.1%** *1.1%*	5 **10.6%** *.7%*	6 **12.8%** *17.6%*	47 **4.3%**
	Column Total	228 *21.1%*	89 *8.2%*	730 *67.5%*	34 *3.1%*	1081 100.0%

Insufficient Data = 64

Ethnicity. The data in Table A-3 indicate that approximately 68% of the LEP participants were Indo-Chinese, 21% were Hispanic, 8% were Asian, and 3% were "Other". Because of the relative number of cases contributed to the sample, these data reflect the particular LEP population characteristics of Santa Clara county. Of the Indo-Chinese sample, approximately 92% were from Santa Clara county and 7% were from Merced county. For Santa Clara and Merced counties, Indo-Chinese participants constitute the vast majority of Listening test examinees. Of those participants referred to take the Listening test in Fresno and Ventura counties, the majority are of Hispanic descent.

Referrals to ESL Based on GAIN Listening Test Score by County

TABLE A 4

Count Col Pct	FRESNO	MERCED	SANTA CLARA	VENTURA	OTHER	Row Total
BELOW 215	34 61.8 %	52 86.7%	732 82.5%	30 65.2%	38 80.9%	886 80.9%
215 AND ABOVE	21 38.2%	8 13.3%	155 17.5%	16 34.8%	9 19.1%	209 19.1%
Column Total	55 5.0%	60 5.5%	887 81.0%	46 4.2%	47 4.3%	1095 100.0%

Insufficient Data = 50

The data in Table A-4 indicate that approximately 81% of the total sample scored below a 215 scale score and thus would be referred to ESL instruction. Approximately 19% scored above a 215 scale score and would be referred to take the GAIN Appraisal Program Reading and Math tests. When examined by county, the percent of participants scoring below a 215 scale score ranges from a high of 87% in Merced county to 62% in Fresno county. Based on these scores, the vast majority of participants represented in this small sample would be referred to ESL instruction.

Referrals to ESL Based on GAIN Listening Test Score by Native Language

TABLE A 5

Count Col %	SPANISH	VIETNAMESE	LAOTIAN	CAMBODIAN	CHINESE	OTHER	Row Total
BELOW 215	183 81.7%	515 80.5%	69 84.1%	65 97.0%	44 83.0%	33 56.9 %	909 80.9%
215 AND ABOVE	41 18.3%	125 19.5%	13 15.9%	2 3.0%	9 17.0%	25 43.1%	215 19.1%
Col Total	224 19.9%	640 56.9%	82 7.3%	67 6.0%	53 4.7%	58 5.2%	1124 100.0%

Insufficient Data = 21

An examination of ESL referrals within native language categories suggests a similar pattern to that found for individual counties. In each category, over 80% of participants tested would be referred to ESL instruction.

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